



Wisconsin Public Service Corporation
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April 13, 2018

Ms. Sarah Rolfes
 Project Manager
 United States Environmental Protection Agency
 77 W. Jackson Boulevard
 Chicago, Illinois 60604-3590

**RE: March 2018 Monthly Progress Report
 Former Green Bay Manufactured Gas Plant
 Green Bay, Wisconsin
 Wisconsin Public Services Corporation
 CERCLA Docket No. V-W-06-C-847, CERCLIS ID – WIN000509948**

Dear Ms. Rolfes:

Wisconsin Public Services Corporation (WPSC) is providing this monthly progress report for the WPSC Former Green Bay Manufactured Gas Plant (MGP) Site.

1) PROGRESS MADE DURING THE PAST MONTH

- Prepared and submitted February 2018 Monthly Progress Report to United States Environmental Protection Agency (USEPA) by March 15, 2018.
- Continued participation in Lower Fox River Group sediment delineation activities.
- Submitted summary of non-aqueous phase liquid (NAPL) mobility sampling data to USEPA on March 27, 2018.

2) ANALYTICAL AND OTHER TESTING RESULTS RECEIVED

- November 2017 Non-Aqueous Phase Liquid (NAPL) mobility sample data is provided as an attachment to this report.

Sample Media	Number of Sample Data Received in February 2018	Location of Data
Sediment Analytical	30	Attachment No. 1
Sediment Mobility	27	Attachment No. 2

3) PROJECTED WORK

WPSC Actions

- Submit monthly progress report to USEPA by the 15th of the month.
- Prepare for remedial investigation (RI) data summary discussion and completion of RI report pending USEPA approval to proceed.

- Submit a Mobility Sampling Data Summary Report to USEPA that includes all analytical data for NAPL mobility sampling and analytical sub-sampling

USEPA Actions

- Prepare for remedial investigation data summary discussion and completion of RI report.

4) PROBLEMS OR POTENTIAL PROBLEMS ENCOUNTERED

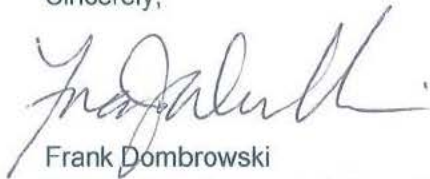
- None

5) ACTUAL OR PLANNED RESOLUTION OF PROBLEMS OR POTENTIAL PROBLEMS

- None

If you have any questions, please don't hesitate to contact me at (414) 221-2156 or via email at frank.dombrowski@we-energies.com.

Sincerely,



Frank Dombrowski
Principal Environmental Consultant
WEC Business Services – Environmental Dept.

Enclosures: Table 1 - Sediment Analytical Results from TestAmerica Laboratories and Alpha Analytical Labs
 Table 2 - Sediment Mobility Results from PTS Laboratories
 Table 3 - Sediment Analytical Results from Pace Analytical of Green Bay and Alpha Analytical Labs
 Attachment 1 – Alpha, Pace, and TestAmerica Laboratory Analytical Packages
 Attachment 2 - PTS Core Photographs and Data Package

For distribution to: Ms. Cheryl Bougie, WDNR (hardcopy and email)
 Ms. Jennifer Knoepfle, Jacobs (email only)
 Mr. William Fitzpatrick, WDNR (email)
 Mr. Tauren Beggs, WDNR (hardcopy and email)

Tables

Table 1 - Sediment Analytical Results from TestAmerica Laboratories and Alpha Analytical Labs

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Undisturbed Core Interval (feet below top of sediment)	Subsample Depth (feet below top of sediment)	Sample Date	TPAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH			
						TPAH(13) ¹	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthene	Acenaphthylene	Acenaphthylene	Anthracene	Anthracene	Benzo(a)anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(b)fluoranthene	Benzo(e)pyrene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene
Reporting Units:						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
Analytic Method:						calculated	8270D	8270D	8270D	8270D-SIM(M)	8270D	8270D-SIM(M)	8270D	8270D-SIM(M)	8270D	8270D-SIM(M)	8270D	8270D-SIM(M)	8270D-SIM(M)	8270D	8270D-SIM(M)		
Laboratories:						TALCHI	TALCHI	TALCHI	TALCHI	ALPHA	TALCHI	ALPHA	TALCHI	ALPHA	TALCHI	ALPHA	TALCHI	ALPHA	ALPHA	TALCHI	ALPHA		
111417001	N-AB3	N-AB3-SD-001M	10.2 - 12.2	10.3 - 11.8	11/14/2017	47.01	3.900	5.000	3.600	2.520	0.910	0.353	2.100	1.740	2.700	2.610	3.400	2.640	4.400	2.160	1.730	1.200	1.720
111417002	N-AB3	N-AB3-SD-002M	19.2 - 21.2	19.2 - 20.9	11/14/2017	6279	900.000	1,500	810.000	858.000	42.000	73.300	230.000	212.000	110.000	136.000	79.000	119.000	86.000	55.000	57.000	14.000	46.600
111417003	N-Y1	N-Y1-SD-001M	5.9 - 7.9	6.4 - 7.8	11/14/2017	24.51	1.800	2.400	1.800	2.170	0.340	0.327	1.600	0.875	1.300	1.320	1.300	1.440	1.300	1.090	0.998	0.380	0.935
111417004	N-Y1	N-Y1-SD-002M	18.4 - 20.4	18.4 - 19.7	11/14/2017	530.6	79.000	120.000	56.000	11.900	15.000	9.300	28.000	0.980	7.500	0.0544	6.300	0.0404	5.000	0.0208	0.0251	2.700	0.0456
111417005	N-P2	N-P2-SD-001M	7.7 - 9.7	8.1 - 9.1	11/14/2017	86.1	1.800	2.400	3.200	4.650	1.700	0.772	4.000	5.520	7.700	7.980	8.200	8.370	8.500	5.850	5.220	3.200	5.380
111417006	N-P2	N-P2-SD-002M	16.7 - 19.2	16.9 - 18.3	11/14/2017	140.19	18.000	28.000	9.000	9.900	6.200	16.400	4.900	9.920	2.800	4.660	2.400	3.790	1.900	1.730	1.840	0.870	1.480
111417007	N-P2	N-P2-SD-003M	19.2 - 21.7	19.9 - 21.4	11/14/2017	102.74	13.000	23.000	8.800	28.100	4.600	13.500	4.900	16.200	2.700	10.300	2.200	8.840	1.700	3.980	4.320	0.840	3.560
111417008	N-N3	N-N3-SD-001M	9.5 - 11.5	9.5 - 10.6	11/14/2017	38.57	2.800	3.900	4.100	0.657	0.460	0.204	2.200	0.367	2.300	0.681	2.200	0.744	2.400	0.513	0.508	1.000	0.483
111417009	N-N3	N-N3-SD-002M	17.0 - 19.5	17.7 - 19.3	11/14/2017	6063	1,000	1,500	740.000	138.000	110.000	15.700	250.000	43.300	110.000	25.100	100.000	22.100	84.000	9.870	10.900	22.000	9.150
111417010	N-N3	N-N3-SD-003M	19.5 - 22.0	19.5 - 20.8	11/14/2017	176.5	33.000	50.000	8.600	16.400	11.000	6.230	6.700	9.460	2.300	2.870	2.000	2.390	1.700	1.120	1.170	0.710	0.974
111417011	N-J2	N-J2-SD-001M	4.0 - 6.0	4.0 - 5.4	11/14/2017	41.98	1.700	0.990	2.200	4.940	0.480	1.000	2.400	1.920	2.900	1.510	3.200	1.460	3.500	0.860	0.862	1.300	0.782
111417012	N-J2	N-J2-SD-002M	10.0 - 12.0	10.25 - 11.5	11/14/2017	1016.5	180.000	260.000	100.000	2,480	9.300	368.000	42.000	995.000	18.000	551.000	16.000	471.000	15.000	209.000	226.000	4.700	180.000
111617013	S-E2	S-E2-SD-001M	5.1 - 7.1	6.4 - 6.8	11/16/2017	0.636	0.083 J	0.130	0.069	--	0.0095 J	--	0.027 J	--	0.021 J	--	0.015 J	--	0.013 J	--	--	<0.013 U	--
111617014	S-F2	S-F2-SD-001M	0.2 - 2.2	1.1 - 1.6	11/16/2017	107.7	10.000	13.000	11.000	--	1.400	--	6.300	--	5.200	--	5.500	--	6.900	--	--	2.400	--
111617015	S-I2	S-I2-SD-001M	8.1 - 10.1	8.5 - 8.9	11/16/2017	0.515	0.055 J	0.084	0.040	--	0.0085 J	--	0.022 J	--	0.015 J	--	0.018 J	--	0.013 J	--	--	0.048	--
111717016	S-N4	S-N4-SD-001M	1.0 - 3.5	1.5 - 1.9	11/17/2017	139.7	17.000	27.000	17.000	--	1.900	--	5.600	--	4.000	--	3.400	--	3.000	--	--	1.300	--
111717017	S-K5	S-K5-SD-001M	0 - 2.5	0.3 - 0.6	11/17/2017	9.504	0.078 J	0.120	0.400	--	0.064	--	0.450	--	0.750	--	0.710	--	0.970	--	--	0.460	--
111717018	S-I5	S-I5-SD-001M	1.5 - 4.0	2.0 - 2.4	11/17/2017	26.99	1.100	1.800	1.100	--	0.210	--	0.510	--	0.320	--	0.270	--	0.310	--	--	0.150	--
111717019	S-I5	S-I5-SD-002M	4.0 - 6.5	5.1 - 5.55	11/17/2017	26.69	1.200	2.000	1.900	--	0.340	--	1.500	--	1.100	--	0.950	--	1.000	--	--	0.520	--
111717020	S-F6	S-F6-SD-001M	1.4 - 3.4	1.75 - 2.2	11/17/2017	16780	610.000	1,100	700.000	--	270.000	--	1,400	--	460.000	--	480.000	--	490.000	--	--	140.000	--
111717021	S-D6	S-D6-SD-001M	0.7 - 2.7	1.4 - 1.8	11/17/2017	289.01	17.000	29.000	9.200	--	11.000	--	1.500	--	0.580	--	0.760	--	0.770	--	--	0.340 J	--
111717023	N-K4	N-K4-SD-001M	12.0 - 14.0	12.6 - 14.0	11/17/2017	280	23.000	37.000	20.000	3.680	3.200	0.761	8.300	1.080	8.500	0.761	8.000	0.684	11.000	0.311	0.337	2.500	0.320
111717025	N-H3	N-H3-SD-001M	8.2 - 10.9	8.95 - 10.2	11/17/2017	23.133	0.780	1.200	0.510	114.000	0.089	6.740	0.150	31.800	0.069	13.400	0.074	10.700	0.064	4.920	5.280	0.050	4.120
111817027	N-AH1	N-AH1-SD-001M	10.8 - 11.9	10.4 - 11.65	11/18/2017	70.4	9.300	12.000	3.100	3.050	1.100	0.509	2.500	2.020	3.800	2.360	2.800	1.880	4.700	1.740	1.690	0.930	1.360
111817028	S-LU	S-LU-SB-001M	10.0 - 12.0	10.4 - 10.95	11/18/2017	0.214	<0.012 U	0.011 J	<0.0085 U	--	0.011 J	--	0.012 J	--	0.011 J	--	<0.0092 U	--	0.024 J	--	--	<0.015 U	--
111817029	S-JU	S-JU-SB-001M	5.5 - 7.35	6.35 - 6.8	11/18/2017	5888	520.000	890.000	440.000	--	65.000	--	200.000	--	150.000	--	110.000	--	140.000	--	--	26.000	--
111817030	S-GU	S-GU-SB-001M	6.0 - 7.7	7.5 - 8.0	11/18/2017	18460	2,200	3,100	780.000	--	310.000	--	800.000	--	490.000	--	360.000	--	470.000	--	--	83.000	--

Notes
 -- = Analysis not performed
 < = Concentration is less than reported limit
 U = Concentration was not detected above the reported limit
 J = Estimated Concentration
 B = analyte was detected in the associated method blank.
 E = values exceeding the highest calibration concentration
 Lab comments and definitions can be found in associated laboratory reports.
 mg/kg = milligrams per kilogram
 pg/g = picogram per gram (or parts per trillion)

Alk PAHs = Alkylated PAHs
 BTEX = Benzene, Toluene, Ethylbenzene and Xylene
 GEO = Geotechnical Property
 PAH = Polycyclic Aromatic Hydrocarbon
 PCB = Polychlorinated Biphenyl
 SVOC = Semi-Volatile Organic Compound
 TPAH = Total PAHs
 VOC = Volatile Organic Compound

Laboratories:
 ALPHA = Alpha Analytical
 TALCHI = Test America Chicago
 TALKNX = TestAmerica Knoxville
 1. The following rules apply to the summation of Total PAH (13) calculated by OBG using the results provided by TestAmerica Laboratories:
 a. Where no detections were observed, the maximum individual reported detection limit is presented.
 b. Where detections were observed, 1/2 the reported detection limit for non-detects was used in the summation
 c. The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

Analytical subsamples were collected from the core remaining after the 0.2-foot mobility interval



Table 1 - Sediment Analytical Results from TestAmerica Laboratories and Alpha An

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Undisturbed Core Interval (feet below top of sediment)	Subsample Depth (feet below top of sediment)	Sample Date	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH			
						Benzo(k)fluoranthene	Benzo(k)fluoranthene	Chrysene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluoranthene	Fluorene	Fluorene	Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-cd)pyrene	Naphthalene	Naphthalene	Perylene	Phenanthrene	Phenanthrene	Pyrene	Pyrene
Reporting Units:						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
Analytic Method:						8270D-SIM(M)	8270D	8270D	8270D-SIM(M)	8270D	8270D	8270D-SIM(M)	8270D	8270D-SIM(M)	8270D	8270D-SIM(M)	8270D-SIM(M)	8270D	8270D-SIM(M)	8270D	8270D-SIM(M)		
Laboratories:						ALPHA	TALCHI	TALCHI	ALPHA	TALCHI	TALCHI	ALPHA	TALCHI	ALPHA	TALCHI	ALPHA	ALPHA	TALCHI	ALPHA	TALCHI	ALPHA		
111417001	N-AB3	N-AB3-SD-001M	10.2 - 12.2	10.3 - 11.8	11/14/2017	2.170	1.600	2.800	2.550	<0.062 U	5.900	6.640	2.200	1.670	1.100	1.610	2.600	1.570	0.735	9.900	7.820	4.900	5.380
111417002	N-AB3	N-AB3-SD-002M	19.2 - 21.2	19.2 - 20.9	11/14/2017	68.100	32.000	90.000	114.000	7.700	220.000	222.000	280.000	235.000	15.000	43.600	3.100	3.020	18.100	790.000	1.100	410.000	283.000
111417003	N-Y1	N-Y1-SD-001M	5.9 - 7.9	6.4 - 7.8	11/14/2017	0.941	0.870	1.400	1.490	0.089	3.100	2.420	1.100	0.998	0.340	0.793	1.100	4.800	0.356	6.200	4.030	3.100	2.360
111417004	N-Y1	N-Y1-SD-002M	18.4 - 20.4	18.4 - 19.7	11/14/2017	0.0235	2.100	6.700	0.0711	0.630	24.000	0.232	36.000	4.840	2.000	0.014	210.000	138.000	0.0415	85.000	4.820	49.000	0.271
111417005	N-P2	N-P2-SD-001M	7.7 - 9.7	8.1 - 9.1	11/14/2017	6.100	3.400	6.900	7.880	0.790	14.000	17.700	2.100	3.580	2.800	4.770	2.400	2.810	2.010	12.000	23.500	12.000	16.100
111417006	N-P2	N-P2-SD-002M	16.7 - 19.2	16.9 - 18.3	11/14/2017	2.160	0.690	2.400	4.140	0.230	5.300	9.970	5.900	10.900	0.750	1.250	76.000	150.000	0.631	16.000	48.700	6.700	12.900
111417007	N-P2	N-P2-SD-003M	19.2 - 21.7	19.9 - 21.4	11/14/2017	5.220	0.740	2.500	8.820	<0.042 U	5.400	17.600	5.700	17.600	0.730	3.140	40.000	107.000	1.410	17.000	75.600	6.500	22.900
111417008	N-N3	N-N3-SD-001M	9.5 - 11.5	9.5 - 10.6	11/14/2017	0.530	0.710	2.000	0.653	0.280	4.000	1.130	1.800	0.259	0.980	0.439	1.900	0.884	0.198	7.500	1.060	7.000	1.070
111417009	N-N3	N-N3-SD-002M	17.0 - 19.5	17.7 - 19.3	11/14/2017	13.100	29.000	100.000	21.800	7.000	250.000	44.400	270.000	44.100	20.000	8.220	2.800	425.000	3.380	970.000	201.000	250.000	57.900
111417010	N-N3	N-N3-SD-003M	19.5 - 22.0	19.5 - 20.8	11/14/2017	1.360	0.600	2.200	2.590	<0.041 U	6.000	7.800	7.600	10.500	0.560	0.853	96.000	145.000	0.398	25.000	49.300	6.800	9.680
111417011	N-J2	N-J2-SD-001M	4.0 - 6.0	4.0 - 5.4	11/14/2017	0.984	1.700	2.800	1.480	0.300	6.600	2.930	1.500	2.280	1.300	0.675	1.400	17.000	0.305	8.100	7.480	5.200	3.220
111417012	N-J2	N-J2-SD-002M	10.0 - 12.0	10.25 - 11.5	11/14/2017	275.000	5.200	15.000	478.000	1.400	46.000	957.000	55.000	1,070	4.300	165.000	490.000	12,300	73.000	160.000	4,430	45.000	1,240
111617013	S-E2	S-E2-SD-001M	5.1 - 7.1	6.4 - 6.8	11/16/2017	--	<0.012 U	0.016 J	--	<0.0080 U	0.035 J	--	0.033 J	--	<0.011 U	--	0.250	--	--	0.096	--	0.045	--
111617014	S-F2	S-F2-SD-001M	0.2 - 2.2	1.1 - 1.6	11/16/2017	--	2.300	5.400	--	0.630	13.000	--	5.700	--	2.100	--	14.000	--	--	20.000	--	11.000	--
111617015	S-I2	S-I2-SD-001M	8.1 - 10.1	8.5 - 8.9	11/16/2017	--	<0.012 U	0.034 J	--	<0.0078 U	0.032 J	--	0.024 J	--	<0.010 U	--	0.170	--	--	0.090	--	0.042	--
111717016	S-N4	S-N4-SD-001M	1.0 - 3.5	1.5 - 1.9	11/17/2017	--	1.200	3.600	--	0.330	9.400	--	6.800	--	1.300	--	52.000	--	--	23.000	--	8.800	--
111717017	S-K5	S-K5-SD-001M	0 - 2.5	0.3 - 0.6	11/17/2017	--	0.320	0.770	--	0.100	1.700	--	0.270	--	0.440	--	0.200	--	--	1.500	--	1.400	--
111717018	S-I5	S-I5-SD-001M	1.5 - 4.0	2.0 - 2.4	11/17/2017	--	0.110	0.270	--	0.028 J	0.920	--	0.540	--	0.140	--	20.000	--	--	1.700	--	0.730	--
111717019	S-I5	S-I5-SD-002M	4.0 - 6.5	5.1 - 5.55	11/17/2017	--	0.380	0.920	--	0.130	2.900	--	1.400	--	0.500	--	6.500	--	--	5.500	--	2.300	--
111717020	S-F6	S-F6-SD-001M	1.4 - 3.4	1.75 - 2.2	11/17/2017	--	160.000	450.000	--	35.000	1.500	--	700.000	--	140.000	--	6.300	--	--	2.900	--	970.000	--
111717021	S-D6	S-D6-SD-001M	0.7 - 2.7	1.4 - 1.8	11/17/2017	--	0.270 J	0.530	--	<0.082 U	1.600	--	5.800	--	0.390 J	--	250.000	--	--	5.000	--	2.000	--
111717023	N-K4	N-K4-SD-001M	12.0 - 14.0	12.6 - 14.0	11/17/2017	0.402	3.900	7.100	0.701	1.100	17.000	1.280	10.000	1.240	2.600	0.243	130.000	106.000	0.152	28.000	3.920	25.000	1.630
111717025	N-H3	N-H3-SD-001M	8.2 - 10.9	8.95 - 10.2	11/17/2017	6.360	0.026 J	0.071	12.200	<0.0083 U	0.120	28.500	0.210	35.100	0.049	3.600	21.000	387.000	1.640	0.470	143.000	0.280	37.200
111817027	N-AH1	N-AH1-SD-001M	10.8 - 11.9	10.4 - 11.65	11/18/2017	1.660	1.500	4.100	3.150	0.740	7.000	5.990	2.800	2.470	1.100	1.180	15.000	8.840	0.560	11.000	10.500	11.000	5.570
111817028	S-LU	S-LU-SB-001M	10.0 - 12.0	10.4 - 10.95	11/18/2017	--	<0.014 U	<0.013 U	--	<0.0092 U	0.020 J	--	<0.0067 U	--	<0.012 U	--	0.050	--	--	0.028 J	--	0.032 J	--
111817029	S-JU	S-JU-SB-001M	5.5 - 7.35	6.35 - 6.8	11/18/2017	--	53.000	130.000	--	9.500	290.000	--	220.000	--	25.000	--	2.600	--	--	1,000	--	490.000	--
111817030	S-GU	S-GU-SB-001M	6.0 - 7.7	7.5 - 8.0	11/18/2017	--	150.000	420.000	--	33.000	970.000	--	810.000	--	80.000	--	8,000	--	--	3,000	--	1,900	--

Notes
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 U = Concentration was not detected above the reported limit
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 Lab comments and definitions can be found in associated laboratory reports.
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Alk PAHs = Alkylated PAHs
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 GEO = Geotechnical Property
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 1. The following rules apply to the summation of Total PAH (13) calculated by OBG using the results provided by TestAmerica Laboratories:
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 c. The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

Analytical subsamples were collected from the core remaining after the 0.2-foot mobility interval



Table 1 - Sediment Analytical Results from TestAmerica Laboratories and Alpha An

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Undisturbed Core Interval (feet below top of sediment)	Subsample Depth (feet below top of sediment)	Sample Date	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH		
						C1-Chrysenes	C2-Chrysenes	C3-Chrysenes	C4-Chrysenes	C1-Fluoranthrenes/Pyrenes	C1-Fluorenes	C2-Fluorenes	C3-Fluorenes	C1-Naphthalenes	C2-Naphthalenes	C3-Naphthalenes	C4-Naphthalenes	C1-Phenanthrenes/Anthracenes	C2-Phenanthrenes/Anthracenes	C3-Phenanthrenes/Anthracenes	C4-Phenanthrenes/Anthracenes	Dibenz(a,h)+ (a,c)anthracene
Reporting Units:						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Analytic Method:						8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	
Laboratories:						ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	
111417001	N-AB3	N-AB3-SD-001M	10.2 - 12.2	10.3 - 11.8	11/14/2017	1.150	0.562	0.405	0.205	2.670	0.584	0.354	0.292	0.637	0.944	0.712	0.284	2.820	1.290	0.566	0.489	0.461
111417002	N-AB3	N-AB3-SD-002M	19.2 - 21.2	19.2 - 20.9	11/14/2017	86.000	30.300	11.800	4.630	229.000	88.000	33.200	11.200	1,570	488.000	103.000	15.200	405.000	124.000	25.700	5.240	13.100
111417003	N-Y1	N-Y1-SD-001M	5.9 - 7.9	6.4 - 7.8	11/14/2017	1.560	1.420	1.300	0.838	2.460	0.712	1.190	1.180	5.910	4.070	3.080	1.830	3.910	3.900	2.990	2.520	0.246
111417004	N-Y1	N-Y1-SD-002M	18.4 - 20.4	18.4 - 19.7	11/14/2017	0.0523	0.0505	0.0801	<0.0132 U	0.130	0.436	0.0758	0.0553	62.500	10.900	0.690	0.122	0.641	0.137	0.0848	0.0505	0.00499 J
111417005	N-P2	N-P2-SD-001M	7.7 - 9.7	8.1 - 9.1	11/14/2017	3.990	2.170	1.900	1.290	7.160	1.260	0.924	0.937	3.810	3.330	2.100	0.916	8.960	4.250	1.660	0.947	1.220
111417006	N-P2	N-P2-SD-002M	16.7 - 19.2	16.9 - 18.3	11/14/2017	2.880	0.943	0.370	0.207	8.600	3.950	1.400	0.627	71.700	22.300	5.020	0.773	19.500	5.390	1.000	0.208	0.416
111417007	N-P2	N-P2-SD-003M	19.2 - 21.7	19.9 - 21.4	11/14/2017	6.810	2.370	0.857	0.345	18.800	6.950	2.640	1.160	75.400	29.700	7.540	1.280	33.400	10.500	2.220	0.457	1.070
111417008	N-N3	N-N3-SD-001M	9.5 - 11.5	9.5 - 10.6	11/14/2017	0.558	0.294	0.175	0.0905	0.884	0.132	0.107	0.0853	0.777	0.448	0.214	0.0892	0.765	0.492	0.211	0.147	0.141
111417009	N-N3	N-N3-SD-002M	17.0 - 19.5	17.7 - 19.3	11/14/2017	17.000	6.120	2.340	0.880	47.700	17.200	6.750	2.990	242.000	81.300	19.200	3.050	84.600	26.200	5.500	1.180	2.820
111417010	N-N3	N-N3-SD-003M	19.5 - 22.0	19.5 - 20.8	11/14/2017	1.830	0.654	0.284	0.178	5.630	4.070	1.230	0.527	62.100	21.900	5.300	0.758	16.800	3.680	0.689	0.150	0.280
111417011	N-J2	N-J2-SD-001M	4.0 - 6.0	4.0 - 5.4	11/14/2017	1.000	0.513	0.348	0.249	2.280	0.795	0.339	0.214	10.200	4.120	1.000	0.235	3.860	1.390	0.404	0.191	0.196
111417012	N-J2	N-J2-SD-002M	10.0 - 12.0	10.25 - 11.5	11/14/2017	352.000	118.000	41.900	19.300	1,020	399.000	141.000	56.500	6,660	2,230	468.000	64.700	1,870	559.000	112.000	30.100	52.300
111617013	S-E2	S-E2-SD-001M	5.1 - 7.1	6.4 - 6.8	11/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111617014	S-F2	S-F2-SD-001M	0.2 - 2.2	1.1 - 1.6	11/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111617015	S-I2	S-I2-SD-001M	8.1 - 10.1	8.5 - 8.9	11/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717016	S-N4	S-N4-SD-001M	1.0 - 3.5	1.5 - 1.9	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717017	S-K5	S-K5-SD-001M	0 - 2.5	0.3 - 0.6	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717018	S-I5	S-I5-SD-001M	1.5 - 4.0	2.0 - 2.4	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717019	S-I5	S-I5-SD-002M	4.0 - 6.5	5.1 - 5.55	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717020	S-F6	S-F6-SD-001M	1.4 - 3.4	1.75 - 2.2	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717021	S-D6	S-D6-SD-001M	0.7 - 2.7	1.4 - 1.8	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717023	N-K4	N-K4-SD-001M	12.0 - 14.0	12.6 - 14.0	11/17/2017	0.517	0.210	0.132	0.0857	1.340	0.434	0.204	0.118	14.000	3.740	0.759	0.271	2.360	0.832	0.318	0.278	0.0817
111717025	N-H3	N-H3-SD-001M	8.2 - 10.9	8.95 - 10.2	11/17/2017	8.220	2.650	0.968	0.416	26.400	12.100	3.950	1.880	178.000	74.400	16.200	2.030	54.900	15.100	2.940	0.929	1.190
111817027	N-AH1	N-AH1-SD-001M	10.8 - 11.9	10.4 - 11.65	11/18/2017	3.410	4.150	4.810	3.200	11.600	1.340	2.270	3.640	10.700	12.100	6.720	3.300	8.420	9.920	76.500	254.000	0.344
111817028	S-LU	S-LU-SB-001M	10.0 - 12.0	10.4 - 10.95	11/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111817029	S-JU	S-JU-SB-001M	5.5 - 7.35	6.35 - 6.8	11/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111817030	S-GU	S-GU-SB-001M	6.0 - 7.7	7.5 - 8.0	11/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Undisturbed Core Interval (feet below top of sediment)	Subsample Depth (feet below top of sediment)	Sample Date	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide	Pesticide		
						1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	1,2,3,7,8,9-HxCDF	1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDF	2,3,4,6,7,8-HxCDF	2,3,4,7,8-PeCDF	2,3,7,8-TCDD	2,3,7,8-TCDF	OCDD	OCDF
Reporting Units:						pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	
Analytic Method:						1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B	1613B
Laboratories:						TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	TALKNX	
111417001	N-AB3	N-AB3-SD-001M	10.2 - 12.2	10.3 - 11.8	11/14/2017	510	210 B	6.8	4.2 J	8.5	23	7.0	12	<0.61 U	2.2 J	1.9 J	3.4 J	3.5 J	1.7	11	6,200	450 B
111417002	N-AB3	N-AB3-SD-002M	19.2 - 21.2	19.2 - 20.9	11/14/2017	2.1 J	2.2 JB	1.4 J	<0.44 U	<0.34 U	<0.48 U	0.63 J	1.3 J	0.90 J	1.0 J	<0.46 U	<0.44 U	<0.41 U	<0.60 U	0.61 J	14 JB	3.5 JB
111417003	N-Y1	N-Y1-SD-001M	5.9 - 7.9	6.4 - 7.8	11/14/2017	2,500	1,000 B	36	12 J	35	100	16 J	34	<2.3 U	11 J	3.3 J	12 J	6.4 J	8.0	18	33,000	2,300 B
111417004	N-Y1	N-Y1-SD-002M	18.4 - 20.4	18.4 - 19.7	11/14/2017	1.7 J	0.70 JB	<0.090 U	<0.34 U	4.2 J	<0.39 U	<0.15 U	<0.34 U	<0.16 U	<0.097 U	<0.32 U	<0.14 U	<0.29 U	<0.17 U	<0.21 U	12 B	0.87 JB
111417005	N-P2	N-P2-SD-001M	7.7 - 9.7	8.1 - 9.1	11/14/2017	780	270 B	11	3.6 J	12	27	5.7	8.3	<0.84 U	2.2 J	1.5 J	3.1 J	2.5 J	1.5	11	11,000	970 B
111417006	N-P2	N-P2-SD-002M	16.7 - 19.2	16.9 - 18.3	11/14/2017	3.2 J	1.4 JB	<0.11 U	<0.052 U	0.16 J	0.18 J	<0.041 U	<0.051 U	<0.043 U	0.27 J	<0.042 U	<0.040 U	<0.034 U	<0.051 U	0.15 J	43 B	3.3 JB
111417007	N-P2	N-P2-SD-003M	19.2 - 21.7	19.9 - 21.4	11/14/2017	0.56 J	0.47 JB	<0.084 U	<0.034 U	<0.037 U	0.11 J	<0.037 U	0.13 J	<0.042 U	<0.047 U	<0.039 U	<0.042 U	<0.044 U	0.043 J	0.12 J	6.4 JB	0.46 JB
111417008	N-N3	N-N3-SD-001M	9.5 - 11.5	9.5 - 10.6	11/14/2017	160	240 B	<0.32 U	0.50 J	7.1 J	12 J	7.5 J	3.3 J	<0.35 U	1.3 J	1.2 J	3.2 J	3.1 J	0.35 J	3.8 J	1,700 B	110 B
111417009	N-N3	N-N3-SD-002M	17.0 - 19.5	17.7 - 19.3	11/14/2017	2.4 J	1.5 JB	<0.050 U	0.082 J	0.20 J	0.22 J	<0.026 U	0.16 J	<0.031 U	0.10 J	0.14 J	<0.028 U	0.11 J	0.076 J	0.44 J	28 B	2.1 JB
111417010	N-N3	N-N3-SD-003M	19.5 - 22.0	19.5 - 20.8	11/14/2017	0.36 J	0.41 JB	<0.16 U	<0.14 U	<0.15 U	<0.12 U	<0.16 U	<0.12 U	<0.19 U	0.24 J	<0.15 U	<0.17 U	<0.13 U	<0.16 U	<0.11 U	3.9 JB	0.37 JB
111417011	N-J2	N-J2-SD-001M	4.0 - 6.0	4.0 - 5.4	11/14/2017	920	270 B	14 J	5.7 J	7.4 J	30	10 J	9.8 J	<0.39 U	1.7 J	3.0 J	1.7 J	2.5 J	1.6 J	13	13,000 B	1,100 B
111417012	N-J2	N-J2-SD-002M	10.0 - 12.0	10.25 - 11.5	11/14/2017	8.4 J	3.4 JB	<0.43 U	<0.24 U	<0.46 U	0.74 J	<0.47 U	<0.22 U	<0.63 U	<0.31 U	<0.25 U	<0.51 U	<0.33 U	<0.31 U	1.9 J	84 JB	7.7 JB
111617013	S-E2	S-E2-SD-001M	5.1 - 7.1	6.4 - 6.8	11/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111617014	S-F2	S-F2-SD-001M	0.2 - 2.2	1.1 - 1.6	11/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111617015	S-I2	S-I2-SD-001M	8.1 - 10.1	8.5 - 8.9	11/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717016	S-N4	S-N4-SD-001M	1.0 - 3.5	1.5 - 1.9	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717017	S-K5	S-K5-SD-001M	0 - 2.5	0.3 - 0.6	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717018	S-I5	S-I5-SD-001M	1.5 - 4.0	2.0 - 2.4	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717019	S-I5	S-I5-SD-002M	4.0 - 6.5	5.1 - 5.55	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717020	S-F6	S-F6-SD-001M	1.4 - 3.4	1.75 - 2.2	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717021	S-D6	S-D6-SD-001M	0.7 - 2.7	1.4 - 1.8	11/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111717023	N-K4	N-K4-SD-001M	12.0 - 14.0	12.6 - 14.0	11/17/2017	0.81 J	0.55 JB	<0.062 U	<0.027 U	<0.033 U	0.11 J	0.077 J	0.13 J	<0.036 U	0.15 J	0.069 J	<0.031 U	<0.025 U	0.095 J	0.19 J	10 B	0.67 JB
111717025	N-H3	N-H3-SD-001M	8.2 - 10.9	8.95 - 10.2	11/17/2017	5.0	1.6 JB	<0.043 U	<0.048 U	0.17 J	0.17 J	0.12 J	0.20 J	<0.033 U	0.080 J	<0.044 U	0.044 J	<0.036 U	<0.041 U	0.32 J	64 B	5.7 JB
111817027	N-AH1	N-AH1-SD-001M	10.8 - 11.9	10.4 - 11.65	11/18/2017	1,700	1,000 B	25 J	4.7 J	35	86	23 J	18 J	<2.2 U	4.3 J	16 J	8.4 J	18 J	2.3 J	280	20,000 B	1,200 B
111817028	S-LU	S-LU-SB-001M	10.0 - 12.0	10.4 - 10.95	11/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111817029	S-JU	S-JU-SB-001M	5.5 - 7.35	6.35 - 6.8	11/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
111817030	S-GU	S-GU-SB-001M	6.0 - 7.7	7.5 - 8.0	11/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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 c. The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

Analytical subsamples were collected from the core remaining after the 0.2-foot mobility interval



Table 1 - Sediment Analytical Results from TestAmerica Laboratories and Alpha An

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Undisturbed Core Interval (feet below top of sediment)	Subsample Depth (feet below top of sediment)	Sample Date	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	GEO
						Arsenic, Total	Barium, Total	Cadmium, Total	Chromium, Total	Lead, Total	Mercury, Total	Selenium, Total	Silver, Total	Solids, Total
Reporting Units:						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%
Analytic Method:						6010C	6010C	6010C	6010C	6010C	7471B	6010C	6010C	2540G
Laboratories:						TALCHI	TALCHI	TALCHI	TALCHI	TALCHI	TALCHI	TALCHI	TALCHI	ALPHA
111417001	N-AB3	N-AB3-SD-001M	10.2 - 12.2	10.3 - 11.8	11/14/2017	4.8	86	2.0 B	32	150	8.9	1.7 J	2.1	64.6
111417002	N-AB3	N-AB3-SD-002M	19.2 - 21.2	19.2 - 20.9	11/14/2017	3.7	52	0.76 B	22	95	0.58	1.2 J	0.70 J	71.5
111417003	N-Y1	N-Y1-SD-001M	5.9 - 7.9	6.4 - 7.8	11/14/2017	2.8	74	0.67 B	17	120	3.9	0.82 J	1.2	72.7
111417004	N-Y1	N-Y1-SD-002M	18.4 - 20.4	18.4 - 19.7	11/14/2017	3.3	100	0.062 JB	29	9.9	0.020 J	<0.77 U	<0.17 U	75.8
111417005	N-P2	N-P2-SD-001M	7.7 - 9.7	8.1 - 9.1	11/14/2017	2.7	80	0.75 B	19	110	1.3	<0.72 U	0.54 J	69.7
111417006	N-P2	N-P2-SD-002M	16.7 - 19.2	16.9 - 18.3	11/14/2017	3.2	97	0.053 JB	28	8.9	0.014 J	<0.82 U	<0.18 U	71.8
111417007	N-P2	N-P2-SD-003M	19.2 - 21.7	19.9 - 21.4	11/14/2017	2.9	81	0.042 JB	25	8.6	0.032	<0.68 U	<0.15 U	74.9
111417008	N-N3	N-N3-SD-001M	9.5 - 11.5	9.5 - 10.6	11/14/2017	1.6	18	0.35 B	6.6	35	0.28	<0.71 U	0.55 J	83.5
111417009	N-N3	N-N3-SD-002M	17.0 - 19.5	17.7 - 19.3	11/14/2017	2.9	57	0.23 JB	17	77	0.19	<0.73 U	<0.16 U	74.7
111417010	N-N3	N-N3-SD-003M	19.5 - 22.0	19.5 - 20.8	11/14/2017	3.1	88	<0.044 U	27	7.0	0.017 J	0.74 J	<0.16 U	75.5
111417011	N-J2	N-J2-SD-001M	4.0 - 6.0	4.0 - 5.4	11/14/2017	3.1	150	0.69 B	13	84	3.0	<0.74 U	0.75	71
111417012	N-J2	N-J2-SD-002M	10.0 - 12.0	10.25 - 11.5	11/14/2017	3.7	76	0.36 JB	26	43	0.60	<1.1 U	0.50 J	52.8
111617013	S-E2	S-E2-SD-001M	5.1 - 7.1	6.4 - 6.8	11/16/2017	1.0 J	22	0.12 JB	8.9	2.4	0.010 J	<0.72 U	<0.16 U	--
111617014	S-F2	S-F2-SD-001M	0.2 - 2.2	1.1 - 1.6	11/16/2017	2.4	55	0.37 B	23	34	0.24	<1.1 U	<0.23 U	--
111617015	S-I2	S-I2-SD-001M	8.1 - 10.1	8.5 - 8.9	11/16/2017	2.7	76	<0.039 U	22	6.7	0.018	<0.64 U	<0.14 U	--
111717016	S-N4	S-N4-SD-001M	1.0 - 3.5	1.5 - 1.9	11/17/2017	3.3	45	<0.036 U	25	7.2	0.021	0.61 J	<0.13 U	--
111717017	S-K5	S-K5-SD-001M	0 - 2.5	0.3 - 0.6	11/17/2017	1.3	17	0.15 JB	5.7	25	0.66	<0.64 U	0.21 J	--
111717018	S-I5	S-I5-SD-001M	1.5 - 4.0	2.0 - 2.4	11/17/2017	3.6	70	<0.042 U	23	7.7	0.017 J	<0.69 U	<0.15 U	--
111717019	S-I5	S-I5-SD-002M	4.0 - 6.5	5.1 - 5.55	11/17/2017	2.8	66	0.051 JB	22	6.2	0.018 J	<0.72 U	<0.16 U	--
111717020	S-F6	S-F6-SD-001M	1.4 - 3.4	1.75 - 2.2	11/17/2017	4.1	71	0.13 JB	21	17	0.089	0.80 J	<0.16 U	--
111717021	S-D6	S-D6-SD-001M	0.7 - 2.7	1.4 - 1.8	11/17/2017	2.8	70	<0.042 U	24	8.0	0.034	<0.69 U	<0.15 U	--
111717023	N-K4	N-K4-SD-001M	12.0 - 14.0	12.6 - 14.0	11/17/2017	3.0	53	0.27 B	16	60	0.15	<0.80 U	<0.18 U	78.1
111717025	N-H3	N-H3-SD-001M	8.2 - 10.9	8.95 - 10.2	11/17/2017	3.4	93	<0.040 U	25	7.7	0.019	<0.65 U	<0.14 U	74.9
111817027	N-AH1	N-AH1-SD-001M	10.8 - 11.9	10.4 - 11.65	11/18/2017	8.8	760	4.7 B	56	1,500	2.4	1.6 J	1.2	33
111817028	S-LU	S-LU-SB-001M	10.0 - 12.0	10.4 - 10.95	11/18/2017	1.5	25	0.16 JB	13	3.6	<0.0076 U	<0.77 U	<0.17 U	--
111817029	S-JU	S-JU-SB-001M	5.5 - 7.35	6.35 - 6.8	11/18/2017	3.6	77	0.31 B	21	53	0.31	0.91 J	<0.17 U	--
111817030	S-GU	S-GU-SB-001M	6.0 - 7.7	7.5 - 8.0	11/18/2017	3.3	29	0.45 B	11	34	0.11	0.77 J	0.18 J	--

[O:MDM/ECK 3/23/18][C:ECK, QA E/JH/3/26/18][U:MDM 3/30/2018]

Notes

-- = Analysis not performed
 < = Concentration is less than reported limit
 U = Concentration was not detected above the reported limit
 J = Estimated Concentration
 B = analyte was detected in the associated method blank.
 E = values exceeding the highest calibration concentration
 Lab comments and definitions can be found in associated laboratory reports.
 mg/kg = milligrams per kilogram
 pg/g = picogram per gram (or parts per trillion)

Alk PAHs = Alkylated PAHs
 BTEX = Benzene, Toluene, Ethylbenzene and Xylene
 GEO = Geotechnical Property
 PAH = Polycyclic Aromatic Hydrocarbon
 PCB = Polychlorinated Biphenyl
 SVOC = Semi-Volatile Organic Compound
 TPAH = Total PAHs
 VOC = Volatile Organic Compound

Laboratories:

ALPHA = Alpha Analytical
 TALCHI = Test America Chicago
 TALKNX = TestAmerica Knoxville
 1. The following rules apply to the summation of Total PAH (13) calculated by OBG using the results provided by TestAmerica Laboratories:
 a. Where no detections were observed, the maximum individual reported detection limit is presented.
 b. Where detections were observed, 1/2 the reported detection limit for non-detects was used in the summation
 c. The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

Analytical subsamples were collected from the core remaining after the 0.2-foot mobility interval



Table 2 - Sediment Mobility Results from PTS Laboratories

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Orientation ¹	Undisturbed Core Interval (feet below top of sediment)	Subsample Depth (feet below top of sediment)	Sample Date	TPAH 4	DENSITY		Total Porosity ²	PORE FLUID SATURATIONS ³				Visible NAPL Produced?	Water Injected	Water Color Produced	Water Odor Produced	Notes
								Dry Bulk, g/cc	Grain, G/Cc		Initial Fluid Saturations		After Waterflood Test						
											Water Saturation	NAPL Saturation	Water Saturation	NAPL Saturation					
							mg/kg	g/cc	g/cc	%Vb	% Pv	% Pv	% Pv	% Pv		Pv			
111417001	N-AB3	N-AB3-SD-001M	V	10.2 - 12.2	10.3 - 11.8	11/14/2017	47.01	0.80	2.17	63.3	51.2	1.6	69.5	1.6	No	16.87	clear	faint HC odor	
111417002	N-AB3	N-AB3-SD-002M	V	19.2 - 21.2	19.2 - 20.9	11/14/2017	6279	0.91	2.57	64.6	43.0	1.7	61.8	1.7	No	0.38	clear	no odor	NAPL stain on sample package.
111417003	N-Y1	N-Y1-SD-001M	V	5.9 - 7.9	6.4 - 7.8	11/14/2017	24.51	0.73	2.11	65.6	29.2	5.4	56.2	5.4	No	6.47	clear light yellow	no odor	NAPL stain on sample package.
111417004	N-Y1	N-Y1-SD-002M	V	18.4 - 20.4	18.4 - 19.7	11/14/2017	530.6	1.26	2.72	53.9	58.9	2.6	66.7	2.6	No	0.04	clear	strong HC odor	NAPL stain on sample package.
111417005	N-P2	N-P2-SD-001M	V	7.7 - 9.7	8.1 - 9.1	11/14/2017	86.1	1.08	2.50	56.8	59.6	2.3	72.9	2.3	No	17.77	clear light yellow	moderate HC odor	
111417006	N-P2	N-P2-SD-002M	V	16.7 - 19.2	16.9 - 18.3	11/14/2017	140.19	1.17	2.65	56.0	59.2	2.6	69.8	2.6	No	1.44	clear light yellow	strong HC odor	
111417007	N-P2	N-P2-SD-003M	V	19.2 - 21.7	19.9 - 21.4	11/14/2017	102.74	1.43	2.74	47.8	58.6	1.7	70.1	1.7	No	0.47	clear	strong HC odor	NAPL stain on sample package.
111417008	N-N3	N-N3-SD-001M	V	9.5 - 11.5	9.5 - 10.6	11/14/2017	38.57	0.73	2.38	69.2	41.8	3.4	65.2	3.4	No	2.89	clear	faint HC odor	
111417009	N-N3	N-N3-SD-002M	V	17.0 - 19.5	17.7 - 19.3	11/14/2017	6063	0.49	2.14	77.2	63.5	8.3	72.7	8.3	No	6.11	clear	strong HC odor	NAPL stain on sample package.
111417010	N-N3	N-N3-SD-003M	V	19.5 - 22.0	19.5 - 20.8	11/14/2017	176.5	1.20	2.73	56.0	43.8	1.7	56.2	1.7	No	0.4	clear	moderate HC odor	
111417011	N-J2	N-J2-SD-001M	V	4.0 - 6.0	4.0 - 5.4	11/14/2017	41.98	1.29	2.51	48.8	51.3	3.3	68.1	3.3	No	18.46	clear light yellow	moderate HC odor	
111417012	N-J2	N-J2-SD-002M	V	10.0 - 12.0	10.25 - 11.5	11/14/2017	1016.5	0.47	2.15	77.9	18.9	3.0	58.1	3.0	No	15.64	clear	strong HC odor	
111617013	S-E2	S-E2-SD-001M	V	5.1 - 7.1	6.4 - 6.8	11/16/2017	0.636	1.54	2.68	42.5	70.4	4.0	74.1	4.0	No	23.84	clear light yellow	strong HC odor	
111617014	S-F2	S-F2-SD-001M	V	0.2 - 2.2	1.1 - 1.6	11/16/2017	107.7	0.62	2.41	74.4	24.9	5.4	38.6	5.4	No	4.67	clear light yellow	strong HC odor	
111617015	S-I2	S-I2-SD-001M	V	8.1 - 10.1	8.5 - 8.9	11/16/2017	0.515	1.71	2.71	36.8	40.6	7.9	81.3	7.9	No	0.82	clear	moderate HC odor	
111717016	S-N4	S-N4-SD-001M	V	1.0 - 3.5	1.5 - 1.9	11/17/2017	139.7	1.63	2.65	38.4	73.7	2.0	74.1	2.0	No	2.33	clear light yellow	strong HC odor	NAPL stain on sample package.
111717017	S-K5	S-K5-SD-001M	V	0 - 2.5	0.3 - 0.6	11/17/2017	9.504	0.76	2.58	70.5	16.5	1.4	42.5	1.4	No	12.84	clear light yellow	faint HC odor	Sample length/diameter reduced.
111717018	S-I5	S-I5-SD-001M	V	1.5 - 4.0	2.0 - 2.4	11/17/2017	26.99	1.62	2.73	40.6	61.8	1.8	69.1	1.8	No	0.81	clear	no odor	
111717019	S-I5	S-I5-SD-002M	V	4.0 - 6.5	5.1 - 5.55	11/17/2017	26.69	1.63	2.72	39.9	70.1	1.7	77.1	1.7	No	1.02	clear	no odor	
111717020	S-F6	S-F6-SD-001M	V	1.4 - 3.4	1.75 - 2.2	11/17/2017	16780	0.76	2.49	69.3	22.7	8.9	44.6	8.9	No	2.12	clear	strong HC odor	Sample diameter reduced.
111717021	S-D6	S-D6-SD-001M	V	0.7 - 2.7	1.4 - 1.8	11/17/2017	289.01	1.59	2.72	41.7	59.5	3.3	78.8	2.4	No	1.23	clear	moderate HC odor	
111717023	N-K4	N-K4-SD-001M	V	12.0 - 14.0	12.6 - 14.0	11/17/2017	280	1.26	2.60	51.4	56.3	2.4	67.6	2.4	No	5.23	clear light yellow	moderate HC odor	
111717025	N-H3	N-H3-SD-001M	V	8.2 - 10.9	8.95 - 10.2	11/17/2017	23.133	0.74	2.44	69.6	33.9	1.8	55.4	1.8	No	2.27	clear light yellow	moderate HC odor	
111817027	N-AH1	N-AH1-SD-001M	V	10.8 - 11.9	10.4 - 11.65	11/18/2017	70.4	0.73	2.28	68.1	19.3	9.3	37	9.3	No	8.49	clear light yellow	moderate HC odor	
111817028	S-LU	S-LU-SB-001M	V	10.0 - 12.0	10.4 - 10.95	11/18/2017	0.214	1.32	2.61	49.6	64.1	7.4	74.6	7.4	No	9.09	clear light yellow	faint HC odor	
111817029	S-JU	S-JU-SB-001M	V	5.5 - 7.35	6.35 - 6.8	11/18/2017	5888	1.26	2.54	50.5	54.8	7.6	72.2	7.6	No	0.6	clear	strong HC odor	
111817030	S-GU	S-GU-SB-001M	V	6.0 - 7.7	7.5 - 8.0	11/18/2017	18460	1.43	2.64	45.8	53.4	6.3	62.7	6.3	No	14.96	clear light yellow	strong HC odor	NAPL stain on sample package.

[O:ECK 3/123/2018, U: MDM 3/30/2018]

Notes

Water drives conducted at 25 psi confining pressure and 70°F. Laboratory fresh water used as injection fluid.
 Swi = Initial Water Saturation as received prior to waterflooding
 Soi = Initial NAPL Saturation as received prior to waterflooding.
 Srw = Residual Water Saturation after waterflooding
 Sor = Residual NAPL Saturation after waterflooding.
 NAPL = Non-aqueous phase liquid
 Vb = Bulk Volume, cc
 Pv = Pore Volume, cc
 ND = Not Detected
 HC = Hydrocarbon

psi = pounds per square inch or pressure
 °F = degrees Fahrenheit
 g/cc = grams per cubic centimeter
 mg/kg = milligrams per kilogram

- Sample Orientation: V = vertical
- Total Porosity = all interconnected pore channels.
- Fluid density used to calculate pore fluid saturations: Water = 0.9996 g/cc, NAPL = 0.8600 g/cc.
- The following rules apply to the summation of Total PAH calculated by OBG using the results provided by Test America:
 - Where no detections were observed, the maximum individual reported detection limit is presented.
 - Where detections were observed, ½ the reported detection limit for non-detects was used in the summation
 - The list of Total PAH is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzoanthracene, Benzopyrene, Benzofluoranthene, Benzofluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.



Table 3 - Sediment Analytical Results from Pace Analytical of Green Bay and Alpha Analytical Labs

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	TPAH (13) ¹	2-Methylnaphthalene	Acenaphthene	Acenaphthene	Acenaphthylene	Acenaphthylene	Anthracene	Anthracene	Benzo(a)anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(b)fluoranthene	Benzo(e)pyrene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene	Benzo(j,k)fluoranthene	Benzo(k)fluoranthene	Chrysene	Chrysene	Dibenz(a,h)anthracene	
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analytic Method:					calculated	8270	8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270D-SIM(M)	8270	8270D-SIM(M)	8270D-SIM(M)	8270	8270D-SIM(M)	8270	8270	8270D-SIM(M)	8270	
Lab:					PACE	PACE	PACE	ALPHA	PACE	ALPHA	PACE	ALPHA	PACE	ALPHA	PACE	ALPHA	PACE	ALPHA	ALPHA	PACE	ALPHA	ALPHA	PACE	PACE	ALPHA	PACE	
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	315.025	68.500	34.200	16.700	6.260 J	5.150	18.800	4.480	10.400	1.850	8.380	1.500	6.400	0.645	0.718	3.450 J	0.625	0.915	<2.630 U	9.470	1.610	<2.980 U	
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	318.1	76.600	37.600	227.000	<3.950 U	22.400	15.400	89.600	8.340	57.600	6.630	46.400	5.120 J	19.800	22.300	<2.900 U	17.200	29.400	<2.650 U	7.210	48.000	<3.010 U	
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	11.822	1.590 J	<1.390 U	10.200	<1.400 U	0.999	<0.627 U	5.740	0.651 J	6.020	<0.590 U	4.430	<0.674 U	3.470	3.330	<1.030 U	2.380	3.300	<0.940 U	0.694 J	7.000	<1.070 U	

Notes

-- = Analysis not performed
 < = Concentration is less than reported limit
 U = Concentration was not detected above the reported limit
 J = Estimated Concentration
 B = analyte was detected in the associated method blank.
 E = values exceeding the highest calibration concentration
 Lab comments and definitions can be found in associated laboratory reports.

Laboratories:
 PACE = Pace Analytical of Green Bay
 ALPHA = Alpha Analytical

- The following rules apply to the summation of Total PAH (13) calculated by OBG using the results provided by the lab indicated:
 - Where no detections were observed, the maximum individual reported detection limit is presented.
 - Where detections were observed, 1/2 the reported detection limit for non-detects was used in the summation
 - The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

Alk PAHs = Alkylated PAHs
 BTEX = Benzene, Toluene, Ethylbenzene and Xylene
 GEO = Geotechnical Property
 PAH = Polycyclic Aromatic Hydrocarbon
 PCB = Polychlorinated Biphenyl
 SVOC = Semi-Volatile Organic Compound
 TPAH = Total PAHs
 VOC = Volatile Organic Compound
 mg/kg = milligrams per kilogram



Table 3 - Sediment Analytical Results from Pace Analytical of Greer

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	Alk PAH	
					Fluoranthene	Fluoranthene	Fluorene	Fluorene	Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-cd)pyrene	Naphthalene	Naphthalene	Perylene	Phenanthrene	Phenanthrene	Pyrene	Pyrene	C1-Chrysenes	C2-Chrysenes	C3-Chrysenes	C4-Chrysenes	C1-Fluoranthenes/Pyrenes	C1-Fluorenes	C2-Fluorenes	C3-Fluorenes	C1-Naphthalenes
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Analytic Method:					8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	
Lab:					PACE	ALPHA	PACE	ALPHA	PACE	ALPHA	PACE	ALPHA	ALPHA	PACE	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	19.600	4.040	19.800	6.020	3.040 J	0.519	98.800	167.000	0.270	56.400	14.700	25.200	5.040	1.230	0.534	<0.0755 U	<0.0755 U	3.760	1.760	0.673	0.401	56.500
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	16.900	98.500	17.800	92.500	2.870 J	16.400	129.000	939.000	6.490	49.100	277.000	21.700	121.000	37.800	14.300	5.630	3.770	100.000	36.100	14.800	6.550	444.000
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	1.270 J	13.500	0.496 J	6.020	<0.849 U	2.140	2.430 J	23.700	1.070	1.930	24.400	1.540 J	14.200	7.360	8.640	11.000	6.890	15.000	2.880	3.240	4.810	23.500

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Alk PAHs = Alkylated PAHs
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 GEO = Geotechnical Property
 PAH = Polycyclic Aromatic Hydrocarbon
 PCB = Polychlorinated Biphenyl
 SVOC = Semi-Volatile Organic Compound
 TPAH = Total PAHs
 VOC = Volatile Organic Compound
 mg/kg = milligrams per kilogram



Table 3 - Sediment Analytical Results from Pace Analytical of Greer

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	Aik PAH	Aik PAH	Aik PAH	Aik PAH	Aik PAH	Aik PAH	Aik PAH	Aik PAH	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC			
					C2-Naphthalenes	C3-Naphthalenes	C4-Naphthalenes	C1-Phenanthrenes/Anthracenes	C2-Phenanthrenes/Anthracenes	C3-Phenanthrenes/Anthracenes	C4-Phenanthrenes/Anthracenes	Dibenz(a,h)(1,2,3,4)anthracene	1,2,4-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,2-Oxybis(1-chloropropane)	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Nitroaniline	3,3-Dichlorobenzidine	3-Nitroaniline	4-Bromodiphenyl ether	4-Chloroaniline
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Analytic Method:					8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8270D-SIM(M)	8260	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270		
Lab:					ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	ALPHA	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	14.500	2.570	0.673	6.740	2.180	0.666	0.386	0.162	<0.662 U	<1.240 U	<3.450 U	<1.520 U	<1.530 U	<2.830 U	<1.570 U	<2.090 U	<1.410 U	<3.130 U	<2.980 U	<1.870 U	<2.300 U	<1.810 U
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	208.000	54.900	8.270	154.000	51.000	12.000	4.110	4.980	<19.000 U	<1.250 U	<3.480 U	<1.530 U	<1.540 U	<2.860 U	<1.580 U	<2.100 U	<1.420 U	<3.160 U	<3.010 U	<1.880 U	<2.320 U	<1.820 U
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	32.100	17.200	6.050	16.700	13.800	43.000	123.000	0.605	<0.0951 U	<0.444 U	<1.230 U	<0.543 U	<0.547 U	<1.010 U	<0.561 U	<0.745 U	<0.504 U	<1.120 U	<1.060 U	<0.667 U	<0.822 U	<0.645 U

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 PCB = Polychlorinated Biphenyl
 SVOC = Semi-Volatile Organic Compound
 TPAH = Total PAHs
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 mg/kg = milligrams per kilogram



Table 3 - Sediment Analytical Results from Pace Analytical of Greer

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC	SVOC			
					4-Chlorodiphenyl ether	4-Nitroaniline	Bis(2-Chloroethoxy)methane	Bis(2-Chloroethoxy)ether	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Carbazole	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	Nitrobenzene	N-nitrosodi-n-propylamine	N-Nitrosodiphenylamine
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Analytic Method:					8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8260	8270	8270	8270	8270	8270	8270	8270
Lab:					PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	<2.050 U	<4.560 U	<2.960 U	<3.430 U	<1.830 U	<1.760 U	<1.720 U	3.320 J	<1.820 U	<1.430 U	<1.640 U	<2.470 U	<1.850 U	<0.348 U	<2.800 U	<2.600 U	<1.760 U	<1.690 U	<2.230 U	<1.740 U	<14.900 U
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	<2.060 U	<4.600 U	<2.980 U	<3.460 U	<1.840 U	<1.780 U	<1.730 U	3.480 J	<1.840 U	<1.440 U	<1.660 U	<2.490 U	<1.860 U	<10.000 U	<2.820 U	<2.620 U	<1.770 U	<1.700 U	<2.250 U	<1.760 U	<15.000 U
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	<0.731 U	<1.630 U	<1.060 U	<1.220 U	<0.652 U	<0.629 U	<0.614 U	<0.475 U	<0.651 U	<0.510 U	<0.586 U	<0.882 U	<0.660 U	<0.0500 U	<1.000 U	<0.929 U	<0.628 U	<0.603 U	<0.796 U	<0.622 U	<5.320 U

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 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	Phenol	Phenol	Phenol	Phenol	Phenol	Phenol	Phenol	Phenol	Phenol	Phenol	Phenol	Phenol	PCB	PCB	PCB	PCB	PCB	PCB	PCB	PCB	
					2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	3 & 4-Methylphenol	4,6-Dinitro-2-methylphenol	4-Chloro-3-methylphenol	4-Nitrophenol	Pentachlorophenol	Phenol	PCB, Total	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analytic Method:					8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8082	8082	8082	8082	8082	8082	8082	8082
Lab:					PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	<1.940 U	<1.670 U	<2.940 U	<2.170 U	<3.350 U	<2.740 U	<2.000 U	<3.470 U	<2.010 U	<3.390 U	<3.420 U	<2.770 U	<2.420 U	<2.610 U	<0.0329 U	<0.0329 U	<0.0329 U	<0.0329 U	<0.0329 U	<0.0329 U	<0.0329 U
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	<1.960 U	<1.690 U	<2.960 U	<2.190 U	<3.370 U	<2.760 U	<2.010 U	<3.500 U	<2.030 U	<3.410 U	<3.450 U	<2.790 U	<2.440 U	<2.630 U	<0.0332 U	<0.0332 U	<0.0332 U	<0.0332 U	<0.0332 U	<0.0332 U	<0.0332 U
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	<0.693 U	<0.598 U	<1.050 U	<0.776 U	<1.200 U	<0.979 U	<0.713 U	<1.240 U	<0.719 U	<1.210 U	<1.220 U	<0.988 U	<0.864 U	<0.931 U	<0.0587 U	<0.0587 U	<0.0587 U	<0.0587 U	<0.0587 U	<0.0587 U	<0.0587 U

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Table 3 - Sediment Analytical Results from Pace Analytical of Greer

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC		
					Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Analytic Method:					8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260
Lab:					PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	1.230	6.930	<0.348 U	1.890	4.320	6.220	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	1.930	<1.270 U	<0.348 U	<0.348 U	<0.348 U	
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	<10.000 U	53.500	<10.000 U	20.600 J	<20.000 U	45.500 J	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	31.200 J	<36.500 U	<10.000 U	<10.000 U	<10.000 U	
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	<0.0500 U	<0.0500 U	<0.0500 U	0.362	0.301 J	0.663 J	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	10.300	<0.182 U	<0.0500 U	<0.0500 U	<0.0500 U	

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 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	
					1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Chlorotoluene	4-Chlorotoluene	4-Isopropyltoluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analytic Method:					8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260
Lab:					PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	0.871 J	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	0.467 J	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.973 U	<0.348 U	<0.932 U	<0.646 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<28.000 U	<10.000 U	<10.000 U	<26.800 U	<18.600 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	5.000	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	1.450	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.140 U	<0.0500 U	<0.0500 U	<0.134 U	<0.0929 U	<0.0500 U	<0.0500 U	<0.0500 U

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 TPAH = Total PAHs
 VOC = Volatile Organic Compound
 mg/kg = milligrams per kilogram



Table 3 - Sediment Analytical Results from Pace Analytical of Greer

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC			
					Freon 12	Isopropyl ether	Isopropylbenzene	Methylene chloride (Dichloromethane, DCM)	Methyl-tert-butyl-ether	n-Butylbenzene	n-Propylbenzene	Naphthalene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analytic Method:					8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260
Lab:					PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	56.500	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U	<0.348 U
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	1,120	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U	<10.000 U
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	<0.0500 U	<0.0500 U	0.645	<0.0500 U	<0.0500 U	1.880	0.870	8.410	0.893	<0.0500 U	0.212 J	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U	<0.0500 U

Notes

-- = Analysis not performed
 < = Concentration is less than reported limit
 U = Concentration was not detected above the reported limit
 J = Estimated Concentration
 B = analyte was detected in the associated method blank.
 E = values exceeding the highest calibration concentration
 Lab comments and definitions can be found in associated laboratory reports.

Laboratories:
 PACE = Pace Analytical of Green Bay
 ALPHA = Alpha Analytical

- The following rules apply to the summation of Total PAH (13) calculated by OBG using the results provided by the lab indicated:
 - Where no detections were observed, the maximum individual reported detection limit is presented.
 - Where detections were observed, 1/2 the reported detection limit for non-detects was used in the summation
 - The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

Alk PAHs = Alkylated PAHs
 BTEX = Benzene, Toluene, Ethylbenz
 GEO = Geotechnical Property
 PAH = Polycyclic Aromatic Hydrocarb
 PCB = Polychlorinated Biphenyl
 SVOC = Semi-Volatile Organic Comp
 TPAH = Total PAHs
 VOC = Volatile Organic Compound
 mg/kg = milligrams per kilogram



Table 3 - Sediment Analytical Results from Pace Analytical of Greer

November 2017 Mobility Sampling
 Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

Sample ID	Boring Number	Field Sample ID	Sample Depth (feet below top of sediment)	Sample Date	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	GEO	GEO
					Arsenic, Total	Barium, Total	Cadmium, Total	Chromium, Total	Lead, Total	Mercury, Total	Selenium, Total	Silver, Total	Percent Moisture	Solids, Total
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%
Analytic Method:					6010	6010	6010	6010	6010	7471	6010	6010	ASTM D2974-	2540G
Lab:					PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	PACE	ALPHA
111717022	N-K4	N-K4-SD-001	12.7 - 13.7	11/17/2017	4.6 J	92.5	<0.16 U	32.9	8.8	<0.014 U	<1.4 U	<0.42 U	24.0	79
111717024	N-H3	N-H3-SD-001	8.6 - 9.6	11/17/2017	2.4 J	131	<0.17 U	37.4	8.1	0.017 J	<1.4 U	<0.43 U	24.8	75.3
111817026	N-AH1	N-AH1-SD-001	10 - 11.6	11/18/2017	10.2 J	989	2.1	97.2	1,190	6.9	<2.4 U	1.2 J	57.4	46.1

Notes

-- = Analysis not performed
 < = Concentration is less than reported limit
 U = Concentration was not detected above the reported limit
 J = Estimated Concentration
 B = analyte was detected in the associated method blank.
 E = values exceeding the highest calibration concentration
 Lab comments and definitions can be found in associated laboratory reports.

Laboratories:

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 ALPHA = Alpha Analytical

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- The following rules apply to the summation of Total PAH (13) calculated by OBG using the results provided by the lab indicated:
 - Where no detections were observed, the maximum individual reported detection limit is presented.
 - Where detections were observed, 1/2 the reported detection limit for non-detects was used in the summation
 - The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

Alk PAHs = Alkylated PAHs
 BTEX = Benzene, Toluene, Ethylbenzene and Xylene
 GEO = Geotechnical Property
 PAH = Polycyclic Aromatic Hydrocarbon
 PCB = Polychlorinated Biphenyl
 SVOC = Semi-Volatile Organic Compound
 TPAH = Total PAHs
 VOC = Volatile Organic Compound
 mg/kg = milligrams per kilogram



**Attachment 1 - Alpha,
Pace, and TestAmerica
Laboratory Analytical
Packages**

January 10, 2018

Eric Hritsuk
Natural Resource Technologies

RE: Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

Dear Eric Hritsuk:

Enclosed are the analytical results for sample(s) received by the laboratory on November 18, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Phil Brochocki, Natural Resources Technologies
NRT Data, Natural Resource Technologies
Brian Hennings, NATURAL RESOURCE TECHNOLOGY
Robert Paulson, We Energies
Steve Wiskes, Natural Resources Technologies



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40161143001	111717022	Solid	11/17/17 13:15	11/18/17 09:42
40161143002	111717024	Solid	11/17/17 15:00	11/18/17 09:42
40161143003	111817026	Solid	11/18/17 09:00	11/18/17 09:42

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SAMPLE ANALYTE COUNT

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40161143001	111717022	EPA 8082	BLM	10	PASI-G
		EPA 6010	JLD	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G
		EPA 8260	SMT	65	PASI-G
		ASTM D2974-87	KTS	1	PASI-G
40161143002	111717024	EPA 8082	BLM	10	PASI-G
		EPA 6010	JLD	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G
		EPA 8260	SMT	65	PASI-G
		ASTM D2974-87	KTS	1	PASI-G
40161143003	111817026	EPA 8082	BLM	10	PASI-G
		EPA 6010	JLD	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270	RJN	70	PASI-G
		EPA 8260	SMT	65	PASI-G
		ASTM D2974-87	KTS	1	PASI-G

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PROJECT NARRATIVE

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

Method: EPA 8082
Description: 8082 GCS PCB
Client: Natural Resource Technology Integrys WI
Date: January 10, 2018

General Information:

3 samples were analyzed for EPA 8082. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

Method: EPA 6010
Description: 6010 MET ICP
Client: Natural Resource Technology Integrys WI
Date: January 10, 2018

General Information:

3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Method: EPA 7471

Description: 7471 Mercury

Client: Natural Resource Technology Integrys WI

Date: January 10, 2018

General Information:

3 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Method: EPA 8270

Description: 8270 MSSV FULL LIST MICROWAVE

Client: Natural Resource Technology Integrys WI

Date: January 10, 2018

General Information:

3 samples were analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 275270

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

- LCS (Lab ID: 1619443)
 - Benzo(k)fluoranthene
 - Hexachloro-1,3-butadiene

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Method: EPA 8270

Description: 8270 MSSV FULL LIST MICROWAVE

Client: Natural Resource Technology Integrys WI

Date: January 10, 2018

Analyte Comments:

QC Batch: 275270

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- 111817026 (Lab ID: 40161143003)
 - Phenol

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PROJECT NARRATIVE

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: Natural Resource Technology Integrys WI

Date: January 10, 2018

General Information:

3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 275287

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- 111717022 (Lab ID: 40161143001)
 - 4-Bromofluorobenzene (S)
 - Dibromofluoromethane (S)
 - Toluene-d8 (S)
- 111717024 (Lab ID: 40161143002)
 - 4-Bromofluorobenzene (S)
 - Dibromofluoromethane (S)
 - Toluene-d8 (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: Natural Resource Technology Integrys WI

Date: January 10, 2018

Analyte Comments:

QC Batch: 275287

1q: Sample field preservation does not meet EPA or method recommendations for this analysis. Soil to MeOH ratio could not be brought to 1:1 due to large soil volume.

- 111717022 (Lab ID: 40161143001)
- Dibromofluoromethane (S)

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111717022 **Lab ID: 40161143001** Collected: 11/17/17 13:15 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<32.9	ug/kg	65.8	32.9	1	11/21/17 12:02	11/23/17 03:12	12674-11-2	
PCB-1221 (Aroclor 1221)	<32.9	ug/kg	65.8	32.9	1	11/21/17 12:02	11/23/17 03:12	11104-28-2	
PCB-1232 (Aroclor 1232)	<32.9	ug/kg	65.8	32.9	1	11/21/17 12:02	11/23/17 03:12	11141-16-5	
PCB-1242 (Aroclor 1242)	<32.9	ug/kg	65.8	32.9	1	11/21/17 12:02	11/23/17 03:12	53469-21-9	
PCB-1248 (Aroclor 1248)	<32.9	ug/kg	65.8	32.9	1	11/21/17 12:02	11/23/17 03:12	12672-29-6	
PCB-1254 (Aroclor 1254)	<32.9	ug/kg	65.8	32.9	1	11/21/17 12:02	11/23/17 03:12	11097-69-1	
PCB-1260 (Aroclor 1260)	<32.9	ug/kg	65.8	32.9	1	11/21/17 12:02	11/23/17 03:12	11096-82-5	
PCB, Total	<32.9	ug/kg	65.8	32.9	1	11/21/17 12:02	11/23/17 03:12	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	50-102		1	11/21/17 12:02	11/23/17 03:12	877-09-8	
Decachlorobiphenyl (S)	90	%	53-105		1	11/21/17 12:02	11/23/17 03:12	2051-24-3	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	4.6J	mg/kg	6.1	1.3	1	11/29/17 14:14	12/01/17 19:13	7440-38-2	
Barium	92.5	mg/kg	0.61	0.18	1	11/29/17 14:14	12/01/17 19:13	7440-39-3	
Cadmium	<0.16	mg/kg	0.61	0.16	1	11/29/17 14:14	12/01/17 19:13	7440-43-9	
Chromium	32.9	mg/kg	1.2	0.34	1	11/29/17 14:14	12/01/17 19:13	7440-47-3	
Lead	8.8	mg/kg	1.6	0.53	1	11/29/17 14:14	12/01/17 19:13	7439-92-1	
Selenium	<1.4	mg/kg	6.1	1.4	1	11/29/17 14:14	12/01/17 19:13	7782-49-2	
Silver	<0.42	mg/kg	1.2	0.42	1	11/29/17 14:14	12/01/17 19:13	7440-22-4	
7471 Mercury									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	<0.014	mg/kg	0.046	0.014	1	11/30/17 06:32	11/30/17 12:41	7439-97-6	
8270 MSSV FULL LIST MICROWAVE									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<1240	ug/kg	4140	1240	50	11/27/17 13:34	12/01/17 08:47	120-82-1	
1,2-Dichlorobenzene	<3450	ug/kg	11500	3450	50	11/27/17 13:34	12/01/17 08:47	95-50-1	
1,3-Dichlorobenzene	<1520	ug/kg	5070	1520	50	11/27/17 13:34	12/01/17 08:47	541-73-1	
1,4-Dichlorobenzene	<1530	ug/kg	5100	1530	50	11/27/17 13:34	12/01/17 08:47	106-46-7	
2,2'-Oxybis(1-chloropropane)	<2830	ug/kg	9440	2830	50	11/27/17 13:34	12/01/17 08:47	108-60-1	
2,4,5-Trichlorophenol	<1940	ug/kg	6470	1940	50	11/27/17 13:34	12/01/17 08:47	95-95-4	
2,4,6-Trichlorophenol	<1670	ug/kg	5580	1670	50	11/27/17 13:34	12/01/17 08:47	88-06-2	
2,4-Dichlorophenol	<2940	ug/kg	9780	2940	50	11/27/17 13:34	12/01/17 08:47	120-83-2	
2,4-Dimethylphenol	<2170	ug/kg	7240	2170	50	11/27/17 13:34	12/01/17 08:47	105-67-9	
2,4-Dinitrophenol	<3350	ug/kg	11200	3350	50	11/27/17 13:34	12/01/17 08:47	51-28-5	
2,4-Dinitrotoluene	<1570	ug/kg	5240	1570	50	11/27/17 13:34	12/01/17 08:47	121-14-2	
2,6-Dinitrotoluene	<2090	ug/kg	6950	2090	50	11/27/17 13:34	12/01/17 08:47	606-20-2	
2-Chloronaphthalene	<1410	ug/kg	4700	1410	50	11/27/17 13:34	12/01/17 08:47	91-58-7	
2-Chlorophenol	<2740	ug/kg	9140	2740	50	11/27/17 13:34	12/01/17 08:47	95-57-8	
2-Methylnaphthalene	68500	ug/kg	9510	2850	50	11/27/17 13:34	12/01/17 08:47	91-57-6	
2-Methylphenol(o-Cresol)	<2000	ug/kg	6650	2000	50	11/27/17 13:34	12/01/17 08:47	95-48-7	
2-Nitroaniline	<3130	ug/kg	10400	3130	50	11/27/17 13:34	12/01/17 08:47	88-74-4	
2-Nitrophenol	<3470	ug/kg	11600	3470	50	11/27/17 13:34	12/01/17 08:47	88-75-5	
3&4-Methylphenol(m&p Cresol)	<2010	ug/kg	6710	2010	50	11/27/17 13:34	12/01/17 08:47		
3,3'-Dichlorobenzidine	<2980	ug/kg	9930	2980	50	11/27/17 13:34	12/01/17 08:47	91-94-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111717022 Lab ID: 40161143001 Collected: 11/17/17 13:15 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV FULL LIST MICROWAVE Analytical Method: EPA 8270 Preparation Method: EPA 3546									
3-Nitroaniline	<1870	ug/kg	6230	1870	50	11/27/17 13:34	12/01/17 08:47	99-09-2	
4,6-Dinitro-2-methylphenol	<3390	ug/kg	11300	3390	50	11/27/17 13:34	12/01/17 08:47	534-52-1	
4-Bromophenylphenyl ether	<2300	ug/kg	7670	2300	50	11/27/17 13:34	12/01/17 08:47	101-55-3	
4-Chloro-3-methylphenol	<3420	ug/kg	11400	3420	50	11/27/17 13:34	12/01/17 08:47	59-50-7	
4-Chloroaniline	<1810	ug/kg	6020	1810	50	11/27/17 13:34	12/01/17 08:47	106-47-8	
4-Chlorophenylphenyl ether	<2050	ug/kg	6820	2050	50	11/27/17 13:34	12/01/17 08:47	7005-72-3	
4-Nitroaniline	<4560	ug/kg	15200	4560	50	11/27/17 13:34	12/01/17 08:47	100-01-6	
4-Nitrophenol	<2770	ug/kg	9220	2770	50	11/27/17 13:34	12/01/17 08:47	100-02-7	
Acenaphthene	34200	ug/kg	13000	3900	50	11/27/17 13:34	12/01/17 08:47	83-32-9	
Acenaphthylene	6260J	ug/kg	13100	3920	50	11/27/17 13:34	12/01/17 08:47	208-96-8	
Anthracene	18800	ug/kg	5850	1760	50	11/27/17 13:34	12/01/17 08:47	120-12-7	
Benzo(a)anthracene	10400	ug/kg	5670	1700	50	11/27/17 13:34	12/01/17 08:47	56-55-3	
Benzo(a)pyrene	8380	ug/kg	5510	1650	50	11/27/17 13:34	12/01/17 08:47	50-32-8	
Benzo(b)fluoranthene	6400	ug/kg	6290	1890	50	11/27/17 13:34	12/01/17 08:47	205-99-2	
Benzo(g,h,i)perylene	3450J	ug/kg	9580	2870	50	11/27/17 13:34	12/01/17 08:47	191-24-2	
Benzo(k)fluoranthene	<2630	ug/kg	8770	2630	50	11/27/17 13:34	12/01/17 08:47	207-08-9	L1
Butylbenzylphthalate	<1760	ug/kg	5870	1760	50	11/27/17 13:34	12/01/17 08:47	85-68-7	
Carbazole	<1720	ug/kg	5730	1720	50	11/27/17 13:34	12/01/17 08:47	86-74-8	
Chrysene	9470	ug/kg	5470	1640	50	11/27/17 13:34	12/01/17 08:47	218-01-9	
Di-n-butylphthalate	<1640	ug/kg	5470	1640	50	11/27/17 13:34	12/01/17 08:47	84-74-2	
Di-n-octylphthalate	<2470	ug/kg	8230	2470	50	11/27/17 13:34	12/01/17 08:47	117-84-0	
Dibenz(a,h)anthracene	<2980	ug/kg	9940	2980	50	11/27/17 13:34	12/01/17 08:47	53-70-3	
Dibenzofuran	3320J	ug/kg	4430	1330	50	11/27/17 13:34	12/01/17 08:47	132-64-9	
Diethylphthalate	<1820	ug/kg	6070	1820	50	11/27/17 13:34	12/01/17 08:47	84-66-2	
Dimethylphthalate	<1430	ug/kg	4760	1430	50	11/27/17 13:34	12/01/17 08:47	131-11-3	
Fluoranthene	19600	ug/kg	5180	1550	50	11/27/17 13:34	12/01/17 08:47	206-44-0	
Fluorene	19800	ug/kg	4280	1280	50	11/27/17 13:34	12/01/17 08:47	86-73-7	
Hexachloro-1,3-butadiene	<2800	ug/kg	9330	2800	50	11/27/17 13:34	12/01/17 08:47	87-68-3	L1
Hexachlorobenzene	<1850	ug/kg	6160	1850	50	11/27/17 13:34	12/01/17 08:47	118-74-1	
Hexachlorocyclopentadiene	<2600	ug/kg	8660	2600	50	11/27/17 13:34	12/01/17 08:47	77-47-4	
Hexachloroethane	<1760	ug/kg	5860	1760	50	11/27/17 13:34	12/01/17 08:47	67-72-1	
Indeno(1,2,3-cd)pyrene	3040J	ug/kg	7920	2380	50	11/27/17 13:34	12/01/17 08:47	193-39-5	
Isophorone	<1690	ug/kg	5630	1690	50	11/27/17 13:34	12/01/17 08:47	78-59-1	
N-Nitroso-di-n-propylamine	<1740	ug/kg	5810	1740	50	11/27/17 13:34	12/01/17 08:47	621-64-7	
N-Nitrosodiphenylamine	<14900	ug/kg	49700	14900	50	11/27/17 13:34	12/01/17 08:47	86-30-6	
Naphthalene	98800	ug/kg	12800	3840	50	11/27/17 13:34	12/01/17 08:47	91-20-3	
Nitrobenzene	<2230	ug/kg	7430	2230	50	11/27/17 13:34	12/01/17 08:47	98-95-3	
Pentachlorophenol	<2420	ug/kg	8060	2420	50	11/27/17 13:34	12/01/17 08:47	87-86-5	
Phenanthrene	56400	ug/kg	4700	1410	50	11/27/17 13:34	12/01/17 08:47	85-01-8	
Phenol	<2610	ug/kg	8690	2610	50	11/27/17 13:34	12/01/17 08:47	108-95-2	
Pyrene	25200	ug/kg	8120	2430	50	11/27/17 13:34	12/01/17 08:47	129-00-0	
bis(2-Chloroethoxy)methane	<2960	ug/kg	9860	2960	50	11/27/17 13:34	12/01/17 08:47	111-91-1	
bis(2-Chloroethyl) ether	<3430	ug/kg	11400	3430	50	11/27/17 13:34	12/01/17 08:47	111-44-4	
bis(2-Ethylhexyl)phthalate	<1830	ug/kg	6090	1830	50	11/27/17 13:34	12/01/17 08:47	117-81-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111717022 **Lab ID: 40161143001** Collected: 11/17/17 13:15 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
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8270 MSSV FULL LIST MICROWAVE Analytical Method: EPA 8270 Preparation Method: EPA 3546

Surrogates

Nitrobenzene-d5 (S)	81	%	13-114		50	11/27/17 13:34	12/01/17 08:47	4165-60-0	
2-Fluorobiphenyl (S)	84	%	18-127		50	11/27/17 13:34	12/01/17 08:47	321-60-8	
Terphenyl-d14 (S)	84	%	41-109		50	11/27/17 13:34	12/01/17 08:47	1718-51-0	
Phenol-d6 (S)	73	%	30-97		50	11/27/17 13:34	12/01/17 08:47	13127-88-3	
2-Fluorophenol (S)	71	%	16-103		50	11/27/17 13:34	12/01/17 08:47	367-12-4	
2,4,6-Tribromophenol (S)	63	%	13-143		50	11/27/17 13:34	12/01/17 08:47	118-79-6	

8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

1,1,1,2-Tetrachloroethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	630-20-6	W
1,1,1-Trichloroethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	71-55-6	W
1,1,2,2-Tetrachloroethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	79-34-5	W
1,1,2-Trichloroethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	79-00-5	W
1,1-Dichloroethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	75-34-3	W
1,1-Dichloroethene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	75-35-4	W
1,1-Dichloropropene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	563-58-6	W
1,2,3-Trichlorobenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	87-61-6	W
1,2,3-Trichloropropane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	96-18-4	W
1,2,4-Trichlorobenzene	<662	ug/kg	3480	662	20	11/27/17 07:45	11/30/17 04:45	120-82-1	W
1,2,4-Trimethylbenzene	1930	ug/kg	1100	458	20	11/27/17 07:45	11/30/17 04:45	95-63-6	
1,2-Dibromo-3-chloropropane	<1270	ug/kg	3480	1270	20	11/27/17 07:45	11/30/17 04:45	96-12-8	W
1,2-Dibromoethane (EDB)	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	106-93-4	W
1,2-Dichlorobenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	95-50-1	W
1,2-Dichloroethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	107-06-2	W
1,2-Dichloropropane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	78-87-5	W
1,3,5-Trimethylbenzene	871J	ug/kg	1100	458	20	11/27/17 07:45	11/30/17 04:45	108-67-8	
1,3-Dichlorobenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	541-73-1	W
1,3-Dichloropropane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	142-28-9	W
1,4-Dichlorobenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	106-46-7	W
2,2-Dichloropropane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	594-20-7	W
2-Chlorotoluene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	95-49-8	W
4-Chlorotoluene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	106-43-4	W
Benzene	1230	ug/kg	1100	458	20	11/27/17 07:45	11/30/17 04:45	71-43-2	
Bromobenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	108-86-1	W
Bromochloromethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	74-97-5	W
Bromodichloromethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	75-27-4	W
Bromoform	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	75-25-2	W
Bromomethane	<973	ug/kg	3480	973	20	11/27/17 07:45	11/30/17 04:45	74-83-9	W
Carbon tetrachloride	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	56-23-5	W
Chlorobenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	108-90-7	W
Chloroethane	<932	ug/kg	3480	932	20	11/27/17 07:45	11/30/17 04:45	75-00-3	W
Chloroform	<646	ug/kg	3480	646	20	11/27/17 07:45	11/30/17 04:45	67-66-3	W
Chloromethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	74-87-3	W
Dibromochloromethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	124-48-1	W
Dibromomethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	74-95-3	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111717022 **Lab ID: 40161143001** Collected: 11/17/17 13:15 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Dichlorodifluoromethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	75-71-8	W
Diisopropyl ether	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	108-20-3	W
Ethylbenzene	6930	ug/kg	1100	458	20	11/27/17 07:45	11/30/17 04:45	100-41-4	
Hexachloro-1,3-butadiene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	87-68-3	W
Isopropylbenzene (Cumene)	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	98-82-8	W
Methyl-tert-butyl ether	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	1634-04-4	W
Methylene Chloride	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	75-09-2	W
Naphthalene	56500	ug/kg	4580	733	20	11/27/17 07:45	11/30/17 04:45	91-20-3	
Styrene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	100-42-5	W
Tetrachloroethene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	127-18-4	W
Toluene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	108-88-3	W
Trichloroethene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	79-01-6	W
Trichlorofluoromethane	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	75-69-4	W
Vinyl chloride	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	75-01-4	W
Xylene (Total)	6220	ug/kg	3300	1370	20	11/27/17 07:45	11/30/17 04:45	1330-20-7	
cis-1,2-Dichloroethene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	156-59-2	W
cis-1,3-Dichloropropene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	10061-01-5	W
m&p-Xylene	4320	ug/kg	2200	916	20	11/27/17 07:45	11/30/17 04:45	179601-23-1	
n-Butylbenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	104-51-8	W
n-Propylbenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	103-65-1	W
o-Xylene	1890	ug/kg	1100	458	20	11/27/17 07:45	11/30/17 04:45	95-47-6	
p-Isopropyltoluene	467J	ug/kg	1100	458	20	11/27/17 07:45	11/30/17 04:45	99-87-6	
sec-Butylbenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	135-98-8	W
tert-Butylbenzene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	98-06-6	W
trans-1,2-Dichloroethene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	156-60-5	W
trans-1,3-Dichloropropene	<348	ug/kg	835	348	20	11/27/17 07:45	11/30/17 04:45	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	0	%	68-130		20	11/27/17 07:45	11/30/17 04:45	1868-53-7	1q,S4
Toluene-d8 (S)	0	%	68-149		20	11/27/17 07:45	11/30/17 04:45	2037-26-5	S4
4-Bromofluorobenzene (S)	0	%	58-141		20	11/27/17 07:45	11/30/17 04:45	460-00-4	S4

Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture **24.0** % 0.10 0.10 1 11/20/17 17:29

Sample: 111717024 **Lab ID: 40161143002** Collected: 11/17/17 15:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<33.2	ug/kg	66.5	33.2	1	11/21/17 12:02	11/23/17 03:30	12674-11-2	
PCB-1221 (Aroclor 1221)	<33.2	ug/kg	66.5	33.2	1	11/21/17 12:02	11/23/17 03:30	11104-28-2	
PCB-1232 (Aroclor 1232)	<33.2	ug/kg	66.5	33.2	1	11/21/17 12:02	11/23/17 03:30	11141-16-5	

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111717024 **Lab ID: 40161143002** Collected: 11/17/17 15:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1242 (Aroclor 1242)	<33.2	ug/kg	66.5	33.2	1	11/21/17 12:02	11/23/17 03:30	53469-21-9	
PCB-1248 (Aroclor 1248)	<33.2	ug/kg	66.5	33.2	1	11/21/17 12:02	11/23/17 03:30	12672-29-6	
PCB-1254 (Aroclor 1254)	<33.2	ug/kg	66.5	33.2	1	11/21/17 12:02	11/23/17 03:30	11097-69-1	
PCB-1260 (Aroclor 1260)	<33.2	ug/kg	66.5	33.2	1	11/21/17 12:02	11/23/17 03:30	11096-82-5	
PCB, Total	<33.2	ug/kg	66.5	33.2	1	11/21/17 12:02	11/23/17 03:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	83	%	50-102		1	11/21/17 12:02	11/23/17 03:30	877-09-8	
Decachlorobiphenyl (S)	76	%	53-105		1	11/21/17 12:02	11/23/17 03:30	2051-24-3	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.4J	mg/kg	6.3	1.3	1	11/29/17 14:14	12/01/17 19:21	7440-38-2	
Barium	131	mg/kg	0.63	0.19	1	11/29/17 14:14	12/01/17 19:21	7440-39-3	
Cadmium	<0.17	mg/kg	0.63	0.17	1	11/29/17 14:14	12/01/17 19:21	7440-43-9	
Chromium	37.4	mg/kg	1.3	0.35	1	11/29/17 14:14	12/01/17 19:21	7440-47-3	
Lead	8.1	mg/kg	1.6	0.54	1	11/29/17 14:14	12/01/17 19:21	7439-92-1	
Selenium	<1.4	mg/kg	6.3	1.4	1	11/29/17 14:14	12/01/17 19:21	7782-49-2	
Silver	<0.43	mg/kg	1.3	0.43	1	11/29/17 14:14	12/01/17 19:21	7440-22-4	
7471 Mercury									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.017J	mg/kg	0.044	0.013	1	11/30/17 06:32	11/30/17 12:43	7439-97-6	
8270 MSSV FULL LIST MICROWAVE									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<1250	ug/kg	4170	1250	50	11/27/17 13:34	12/01/17 09:08	120-82-1	
1,2-Dichlorobenzene	<3480	ug/kg	11600	3480	50	11/27/17 13:34	12/01/17 09:08	95-50-1	
1,3-Dichlorobenzene	<1530	ug/kg	5110	1530	50	11/27/17 13:34	12/01/17 09:08	541-73-1	
1,4-Dichlorobenzene	<1540	ug/kg	5140	1540	50	11/27/17 13:34	12/01/17 09:08	106-46-7	
2,2'-Oxybis(1-chloropropane)	<2860	ug/kg	9520	2860	50	11/27/17 13:34	12/01/17 09:08	108-60-1	
2,4,5-Trichlorophenol	<1960	ug/kg	6520	1960	50	11/27/17 13:34	12/01/17 09:08	95-95-4	
2,4,6-Trichlorophenol	<1690	ug/kg	5630	1690	50	11/27/17 13:34	12/01/17 09:08	88-06-2	
2,4-Dichlorophenol	<2960	ug/kg	9870	2960	50	11/27/17 13:34	12/01/17 09:08	120-83-2	
2,4-Dimethylphenol	<2190	ug/kg	7300	2190	50	11/27/17 13:34	12/01/17 09:08	105-67-9	
2,4-Dinitrophenol	<3370	ug/kg	11200	3370	50	11/27/17 13:34	12/01/17 09:08	51-28-5	
2,4-Dinitrotoluene	<1580	ug/kg	5280	1580	50	11/27/17 13:34	12/01/17 09:08	121-14-2	
2,6-Dinitrotoluene	<2100	ug/kg	7010	2100	50	11/27/17 13:34	12/01/17 09:08	606-20-2	
2-Chloronaphthalene	<1420	ug/kg	4740	1420	50	11/27/17 13:34	12/01/17 09:08	91-58-7	
2-Chlorophenol	<2760	ug/kg	9220	2760	50	11/27/17 13:34	12/01/17 09:08	95-57-8	
2-Methylnaphthalene	76600	ug/kg	9590	2880	50	11/27/17 13:34	12/01/17 09:08	91-57-6	
2-Methylphenol(o-Cresol)	<2010	ug/kg	6710	2010	50	11/27/17 13:34	12/01/17 09:08	95-48-7	
2-Nitroaniline	<3160	ug/kg	10500	3160	50	11/27/17 13:34	12/01/17 09:08	88-74-4	
2-Nitrophenol	<3500	ug/kg	11700	3500	50	11/27/17 13:34	12/01/17 09:08	88-75-5	
3&4-Methylphenol(m&p Cresol)	<2030	ug/kg	6770	2030	50	11/27/17 13:34	12/01/17 09:08		
3,3'-Dichlorobenzidine	<3010	ug/kg	10000	3010	50	11/27/17 13:34	12/01/17 09:08	91-94-1	
3-Nitroaniline	<1880	ug/kg	6280	1880	50	11/27/17 13:34	12/01/17 09:08	99-09-2	
4,6-Dinitro-2-methylphenol	<3410	ug/kg	11400	3410	50	11/27/17 13:34	12/01/17 09:08	534-52-1	
4-Bromophenylphenyl ether	<2320	ug/kg	7730	2320	50	11/27/17 13:34	12/01/17 09:08	101-55-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111717024 **Lab ID: 40161143002** Collected: 11/17/17 15:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV FULL LIST MICROWAVE Analytical Method: EPA 8270 Preparation Method: EPA 3546									
4-Chloro-3-methylphenol	<3450	ug/kg	11500	3450	50	11/27/17 13:34	12/01/17 09:08	59-50-7	
4-Chloroaniline	<1820	ug/kg	6070	1820	50	11/27/17 13:34	12/01/17 09:08	106-47-8	
4-Chlorophenylphenyl ether	<2060	ug/kg	6880	2060	50	11/27/17 13:34	12/01/17 09:08	7005-72-3	
4-Nitroaniline	<4600	ug/kg	15300	4600	50	11/27/17 13:34	12/01/17 09:08	100-01-6	
4-Nitrophenol	<2790	ug/kg	9300	2790	50	11/27/17 13:34	12/01/17 09:08	100-02-7	
Acenaphthene	37600	ug/kg	13100	3930	50	11/27/17 13:34	12/01/17 09:08	83-32-9	
Acenaphthylene	<3950	ug/kg	13200	3950	50	11/27/17 13:34	12/01/17 09:08	208-96-8	
Anthracene	15400	ug/kg	5900	1770	50	11/27/17 13:34	12/01/17 09:08	120-12-7	
Benzo(a)anthracene	8340	ug/kg	5720	1720	50	11/27/17 13:34	12/01/17 09:08	56-55-3	
Benzo(a)pyrene	6630	ug/kg	5560	1670	50	11/27/17 13:34	12/01/17 09:08	50-32-8	
Benzo(b)fluoranthene	5120J	ug/kg	6340	1900	50	11/27/17 13:34	12/01/17 09:08	205-99-2	
Benzo(g,h,i)perylene	<2900	ug/kg	9660	2900	50	11/27/17 13:34	12/01/17 09:08	191-24-2	
Benzo(k)fluoranthene	<2650	ug/kg	8840	2650	50	11/27/17 13:34	12/01/17 09:08	207-08-9	L1
Butylbenzylphthalate	<1780	ug/kg	5920	1780	50	11/27/17 13:34	12/01/17 09:08	85-68-7	
Carbazole	<1730	ug/kg	5780	1730	50	11/27/17 13:34	12/01/17 09:08	86-74-8	
Chrysene	7210	ug/kg	5520	1660	50	11/27/17 13:34	12/01/17 09:08	218-01-9	
Di-n-butylphthalate	<1660	ug/kg	5520	1660	50	11/27/17 13:34	12/01/17 09:08	84-74-2	
Di-n-octylphthalate	<2490	ug/kg	8300	2490	50	11/27/17 13:34	12/01/17 09:08	117-84-0	
Dibenz(a,h)anthracene	<3010	ug/kg	10000	3010	50	11/27/17 13:34	12/01/17 09:08	53-70-3	
Dibenzofuran	3480J	ug/kg	4470	1340	50	11/27/17 13:34	12/01/17 09:08	132-64-9	
Diethylphthalate	<1840	ug/kg	6120	1840	50	11/27/17 13:34	12/01/17 09:08	84-66-2	
Dimethylphthalate	<1440	ug/kg	4800	1440	50	11/27/17 13:34	12/01/17 09:08	131-11-3	
Fluoranthene	16900	ug/kg	5220	1570	50	11/27/17 13:34	12/01/17 09:08	206-44-0	
Fluorene	17800	ug/kg	4320	1290	50	11/27/17 13:34	12/01/17 09:08	86-73-7	
Hexachloro-1,3-butadiene	<2820	ug/kg	9410	2820	50	11/27/17 13:34	12/01/17 09:08	87-68-3	L1
Hexachlorobenzene	<1860	ug/kg	6210	1860	50	11/27/17 13:34	12/01/17 09:08	118-74-1	
Hexachlorocyclopentadiene	<2620	ug/kg	8740	2620	50	11/27/17 13:34	12/01/17 09:08	77-47-4	
Hexachloroethane	<1770	ug/kg	5910	1770	50	11/27/17 13:34	12/01/17 09:08	67-72-1	
Indeno(1,2,3-cd)pyrene	2870J	ug/kg	7990	2400	50	11/27/17 13:34	12/01/17 09:08	193-39-5	
Isophorone	<1700	ug/kg	5680	1700	50	11/27/17 13:34	12/01/17 09:08	78-59-1	
N-Nitroso-di-n-propylamine	<1760	ug/kg	5860	1760	50	11/27/17 13:34	12/01/17 09:08	621-64-7	
N-Nitrosodiphenylamine	<15000	ug/kg	50100	15000	50	11/27/17 13:34	12/01/17 09:08	86-30-6	
Naphthalene	129000	ug/kg	12900	3870	50	11/27/17 13:34	12/01/17 09:08	91-20-3	
Nitrobenzene	<2250	ug/kg	7490	2250	50	11/27/17 13:34	12/01/17 09:08	98-95-3	
Pentachlorophenol	<2440	ug/kg	8130	2440	50	11/27/17 13:34	12/01/17 09:08	87-86-5	
Phenanthrene	49100	ug/kg	4740	1420	50	11/27/17 13:34	12/01/17 09:08	85-01-8	
Phenol	<2630	ug/kg	8760	2630	50	11/27/17 13:34	12/01/17 09:08	108-95-2	
Pyrene	21700	ug/kg	8180	2460	50	11/27/17 13:34	12/01/17 09:08	129-00-0	
bis(2-Chloroethoxy)methane	<2980	ug/kg	9940	2980	50	11/27/17 13:34	12/01/17 09:08	111-91-1	
bis(2-Chloroethyl) ether	<3460	ug/kg	11500	3460	50	11/27/17 13:34	12/01/17 09:08	111-44-4	
bis(2-Ethylhexyl)phthalate	<1840	ug/kg	6140	1840	50	11/27/17 13:34	12/01/17 09:08	117-81-7	
Surrogates									
Nitrobenzene-d5 (S)	71	%	13-114		50	11/27/17 13:34	12/01/17 09:08	4165-60-0	
2-Fluorobiphenyl (S)	89	%	18-127		50	11/27/17 13:34	12/01/17 09:08	321-60-8	
Terphenyl-d14 (S)	84	%	41-109		50	11/27/17 13:34	12/01/17 09:08	1718-51-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111717024 **Lab ID: 40161143002** Collected: 11/17/17 15:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV FULL LIST MICROWAVE Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Surrogates									
Phenol-d6 (S)	74	%	30-97		50	11/27/17 13:34	12/01/17 09:08	13127-88-3	
2-Fluorophenol (S)	78	%	16-103		50	11/27/17 13:34	12/01/17 09:08	367-12-4	
2,4,6-Tribromophenol (S)	60	%	13-143		50	11/27/17 13:34	12/01/17 09:08	118-79-6	
8260 MSV Med Level Normal List Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	630-20-6	W
1,1,1-Trichloroethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	71-55-6	W
1,1,2,2-Tetrachloroethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	79-34-5	W
1,1,2-Trichloroethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	79-00-5	W
1,1-Dichloroethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	75-34-3	W
1,1-Dichloroethene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	75-35-4	W
1,1-Dichloropropene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	563-58-6	W
1,2,3-Trichlorobenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	87-61-6	W
1,2,3-Trichloropropane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	96-18-4	W
1,2,4-Trichlorobenzene	<19000	ug/kg	100000	19000	400	11/27/17 07:45	11/30/17 05:07	120-82-1	W
1,2,4-Trimethylbenzene	31200J	ug/kg	31900	13300	400	11/27/17 07:45	11/30/17 05:07	95-63-6	
1,2-Dibromo-3-chloropropane	<36500	ug/kg	100000	36500	400	11/27/17 07:45	11/30/17 05:07	96-12-8	W
1,2-Dibromoethane (EDB)	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	106-93-4	W
1,2-Dichlorobenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	95-50-1	W
1,2-Dichloroethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	107-06-2	W
1,2-Dichloropropane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	78-87-5	W
1,3,5-Trimethylbenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	108-67-8	W
1,3-Dichlorobenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	541-73-1	W
1,3-Dichloropropane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	142-28-9	W
1,4-Dichlorobenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	106-46-7	W
2,2-Dichloropropane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	594-20-7	W
2-Chlorotoluene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	95-49-8	W
4-Chlorotoluene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	106-43-4	W
Benzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	71-43-2	W
Bromobenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	108-86-1	W
Bromochloromethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	74-97-5	W
Bromodichloromethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	75-27-4	W
Bromoform	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	75-25-2	W
Bromomethane	<28000	ug/kg	100000	28000	400	11/27/17 07:45	11/30/17 05:07	74-83-9	W
Carbon tetrachloride	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	56-23-5	W
Chlorobenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	108-90-7	W
Chloroethane	<26800	ug/kg	100000	26800	400	11/27/17 07:45	11/30/17 05:07	75-00-3	W
Chloroform	<18600	ug/kg	100000	18600	400	11/27/17 07:45	11/30/17 05:07	67-66-3	W
Chloromethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	74-87-3	W
Dibromochloromethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	124-48-1	W
Dibromomethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	74-95-3	W
Dichlorodifluoromethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	75-71-8	W
Diisopropyl ether	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	108-20-3	W
Ethylbenzene	53500	ug/kg	31900	13300	400	11/27/17 07:45	11/30/17 05:07	100-41-4	

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

Sample: 111717024 Lab ID: 40161143002 Collected: 11/17/17 15:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Hexachloro-1,3-butadiene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	87-68-3	W
Isopropylbenzene (Cumene)	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	98-82-8	W
Methyl-tert-butyl ether	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	1634-04-4	W
Methylene Chloride	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	75-09-2	W
Naphthalene	1120000	ug/kg	133000	21300	400	11/27/17 07:45	11/30/17 05:07	91-20-3	
Styrene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	100-42-5	W
Tetrachloroethene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	127-18-4	W
Toluene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	108-88-3	W
Trichloroethene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	79-01-6	W
Trichlorofluoromethane	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	75-69-4	W
Vinyl chloride	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	75-01-4	W
Xylene (Total)	45500J	ug/kg	95700	39900	400	11/27/17 07:45	11/30/17 05:07	1330-20-7	
cis-1,2-Dichloroethene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	156-59-2	W
cis-1,3-Dichloropropene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	10061-01-5	W
m&p-Xylene	<20000	ug/kg	48000	20000	400	11/27/17 07:45	11/30/17 05:07	179601-23-1	W
n-Butylbenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	104-51-8	W
n-Propylbenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	103-65-1	W
o-Xylene	20600J	ug/kg	31900	13300	400	11/27/17 07:45	11/30/17 05:07	95-47-6	
p-Isopropyltoluene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	99-87-6	W
sec-Butylbenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	135-98-8	W
tert-Butylbenzene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	98-06-6	W
trans-1,2-Dichloroethene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	156-60-5	W
trans-1,3-Dichloropropene	<10000	ug/kg	24000	10000	400	11/27/17 07:45	11/30/17 05:07	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	0	%	68-130		400	11/27/17 07:45	11/30/17 05:07	1868-53-7	S4
Toluene-d8 (S)	0	%	68-149		400	11/27/17 07:45	11/30/17 05:07	2037-26-5	S4
4-Bromofluorobenzene (S)	0	%	58-141		400	11/27/17 07:45	11/30/17 05:07	460-00-4	S4

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture 24.8 % 0.10 0.10 1 11/20/17 17:29

Sample: 111817026 Lab ID: 40161143003 Collected: 11/18/17 09:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<58.7	ug/kg	117	58.7	1	11/21/17 12:02	11/23/17 03:48	12674-11-2	
PCB-1221 (Aroclor 1221)	<58.7	ug/kg	117	58.7	1	11/21/17 12:02	11/23/17 03:48	11104-28-2	
PCB-1232 (Aroclor 1232)	<58.7	ug/kg	117	58.7	1	11/21/17 12:02	11/23/17 03:48	11141-16-5	
PCB-1242 (Aroclor 1242)	<58.7	ug/kg	117	58.7	1	11/21/17 12:02	11/23/17 03:48	53469-21-9	
PCB-1248 (Aroclor 1248)	<58.7	ug/kg	117	58.7	1	11/21/17 12:02	11/23/17 03:48	12672-29-6	
PCB-1254 (Aroclor 1254)	<58.7	ug/kg	117	58.7	1	11/21/17 12:02	11/23/17 03:48	11097-69-1	

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111817026 **Lab ID: 40161143003** Collected: 11/18/17 09:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1260 (Aroclor 1260)	<58.7	ug/kg	117	58.7	1	11/21/17 12:02	11/23/17 03:48	11096-82-5	
PCB, Total	<58.7	ug/kg	117	58.7	1	11/21/17 12:02	11/23/17 03:48	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	84	%	50-102		1	11/21/17 12:02	11/23/17 03:48	877-09-8	
Decachlorobiphenyl (S)	81	%	53-105		1	11/21/17 12:02	11/23/17 03:48	2051-24-3	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	10.2J	mg/kg	10.8	2.3	1	11/29/17 14:14	12/01/17 19:23	7440-38-2	
Barium	989	mg/kg	1.1	0.32	1	11/29/17 14:14	12/01/17 19:23	7440-39-3	
Cadmium	2.1	mg/kg	1.1	0.29	1	11/29/17 14:14	12/01/17 19:23	7440-43-9	
Chromium	97.2	mg/kg	2.2	0.60	1	11/29/17 14:14	12/01/17 19:23	7440-47-3	
Lead	1190	mg/kg	2.8	0.94	1	11/29/17 14:14	12/01/17 19:23	7439-92-1	
Selenium	<2.4	mg/kg	10.8	2.4	1	11/29/17 14:14	12/01/17 19:23	7782-49-2	
Silver	1.2J	mg/kg	2.2	0.74	1	11/29/17 14:14	12/01/17 19:23	7440-22-4	
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	6.9	mg/kg	0.17	0.050	2	11/30/17 06:32	11/30/17 13:08	7439-97-6	
8270 MSSV FULL LIST MICROWAVE Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<444	ug/kg	1480	444	10	11/27/17 13:34	12/01/17 09:30	120-82-1	
1,2-Dichlorobenzene	<1230	ug/kg	4110	1230	10	11/27/17 13:34	12/01/17 09:30	95-50-1	
1,3-Dichlorobenzene	<543	ug/kg	1810	543	10	11/27/17 13:34	12/01/17 09:30	541-73-1	
1,4-Dichlorobenzene	<547	ug/kg	1820	547	10	11/27/17 13:34	12/01/17 09:30	106-46-7	
2,2'-Oxybis(1-chloropropane)	<1010	ug/kg	3370	1010	10	11/27/17 13:34	12/01/17 09:30	108-60-1	
2,4,5-Trichlorophenol	<693	ug/kg	2310	693	10	11/27/17 13:34	12/01/17 09:30	95-95-4	
2,4,6-Trichlorophenol	<598	ug/kg	1990	598	10	11/27/17 13:34	12/01/17 09:30	88-06-2	
2,4-Dichlorophenol	<1050	ug/kg	3500	1050	10	11/27/17 13:34	12/01/17 09:30	120-83-2	
2,4-Dimethylphenol	<776	ug/kg	2590	776	10	11/27/17 13:34	12/01/17 09:30	105-67-9	
2,4-Dinitrophenol	<1200	ug/kg	3980	1200	10	11/27/17 13:34	12/01/17 09:30	51-28-5	
2,4-Dinitrotoluene	<561	ug/kg	1870	561	10	11/27/17 13:34	12/01/17 09:30	121-14-2	
2,6-Dinitrotoluene	<745	ug/kg	2480	745	10	11/27/17 13:34	12/01/17 09:30	606-20-2	
2-Chloronaphthalene	<504	ug/kg	1680	504	10	11/27/17 13:34	12/01/17 09:30	91-58-7	
2-Chlorophenol	<979	ug/kg	3260	979	10	11/27/17 13:34	12/01/17 09:30	95-57-8	
2-Methylnaphthalene	1590J	ug/kg	3400	1020	10	11/27/17 13:34	12/01/17 09:30	91-57-6	
2-Methylphenol(o-Cresol)	<713	ug/kg	2380	713	10	11/27/17 13:34	12/01/17 09:30	95-48-7	
2-Nitroaniline	<1120	ug/kg	3730	1120	10	11/27/17 13:34	12/01/17 09:30	88-74-4	
2-Nitrophenol	<1240	ug/kg	4130	1240	10	11/27/17 13:34	12/01/17 09:30	88-75-5	
3&4-Methylphenol(m&p Cresol)	<719	ug/kg	2400	719	10	11/27/17 13:34	12/01/17 09:30		
3,3'-Dichlorobenzidine	<1060	ug/kg	3550	1060	10	11/27/17 13:34	12/01/17 09:30	91-94-1	
3-Nitroaniline	<667	ug/kg	2220	667	10	11/27/17 13:34	12/01/17 09:30	99-09-2	
4,6-Dinitro-2-methylphenol	<1210	ug/kg	4030	1210	10	11/27/17 13:34	12/01/17 09:30	534-52-1	
4-Bromophenylphenyl ether	<822	ug/kg	2740	822	10	11/27/17 13:34	12/01/17 09:30	101-55-3	
4-Chloro-3-methylphenol	<1220	ug/kg	4070	1220	10	11/27/17 13:34	12/01/17 09:30	59-50-7	
4-Chloroaniline	<645	ug/kg	2150	645	10	11/27/17 13:34	12/01/17 09:30	106-47-8	
4-Chlorophenylphenyl ether	<731	ug/kg	2440	731	10	11/27/17 13:34	12/01/17 09:30	7005-72-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111817026 **Lab ID: 40161143003** Collected: 11/18/17 09:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV FULL LIST MICROWAVE Analytical Method: EPA 8270 Preparation Method: EPA 3546									
4-Nitroaniline	<1630	ug/kg	5430	1630	10	11/27/17 13:34	12/01/17 09:30	100-01-6	
4-Nitrophenol	<988	ug/kg	3290	988	10	11/27/17 13:34	12/01/17 09:30	100-02-7	
Acenaphthene	<1390	ug/kg	4640	1390	10	11/27/17 13:34	12/01/17 09:30	83-32-9	
Acenaphthylene	<1400	ug/kg	4670	1400	10	11/27/17 13:34	12/01/17 09:30	208-96-8	
Anthracene	<627	ug/kg	2090	627	10	11/27/17 13:34	12/01/17 09:30	120-12-7	
Benzo(a)anthracene	651J	ug/kg	2030	608	10	11/27/17 13:34	12/01/17 09:30	56-55-3	
Benzo(a)pyrene	<590	ug/kg	1970	590	10	11/27/17 13:34	12/01/17 09:30	50-32-8	
Benzo(b)fluoranthene	<674	ug/kg	2250	674	10	11/27/17 13:34	12/01/17 09:30	205-99-2	
Benzo(g,h,i)perylene	<1030	ug/kg	3420	1030	10	11/27/17 13:34	12/01/17 09:30	191-24-2	
Benzo(k)fluoranthene	<940	ug/kg	3130	940	10	11/27/17 13:34	12/01/17 09:30	207-08-9	L1
Butylbenzylphthalate	<629	ug/kg	2100	629	10	11/27/17 13:34	12/01/17 09:30	85-68-7	
Carbazole	<614	ug/kg	2050	614	10	11/27/17 13:34	12/01/17 09:30	86-74-8	
Chrysene	694J	ug/kg	1960	587	10	11/27/17 13:34	12/01/17 09:30	218-01-9	
Di-n-butylphthalate	<586	ug/kg	1950	586	10	11/27/17 13:34	12/01/17 09:30	84-74-2	
Di-n-octylphthalate	<882	ug/kg	2940	882	10	11/27/17 13:34	12/01/17 09:30	117-84-0	
Dibenz(a,h)anthracene	<1070	ug/kg	3550	1070	10	11/27/17 13:34	12/01/17 09:30	53-70-3	
Dibenzofuran	<475	ug/kg	1580	475	10	11/27/17 13:34	12/01/17 09:30	132-64-9	
Diethylphthalate	<651	ug/kg	2170	651	10	11/27/17 13:34	12/01/17 09:30	84-66-2	
Dimethylphthalate	<510	ug/kg	1700	510	10	11/27/17 13:34	12/01/17 09:30	131-11-3	
Fluoranthene	1270J	ug/kg	1850	555	10	11/27/17 13:34	12/01/17 09:30	206-44-0	
Fluorene	496J	ug/kg	1530	459	10	11/27/17 13:34	12/01/17 09:30	86-73-7	
Hexachloro-1,3-butadiene	<1000	ug/kg	3330	1000	10	11/27/17 13:34	12/01/17 09:30	87-68-3	L1
Hexachlorobenzene	<660	ug/kg	2200	660	10	11/27/17 13:34	12/01/17 09:30	118-74-1	
Hexachlorocyclopentadiene	<929	ug/kg	3100	929	10	11/27/17 13:34	12/01/17 09:30	77-47-4	
Hexachloroethane	<628	ug/kg	2090	628	10	11/27/17 13:34	12/01/17 09:30	67-72-1	
Indeno(1,2,3-cd)pyrene	<849	ug/kg	2830	849	10	11/27/17 13:34	12/01/17 09:30	193-39-5	
Isophorone	<603	ug/kg	2010	603	10	11/27/17 13:34	12/01/17 09:30	78-59-1	
N-Nitroso-di-n-propylamine	<622	ug/kg	2070	622	10	11/27/17 13:34	12/01/17 09:30	621-64-7	
N-Nitrosodiphenylamine	<5320	ug/kg	17700	5320	10	11/27/17 13:34	12/01/17 09:30	86-30-6	
Naphthalene	2430J	ug/kg	4570	1370	10	11/27/17 13:34	12/01/17 09:30	91-20-3	
Nitrobenzene	<796	ug/kg	2650	796	10	11/27/17 13:34	12/01/17 09:30	98-95-3	
Pentachlorophenol	<864	ug/kg	2880	864	10	11/27/17 13:34	12/01/17 09:30	87-86-5	
Phenanthrene	1930	ug/kg	1680	503	10	11/27/17 13:34	12/01/17 09:30	85-01-8	
Phenol	<931	ug/kg	3100	931	10	11/27/17 13:34	12/01/17 09:30	108-95-2	D3
Pyrene	1540J	ug/kg	2900	870	10	11/27/17 13:34	12/01/17 09:30	129-00-0	
bis(2-Chloroethoxy)methane	<1060	ug/kg	3520	1060	10	11/27/17 13:34	12/01/17 09:30	111-91-1	
bis(2-Chloroethyl) ether	<1220	ug/kg	4080	1220	10	11/27/17 13:34	12/01/17 09:30	111-44-4	
bis(2-Ethylhexyl)phthalate	<652	ug/kg	2170	652	10	11/27/17 13:34	12/01/17 09:30	117-81-7	
Surrogates									
Nitrobenzene-d5 (S)	83	%	13-114		10	11/27/17 13:34	12/01/17 09:30	4165-60-0	
2-Fluorobiphenyl (S)	79	%	18-127		10	11/27/17 13:34	12/01/17 09:30	321-60-8	
Terphenyl-d14 (S)	92	%	41-109		10	11/27/17 13:34	12/01/17 09:30	1718-51-0	
Phenol-d6 (S)	71	%	30-97		10	11/27/17 13:34	12/01/17 09:30	13127-88-3	
2-Fluorophenol (S)	71	%	16-103		10	11/27/17 13:34	12/01/17 09:30	367-12-4	
2,4,6-Tribromophenol (S)	82	%	13-143		10	11/27/17 13:34	12/01/17 09:30	118-79-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Sample: 111817026 Lab ID: 40161143003 Collected: 11/18/17 09:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	630-20-6	W
1,1,1-Trichloroethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	71-55-6	W
1,1,2,2-Tetrachloroethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	79-34-5	W
1,1,2-Trichloroethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	79-00-5	W
1,1-Dichloroethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	75-34-3	W
1,1-Dichloroethene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	75-35-4	W
1,1-Dichloropropene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	563-58-6	W
1,2,3-Trichlorobenzene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	87-61-6	W
1,2,3-Trichloropropane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	96-18-4	W
1,2,4-Trichlorobenzene	<95.1	ug/kg	500	95.1	2	11/27/17 07:45	11/30/17 04:22	120-82-1	W
1,2,4-Trimethylbenzene	10300	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	95-63-6	
1,2-Dibromo-3-chloropropane	<182	ug/kg	500	182	2	11/27/17 07:45	11/30/17 04:22	96-12-8	W
1,2-Dibromoethane (EDB)	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	106-93-4	W
1,2-Dichlorobenzene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	95-50-1	W
1,2-Dichloroethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	107-06-2	W
1,2-Dichloropropane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	78-87-5	W
1,3,5-Trimethylbenzene	5000	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	108-67-8	
1,3-Dichlorobenzene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	541-73-1	W
1,3-Dichloropropane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	142-28-9	W
1,4-Dichlorobenzene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	106-46-7	W
2,2-Dichloropropane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	594-20-7	W
2-Chlorotoluene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	95-49-8	W
4-Chlorotoluene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	106-43-4	W
Benzene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	71-43-2	W
Bromobenzene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	108-86-1	W
Bromochloromethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	74-97-5	W
Bromodichloromethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	75-27-4	W
Bromoform	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	75-25-2	W
Bromomethane	<140	ug/kg	500	140	2	11/27/17 07:45	11/30/17 04:22	74-83-9	W
Carbon tetrachloride	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	56-23-5	W
Chlorobenzene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	108-90-7	W
Chloroethane	<134	ug/kg	500	134	2	11/27/17 07:45	11/30/17 04:22	75-00-3	W
Chloroform	<92.9	ug/kg	500	92.9	2	11/27/17 07:45	11/30/17 04:22	67-66-3	W
Chloromethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	74-87-3	W
Dibromochloromethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	124-48-1	W
Dibromomethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	74-95-3	W
Dichlorodifluoromethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	75-71-8	W
Diisopropyl ether	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	108-20-3	W
Ethylbenzene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	100-41-4	W
Hexachloro-1,3-butadiene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	87-68-3	W
Isopropylbenzene (Cumene)	645	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	98-82-8	
Methyl-tert-butyl ether	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	1634-04-4	W
Methylene Chloride	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	75-09-2	W
Naphthalene	8410	ug/kg	1170	188	2	11/27/17 07:45	11/30/17 04:22	91-20-3	
Styrene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	100-42-5	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

Sample: 111817026 Lab ID: 40161143003 Collected: 11/18/17 09:00 Received: 11/18/17 09:42 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Tetrachloroethene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	127-18-4	W
Toluene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	108-88-3	W
Trichloroethene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	79-01-6	W
Trichlorofluoromethane	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	75-69-4	W
Vinyl chloride	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	75-01-4	W
Xylene (Total)	663J	ug/kg	845	352	2	11/27/17 07:45	11/30/17 04:22	1330-20-7	
cis-1,2-Dichloroethene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	156-59-2	W
cis-1,3-Dichloropropene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	10061-01-5	W
m&p-Xylene	301J	ug/kg	563	235	2	11/27/17 07:45	11/30/17 04:22	179601-23-1	
n-Butylbenzene	1880	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	104-51-8	
n-Propylbenzene	870	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	103-65-1	
o-Xylene	362	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	95-47-6	
p-Isopropyltoluene	1450	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	99-87-6	
sec-Butylbenzene	893	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	135-98-8	
tert-Butylbenzene	212J	ug/kg	282	117	2	11/27/17 07:45	11/30/17 04:22	98-06-6	
trans-1,2-Dichloroethene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	156-60-5	W
trans-1,3-Dichloropropene	<50.0	ug/kg	120	50.0	2	11/27/17 07:45	11/30/17 04:22	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	102	%	68-130		2	11/27/17 07:45	11/30/17 04:22	1868-53-7	
Toluene-d8 (S)	98	%	68-149		2	11/27/17 07:45	11/30/17 04:22	2037-26-5	
4-Bromofluorobenzene (S)	99	%	58-141		2	11/27/17 07:45	11/30/17 04:22	460-00-4	
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	57.4	%	0.10	0.10	1		11/21/17 13:56		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

QC Batch: 275636 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 40161143001, 40161143002, 40161143003

METHOD BLANK: 1621056 Matrix: Solid
Associated Lab Samples: 40161143001, 40161143002, 40161143003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.011	0.037	11/30/17 11:45	

LABORATORY CONTROL SAMPLE: 1621057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.83	0.86	104	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1621058 1621059

Parameter	Units	1621058		1621059		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40161140006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/kg	0.027J	.95	.96	0.99	1.0	101	103	85-115	3	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

QC Batch: 275626 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40161143001, 40161143002, 40161143003

METHOD BLANK: 1621013 Matrix: Solid

Associated Lab Samples: 40161143001, 40161143002, 40161143003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.0	5.0	12/01/17 18:38	
Barium	mg/kg	0.20J	0.50	12/01/17 18:38	
Cadmium	mg/kg	<0.13	0.50	12/01/17 18:38	
Chromium	mg/kg	<0.28	1.0	12/01/17 18:38	
Lead	mg/kg	<0.43	1.3	12/01/17 18:38	
Selenium	mg/kg	<1.1	5.0	12/01/17 18:38	
Silver	mg/kg	<0.34	1.0	12/01/17 18:38	

LABORATORY CONTROL SAMPLE: 1621014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	51.0	102	80-120	
Barium	mg/kg	50	51.1	102	80-120	
Cadmium	mg/kg	50	50.6	101	80-120	
Chromium	mg/kg	50	51.3	103	80-120	
Lead	mg/kg	50	50.4	101	80-120	
Selenium	mg/kg	50	51.3	103	80-120	
Silver	mg/kg	25	24.9	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1621015 1621016

Parameter	Units	40161421001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Arsenic	mg/kg	5.4J	64.6	65	66.6	67.5	95	96	75-125	1	20		
Barium	mg/kg	71.2	64.6	65	144	146	113	115	75-125	1	20		
Cadmium	mg/kg	<0.17	64.6	65	62.7	63.5	97	98	75-125	1	20		
Chromium	mg/kg	18.4	64.6	65	80.0	81.2	95	97	75-125	1	20		
Lead	mg/kg	7.0	64.6	65	66.8	67.6	93	93	75-125	1	20		
Selenium	mg/kg	<1.4	64.6	65	62.3	63.9	96	98	75-125	3	20		
Silver	mg/kg	<0.44	32.4	32.5	29.4	30.7	91	95	75-125	4	20		

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

QC Batch: 275287 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40161143001, 40161143002, 40161143003

METHOD BLANK: 1619526 Matrix: Solid

Associated Lab Samples: 40161143001, 40161143002, 40161143003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	11/28/17 07:31	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	11/28/17 07:31	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	11/28/17 07:31	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	11/28/17 07:31	
1,1-Dichloroethane	ug/kg	<17.6	50.0	11/28/17 07:31	
1,1-Dichloroethene	ug/kg	<17.6	50.0	11/28/17 07:31	
1,1-Dichloropropene	ug/kg	<14.0	50.0	11/28/17 07:31	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	11/28/17 07:31	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	11/28/17 07:31	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	11/28/17 07:31	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	11/28/17 07:31	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	11/28/17 07:31	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	11/28/17 07:31	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	11/28/17 07:31	
1,2-Dichloroethane	ug/kg	<15.0	50.0	11/28/17 07:31	
1,2-Dichloropropane	ug/kg	<16.8	50.0	11/28/17 07:31	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	11/28/17 07:31	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	11/28/17 07:31	
1,3-Dichloropropane	ug/kg	<12.0	50.0	11/28/17 07:31	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	11/28/17 07:31	
2,2-Dichloropropane	ug/kg	<12.6	50.0	11/28/17 07:31	
2-Chlorotoluene	ug/kg	<15.8	50.0	11/28/17 07:31	
4-Chlorotoluene	ug/kg	<13.0	50.0	11/28/17 07:31	
Benzene	ug/kg	<9.2	20.0	11/28/17 07:31	
Bromobenzene	ug/kg	<20.6	50.0	11/28/17 07:31	
Bromochloromethane	ug/kg	<21.4	50.0	11/28/17 07:31	
Bromodichloromethane	ug/kg	<9.8	50.0	11/28/17 07:31	
Bromoform	ug/kg	<19.8	50.0	11/28/17 07:31	
Bromomethane	ug/kg	<69.9	250	11/28/17 07:31	
Carbon tetrachloride	ug/kg	<12.1	50.0	11/28/17 07:31	
Chlorobenzene	ug/kg	<14.8	50.0	11/28/17 07:31	
Chloroethane	ug/kg	<67.0	250	11/28/17 07:31	
Chloroform	ug/kg	<46.4	250	11/28/17 07:31	
Chloromethane	ug/kg	<20.4	50.0	11/28/17 07:31	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	11/28/17 07:31	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	11/28/17 07:31	
Dibromochloromethane	ug/kg	<17.9	50.0	11/28/17 07:31	
Dibromomethane	ug/kg	<19.3	50.0	11/28/17 07:31	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	11/28/17 07:31	
Diisopropyl ether	ug/kg	<17.7	50.0	11/28/17 07:31	
Ethylbenzene	ug/kg	<12.4	50.0	11/28/17 07:31	

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

METHOD BLANK: 1619526 Matrix: Solid
Associated Lab Samples: 40161143001, 40161143002, 40161143003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	11/28/17 07:31	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	11/28/17 07:31	
m&p-Xylene	ug/kg	<34.4	100	11/28/17 07:31	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	11/28/17 07:31	
Methylene Chloride	ug/kg	44.0J	50.0	11/28/17 07:31	
n-Butylbenzene	ug/kg	<10.5	50.0	11/28/17 07:31	
n-Propylbenzene	ug/kg	<11.6	50.0	11/28/17 07:31	
Naphthalene	ug/kg	<40.0	250	11/28/17 07:31	
o-Xylene	ug/kg	<14.0	50.0	11/28/17 07:31	
p-Isopropyltoluene	ug/kg	<12.0	50.0	11/28/17 07:31	
sec-Butylbenzene	ug/kg	<11.9	50.0	11/28/17 07:31	
Styrene	ug/kg	<9.0	50.0	11/28/17 07:31	
tert-Butylbenzene	ug/kg	<9.5	50.0	11/28/17 07:31	
Tetrachloroethene	ug/kg	<12.9	50.0	11/28/17 07:31	
Toluene	ug/kg	<11.2	50.0	11/28/17 07:31	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	11/28/17 07:31	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	11/28/17 07:31	
Trichloroethene	ug/kg	<23.6	50.0	11/28/17 07:31	
Trichlorofluoromethane	ug/kg	<24.7	50.0	11/28/17 07:31	
Vinyl chloride	ug/kg	<21.1	50.0	11/28/17 07:31	
Xylene (Total)	ug/kg	<48.4	150	11/28/17 07:31	
4-Bromofluorobenzene (S)	%	97	58-141	11/28/17 07:31	
Dibromofluoromethane (S)	%	105	68-130	11/28/17 07:31	
Toluene-d8 (S)	%	108	68-149	11/28/17 07:31	

LABORATORY CONTROL SAMPLE: 1619527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2360	94	61-122	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2450	98	73-130	
1,1,2-Trichloroethane	ug/kg	2500	2550	102	70-130	
1,1-Dichloroethane	ug/kg	2500	2300	92	63-124	
1,1-Dichloroethene	ug/kg	2500	2240	89	53-117	
1,2,4-Trichlorobenzene	ug/kg	2500	2500	100	78-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1940	78	49-140	
1,2-Dibromoethane (EDB)	ug/kg	2500	2620	105	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2720	109	70-130	
1,2-Dichloroethane	ug/kg	2500	2570	103	56-135	
1,2-Dichloropropane	ug/kg	2500	2600	104	77-122	
1,3-Dichlorobenzene	ug/kg	2500	2660	107	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2640	106	70-130	
Benzene	ug/kg	2500	2510	101	66-130	
Bromodichloromethane	ug/kg	2500	2470	99	62-135	
Bromoform	ug/kg	2500	2080	83	68-130	

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

LABORATORY CONTROL SAMPLE: 1619527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	1880	75	29-137	
Carbon tetrachloride	ug/kg	2500	2490	100	57-130	
Chlorobenzene	ug/kg	2500	2700	108	70-130	
Chloroethane	ug/kg	2500	1780	71	36-144	
Chloroform	ug/kg	2500	2440	98	69-115	
Chloromethane	ug/kg	2500	1450	58	32-126	
cis-1,2-Dichloroethene	ug/kg	2500	2370	95	65-130	
cis-1,3-Dichloropropene	ug/kg	2500	2360	94	70-130	
Dibromochloromethane	ug/kg	2500	2420	97	70-130	
Dichlorodifluoromethane	ug/kg	2500	1190	47	10-99	
Ethylbenzene	ug/kg	2500	2570	103	82-122	
Isopropylbenzene (Cumene)	ug/kg	2500	2720	109	70-130	
m&p-Xylene	ug/kg	5000	5360	107	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2300	92	63-134	
Methylene Chloride	ug/kg	2500	2540	102	56-123	
o-Xylene	ug/kg	2500	2670	107	70-130	
Styrene	ug/kg	2500	2660	106	70-130	
Tetrachloroethene	ug/kg	2500	2730	109	70-131	
Toluene	ug/kg	2500	2560	102	80-120	
trans-1,2-Dichloroethene	ug/kg	2500	2440	98	66-130	
trans-1,3-Dichloropropene	ug/kg	2500	2220	89	68-130	
Trichloroethene	ug/kg	2500	2650	106	70-130	
Trichlorofluoromethane	ug/kg	2500	2210	88	37-149	
Vinyl chloride	ug/kg	2500	1850	74	43-128	
Xylene (Total)	ug/kg	7500	8030	107	70-130	
4-Bromofluorobenzene (S)	%			99	58-141	
Dibromofluoromethane (S)	%			107	68-130	
Toluene-d8 (S)	%			105	68-149	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1619528 1619529

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40161169006 Result	Spike Conc.	Spike Conc.	MS Result							
1,1,1-Trichloroethane	ug/kg	<25.0	1480	1480	1170	1270	79	86	57-123	8	20	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1480	1480	1390	1400	93	94	73-135	1	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1480	1480	1470	1500	99	101	70-130	2	20	
1,1-Dichloroethane	ug/kg	<25.0	1480	1480	1320	1340	89	90	63-124	2	20	
1,1-Dichloroethene	ug/kg	<25.0	1480	1480	1240	1370	84	92	48-117	10	23	
1,2,4-Trichlorobenzene	ug/kg	<47.6	1480	1480	1390	1460	92	96	78-145	4	20	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	1480	1480	1090	1090	73	74	38-168	1	22	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1480	1480	1490	1510	100	102	70-130	2	20	
1,2-Dichlorobenzene	ug/kg	<25.0	1480	1480	1560	1600	105	107	70-130	2	20	
1,2-Dichloroethane	ug/kg	<25.0	1480	1480	1530	1560	103	105	56-145	2	20	
1,2-Dichloropropane	ug/kg	<25.0	1480	1480	1480	1510	99	102	77-123	2	20	

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

Parameter	Units	40161169006		1619528		1619529		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
1,3-Dichlorobenzene	ug/kg	<25.0	1480	1480	1490	1570	100	106	70-130	5	20		
1,4-Dichlorobenzene	ug/kg	<25.0	1480	1480	1510	1570	102	105	70-130	3	20		
Benzene	ug/kg	<25.0	1480	1480	1410	1460	95	98	65-130	3	20		
Bromodichloromethane	ug/kg	<25.0	1480	1480	1360	1390	91	94	59-141	2	20		
Bromoform	ug/kg	<25.0	1480	1480	1200	1260	81	85	59-141	5	20		
Bromomethane	ug/kg	<69.9	1480	1480	1200	1350	81	91	28-139	11	20		
Carbon tetrachloride	ug/kg	<25.0	1480	1480	1160	1270	78	86	50-130	9	20		
Chlorobenzene	ug/kg	<25.0	1480	1480	1510	1560	102	105	70-130	3	20		
Chloroethane	ug/kg	<67.0	1480	1480	1100	1210	74	82	36-144	10	20		
Chloroform	ug/kg	<46.4	1480	1480	1380	1420	93	96	68-122	3	20		
Chloromethane	ug/kg	<25.0	1480	1480	1000	1090	67	73	30-126	8	20		
cis-1,2-Dichloroethene	ug/kg	<25.0	1480	1480	1380	1420	93	96	63-130	3	20		
cis-1,3-Dichloropropene	ug/kg	<25.0	1480	1480	1240	1250	84	84	70-130	1	20		
Dibromochloromethane	ug/kg	<25.0	1480	1480	1320	1380	89	93	66-136	5	20		
Dichlorodifluoromethane	ug/kg	<25.0	1480	1480	706	757	48	51	10-99	7	33		
Ethylbenzene	ug/kg	<25.0	1480	1480	1330	1410	89	95	80-122	6	20		
Isopropylbenzene (Cumene)	ug/kg	<25.0	1480	1480	1360	1470	91	99	70-130	8	20		
m&p-Xylene	ug/kg	<50.0	2970	2970	2890	3060	97	103	70-130	6	20		
Methyl-tert-butyl ether	ug/kg	<25.0	1480	1480	1320	1320	89	89	63-134	0	20		
Methylene Chloride	ug/kg	37.3J	1480	1480	1530	1580	101	104	56-127	3	20		
o-Xylene	ug/kg	<25.0	1480	1480	1460	1480	98	99	70-130	1	20		
Styrene	ug/kg	<25.0	1480	1480	1490	1540	101	103	70-130	3	20		
Tetrachloroethene	ug/kg	<25.0	1480	1480	1370	1460	92	99	70-131	7	20		
Toluene	ug/kg	<25.0	1480	1480	1410	1480	95	100	80-120	5	20		
trans-1,2-Dichloroethene	ug/kg	<25.0	1480	1480	1370	1430	92	96	60-130	4	20		
trans-1,3-Dichloropropene	ug/kg	<25.0	1480	1480	1150	1190	77	80	68-130	4	20		
Trichloroethene	ug/kg	<25.0	1480	1480	1410	1490	95	100	70-130	5	20		
Trichlorofluoromethane	ug/kg	<25.0	1480	1480	1150	1220	78	82	37-149	5	24		
Vinyl chloride	ug/kg	<25.0	1480	1480	1090	1220	73	82	39-128	12	20		
Xylene (Total)	ug/kg	<75.0	4450	4450	4350	4540	98	102	70-130	4	20		
4-Bromofluorobenzene (S)	%						93	95	58-141				
Dibromofluoromethane (S)	%						97	100	68-130				
Toluene-d8 (S)	%						97	98	68-149				

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

QC Batch: 274990 Analysis Method: EPA 8082
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 40161143001, 40161143002, 40161143003

METHOD BLANK: 1617772 Matrix: Solid
Associated Lab Samples: 40161143001, 40161143002, 40161143003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<25.0	50.0	11/22/17 22:37	
PCB-1221 (Aroclor 1221)	ug/kg	<25.0	50.0	11/22/17 22:37	
PCB-1232 (Aroclor 1232)	ug/kg	<25.0	50.0	11/22/17 22:37	
PCB-1242 (Aroclor 1242)	ug/kg	<25.0	50.0	11/22/17 22:37	
PCB-1248 (Aroclor 1248)	ug/kg	<25.0	50.0	11/22/17 22:37	
PCB-1254 (Aroclor 1254)	ug/kg	<25.0	50.0	11/22/17 22:37	
PCB-1260 (Aroclor 1260)	ug/kg	<25.0	50.0	11/22/17 22:37	
Decachlorobiphenyl (S)	%	98	53-105	11/22/17 22:37	
Tetrachloro-m-xylene (S)	%	89	50-102	11/22/17 22:37	

LABORATORY CONTROL SAMPLE: 1617773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<25.0			
PCB-1221 (Aroclor 1221)	ug/kg		<25.0			
PCB-1232 (Aroclor 1232)	ug/kg		<25.0			
PCB-1242 (Aroclor 1242)	ug/kg		<25.0			
PCB-1248 (Aroclor 1248)	ug/kg		<25.0			
PCB-1254 (Aroclor 1254)	ug/kg		<25.0			
PCB-1260 (Aroclor 1260)	ug/kg	500	466	93	59-106	
Decachlorobiphenyl (S)	%			99	53-105	
Tetrachloro-m-xylene (S)	%			90	50-102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1617774 1617775

Parameter	Units	40161140020		1617775		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
PCB-1016 (Aroclor 1016)	ug/kg	<30.4		<30.4	<30.4					20	
PCB-1221 (Aroclor 1221)	ug/kg	<30.4		<30.4	<30.4					20	
PCB-1232 (Aroclor 1232)	ug/kg	<30.4		<30.4	<30.4					20	
PCB-1242 (Aroclor 1242)	ug/kg	<30.4		<30.4	<30.4					20	
PCB-1248 (Aroclor 1248)	ug/kg	<30.4		<30.4	<30.4					20	
PCB-1254 (Aroclor 1254)	ug/kg	<30.4		<30.4	<30.4					20	
PCB-1260 (Aroclor 1260)	ug/kg	<30.4	607	607	559	545	92	90	51-109	2	20
Decachlorobiphenyl (S)	%						96	91	53-105		
Tetrachloro-m-xylene (S)	%						93	93	50-102		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

QC Batch: 275270 Analysis Method: EPA 8270
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave
Associated Lab Samples: 40161143001, 40161143002, 40161143003

METHOD BLANK: 1619442 Matrix: Solid

Associated Lab Samples: 40161143001, 40161143002, 40161143003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	<18.9	63.0	11/28/17 12:32	
1,2-Dichlorobenzene	ug/kg	<52.6	175	11/28/17 12:32	
1,3-Dichlorobenzene	ug/kg	<23.1	77.1	11/28/17 12:32	
1,4-Dichlorobenzene	ug/kg	<23.3	77.6	11/28/17 12:32	
2,2'-Oxybis(1-chloropropane)	ug/kg	<43.1	144	11/28/17 12:32	
2,4,5-Trichlorophenol	ug/kg	<29.5	98.4	11/28/17 12:32	
2,4,6-Trichlorophenol	ug/kg	<25.5	84.9	11/28/17 12:32	
2,4-Dichlorophenol	ug/kg	<44.7	149	11/28/17 12:32	
2,4-Dimethylphenol	ug/kg	<33.1	110	11/28/17 12:32	
2,4-Dinitrophenol	ug/kg	<50.9	170	11/28/17 12:32	
2,4-Dinitrotoluene	ug/kg	<23.9	79.7	11/28/17 12:32	
2,6-Dinitrotoluene	ug/kg	<31.7	106	11/28/17 12:32	
2-Chloronaphthalene	ug/kg	<21.5	71.5	11/28/17 12:32	
2-Chlorophenol	ug/kg	<41.7	139	11/28/17 12:32	
2-Methylnaphthalene	ug/kg	<43.4	145	11/28/17 12:32	
2-Methylphenol(o-Cresol)	ug/kg	<30.4	101	11/28/17 12:32	
2-Nitroaniline	ug/kg	<47.6	159	11/28/17 12:32	
2-Nitrophenol	ug/kg	<52.8	176	11/28/17 12:32	
3&4-Methylphenol(m&p Cresol)	ug/kg	<30.6	102	11/28/17 12:32	
3,3'-Dichlorobenzidine	ug/kg	<45.3	151	11/28/17 12:32	
3-Nitroaniline	ug/kg	<28.4	94.7	11/28/17 12:32	
4,6-Dinitro-2-methylphenol	ug/kg	<51.5	172	11/28/17 12:32	
4-Bromophenylphenyl ether	ug/kg	<35.0	117	11/28/17 12:32	
4-Chloro-3-methylphenol	ug/kg	<52.0	173	11/28/17 12:32	
4-Chloroaniline	ug/kg	<27.5	91.6	11/28/17 12:32	
4-Chlorophenylphenyl ether	ug/kg	<31.1	104	11/28/17 12:32	
4-Nitroaniline	ug/kg	<69.4	231	11/28/17 12:32	
4-Nitrophenol	ug/kg	<42.1	140	11/28/17 12:32	
Acenaphthene	ug/kg	<59.3	198	11/28/17 12:32	
Acenaphthylene	ug/kg	<59.6	199	11/28/17 12:32	
Anthracene	ug/kg	<26.7	89.0	11/28/17 12:32	
Benzo(a)anthracene	ug/kg	<25.9	86.3	11/28/17 12:32	
Benzo(a)pyrene	ug/kg	<25.1	83.8	11/28/17 12:32	
Benzo(b)fluoranthene	ug/kg	<28.7	95.7	11/28/17 12:32	
Benzo(g,h,i)perylene	ug/kg	<43.7	146	11/28/17 12:32	
Benzo(k)fluoranthene	ug/kg	<40.0	133	11/28/17 12:32	
bis(2-Chloroethoxy)methane	ug/kg	<45.0	150	11/28/17 12:32	
bis(2-Chloroethyl) ether	ug/kg	<52.2	174	11/28/17 12:32	
bis(2-Ethylhexyl)phthalate	ug/kg	<27.8	92.6	11/28/17 12:32	
Butylbenzylphthalate	ug/kg	<26.8	89.3	11/28/17 12:32	
Carbazole	ug/kg	<26.2	87.2	11/28/17 12:32	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

METHOD BLANK: 1619442

Matrix: Solid

Associated Lab Samples: 40161143001, 40161143002, 40161143003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chrysene	ug/kg	<25.0	83.3	11/28/17 12:32	
Di-n-butylphthalate	ug/kg	<25.0	83.3	11/28/17 12:32	
Di-n-octylphthalate	ug/kg	<37.6	125	11/28/17 12:32	
Dibenz(a,h)anthracene	ug/kg	<45.4	151	11/28/17 12:32	
Dibenzofuran	ug/kg	<20.2	67.4	11/28/17 12:32	
Diethylphthalate	ug/kg	<27.7	92.4	11/28/17 12:32	
Dimethylphthalate	ug/kg	<21.7	72.5	11/28/17 12:32	
Fluoranthene	ug/kg	<23.7	78.8	11/28/17 12:32	
Fluorene	ug/kg	<19.5	65.1	11/28/17 12:32	
Hexachloro-1,3-butadiene	ug/kg	<42.6	142	11/28/17 12:32	
Hexachlorobenzene	ug/kg	<28.1	93.7	11/28/17 12:32	
Hexachlorocyclopentadiene	ug/kg	<39.6	132	11/28/17 12:32	
Hexachloroethane	ug/kg	<26.7	89.2	11/28/17 12:32	
Indeno(1,2,3-cd)pyrene	ug/kg	<36.2	121	11/28/17 12:32	
Isophorone	ug/kg	<25.7	85.6	11/28/17 12:32	
N-Nitroso-di-n-propylamine	ug/kg	<26.5	88.4	11/28/17 12:32	
N-Nitrosodiphenylamine	ug/kg	<227	756	11/28/17 12:32	
Naphthalene	ug/kg	<58.4	195	11/28/17 12:32	
Nitrobenzene	ug/kg	<33.9	113	11/28/17 12:32	
Pentachlorophenol	ug/kg	<36.8	123	11/28/17 12:32	
Phenanthrene	ug/kg	<21.4	71.5	11/28/17 12:32	
Phenol	ug/kg	<39.7	132	11/28/17 12:32	
Pyrene	ug/kg	<37.0	123	11/28/17 12:32	
2,4,6-Tribromophenol (S)	%	97	13-143	11/28/17 12:32	
2-Fluorobiphenyl (S)	%	101	18-127	11/28/17 12:32	
2-Fluorophenol (S)	%	77	16-103	11/28/17 12:32	
Nitrobenzene-d5 (S)	%	89	13-114	11/28/17 12:32	
Phenol-d6 (S)	%	75	30-97	11/28/17 12:32	
Terphenyl-d14 (S)	%	100	41-109	11/28/17 12:32	

LABORATORY CONTROL SAMPLE: 1619443

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1760	106	65-130	
1,2-Dichlorobenzene	ug/kg	1670	1650	99	53-130	
1,3-Dichlorobenzene	ug/kg	1670	1590	95	51-99	
1,4-Dichlorobenzene	ug/kg	1670	1620	97	52-101	
2,2'-Oxybis(1-chloropropane)	ug/kg	1670	1700	102	54-105	
2,4,5-Trichlorophenol	ug/kg	1670	1580	95	60-119	
2,4,6-Trichlorophenol	ug/kg	1670	1620	97	64-115	
2,4-Dichlorophenol	ug/kg	1670	1590	95	66-99	
2,4-Dimethylphenol	ug/kg	1670	1650	99	70-121	
2,4-Dinitrophenol	ug/kg	1670	839	50	23-72	
2,4-Dinitrotoluene	ug/kg	1670	1720	103	58-131	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

LABORATORY CONTROL SAMPLE: 1619443

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,6-Dinitrotoluene	ug/kg	1670	1700	102	60-125	
2-Chloronaphthalene	ug/kg	1670	1650	99	64-111	
2-Chlorophenol	ug/kg	1670	1450	87	57-130	
2-Methylnaphthalene	ug/kg	1670	1590	95	67-130	
2-Methylphenol(o-Cresol)	ug/kg	1670	1510	90	64-106	
2-Nitroaniline	ug/kg	1670	1660	100	60-124	
2-Nitrophenol	ug/kg	1670	1440	87	63-107	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1460	88	62-106	
3,3'-Dichlorobenzidine	ug/kg	1670	1190	72	39-100	
3-Nitroaniline	ug/kg	1670	1380	83	53-119	
4,6-Dinitro-2-methylphenol	ug/kg	1670	1370	82	49-115	
4-Bromophenylphenyl ether	ug/kg	1670	1730	104	70-130	
4-Chloro-3-methylphenol	ug/kg	1670	1620	97	68-101	
4-Chloroaniline	ug/kg	1670	1370	82	62-126	
4-Chlorophenylphenyl ether	ug/kg	1670	1870	112	67-116	
4-Nitroaniline	ug/kg	1670	1410	84	48-130	
4-Nitrophenol	ug/kg	1670	838	50	38-118	
Acenaphthene	ug/kg	1670	1650	99	65-116	
Acenaphthylene	ug/kg	1670	1630	98	63-119	
Anthracene	ug/kg	1670	1800	108	70-122	
Benzo(a)anthracene	ug/kg	1670	1520	91	68-111	
Benzo(a)pyrene	ug/kg	1670	1660	99	69-106	
Benzo(b)fluoranthene	ug/kg	1670	1570	94	62-104	
Benzo(g,h,i)perylene	ug/kg	1670	1470	89	55-114	
Benzo(k)fluoranthene	ug/kg	1670	1770	106	64-104	L1
bis(2-Chloroethoxy)methane	ug/kg	1670	1750	105	70-130	
bis(2-Chloroethyl) ether	ug/kg	1670	1750	105	55-130	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1540	93	56-117	
Butylbenzylphthalate	ug/kg	1670	1490	90	57-118	
Carbazole	ug/kg	1670	1620	97	70-125	
Chrysene	ug/kg	1670	1640	99	49-121	
Di-n-butylphthalate	ug/kg	1670	1570	94	68-113	
Di-n-octylphthalate	ug/kg	1670	1360	82	48-123	
Dibenz(a,h)anthracene	ug/kg	1670	1450	87	10-124	
Dibenzofuran	ug/kg	1670	1650	99	67-118	
Diethylphthalate	ug/kg	1670	1750	105	68-117	
Dimethylphthalate	ug/kg	1670	1700	102	68-115	
Fluoranthene	ug/kg	1670	1720	103	72-117	
Fluorene	ug/kg	1670	1670	100	64-123	
Hexachloro-1,3-butadiene	ug/kg	1670	1880	113	62-106	L1
Hexachlorobenzene	ug/kg	1670	1600	96	70-130	
Hexachlorocyclopentadiene	ug/kg	1670	814	49	41-114	
Hexachloroethane	ug/kg	1670	1500	90	51-96	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1280	77	47-116	
Isophorone	ug/kg	1670	1560	94	67-130	
N-Nitroso-di-n-propylamine	ug/kg	1670	1740	104	61-130	
N-Nitrosodiphenylamine	ug/kg	1670	1680	101	73-115	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

LABORATORY CONTROL SAMPLE: 1619443

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	1670	1610	97	65-130	
Nitrobenzene	ug/kg	1670	1570	94	64-130	
Pentachlorophenol	ug/kg	1670	1050	63	50-111	
Phenanthrene	ug/kg	1670	1610	97	70-111	
Phenol	ug/kg	1670	1650	99	56-103	
Pyrene	ug/kg	1670	1560	94	69-118	
2,4,6-Tribromophenol (S)	%			109	13-143	
2-Fluorobiphenyl (S)	%			111	18-127	
2-Fluorophenol (S)	%			85	16-103	
Nitrobenzene-d5 (S)	%			104	13-114	
Phenol-d6 (S)	%			97	30-97	
Terphenyl-d14 (S)	%			99	41-109	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1619506 1619507

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40160846001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
2,4-Dimethylphenol	ug/kg	<39.7	2000	2010	1810	1980	90	99	47-121	9	35	
2-Methylphenol(o-Cresol)	ug/kg	<36.5	2000	2010	1620	1770	81	88	46-106	9	32	
3&4-Methylphenol(m&p Cresol)	ug/kg	<36.8	2000	2010	1540	1670	77	83	42-106	8	33	
Carbazole	ug/kg	<31.5	2000	2010	1790	1950	89	97	35-125	8	38	
Dibenzofuran	ug/kg	49.8J	2000	2010	1850	1970	90	96	48-118	6	27	
Phenol	ug/kg	<47.7	2000	2010	1600	1590	80	79	39-103	0	30	
2,4,6-Tribromophenol (S)	%						35	51	13-143			
2-Fluorobiphenyl (S)	%						95	99	18-127			
2-Fluorophenol (S)	%						62	67	16-103			
Nitrobenzene-d5 (S)	%						92	96	13-114			
Phenol-d6 (S)	%						76	80	30-97			
Terphenyl-d14 (S)	%						84	91	41-109			

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

QC Batch: 274914

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 40161143001, 40161143002

SAMPLE DUPLICATE: 1617377

Parameter	Units	40161094006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.2	16.0	1	10	

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QUALITY CONTROL DATA

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

QC Batch: 275026

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 40161143003

SAMPLE DUPLICATE: 1617971

Parameter	Units	40161137012 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.5	14.7	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 1584.14B GB FORMER MGP
Pace Project No.: 40161143

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

- | | |
|----|---|
| 1q | Sample field preservation does not meet EPA or method recommendations for this analysis. Soil to MeOH ratio could not be brought to 1:1 due to large soil volume. |
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. |
| L1 | Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high. |
| S4 | Surrogate recovery not evaluated against control limits due to sample dilution. |
| W | Non-detect results are reported on a wet weight basis. |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1584.14B GB FORMER MGP

Pace Project No.: 40161143

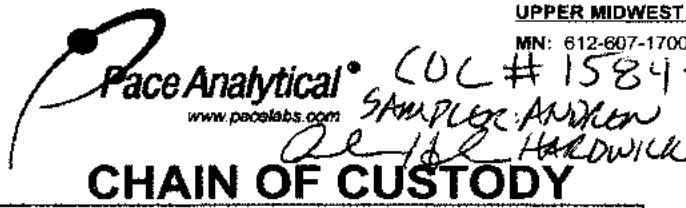
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40161143001	111717022	EPA 3541	274990	EPA 8082	274991
40161143002	111717024	EPA 3541	274990	EPA 8082	274991
40161143003	111817026	EPA 3541	274990	EPA 8082	274991
40161143001	111717022	EPA 3050	275626	EPA 6010	275753
40161143002	111717024	EPA 3050	275626	EPA 6010	275753
40161143003	111817026	EPA 3050	275626	EPA 6010	275753
40161143001	111717022	EPA 7471	275636	EPA 7471	275691
40161143002	111717024	EPA 7471	275636	EPA 7471	275691
40161143003	111817026	EPA 7471	275636	EPA 7471	275691
40161143001	111717022	EPA 3546	275270	EPA 8270	275339
40161143002	111717024	EPA 3546	275270	EPA 8270	275339
40161143003	111817026	EPA 3546	275270	EPA 8270	275339
40161143001	111717022	EPA 5035/5030B	275287	EPA 8260	275288
40161143002	111717024	EPA 5035/5030B	275287	EPA 8260	275288
40161143003	111817026	EPA 5035/5030B	275287	EPA 8260	275288
40161143001	111717022	ASTM D2974-87	274914		
40161143002	111717024	ASTM D2974-87	274914		
40161143003	111817026	ASTM D2974-87	275026		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: **NRT**
 Branch/Location: **CHICAGO**
 Project Contact: **ERIC HERTZUK**
 Phone: **(773) 796 4368**
 Project Number: **1584.143**
 Project Name: **GB FORMER MGP**
 Project State: **WI**
 Sampled By (Print): **ANDREW HARDWICK**
 Sampled By (Sign): *[Signature]*
 PO #:



UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*

Y/N	N	N	N	N	N
F	A	A	A	A	
Analysis Requested	VOL	SVOL	Metals	PAHs	PCBs

Quote #:
 Mail To Contact:
 Mail To Company:
 Mail To Address:
 Invoice To Contact: **NRT-ERIC HERTZUK**
 Invoice To Company: **NRT**
 Invoice To Address: **300 S WALKER SUITE 1300 CHICAGO, IL 60606**
 Invoice To Phone:
 CLIENT COMMENTS: **3-4ozag^A**
 LAB COMMENTS (Lab Use Only): **4ozp^A 3-4mlv^A**
 Profile #:

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	111717022	11/17/17	1315	S
002	111717024	11/17/17	1500	S
003	111817026	11/18/17	0900	S

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: **11/18/17 0942**

Transmit Prelim Rush Results by (complete what you want):
 Email #1:
 Email #2:
 Telephone:
 Fax:

Relinquished By: *[Signature]* Date/Time: **11/18/17 0942**
 Relinquished By: Date/Time:
 Relinquished By: Date/Time:
 Relinquished By: Date/Time:

Received By: *[Signature]* Date/Time: **11/18/17 0942**
 Received By: Date/Time:
 Received By: Date/Time:
 Received By: Date/Time:

PACE Project No.: **40161143**
 Receipt Temp = **20** °C
 Sample Receipt pH: **OK / Adjusted**
 Cooler Custody Seal: **Present / Not Present**
 Present / Not Present: **intact / Not intact**



Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #:

WO#: 40161143



Client Name: NRT OS 11/18/17

Courier: Fed Ex UPS Client Pace Other:

Tracking #:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used N/A Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROS ICorr: Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

Person examining contents:
Date: 11/18/17
Initials: OS

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Comments:

Table with 15 rows of inspection items and checkboxes. Includes items like Chain of Custody Present, Samples Arrived within Hold Time, Short Hold Time Analysis, etc.

Client Notification/ Resolution:
Person Contacted: Date/Time:
Comments/ Resolution:

Project Manager Review: [Signature] Date: 11/20/17
F-GB-C-031-Rev.04 (12Dec2016) SCUR.xis
Pace Analytical Services LLC. - Green Bay WI
Page 40 of 270

Report Prepared for:

Brian Basten
PACE Wisconsin
1241 Bellevue Street
Suite 9
Green Bay WI 54302

**REPORT OF
LABORATORY
ANALYSIS FOR
PCDD/PCDF**

Report Prepared Date:

December 11, 2017

Report Information:

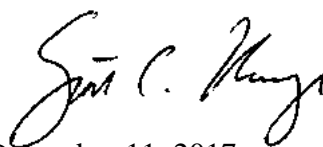
Pace Project #: 10411891
Sample Receipt Date: 11/21/2017
Client Project #: 40161143
Client Sub PO #: N/A
State Cert #: 999407970

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 4 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Scott Unze, your Pace Project Manager.

This report has been reviewed by:



December 11, 2017

Scott Unze, Project Manager
(612) 607-6383
(612) 607-6444 (fax)
scott.unze@pacelabs.com



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



DISCUSSION

This report presents the results from the analyses performed on three samples submitted by a representative of Pace Analytical Services, Inc. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The reporting limits were based on signal-to-noise measurements. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations. Method blank and field sample results presented with reporting limits corresponding to the lowest calibration points and a nominal 10-gram sample amount were included in Appendix A.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extract ranged from 24-177%. Except for two elevated values, which were flagged "R" on the results tables, the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained. Concentrations below the calibration range were flagged "J" and should be regarded as estimates. Values obtained from analyses of diluted extracts were flagged "D". In cases where the estimated detection limits (EDLs) were above the standard reporting limits, the EDLs were reported and flagged "A". The value reported for 2,3,7,8-TCDF in sample 111717026 was obtained from a second column confirmation analysis and was flagged "C".

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that PCDDs and PCDFs were not detected.

Laboratory and matrix spike samples were also prepared with the sample batch using clean reference matrix or sample matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 85-107% with relative percent differences of 0.1-5.9%. These results were within the target ranges for the method.

REPORT OF LABORATORY ANALYSIS

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Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Mississippi	MN00064
Alabama	40770	Montana	CERT0092
Alaska	MN00064	Nebraska	NE-OS-18-06
Alaska	UST-078	Nevada	MN00064
Arizona	AZ0014	New Jersey (NE)	MN002
Arkansas	88-0680	New York (NEL)	11647
CNMI Saipan	MP0003	New hampshire	2081
California	MN00064	North Carolina	27700
Colorado	MN00064	North Carolina	530
Connecticut	PH-0256	North Dakota	R-036
EPA Region 8	8TMS-L	Ohio	41244
Florida (NELAP)	E87605	Ohio VAP	CL101
Georgia (EDP)	959	Oklahoma	9507
Guam EPA	959	Oregon (ELAP)	MN200001
Hawaii	MN00064	Oregon (OREL)	MN300001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200011	Puerto Rico	MN00064
Indiana	C-MN-01	South Carolina	74003001
Iowa	368	Tennessee	TN02818
Kansas	E-10167	Texas	T104704192
Kentucky	90062	Utah (NELAP)	MN00064
Louisiana	03086	Virginia	460163
Louisiana	MN00064	Washington	C486
Maine	MN00064	West Virginia #	9952C
Maryland	322	West Virginia D	382
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-L

REPORT OF LABORATORY ANALYSIS

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Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

REPORT OF LABORATORY ANALYSIS

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**2,3,7,8-TCDD Equivalency Factors (TEFs) for the
Polychlorinated Dibenzo-p-dioxins and Dibenzofurans**

89-ITE-Factors

Compound	TEF
2,3,7,8-TCDD	1.000000
1,2,3,7,8-PeCDD	0.500000
1,2,3,4,7,8-HxCDD	0.100000
1,2,3,6,7,8-HxCDD	0.100000
1,2,3,7,8,9-HxCDD	0.100000
1,2,3,4,6,7,8-HpCDD	0.010000
OCDD	0.001000
Total TCDD	0.000000
Total PeCDD	0.000000
Total HxCDD	0.000000
Total HpCDD	0.000000
<hr/>	
2,3,7,8-TCDF	0.100000
1,2,3,7,8-PeCDF	0.050000
2,3,4,7,8-PeCDF	0.500000
1,2,3,4,7,8-HxCDF	0.100000
1,2,3,6,7,8-HxCDF	0.100000
2,3,4,6,7,8-HxCDF	0.100000
1,2,3,7,8,9-HxCDF	0.100000
1,2,3,4,6,7,8-HpCDF	0.010000
1,2,3,4,7,8,9-HpCDF	0.010000
OCDF	0.001000
Total TCDF	0.000000
Total PeCDF	0.000000
Total HxCDF	0.000000
Total HpCDF	0.000000

REPORT OF LABORATORY ANALYSIS

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Appendix A

Sample Management



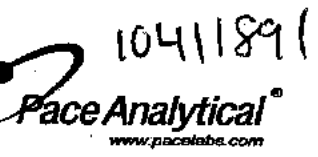
Sample ID Cross Reference

<u>Client Sample ID</u>	<u>Pace Sample ID</u>	<u>Date Received</u>	<u>Sample Type</u>
111717022	40161143001	11/21/2017	Solid
111717022-MS	40161143001-MS	11/21/2017	Solid
111717022-MSD	40161143001-MSD	11/21/2017	Solid
111717024	40161143002	11/21/2017	Solid
111717026	40161143003	11/21/2017	Solid

REPORT OF LABORATORY ANALYSIS

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Chain of Custody



Workorder: 40161143

Workorder Name: 1584.14B GB FORMER MGP

Owner Received Date: 11/18/2017

Results Requested By: 12/6/2017

Report To		Subcontract To				Requested Analysis															
Brian Basten Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700				Dioxin/Furans by 1613B High res I7															
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved/Containers				Dioxin/Furans by 1613B High res I7	LAB USE ONLY										
						Unpreserved															
1	111717022	PS	11/17/2017 13:15	40161143001	Solid	1				X											001
2	111717024	PS	11/17/2017 15:00	40161143002	Solid	1				X											002
3	111717026	PS	11/18/2017 09:00	40161143003	Solid	1				X											003
4																					
5																					

Transfers					Comments
Released By	Date/Time	Received By	Date/Time		
A. Pace	11/20/17 15:00	[Signature]	11/21/17	11/21/17	compound High Res list

Cooler Temperature on Receipt 0.0°C Custody Seal (Y) or N Received on Ice (Y) or N Samples Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Report No.....10411891_1613FC_DFR

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Sample Condition
Upon Receipt

Client Name:

Pace WJ

Project #:

WO#: 10411891



Courier: Fed Ex UPS USPS Client
 Commercial Pace SpeedDee Other: *Walter*

Tracking Number:

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No

Optional: Proj. Due Date: Proj. Name:

Packing Material: Bubble Wrap Bubble Bags None Other: Temp Blank? Yes No

Thermometer 151401163

Used: G87A9155100842

Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temp Read (°C): *1.0* Cooler Temp Corrected (°C): *0.6* Biological Tissue Frozen? Yes No N/A

Temp should be above freezing to 6°C Correction Factor: *-0.4* Date and Initials of Person Examining Contents: *sl 11/24/17*

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? Yes No Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

	COMMENTS:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
-Includes Date/Time/ID/Analysis Matrix: <i>sl</i>	
All containers needing acid/base preservation have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH Positive for Res. Chlorine? Y N
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/BO15 (water) and Dioxin. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: _____ Date/Time: _____ Field Data Required? Yes No

Comments/Resolution: _____

Project Manager Review:

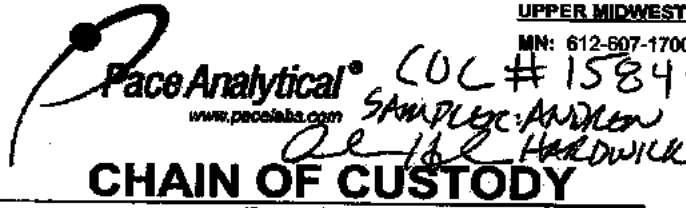
[Signature]

Date: 11/21/17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

(Please Print Clearly)

Company Name: **NRT**
 Branch/Location: **CHICAGO**
 Project Contact: **ERIC HEITZUK**
 Phone: **(773) 796 4368**
 Project Number: **1584.14B**
 Project Name: **GR FORMER MGP**
 Project State: **WI**
 Sampled By (Print): **ANDREW HARDWICK**
 Sampled By (Sign): *[Signature]*
 PO #:
 Regulatory Program:



UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY
 *Preservation Codes
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)

	N	N	N	N	N
	F	A	A	A	A
VOL					
SVOL					
Metals					
Dioxins					
PCRS					

Quote #:
 Mail To Contact:
 Mail To Company:
 Mail To Address:
 Invoice To Contact: **NRT-ERIC HEITZUK**
 Invoice To Company: **NRT**
 Invoice To Address: **300 S WACKER ST STE CHICAGO, IL 60606 1300**
 Invoice To Phone:
 CLIENT COMMENTS: **3-4oz ag^A 4oz p^A 3-4oz w^F**
 LAB COMMENTS (Lab Use Only):
 ProfMe #

Data Package Options (billable)
 EPA Level III
 EPA Level IV
 MS/MSD
 On your sample (billable)
 NOT needed on your sample
 Matrix Codes
 A = Air W = Water
 B = Biot DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 Sl = Sludge WP = Wipe

FACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	111717022	11/17/17	1315	S
002	111717024	11/17/17	1500	S
003	111817026	11/18/17	0900	S

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed:
 Transmit Prelim Rush Results by (complete what you want):
 Relinquished By: *[Signature]* Date/Time: **11/18/17 0942**
 Relinquished By: Date/Time:
 Relinquished By: Date/Time:
 Relinquished By: Date/Time:
 Relinquished By: Date/Time:
 Relinquished By: Date/Time:
 Received By: *[Signature]* Date/Time: **11/18/17 0942**
 Received By: Date/Time:
 Received By: Date/Time:
 Received By: Date/Time:
 Received By: Date/Time:
 Received By: Date/Time:
 PACE Project No.: **4016143**
 Receipt Temp = **207** °C
 Sample Receipt pH: **OK / Adjusted**
 Cooler Custody Seal: **Present / Not Present**
 Intact / Not Intact

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302



Project #: **WO# : 40161143**



Client Name: NRT *DS 11/18/17*

Courier: Fed Ex UPS Client Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used N/A Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 20.5 / Corr: _____ Biological Tissue Is Frozen: yes no

Temp Blank Present: yes no

Person examining contents:
Date: 11/18/17
Initials: DS

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8. <i>NO MS/MSD DS 11/18/17</i>
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <i>003: Labels read 0840 for time - All points 003: vial label blank 002: vial label blank DS 11/18/17</i>
-Includes date/time/ID/Analysis Matrix: <i>5k wipes</i>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

Project Manager Review: _____ Date: 11/20/17

Dioxin	Solid	Soxhlet	EB-20945
---------------	--------------	----------------	-----------------

QC Matrix Lot #: <u>Ottawa Sand</u>	Extract Solvents: Toluene Lot # <u>174386</u>	Extraction On (Date/Time): <u>11/27/17 15:55</u>
Time of Spiking: <u>11/27/17 14:55</u>	Hexane Lot # <u> </u>	Extraction Off (Date/Time): <u> </u>
Balance: <u>10BAL2</u>	MeCl Lot # <u> </u>	<u>11/28/17 07:55</u>

Standards	Name/ID	Amount	Initial	Witness	Expiration Date	Dispenser
Internal Std.	<u>FL-I-11754-103</u>	<u>100</u>	<u>NH</u>	<u>AXH</u>	<u>11/17/18</u>	<u>Q476</u>
Native	<u>FL-N-11754-086</u>	<u>40</u>	<u>NH</u>	<u>AXH</u>	<u>06/01/18</u>	<u>Q476</u>
Cl37 Std.	<u>DWCL4-11754-087</u>	<u>50</u>	<u>NH</u>	<u> </u>	<u>09/19/18</u>	<u>Q482</u>
Recovery	<u>FL-R-11754-102</u>	<u>10</u>	<u>MF</u>	<u> </u>	<u>11/04/18</u>	<u>HR1010</u>
Tridecane	<u>A0369805</u>	<u>10</u>	<u>MF</u>	<u> </u>	<u> </u>	<u>HR1010</u>
Others	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

#	Sample ID	Internal Standards	Native Standards	Extracted mL or g	Glassware Set	Location	Comments
1	BLANK-58881	x		75.7			
2	LCS-58882	x	x	75.1			
3	40161143001-MS	x	x	13.2		Rcving	
4	40161143001-MSD	x	x	13.3		Rcving	
5	50184092012	x		308.0		11/121	
6	50184092013	x		82.6		11/121	
7	10411964001	x		13.3		Rcving	
8	10411964002	x		11.5		Rcving	
9	10412002001	x		20.1		11/145	
10	30236163007	x		25.0		16/242	
11	40161143001	x		13.2		Rcving	
12	40161143002	x		13.3		Rcving	
13	40161143003	x		23.5		Rcving	
14	10412000001	x		75.1		Rcving	
15	10411997001	x		1.2		Rcving	
16	10411997002	x		1.3		Rcving	
17	10411997003	x		1.3		Rcving	
18	10411909001	x		20.1		11/139	
19	35346071029	x		10.8		16/307	
20	35346071033	x		11.8		Rcving	
21	10412201001	x		1.1		11/147	

Relinquished By: M Felea

Received By: J Brenner

Date: 11/30/2017

sample 5 spilled over a little bit upon addition to stacked silica/alumina column. Approx 5% loss. NMP 11/28/17

Silica		Alumina		Carbon		Florisil	
Initials	<u>NMP/ZBZ/P</u>	Initials	<u>NMP/ZBZ/P</u>	Initials	<u>NMP/PED/Z</u>	Initials	_____
Date	<u>11/28/2017</u>	Date	<u>11/28/2017</u>	Date	<u>11/28/2017</u>	Date	_____
Neutral Batch	<u>142</u>	Alumina Lot #	<u>56</u>	Hexane Lot #	<u>173327</u>	Florisil Lot #	_____
Basic Batch	<u>142</u>	Hexane Lot #	<u>173327</u>	Dispenser	<u>Q266</u>	Hexane Lot #	_____
Acid Batch	<u>142</u>	Dispenser	<u>Q266</u>	50% Batch	<u>NA</u>	Dispenser	_____
Hexane Lot #	<u>173327</u>	60% Batch	<u>1751</u>	Dispenser	_____	6% Batch	_____
Dispenser	<u>Q266</u>	Dispenser	<u>HRBT-011</u>	75% Batch	<u>NA</u>	Dispenser	_____
				Dispenser	_____		
				Toluene Lot #	<u>174386</u>		
				Dispenser	<u>HRBT-011</u>		
				Methanol Lot	<u>NA</u>		
				Dispenser	_____		
Acid Base							
Sulphuric Acid Lot #	_____						
Base Batch	_____						
sample 5 spilled over a little bit upon addition to stacked silica/alumina column. Approx 5% loss. NMP 11/28/17							



Solid Sample Moisture Log

Sample ID	Container Weight	Adjusted Wet Weight	Adjusted Dry Weight	% Moisture	% Solids	Amount Extracted	Assayed
BLANK-58881	0.00	0.00	0.00	0.00	0.00	75.70	12/30/99
LCS-58882	0.00	0.00	0.00	0.00	0.00	75.10	12/30/99
40161143001-MS	1.00	2.00	1.76	24.02	75.98	13.20	11/21/17 IR00
40161143001-MSD	1.00	2.00	1.76	24.02	75.98	13.30	11/21/17 IR00
50184092012	0.00	0.00	0.00	96.70	0.00	308.00	12/30/99
50184092013	0.00	0.00	0.00	87.40	0.00	82.60	12/30/99
10411964001	1.28	8.71	7.74	12.97	87.03	13.30	11/29/17 JDL
10411964002	1.29	9.23	7.91	16.62	83.38	11.50	11/29/17 JDL
10412002001	0.00	0.00	0.00	0.00	0.00	20.10	12/30/99
30236163007	1.00	2.00	1.31	69.33	30.67	25.00	12/3/17 IR00
40161143001	1.00	2.00	1.76	24.02	75.98	13.20	11/21/17 IR00
40161143002	1.00	2.00	1.75	24.80	75.20	13.30	11/21/17 IR00
40161143003	1.00	2.00	1.43	57.39	42.61	23.50	11/22/17 IR00
10412000001	0.00	0.00	0.00	0.00	0.00	75.10	12/30/99
10411997001	0.00	0.00	0.00	0.00	0.00	1.20	12/30/99
10411997002	0.00	0.00	0.00	0.00	0.00	1.30	12/30/99
10411997003	0.00	0.00	0.00	0.00	0.00	1.30	12/30/99
10411909001	0.00	0.00	0.00	0.00	0.00	20.10	12/30/99
35346071029	1.00	2.00	1.98	1.86	98.14	10.80	11/9/17 IR00
35346071033	1.00	2.00	1.86	14.44	85.56	11.80	11/9/17 IR00
10412201001	0.00	0.00	0.00	0.00	0.00	1.10	12/30/99

REPORT OF LABORATORY ANALYSIS

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Client names have been blacked out on notebook pages in order to preserve client confidentiality



Analysis Key Code List

- = Not used	RRM = ReRun - Matrix
✓ = Worked up	RRLM = ReRun – Lock Mass
# = See comment # below	RRBI = ReRun – Bad Injection
Li = Liner, replace or clean	RRRT = ReRun – Retention Time shift
Ba = Baseplate, change	RR>S = Rerun – need better Sensitivity
SyB = Syringe, replace – bent	Re = Re-extract
SyP = Syringe, replace – plugged	AS = Adjust Slits
SyO = Syringe, replace – other	LC = Leak Check
IS = Injector Septum, replace	RB = Re-Boot system
BS = Batch Septum, replace	CiS = Cleaned inner Source
Fi = Filament, replace	CoS = Cleaned outer Source
Co = Contacts, adjust	AiS = Alternate inner Source
Ca = re-Calibrate	AoS = Alternate outer Source
Tu = Tune	<Y = Adjust Y focus down
TC = Tune and Calibrate	>Y = Adjust Y focus up
CC () = Cut Column (length cut)	Di () = Dilution needed (amount needed)
CO = Carry-Over possible	FE = Front End – liner, baseplate and septum

Sample List: C:\MassLynx\Default.pro\Sampledb\Y171009A.spl
Last Modified: Monday, October 09, 2017 18:15:22 Central Daylight Time
Printed: Monday, October 09, 2017 18:15:39 Central Daylight Time

File Name	File Text	METHOD	MS File	Inlet File	Vial	Vol
1 Y171009A_01	CAL CPM-7604-125 - SMT	TCDF-conf	DB225	DB225	Tray1:1	1.000000
2 Y171009A_02	CAL CS3/CPM-11321-081 - SMT	TCDF-conf	DB225	DB225	Tray1:2	1.000000
3 Y171009A_03	CAL CPM-7604-125 - SMT	TCDF-conf	DB225	DB225	Tray1:1	1.000000
4 Y171009A_04	CAL CS3/CPM-11321-081 - SMT TC	TCDF-conf	DB225	DB225	Tray1:2	1.000000
5 Y171009A_05	CAL CS3/CPM-11321-081 - SMT CIS TC	TCDF-conf	DB225	DB225	Tray1:2	1.000000
6 Y171009A_06	CAL CPM-7604-125 - SMT	TCDF-conf	DB225	DB225	Tray1:1	1.000000
7 Y171009A_07	CAL CS3/CPM-11321-081 - SMT	TCDF-conf	DB225	DB225	Tray1:2	1.000000
8 Y171009A_08	CAL CS2-11321-077 - SMT	TCDF-conf	DB225	DB225	Tray1:3	1.000000
9 Y171009A_09	CAL CS1-11321-059 - SMT	TCDF-conf	DB225	DB225	Tray1:4	1.000000
10 Y171009A_10	CAL CS5-11321-079 - SMT	TCDF-conf	DB225	DB225	Tray1:5	1.000000
11 Y171009A_11	CAL CS4-11321-078 - SMT	TCDF-conf	DB225	DB225	Tray1:6	1.000000
12 Y171009A_12	BLANK NONANE - SMT	TCDF-conf	DB225	DB225	Tray1:8	1.000000
13 Y171009A_13	CAL ICV-55467 - SMT	TCDF-conf	DB225	DB225	Tray1:7	1.000000
14 Y171009A_14	BLANK NONANE - SMT	TCDF-conf	DB225	DB225	Tray1:8	1.000000
15 Y171009A_15	SAMP 40157016002 - SMT WI	TCDF-conf	DB225	DB225	Tray1:9	1.000000
16 Y171009A_16	SAMP 40157016001-R - SMT WI	TCDF-conf	DB225	DB225	Tray1:10	1.000000
17 Y171009A_17	CAL CS3/CPM-11321-081 - SMT	TCDF-conf	DB225	DB225	Tray1:2	1.000000

Sample List Report

MassLynx 4.1 SCN 881

10/25/2016

11/7/17

Sample List: C:\MassLynx\Default.pro\Sampledb\U171107A.SPL
Last Modified: Tuesday, November 07, 2017 15:33:56 Central Standard Time
Printed: Tuesday, November 07, 2017 15:36:46 Central Standard Time

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Page Position (1, 1)

File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U171107A_01 ✓ CAL CS3/CPM-11321-081 - SMT TC	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
2	U171107A_02 ✓ CAL CS3/CPM-11321-081 - SMT <F1 IR>	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
3	U171107A_03 ✓ CAL CS3/CPM-11321-081 - SMT F1> <IR	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
4	U171107A_04 ✓ CAL CS2-11321-077 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:11	1.000000
5	U171107A_05 ✓ CAL CS1-11321-059 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:12	1.000000
6	U171107A_06 ✓ CAL CS5-11321-079 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:13	1.000000
7	U171107A_07 ✓ CAL CS4-11321-078 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:14	1.000000
8	U171107A_08 ✓ CAL ICV-55467 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:15	1.000000
9	U171107A_09 ✓ LCS QC SPIKE-58832 - SMT	HOUSE	dioxfur	dioxfur	Tray1:4	1.000000
10	U171107A_10 ✓ SAMP 60256238003-MS - SMT	8290	dioxfur	dioxfur	Tray1:5	1.000000
11	U171107A_11 ✓ SAMP 60256238003-MSD - SMT	8290	dioxfur	dioxfur	Tray1:6	1.000000
12	U171107A_12 ✓ BLANK BLANK-55037-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
13	U171107A_13 ✓ SAMP 35342953001 - SMT	1613B-TD	dioxfur	dioxfur	Tray1:7	1.000000
14	U171107A_14 ✓ SAMP 60256238008 - SMT	8290	dioxfur	dioxfur	Tray1:8	1.000000
15	U171107A_15 ✓ SAMP 60256238009 - SMT	8290	dioxfur	dioxfur	Tray1:9	1.000000
16	U171107A_16 ✓ SAMP 60256238010 - SMT	8290	dioxfur	dioxfur	Tray1:10	1.000000
17	U171107A_17 ✓ SAMP 60256238011 - SMT	8290	dioxfur	dioxfur	Tray1:11	1.000000
18	U171107A_18 ✓ SAMP 60256174001 - SMT	1613B-TD	dioxfur	dioxfur	Tray1:12	1.000000

Sample List Report

MassLynx 4.1 SCN 881

10M57206

11/30/17

Sample List: C:\MassLynx\Default.pro\Sampled\b\U171130A.SPL

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Last Modified: Thursday, November 30, 2017 17:28:26 Central Standard Time

Printed: Thursday, November 30, 2017 17:48:46 Central Standard Time

Page Position (1, 1)

File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U171130A_01 ✓ LCS LCS-58882 - SMT rr 8290	1613B	dioxfur	dioxfur	Tray1:4	1.000000
2	U171130A_02 ✓ BLANK BLANK-55037-10X - SMT	1613B	dioxfur	dioxfur	Tray1:3	1.000000
3	U171130A_03 ✓ BLANK BLANK-58881 - SMT rr 8290	8290/1613B	dioxfur	dioxfur	Tray1:5	1.000000
4	U171130A_04 ✓ SAMP 10411964001 - SMT PSS	1613B-TD	dioxfur	dioxfur	Tray1:6	1.000000
5	U171130A_05 ✓ SAMP 10411964002 - SMT PSS	1613B-TD	dioxfur	dioxfur	Tray1:7	1.000000
6	U171130A_06 ✓ CAL CS3/CPM-11321-081 - SMT FE 2"	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000
7	U171130A_07 ✓ LCS LCS-58882 - SMT	8290	dioxfur	dioxfur	Tray1:4	1.000000
8	U171130A_08 ✓ SAMP 60256824022-MS - SMT 2X	8290	dioxfur	dioxfur	Tray1:5	1.000000
9	U171130A_09 ✓ SAMP 60256824022-MSD - SMT 2X	8290	dioxfur	dioxfur	Tray1:6	1.000000
10	U171130A_10 ✓ BLANK BLANK-55037-10X - SMT	1613B	dioxfur	dioxfur	Tray1:3	1.000000
11	U171130A_11 ✓ BLANK BLANK-58881 - SMT	8290	dioxfur	dioxfur	Tray1:7	1.000000
12	U171130A_12 ✓ SAMP 60256824006 - SMT 2X	8290	dioxfur	dioxfur	Tray1:8	1.000000
13	U171130A_13 ✓ SAMP 60256824020 - SMT 2X	8290	dioxfur	dioxfur	Tray1:9	1.000000
14	U171130A_14 ✓ SAMP 60256824021 - SMT 2X	8290	dioxfur	dioxfur	Tray1:10	1.000000
15	U171130A_15 ✓ SAMP 60256824014 - SMT 5X	8290	dioxfur	dioxfur	Tray1:11	1.000000
16	U171130A_16 ✓ SAMP 60256824011 - SMT 10X	8290	dioxfur	dioxfur	Tray1:12	1.000000
17	U171130A_17 ✓ SAMP 60256824013 - SMT 10X	8290	dioxfur	dioxfur	Tray1:13	1.000000
18	U171130A_18 ✓ SAMP 60256824015 - SMT 10X	8290	dioxfur	dioxfur	Tray1:14	1.000000
19	U171130A_19 ✓ SAMP 60256824018 - SMT 10X	8290	dioxfur	dioxfur	Tray1:15	1.000000
20	U171130A_20 ✓ SAMP 60256824008 - SMT 20X	8290	dioxfur	dioxfur	Tray1:16	1.000000
21	U171130A_21 ✓ SAMP 10412189001 - SMT	1613B-TD	dioxfur	dioxfur	Tray1:17	1.000000
22	U171130A_22 ✓ SAMP 10412189002 - SMT	1613B-TD	dioxfur	dioxfur	Tray1:18	1.000000
23	U171130A_23 ✓ CAL CS3/CPM-11321-081 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

pass all

pass 12/11/17

Sample List Report

MassLynx 4.1 SCN 881

10M5H200

12/3/17

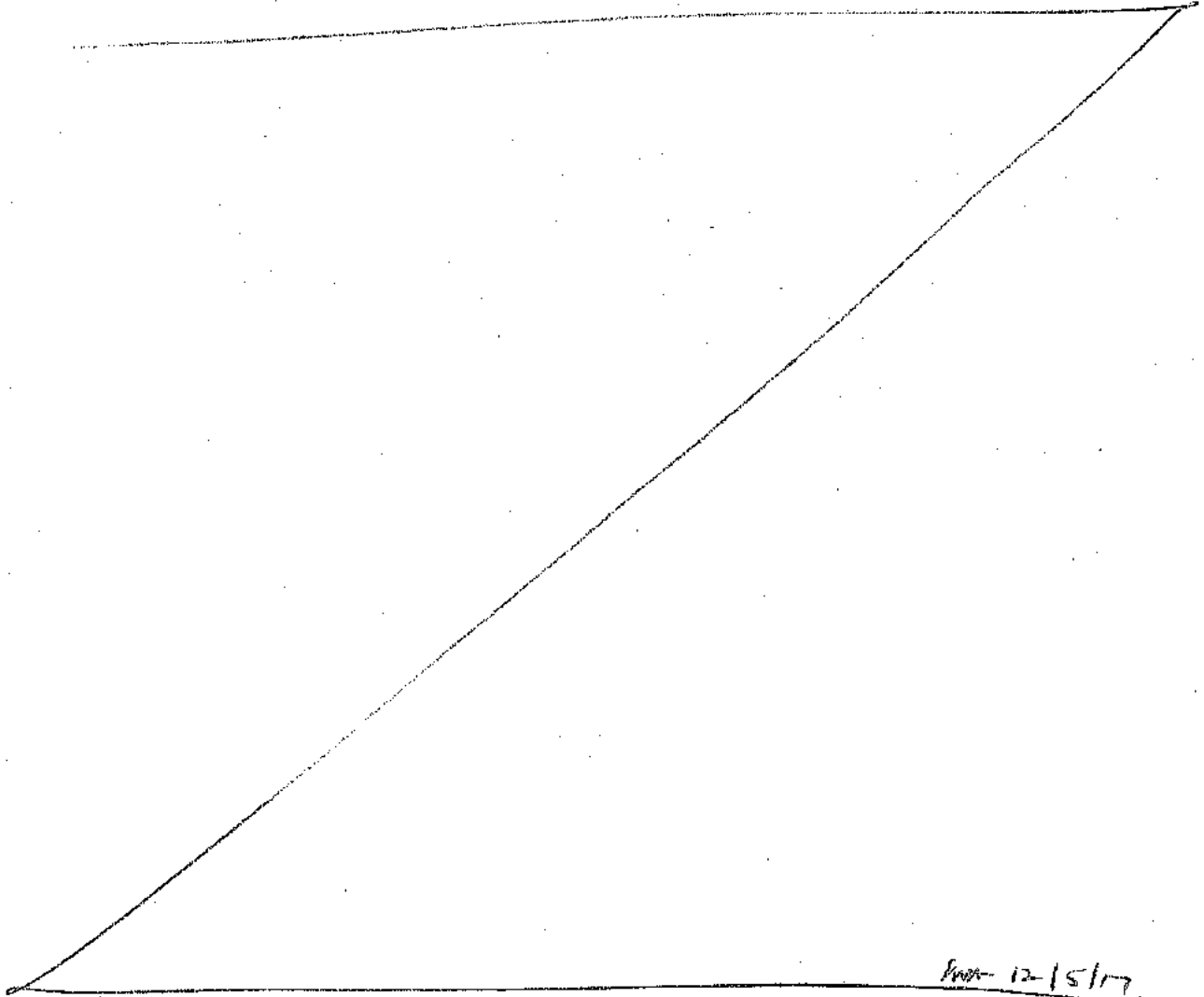
Sample List: C:\MassLynx\Default.pro\Sampledb\U171203B.SPL
Last Modified: Sunday, December 03, 2017 17:27:55 Central Standard Time
Printed: Sunday, December 03, 2017 17:47:15 Central Standard Time

Page 1 of 1

Page Position (1, 1)

File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U171203B_01 BLANK BLANK-55037-10X - BAL	1613B/8290	dioxfur	dioxfur	Tray1:3	1.000000
2	U171203B_02 SAMP 35349239009 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:4	1.000000
3	U171203B_03 SAMP 35349239010 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:5	1.000000
4	U171203B_04 SAMP 35349239011 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:6	1.000000
5	U171203B_05 SAMP 35349239012 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:7	1.000000
6	U171203B_06 SAMP 35349239013 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:8	1.000000
7	U171203B_07 SAMP 35349239014 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:9	1.000000
8	U171203B_08 SAMP 35349239015 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:10	1.000000
9	U171203B_09 SAMP 35349239016 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:11	1.000000
10	U171203B_10 SAMP 35349239017 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:12	1.000000
11	U171203B_11 SAMP 35349239018 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:13	1.000000
12	U171203B_12 SAMP 35349239019 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:14	1.000000
13	U171203B_13 SAMP 35349239020 - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:15	1.000000
14	U171203B_14 SAMP 35349239015-MS - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:16	1.000000
15	U171203B_15 SAMP 35349239015-MSD - BAL [REDACTED]	8290	dioxfur	dioxfur	Tray1:17	1.000000
16	U171203B_16 CAL CS3/CPM-11321-081 - BAL	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

per me



per me 12/5/17

Sample List Report

MassLynx 4.1 SCN 881

10MSH206

12/4/17

Sample List: C:\MassLynx\Default.pro\Sampledb\U171204A.SPL
Last Modified: Monday, December 04, 2017 12:57:07 Central Standard Time
Printed: Monday, December 04, 2017 15:36:38 Central Standard Time

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Page Position (1, 1)

File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U171204A_01 - BLANK BLANK-55037-10X - BAL	1613B/8290	dioxfur	dioxfur	Tray1:3	1.000000
2	U171204A_02 ✓ SAMP 50184092012 - BAL	8290-TD	dioxfur	dioxfur	Tray1:18	1.000000
3	U171204A_03 ✓ SAMP 50184092013 - BAL	8290-TD	dioxfur	dioxfur	Tray1:19	1.000000
4	U171204A_04 ✓ SAMP 40161143001-MS - SMT WI	1613B	dioxfur	dioxfur	Tray1:20	1.000000
5	U171204A_05 ✓ SAMP 40161143001-MSD - SMT WI	1613B	dioxfur	dioxfur	Tray1:21	1.000000
6	U171204A_06 ✓ SAMP 40160956001 - SMT WI	8290-TD	dioxfur	dioxfur	Tray1:22	1.000000
7	U171204A_07 ✓ SAMP 40161143001 - SMT WI	1613B	dioxfur	dioxfur	Tray1:23	1.000000
8	U171204A_08 ✓ SAMP 40161143003 - SMT WI	1613B	dioxfur	dioxfur	Tray1:24	1.000000
9	U171204A_09 ✓ SAMP 40161143002 - SMT WI	1613B	dioxfur	dioxfur	Tray1:25	1.000000
10	U171204A_10 ✓ SAMP 10411847001 - SMT	1613B-TD	dioxfur	dioxfur	Tray1:26	1.000000
11	U171204A_11 ✓ SAMP 60258172004 - SMT	8290	dioxfur	dioxfur	Tray1:27	1.000000
12	U171204A_12 ✓ SAMP 50183298010-R - SMT 10X	8290	dioxfur	dioxfur	Tray1:28	1.000000
13	U171204A_13 ✓ CAL CS3/CPM-11321-081 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

Tray 10x

SAMP 12/5/17

Sample List Report

MassLynx 4.1 SCN 881

10MPT4206 12/4/17

Sample List: C:\MassLynx\Default.pro\Sampledb\U171204B.SPL

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Last Modified: Monday, December 04, 2017 15:54:12 Central Standard Time

Printed: Monday, December 04, 2017 15:54:22 Central Standard Time

Page Position (1, 1)

File Name	File Text	Method	MS File	Inlet File	Vial	Inj
1	U171204B_01 ✓ LCS LCS-58940 - SMT	1613B	dioxfur	dioxfur	Tray1:4	1.000000
2	U171204B_02 ✓ LCS LCSD-58941 - SMT	1613B	dioxfur	dioxfur	Tray1:5	1.000000
3	U171204B_03 ✓ LCS LCS-58949 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:6	1.000000
4	U171204B_04 = BLANK BLANK-55037-10X - SMT	HOUSE	dioxfur	dioxfur	Tray1:3	1.000000
5	U171204B_05 ✓ BLANK BLANK-58939 - SMT	1613B	dioxfur	dioxfur	Tray1:7	1.000000
6	U171204B_06 ✓ SAMP 10412455001 - SMT	1613B	dioxfur	dioxfur	Tray1:8	1.000000
7	U171204B_07 ✓ SAMP 10412455002 - SMT	1613B	dioxfur	dioxfur	Tray1:9	1.000000
8	U171204B_08 ✓ SAMP 10412473001 - SMT	1613B	dioxfur	dioxfur	Tray1:10	1.000000
9	U171204B_09 ✓ BLANK BLANK-58948 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:11	1.000000
10	U171204B_10 ✓ SAMP 12100957001 - SMT	1613B-TDF	dioxfur	dioxfur	Tray1:12	1.000000
11	U171204B_11 ✓ SAMP 10410770001-R - SMT	1613B	dioxfur	dioxfur	Tray1:13	1.000000
12	U171204B_12 ✓ SAMP 10410912001 - SMT	1613B	dioxfur	dioxfur	Tray1:14	1.000000
13	U171204B_13 ✓ SAMP 40161143003 - SMT WI 10X	1613B	dioxfur	dioxfur	Tray1:15	1.000000
14	U171204B_14 ✓ SAMP 40161143002 - SMT.WI 10X	1613B	dioxfur	dioxfur	Tray1:16	1.000000
15	U171204B_15 ✓ SAMP 35349174001 - SMT	1613B-TD	dioxfur	dioxfur	Tray1:17	1.000000
16	U171204B_16 ✓ CAL CS3/CPM-11321-081 - SMT	8290/1613B	dioxfur	dioxfur	Tray1:1	1.000000

Sample List Report

MassLynx 4.1 SCN815

10/MS/12

12/10/17

Sample List: C:\MassLynx\Default.pro\Sampledb\Y171210A.spl

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Last Modified: Sunday, December 10, 2017 15:54:12 Central Standard Time

Printed: Sunday, December 10, 2017 16:48:43 Central Standard Time

Page Position (1, 1)

File Name	File Text	METHOD	MS File	Inlet File	Vial	Vol	Control
1 Y171210A_01	✓CPM CPM-7604-125 - BAL TC	TCDF-conf	DB225	DB225	Tray1:4	1.000000	---
2 Y171210A_02	✓CAL CS3/CPM-11321-081 - BAL	TCDF-conf	DB225	DB225	Tray1:1	1.000000	---
3 Y171210A_03	Blank Nonane - BAL	TCDF-conf	DB225	DB225	Tray1:2	1.000000	---
4 Y171210A_04	SAMP 40161143003 - BAL PASI-WI	TCDF-conf	DB225	DB225	Tray1:5	1.000000	---
5 Y171210A_05	Blank Nonane - BAL	TCDF-conf	DB225	DB225	Tray1:2	1.000000	---
6 Y171210A_06	✓SAMP 40161143003 - BAL PASI-WI 10X	TCDF-conf	DB225	DB225	Tray1:5	1.000000	---
7 Y171210A_07	Blank Nonane - BAL	TCDF-conf	DB225	DB225	Tray1:2	1.000000	---
8 Y171210A_08	✓CAL CS3/CPM-11321-081 - BAL	TCDF-conf	DB225	DB225	Tray1:1	1.000000	---

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Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-58881	Matrix	Solid
Filename	U171130A_11	Dilution	NA
Total Amount Extracted	75.7 g	Extracted	11/27/2017 15:55
ICAL ID	U171107	Analyzed	11/30/2017 20:00
CCal Filename(s)	U171130A_06	Injected By	SMT

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	68
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	71
				1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	67
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	74
				1,2,3,4,7,8-HxCDF-13C	2.00	81
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	81
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	73
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	75
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	54
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	ND	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

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Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	111717022		
Lab Sample ID	40161143001		
Filename	U171204A_07		
Injected By	SMT		
Total Amount Extracted	13.2 g	Matrix	Solid
% Moisture	24.0	Dilution	NA
Dry Weight Extracted	10.0 g	Collected	11/17/2017 13:15
ICAL ID	U171107	Received	11/21/2017 11:01
CCal Filename(s)	U171203B_16	Extracted	11/27/2017 15:55
Method Blank ID	BLANK-58881	Analyzed	12/04/2017 10:06

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.0	2,3,7,8-TCDF-13C	2.00	80
Total TCDF	ND	----	1.0	2,3,7,8-TCDD-13C	2.00	74
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	----	1.0	2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	ND	----	1.0	1,2,3,7,8-PeCDD-13C	2.00	74
				1,2,3,4,7,8-HxCDF-13C	2.00	85
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	74
				1,2,3,4,7,8-HxCDD-13C	2.00	79
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	64
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	53
				1,2,3,4,7,8,9-HpCDF-13C	2.00	46
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	58
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	41
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	ND	----	5.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.0			
Total HpCDD	ND	----	5.0			
OCDF	ND	----	10			
OCDD	ND	----	10			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

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Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	111717024		
Lab Sample ID	40161143002		
Filename	U171204A_09		
Injected By	SMT		
Total Amount Extracted	13.3 g	Matrix	Solid
% Moisture	24.8	Dilution	NA
Dry Weight Extracted	10.0 g	Collected	11/17/2017 13:15
ICAL ID	U171107	Received	11/21/2017 11:01
CCal Filename(s)	U171203B_16	Extracted	11/27/2017 15:55
Method Blank ID	BLANK-58881	Analyzed	12/04/2017 11:35

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	4.1 A	2,3,7,8-TCDF-13C	2.00	68
Total TCDF	ND	----	4.1	2,3,7,8-TCDD-13C	2.00	62
				1,2,3,7,8-PeCDF-13C	2.00	65
2,3,7,8-TCDD	ND	----	4.0 A	2,3,4,7,8-PeCDF-13C	2.00	73
Total TCDD	ND	----	4.0	1,2,3,7,8-PeCDD-13C	2.00	45
				1,2,3,4,7,8-HxCDF-13C	2.00	177 R
1,2,3,7,8-PeCDF	ND	----	5.0	1,2,3,6,7,8-HxCDF-13C	2.00	170 R
2,3,4,7,8-PeCDF	ND	----	5.0	2,3,4,6,7,8-HxCDF-13C	2.00	84
Total PeCDF	ND	----	5.0	1,2,3,7,8,9-HxCDF-13C	2.00	88
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	----	5.0	1,2,3,6,7,8-HxCDD-13C	2.00	62
Total PeCDD	ND	----	5.0	1,2,3,4,6,7,8-HpCDF-13C	2.00	39
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	ND	----	5.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	51
1,2,3,6,7,8-HxCDF	ND	----	5.0	OCDD-13C	4.00	24
2,3,4,6,7,8-HxCDF	ND	----	5.0			
1,2,3,7,8,9-HxCDF	ND	----	5.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	58	----	5.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0	2,3,7,8-TCDD-37C14	0.20	68
1,2,3,6,7,8-HxCDD	ND	----	5.0			
1,2,3,7,8,9-HxCDD	ND	----	5.0			
Total HxCDD	69	----	5.0			
1,2,3,4,6,7,8-HpCDF	41	----	5.0	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	5.0	Equivalence: 3.7 ng/Kg		
Total HpCDF	210	----	5.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	120	----	5.0			
Total HpCDD	360	----	5.0			
OCDF	200	----	10			
OCDD	1900	----	10			

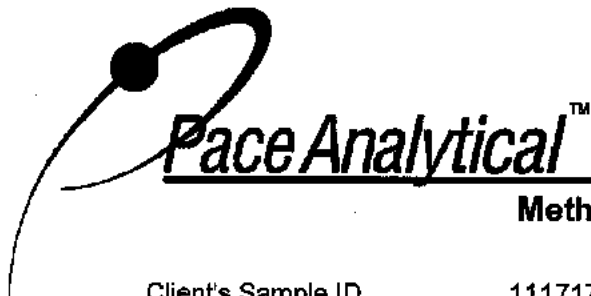
Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
A = Reporting Limit based on signal to noise
R = Recovery outside target range

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Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	111717026		
Lab Sample ID	40161143003		
Filename	U171204B_13		
Injected By	SMT		
Total Amount Extracted	23.5 g	Matrix	Solid
% Moisture	57.4	Dilution	10
Dry Weight Extracted	10.0 g	Collected	11/18/2017 09:00
ICAL ID	U171107	Received	11/21/2017 11:01
CCal Filename(s)	U171204A_13	Extracted	11/27/2017 15:55
Method Blank ID	BLANK-58881	Analyzed	12/05/2017 00:30

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	82	----	4.9 DAC	2,3,7,8-TCDF-13C	2.00	70 D
Total TCDF	220	----	4.6 D	2,3,7,8-TCDD-13C	2.00	68 D
				1,2,3,7,8-PeCDF-13C	2.00	71 D
2,3,7,8-TCDD	ND	----	4.1 DA	2,3,4,7,8-PeCDF-13C	2.00	69 D
Total TCDD	20	----	4.1 D	1,2,3,7,8-PeCDD-13C	2.00	76 D
				1,2,3,4,7,8-HxCDF-13C	2.00	118 D
1,2,3,7,8-PeCDF	ND	----	5.0 D	1,2,3,6,7,8-HxCDF-13C	2.00	109 D
2,3,4,7,8-PeCDF	25	----	5.0 JD	2,3,4,6,7,8-HxCDF-13C	2.00	112 D
Total PeCDF	260	----	5.0 D	1,2,3,7,8,9-HxCDF-13C	2.00	97 D
				1,2,3,4,7,8-HxCDD-13C	2.00	103 D
1,2,3,7,8-PeCDD	ND	----	5.0 D	1,2,3,6,7,8-HxCDD-13C	2.00	89 D
Total PeCDD	40	----	5.0 JD	1,2,3,4,6,7,8-HpCDF-13C	2.00	75 D
				1,2,3,4,7,8,9-HpCDF-13C	2.00	89 D
1,2,3,4,7,8-HxCDF	38	----	5.0 JD	1,2,3,4,6,7,8-HpCDD-13C	2.00	89 D
1,2,3,6,7,8-HxCDF	24	----	5.0 JD	OCDD-13C	4.00	76 D
2,3,4,6,7,8-HxCDF	13	----	5.0 JD			
1,2,3,7,8,9-HxCDF	5.5	----	5.0 JD	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	1400	----	5.0 D	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	5.0 D	2,3,7,8-TCDD-37Cl4	0.20	71 D
1,2,3,6,7,8-HxCDD	130	----	5.0 D			
1,2,3,7,8,9-HxCDD	----	11	5.0 JD			
Total HxCDD	650	----	5.0 D			
1,2,3,4,6,7,8-HpCDF	2000	----	5.0 D	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	41	----	5.0 JD	Equivalence: 130 ng/Kg		
Total HpCDF	5200	----	5.0 D	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2700	----	5.0 D			
Total HpCDD	6300	----	5.0 D			
OCDF	2700	----	10 D			
OCDD	40000	----	10 D			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value
A = Reporting Limit based on signal to noise
I = Interference present
D = Result obtained from analysis of diluted sample
C = Result obtained from confirmation analysis

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Appendix B

Sample Analysis Summary



Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	111717022		
Lab Sample ID	40161143001		
Filename	U171204A_07		
Injected By	SMT		
Total Amount Extracted	13.2 g	Matrix	Solid
% Moisture	24.0	Dilution	NA
Dry Weight Extracted	10.0 g	Collected	11/17/2017 13:15
ICAL ID	U171107	Received	11/21/2017 11:01
CCal Filename(s)	U171203B_16	Extracted	11/27/2017 15:55
Method Blank ID	BLANK-58881	Analyzed	12/04/2017 10:06

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.17	2,3,7,8-TCDF-13C	2.00	80
Total TCDF	0.43	----	0.17 J	2,3,7,8-TCDD-13C	2.00	74
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	----	0.20	2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	0.78	----	0.20 J	1,2,3,7,8-PeCDD-13C	2.00	74
				1,2,3,4,7,8-HxCDF-13C	2.00	85
1,2,3,7,8-PeCDF	ND	----	0.28	1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	ND	----	0.21	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	0.40	----	0.25 J	1,2,3,7,8,9-HxCDF-13C	2.00	74
				1,2,3,4,7,8-HxCDD-13C	2.00	79
1,2,3,7,8-PeCDD	ND	----	0.43	1,2,3,6,7,8-HxCDD-13C	2.00	64
Total PeCDD	0.93	----	0.43 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	53
				1,2,3,4,7,8,9-HpCDF-13C	2.00	46
1,2,3,4,7,8-HxCDF	ND	----	0.15	1,2,3,4,6,7,8-HpCDD-13C	2.00	58
1,2,3,6,7,8-HxCDF	ND	----	0.11	OCDD-13C	4.00	41
2,3,4,6,7,8-HxCDF	ND	----	0.18			
1,2,3,7,8,9-HxCDF	ND	----	0.23	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.35	----	0.17 J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	0.23	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	ND	----	0.24			
1,2,3,7,8,9-HxCDD	ND	----	0.24			
Total HxCDD	0.62	----	0.24 J			
1,2,3,4,6,7,8-HpCDF	----	0.40	0.27 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.41	Equivalence: 0.011 ng/Kg		
Total HpCDF	ND	----	0.34	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	----	0.42	0.24 J			
Total HpCDD	0.97	----	0.24 J			
OCDF	ND	----	0.53			
OCDD	----	3.3	0.63 J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers). ND = Not Detected
 EMPC = Estimated Maximum Possible Concentration NA = Not Applicable
 EDL = Estimated Detection Limit NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
 J = Estimated value
 I = Interference present

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Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	111717024		
Lab Sample ID	40161143002		
Filename	U171204A_09		
Injected By	SMT		
Total Amount Extracted	13.3 g	Matrix	Solid
% Moisture	24.8	Dilution	NA
Dry Weight Extracted	10.0 g	Collected	11/17/2017 13:15
ICAL ID	U171107	Received	11/21/2017 11:01
CCal Filename(s)	U171203B_16	Extracted	11/27/2017 15:55
Method Blank ID	BLANK-58881	Analyzed	12/04/2017 11:35

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	4.1	2,3,7,8-TCDF-13C	2.00	68
Total TCDF	ND	----	4.1	2,3,7,8-TCDD-13C	2.00	62
				1,2,3,7,8-PeCDF-13C	2.00	65
2,3,7,8-TCDD	ND	----	4.0	2,3,4,7,8-PeCDF-13C	2.00	73
Total TCDD	ND	----	4.0	1,2,3,7,8-PeCDD-13C	2.00	45
				1,2,3,4,7,8-HxCDF-13C	2.00	177 R
1,2,3,7,8-PeCDF	ND	----	1.7	1,2,3,6,7,8-HxCDF-13C	2.00	170 R
2,3,4,7,8-PeCDF	ND	----	1.4	2,3,4,6,7,8-HxCDF-13C	2.00	84
Total PeCDF	ND	----	1.6	1,2,3,7,8,9-HxCDF-13C	2.00	88
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	----	1.3	1,2,3,6,7,8-HxCDD-13C	2.00	62
Total PeCDD	2.1	----	1.3 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	39
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	2.2	----	2.1 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	51
1,2,3,6,7,8-HxCDF	ND	----	1.2	OCDD-13C	4.00	24
2,3,4,6,7,8-HxCDF	ND	----	1.3			
1,2,3,7,8,9-HxCDF	ND	----	2.4	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	60	----	1.8	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.1	2,3,7,8-TCDD-37Cl4	0.20	68
1,2,3,6,7,8-HxCDD	----	4.2	2.2 U			
1,2,3,7,8,9-HxCDD	ND	----	2.2			
Total HxCDD	74	----	1.8			
1,2,3,4,6,7,8-HpCDF	41	----	3.1	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	3.0	Equivalence: 4.3 ng/Kg		
Total HpCDF	210	----	3.0	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	120	----	1.9			
Total HpCDD	360	----	1.9			
OCDF	200	----	8.0			
OCDD	1900	----	5.4			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers). ND = Not Detected
 EMPC = Estimated Maximum Possible Concentration NA = Not Applicable
 EDL = Estimated Detection Limit NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
 J = Estimated value
 R = Recovery outside target range
 I = Interference present

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Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	111717026			
Lab Sample ID	40161143003			
Filename	U171204B_13			
Injected By	SMT			
Total Amount Extracted	23.5 g	Matrix	Solid	
% Moisture	57.4	Dilution	10	
Dry Weight Extracted	10.0 g	Collected	11/18/2017 09:00	
ICAL ID	U171107	Received	11/21/2017 11:01	
CCal Filename(s)	U171204A_13	Extracted	11/27/2017 15:55	
Method Blank ID	BLANK-58881	Analyzed	12/05/2017 00:30	

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	82	----	4.9 DC		2,3,7,8-TCDF-13C	2.00	70 D
Total TCDF	220	----	4.6 D		2,3,7,8-TCDD-13C	2.00	68 D
					1,2,3,7,8-PeCDF-13C	2.00	71 D
2,3,7,8-TCDD	ND	----	4.1 D		2,3,4,7,8-PeCDF-13C	2.00	69 D
Total TCDD	20	----	4.1 D		1,2,3,7,8-PeCDD-13C	2.00	76 D
					1,2,3,4,7,8-HxCDF-13C	2.00	118 D
1,2,3,7,8-PeCDF	ND	----	4.4 D		1,2,3,6,7,8-HxCDF-13C	2.00	109 D
2,3,4,7,8-PeCDF	25	----	3.9 JD		2,3,4,6,7,8-HxCDF-13C	2.00	112 D
Total PeCDF	260	----	4.2 D		1,2,3,7,8,9-HxCDF-13C	2.00	97 D
					1,2,3,4,7,8-HxCDD-13C	2.00	103 D
1,2,3,7,8-PeCDD	ND	----	3.8 D		1,2,3,6,7,8-HxCDD-13C	2.00	89 D
Total PeCDD	40	----	3.8 JD		1,2,3,4,6,7,8-HpCDF-13C	2.00	75 D
					1,2,3,4,7,8,9-HpCDF-13C	2.00	89 D
1,2,3,4,7,8-HxCDF	38	----	4.3 JD		1,2,3,4,6,7,8-HpCDD-13C	2.00	89 D
1,2,3,6,7,8-HxCDF	24	----	2.7 JD		OCDD-13C	4.00	76 D
2,3,4,6,7,8-HxCDF	13	----	2.3 JD				
1,2,3,7,8,9-HxCDF	5.5	----	3.2 JD		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	1400	----	3.1 D		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	2.9 D		2,3,7,8-TCDD-37Cl4	0.20	71 D
1,2,3,6,7,8-HxCDD	130	----	2.6 D				
1,2,3,7,8,9-HxCDD	----	11	3.0 IJD				
Total HxCDD	650	----	2.9 D				
1,2,3,4,6,7,8-HpCDF	2000	----	3.0 D		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	41	----	4.1 JD		Equivalence: 130 ng/Kg		
Total HpCDF	5200	----	3.5 D		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2700	----	3.0 D				
Total HpCDD	6300	----	3.0 D				
OCDF	2700	----	5.4 D				
OCDD	40000	----	7.5 D				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

EDL = Estimated Detection Limit

ND = Not Detected

NA = Not Applicable

NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value

I = Interference present

D = Result obtained from analysis of diluted sample

C = Result obtained from confirmation analysis

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Appendix C

QC and Calibration Results Summary



Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-58881	Matrix	Solid
Filename	U171130A_11	Dilution	NA
Total Amount Extracted	75.7 g	Extracted	11/27/2017 15:55
ICAL ID	U171107	Analyzed	11/30/2017 20:00
CCal Filename(s)	U171130A_06	Injected By	SMT

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.018	2,3,7,8-TCDF-13C	2.00	68
Total TCDF	ND	----	0.018	2,3,7,8-TCDD-13C	2.00	71
				1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	----	0.024	2,3,4,7,8-PeCDF-13C	2.00	67
Total TCDD	ND	----	0.024	1,2,3,7,8-PeCDD-13C	2.00	74
				1,2,3,4,7,8-HxCDF-13C	2.00	81
1,2,3,7,8-PeCDF	ND	----	0.025	1,2,3,6,7,8-HxCDF-13C	2.00	81
2,3,4,7,8-PeCDF	ND	----	0.032	2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	ND	----	0.028	1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	----	0.045	1,2,3,6,7,8-HxCDD-13C	2.00	73
Total PeCDD	ND	----	0.045	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
				1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	----	0.019	1,2,3,4,6,7,8-HpCDD-13C	2.00	75
1,2,3,6,7,8-HxCDF	ND	----	0.020	OCDD-13C	4.00	54
2,3,4,6,7,8-HxCDF	ND	----	0.013			
1,2,3,7,8,9-HxCDF	ND	----	0.024	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.019	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	0.016	2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	ND	----	0.020			
1,2,3,7,8,9-HxCDD	ND	----	0.019			
Total HxCDD	ND	----	0.018			
1,2,3,4,6,7,8-HpCDF	ND	----	0.029	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.053	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	----	0.041	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	0.020			
Total HpCDD	ND	----	0.020			
OCDF	ND	----	0.035			
OCDD	ND	----	0.060			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-58882	Matrix	Solid
Filename	U171130A_07	Dilution	NA
Total Amount Extracted	75.1 g	Extracted	11/27/2017 15:55
ICAL ID	U171107	Analyzed	11/30/2017 17:03
CCal Filename	U171130A_06	Injected By	SMT
Method Blank ID	BLANK-58881		

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	9.2	7.5	15.8	92
2,3,7,8-TCDD	10	8.8	6.7	15.8	88
1,2,3,7,8-PeCDF	50	48	40.0	67.0	97
2,3,4,7,8-PeCDF	50	43	34.0	80.0	85
1,2,3,7,8-PeCDD	50	44	35.0	71.0	88
1,2,3,4,7,8-HxCDF	50	48	36.0	67.0	96
1,2,3,6,7,8-HxCDF	50	47	42.0	65.0	93
2,3,4,6,7,8-HxCDF	50	44	35.0	78.0	88
1,2,3,7,8,9-HxCDF	50	45	39.0	65.0	90
1,2,3,4,7,8-HxCDD	50	49	35.0	82.0	98
1,2,3,6,7,8-HxCDD	50	47	38.0	67.0	94
1,2,3,7,8,9-HxCDD	50	46	32.0	81.0	92
1,2,3,4,6,7,8-HpCDF	50	49	41.0	61.0	98
1,2,3,4,7,8,9-HpCDF	50	46	39.0	69.0	92
1,2,3,4,6,7,8-HpCDD	50	43	35.0	70.0	87
OCDF	100	98	63.0	170.0	98
OCDD	100	97	78.0	144.0	97
2,3,7,8-TCDD-37Cl4	10	7.2	3.1	19.1	72
2,3,7,8-TCDF-13C	100	74	22.0	152.0	74
2,3,7,8-TCDD-13C	100	74	20.0	175.0	74
1,2,3,7,8-PeCDF-13C	100	74	21.0	192.0	74
2,3,4,7,8-PeCDF-13C	100	68	13.0	328.0	68
1,2,3,7,8-PeCDD-13C	100	75	21.0	227.0	75
1,2,3,4,7,8-HxCDF-13C	100	79	19.0	202.0	79
1,2,3,6,7,8-HxCDF-13C	100	75	21.0	159.0	75
2,3,4,6,7,8-HxCDF-13C	100	80	22.0	176.0	80
1,2,3,7,8,9-HxCDF-13C	100	67	17.0	205.0	67
1,2,3,4,7,8-HxCDD-13C	100	76	21.0	193.0	76
1,2,3,6,7,8-HxCDD-13C	100	76	25.0	163.0	76
1,2,3,4,6,7,8-HpCDF-13C	100	68	21.0	158.0	68
1,2,3,4,7,8,9-HpCDF-13C	100	61	20.0	186.0	61
1,2,3,4,6,7,8-HpCDD-13C	100	71	26.0	166.0	71
OCDD-13C	200	100	26.0	397.0	51

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

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Method 1613B Spiked Sample Report

Client - PACE Wisconsin

Client's Sample ID	111717022-MS	Matrix	Solid
Lab Sample ID	40161143001-MS	Dilution	NA
Filename	U171204A_04	Extracted	11/27/2017 15:55
Total Amount Extracted	13.2 g	Analyzed	12/04/2017 07:52
ICAL ID	U171107	Injected By	SMT
CCal Filename(s)	U171203B_16		
Method Blank ID	BLANK-58881		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	100	2,3,7,8-TCDF-13C	2.00	79
Total TCDF				2,3,7,8-TCDD-13C	2.00	73
				1,2,3,7,8-PeCDF-13C	2.00	78
2,3,7,8-TCDD	0.20	0.21	105	2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	79
				1,2,3,4,7,8-HxCDF-13C	2.00	86
1,2,3,7,8-PeCDF	1.00	1.05	105	1,2,3,6,7,8-HxCDF-13C	2.00	78
2,3,4,7,8-PeCDF	1.00	0.95	95	2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	74
1,2,3,7,8-PeCDD	1.00	0.98	98	1,2,3,6,7,8-HxCDD-13C	2.00	62
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	55
				1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	1.00	1.03	103	1,2,3,4,6,7,8-HpCDD-13C	2.00	60
1,2,3,6,7,8-HxCDF	1.00	1.01	101	OCDD-13C	4.00	45
2,3,4,6,7,8-HxCDF	1.00	0.95	95			
1,2,3,7,8,9-HxCDF	1.00	1.01	101	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.07	107	2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	1.00	1.03	103			
1,2,3,7,8,9-HxCDD	1.00	1.02	102			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	1.06	106			
1,2,3,4,7,8,9-HpCDF	1.00	0.96	96			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	0.89	89			
Total HpCDD						
OCDF	2.00	2.02	101			
OCDD	2.00	2.08	104			

Qs = Quantity Spiked Qm = Quantity Measured Rec. = Recovery (Expressed as Percent)
Results reported on a total weight basis and are valid to no more than 2 significant figures.

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Method 1613B Spiked Sample Report

Client - PACE Wisconsin

Client's Sample ID	111717022-MSD	Matrix	Solid
Lab Sample ID	40161143001-MSD	Dilution	NA
Filename	U171204A_05	Extracted	11/27/2017 15:55
Total Amount Extracted	13.3 g	Analyzed	12/04/2017 08:37
ICAL ID	U171107	Injected By	SMT
CCal Filename(s)	U171203B_16		
Method Blank ID	BLANK-58881		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	101	2,3,7,8-TCDF-13C	2.00	62
Total TCDF				2,3,7,8-TCDD-13C	2.00	58
				1,2,3,7,8-PeCDF-13C	2.00	62
2,3,7,8-TCDD	0.20	0.20	102	2,3,4,7,8-PeCDF-13C	2.00	61
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	63
				1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	1.00	1.06	106	1,2,3,6,7,8-HxCDF-13C	2.00	62
2,3,4,7,8-PeCDF	1.00	0.94	94	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	61
				1,2,3,4,7,8-HxCDD-13C	2.00	59
1,2,3,7,8-PeCDD	1.00	0.98	98	1,2,3,6,7,8-HxCDD-13C	2.00	50
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	42
				1,2,3,4,7,8,9-HpCDF-13C	2.00	42
1,2,3,4,7,8-HxCDF	1.00	0.98	98	1,2,3,4,6,7,8-HpCDD-13C	2.00	46
1,2,3,6,7,8-HxCDF	1.00	1.01	101	OCDD-13C	4.00	36
2,3,4,6,7,8-HxCDF	1.00	0.91	91			
1,2,3,7,8,9-HxCDF	1.00	0.95	95	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.07	107	2,3,7,8-TCDD-37Cl4	0.20	59
1,2,3,6,7,8-HxCDD	1.00	0.98	98			
1,2,3,7,8,9-HxCDD	1.00	1.03	103			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	1.01	101			
1,2,3,4,7,8,9-HpCDF	1.00	0.93	93			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	0.93	93			
Total HpCDD						
OCDF	2.00	1.97	99			
OCDD	2.00	2.16	108			

Qs = Quantity Spiked Qm = Quantity Measured Rec. = Recovery (Expressed as Percent)
Results reported on a total weight basis and are valid to no more than 2 significant figures.

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Method 1613 Spike Sample Results

Client - PACE Wisconsin

Client Sample ID	111717022					<u>Dry Weights</u>	
Lab Sample ID	40161143001	Sample Filename	U171204A_07	Sample Amount	10.0 g		
MS ID	40161143001-MS	MS Filename	U171204A_04	MS Amount	10.0 g		
MSD ID	40161143001-MSD	MSD Filename	U171204A_05	MSD Amount	10.1 g		

Analyte	Sample Conc. ng/Kg	MS/MSD Qs (ng)	MS Qm (ng)	MSD Qm (ng)	RPD	Background Subtracted		
						MS % Rec.	MSD % Rec.	RPD
2,3,7,8-TCDF	0.000	0.20	0.20	0.20	1.6	99	101	1.7
2,3,7,8-TCDD	0.000	0.20	0.21	0.20	2.8	105	102	2.8
1,2,3,7,8-PeCDF	0.000	1.00	1.05	1.06	1.2	105	106	1.2
2,3,4,7,8-PeCDF	0.000	1.00	0.95	0.94	1.1	95	94	1.1
1,2,3,7,8-PeCDD	0.000	1.00	0.98	0.98	0.7	98	98	0.7
1,2,3,4,7,8-HxCDF	0.000	1.00	1.03	0.98	4.6	103	98	4.6
1,2,3,6,7,8-HxCDF	0.000	1.00	1.01	1.01	0.1	101	101	0.1
2,3,4,6,7,8-HxCDF	0.000	1.00	0.95	0.91	4.3	95	91	4.3
1,2,3,7,8,9-HxCDF	0.000	1.00	1.01	0.95	5.9	101	95	5.9
1,2,3,4,7,8-HxCDD	0.000	1.00	1.07	1.07	0.2	107	107	0.2
1,2,3,6,7,8-HxCDD	0.000	1.00	1.03	0.98	4.3	102	98	4.4
1,2,3,7,8,9-HxCDD	0.000	1.00	1.02	1.03	0.9	102	103	0.9
1,2,3,4,6,7,8-HpCDF	0.000	1.00	1.06	1.01	4.3	105	101	4.3
1,2,3,4,7,8,9-HpCDF	0.000	1.00	0.96	0.93	3.2	96	93	3.2
1,2,3,4,6,7,8-HpCDD	0.000	1.00	0.89	0.93	4.3	89	93	4.3
OCDF	0.000	2.00	2.02	1.97	2.4	101	99	2.4
OCDD	0.000	2.00	2.08	2.16	3.6	103	106	3.7

Definitions

MS = Matrix Spike	CDD = Chlorinated dibenzo-p-dioxin
MSD = Matrix Spike Duplicate	CDF = Chlorinated dibenzo-p-furan
Qm = Quantity Measured	T = Tetra
Qs = Quantity Spiked	Pe = Penta
% Rec. = Percent Recovery	Hx = Hexa
RPD = Relative Percent Difference	Hp = Hepta
NA = Not Applicable	O = Octa
NC = Not Calculated	

Method 1613B
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	U171107	Data Files:	Time	Injected
Calibration Date	11/07/2017	CS-1 U171107A_05	11:57	SMT
Instrument	10MSHR06 (U)	CS-2 U171107A_04	11:12	SMT
Column Phase	DB-5MS 0.25mm	CS-3 U171107A_03	10:28	SMT
Column ID No.	USP117525H	CS-4 U171107A_07	13:57	SMT
		CS-5 U171107A_06	13:14	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
2,3,7,8-TCDF	0.7627	0.8044	0.8593	0.8623	0.8823	0.8342	5.91
2,3,7,8-TCDD	0.9503	0.7971	0.8997	0.8206	0.8470	0.8630	7.18
1,2,3,7,8-PeCDF	0.7874	0.8341	0.8584	0.8823	0.8926	0.8510	4.95
2,3,4,7,8-PeCDF	0.8531	0.9020	1.0038	1.0123	0.9932	0.9529	7.48
1,2,3,7,8-PeCDD	0.7728	0.8232	0.8630	0.8966	0.8700	0.8451	5.71
1,2,3,4,7,8-HxCDF	1.0822	1.0709	1.1471	1.1554	1.1677	1.1246	3.98
1,2,3,6,7,8-HxCDF	1.0016	1.0357	1.0644	1.1134	1.1164	1.0663	4.66
2,3,4,6,7,8-HxCDF	1.0974	1.1048	1.1682	1.1914	1.1746	1.1473	3.75
1,2,3,7,8,9-HxCDF	0.9909	0.9814	1.0942	1.1188	1.1204	1.0611	6.53
1,2,3,4,7,8-HxCDD	0.7959	0.9022	0.9054	0.9239	0.9155	0.8886	5.91
1,2,3,6,7,8-HxCDD	0.8844	0.8383	0.9133	0.9505	0.9407	0.9055	5.03
1,2,3,7,8,9-HxCDD	0.8491	0.8886	0.9153	0.9417	0.9280	0.9046	4.05
1,2,3,4,6,7,8-HpCDF	1.1239	1.1633	1.1848	1.2189	1.2097	1.1801	3.24
1,2,3,4,7,8,9-HpCDF	1.1177	1.2151	1.2379	1.2310	1.2267	1.2057	4.14
1,2,3,4,6,7,8-HpCDD	0.9484	0.9843	1.0104	1.0187	1.0303	0.9984	3.27
OCDF	0.9106	0.9698	1.0043	1.0266	1.0293	0.9881	5.00
OCDD	0.8883	0.9226	0.9295	0.9852	0.9541	0.9359	3.87
Total PeCDF	0.8202	0.8680	0.9311	0.9473	0.9429	0.9019	6.18
Total HxCDF	1.0430	1.0482	1.1185	1.1447	1.1448	1.0998	4.61
Total HxCDD	0.8431	0.8764	0.9114	0.9387	0.9281	0.8995	4.38
Total HpCDF	1.1208	1.1892	1.2113	1.2249	1.2182	1.1929	3.56
2,3,7,8-TCDF-13C	1.1847	1.1864	1.2178	1.1427	1.1994	1.1862	2.33
2,3,7,8-TCDD-13C	0.8280	1.0087	1.0418	1.0142	1.0483	0.9882	9.23
2,3,7,8-TCDD-37Cl4	0.8257	0.9598	1.0053	0.9590	1.0319	0.9563	8.30
1,2,3,7,8-PeCDF-13C	0.9347	0.9316	1.0127	0.9077	0.9947	0.9563	4.70
2,3,4,7,8-PeCDF-13C	0.9809	0.9708	0.9825	0.9029	1.0235	0.9721	4.49
1,2,3,7,8-PeCDD-13C	0.7105	0.7046	0.7386	0.6668	0.7520	0.7145	4.63
1,2,3,4,7,8-HxCDF-13C	0.9965	0.9950	0.9809	1.0199	1.0390	1.0063	2.29
1,2,3,6,7,8-HxCDF-13C	1.3238	1.2775	1.2843	1.2502	1.2696	1.2811	2.11
2,3,4,6,7,8-HxCDF-13C	1.1012	1.0582	1.0541	1.0637	1.0874	1.0729	1.90
1,2,3,7,8,9-HxCDF-13C	0.9509	0.9508	0.9535	0.9192	0.9584	0.9466	1.65
1,2,3,4,7,8-HxCDD-13C	0.9407	0.8968	0.9106	0.9138	0.9505	0.9225	2.42
1,2,3,6,7,8-HxCDD-13C	1.1623	1.1563	1.1489	1.1368	1.1653	1.1539	0.99
1,2,3,4,6,7,8-HpCDF-13C	1.2411	1.2254	1.2021	1.2273	1.2512	1.2294	1.51
1,2,3,4,7,8,9-HpCDF-13C	0.9667	0.9454	0.9695	0.9602	1.0011	0.9686	2.11
1,2,3,4,6,7,8-HpCDD-13C	1.0236	1.0380	1.0375	1.0473	1.0538	1.0401	1.10
OCDD-13C	0.8977	0.8964	0.9597	0.9031	0.9863	0.9287	4.48

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Method 1613B
Initial Calibration (ICAL) - Isotope Ratio Summary

ICAL ID	U171107	Data Files:	Time	Injected
Calibration Date	11/07/2017	CS-1 U171107A_05	11:57	SMT
Instrument	10MSHR06 (U)	CS-2 U171107A_04	11:12	SMT
Column Phase	DB-5MS 0.25mm	CS-3 U171107A_03	10:28	SMT
Column ID No.	USP117525H	CS-4 U171107A_07	13:57	SMT
		CS-5 U171107A_06	13:14	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
2,3,7,8-TCDF	0.72	0.83	0.76	0.78	0.80	0.65 - 0.89
2,3,7,8-TCDD	0.73	0.79	0.79	0.75	0.75	0.65 - 0.89
1,2,3,7,8-PeCDF	1.70	1.60	1.57	1.55	1.55	1.32 - 1.78
2,3,4,7,8-PeCDF	1.54	1.61	1.58	1.58	1.58	1.32 - 1.78
1,2,3,7,8-PeCDD	0.67	0.60	0.61	0.61	0.62	0.52 - 0.70
1,2,3,4,7,8-HxCDF	1.20	1.25	1.21	1.23	1.23	1.05 - 1.43
1,2,3,6,7,8-HxCDF	1.31	1.30	1.25	1.25	1.26	1.05 - 1.43
2,3,4,6,7,8-HxCDF	1.26	1.27	1.26	1.26	1.24	1.05 - 1.43
1,2,3,7,8,9-HxCDF	1.27	1.28	1.21	1.25	1.25	1.05 - 1.43
1,2,3,4,7,8-HxCDD	1.18	1.25	1.25	1.34	1.33	1.05 - 1.43
1,2,3,6,7,8-HxCDD	1.30	1.29	1.24	1.15	1.12	1.05 - 1.43
1,2,3,7,8,9-HxCDD	1.26	1.27	1.28	1.26	1.18	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF	1.03	1.00	1.00	1.04	1.05	0.88 - 1.20
1,2,3,4,7,8,9-HpCDF	1.06	1.05	1.02	1.02	1.03	0.88 - 1.20
1,2,3,4,6,7,8-HpCDD	1.06	1.01	1.03	1.07	1.03	0.88 - 1.20
OCDF	0.86	0.86	0.85	0.90	0.89	0.76 - 1.02
OCDD	0.91	0.82	0.88	0.90	0.91	0.76 - 1.02
1,2,3,4-TCDD-13C	0.80	0.76	0.79	0.79	0.78	0.65 - 0.89
1,2,3,7,8,9-HxCDD-13C	1.19	1.20	1.16	1.24	1.21	1.05 - 1.43
2,3,7,8-TCDF-13C	0.78	0.71	0.74	0.76	0.76	0.65 - 0.89
2,3,7,8-TCDD-13C	0.76	0.76	0.80	0.77	0.75	0.65 - 0.89
1,2,3,7,8-PeCDF-13C	1.51	1.47	1.56	1.50	1.60	1.32 - 1.78
2,3,4,7,8-PeCDF-13C	1.57	1.55	1.53	1.58	1.55	1.32 - 1.78
1,2,3,7,8-PeCDD-13C	1.53	1.46	1.47	1.51	1.54	1.32 - 1.78
1,2,3,4,7,8-HxCDF-13C	0.54	0.51	0.51	0.52	0.51	0.43 - 0.59
1,2,3,6,7,8-HxCDF-13C	0.49	0.54	0.51	0.52	0.53	0.43 - 0.59
2,3,4,6,7,8-HxCDF-13C	0.52	0.51	0.54	0.53	0.52	0.43 - 0.59
1,2,3,7,8,9-HxCDF-13C	0.52	0.51	0.52	0.51	0.53	0.43 - 0.59
1,2,3,4,7,8-HxCDD-13C	1.25	1.24	1.40	1.25	1.25	1.05 - 1.43
1,2,3,6,7,8-HxCDD-13C	1.24	1.22	1.12	1.23	1.24	1.05 - 1.43
1,2,3,4,6,7,8-HpCDF-13C	0.45	0.45	0.44	0.46	0.45	0.37 - 0.51
1,2,3,4,7,8,9-HpCDF-13C	0.43	0.45	0.46	0.46	0.44	0.37 - 0.51
1,2,3,4,6,7,8-HpCDD-13C	1.03	1.02	1.07	1.01	1.02	0.88 - 1.20
OCDD-13C	0.85	0.88	0.84	0.85	0.85	0.76 - 1.02

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Method 1613B
Initial Calibration (ICAL) - Response Factor Summary

ICAL ID	Y171009-DB225	Data Files:	Time	Injected
Calibration Date	10/09/2017	CS-1 Y171009A_09	16:20	SMT
Instrument	10MSHR12 (Y)	CS-2 Y171009A_08	15:53	SMT
Column Phase	DB-225 0.25mm	CS-3 Y171009A_07	15:27	SMT
Column ID No.	USE571612H	CS-4 Y171009A_11	17:22	SMT
		CS-5 Y171009A_10	16:56	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Ave RF	%RSD
Native Analyte							
2,3,7,8-TCDF	0.7713	0.7402	0.7974	0.8131	0.8178	0.7879	4.10
Labeled Analyte							
2,3,7,8-TCDF-13C	1.3686	1.3898	1.3898	1.3744	1.4170	1.3879	1.35
Cleanup Standard							
2,3,7,8-TCDD-37Cl4	1.0549	1.0651	1.0693	1.0648	1.0786	1.0665	0.80

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Method 1613B
Initial Calibration (ICAL) - Isotope Ratio Summary

ICAL ID	Y171009-DB225	Data Files:	Time	Injected
Calibration Date	10/09/2017	CS-1 Y171009A_09	16:20	SMT
Instrument	10MSHR12 (Y)	CS-2 Y171009A_08	15:53	SMT
Column Phase	DB-225 0.25mm	CS-3 Y171009A_07	15:27	SMT
Column ID No.	USE571612H	CS-4 Y171009A_11	17:22	SMT
		CS-5 Y171009A_10	16:56	SMT

Isomer	CS-1	CS-2	CS-3	CS-4	CS-5	Limits
Native Analyte						
2,3,7,8-TCDF	0.76	0.72	0.70	0.73	0.74	0.65 - 0.89
Labeled Analyte						
2,3,7,8-TCDF-13C	0.77	0.77	0.76	0.77	0.76	0.65 - 0.89
Recovery Standard						
1,2,3,4-TCDD-13C	0.80	0.80	0.80	0.81	0.80	0.65 - 0.89

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Method 1613B Analysis Results
PCDD/PCDF Calibration Verification
Labeled Analytes

Lab Name	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171130A_06	GC Column ID	USP117525H
Injected By	SMT	ICAL ID	U171107
Analyzed	11/30/2017 16:15		

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
Labeled Compounds					
1,2,3,4-TCDD-13C	M/M+2	0.78	0.65 - 0.89	----	----
2,3,7,8-TCDD-13C	M/M+2	0.76	0.65 - 0.89	97.4	82 - 121
1,2,3,7,8-PeCDD-13C	M+2/M+4	1.52	1.32 - 1.78	78.6	62 - 160
1,2,3,4,7,8-HxCDD-13C	M+2/M+4	1.38	1.05 - 1.43	102.2	85 - 117
1,2,3,6,7,8-HxCDD-13C	M+2/M+4	1.18	1.05 - 1.43	97.6	85 - 118
1,2,3,7,8,9-HxCDD-13C	M+2/M+4	1.21	1.05 - 1.43	----	----
1,2,3,4,6,7,8-HpCDD-13C	M+2/M+4	1.08	0.88 - 1.20	98.0	72 - 138
OCDD-13C	M+2/M+4	0.90	0.76 - 1.02	163.5	96 - 415
2,3,7,8-TCDF-13C	M/M+2	0.78	0.65 - 0.89	95.9	71 - 140
1,2,3,7,8-PeCDF-13C	M+2/M+4	1.56	1.32 - 1.78	89.1	76 - 130
2,3,4,7,8-PeCDF-13C	M+2/M+4	1.59	1.32 - 1.78	80.7	77 - 130
1,2,3,4,7,8-HxCDF-13C	M/M+2	0.52	0.43 - 0.59	104.1	76 - 131
1,2,3,6,7,8-HxCDF-13C	M/M+2	0.52	0.43 - 0.59	95.0	70 - 143
2,3,4,6,7,8-HxCDF-13C	M/M+2	0.52	0.43 - 0.59	101.3	73 - 137
1,2,3,7,8,9-HxCDF-13C	M/M+2	0.51	0.43 - 0.59	88.9	74 - 135
1,2,3,4,6,7,8-HpCDF-13C	M/M+2	0.44	0.37 - 0.51	94.2	78 - 129
1,2,3,4,7,8,9-HpCDF-13C	M/M+2	0.44	0.37 - 0.51	91.5	77 - 129
Cleanup Standard					
2,3,7,8-TCDD-37Cl4	M+2/M+4	(4)		9.2	7.9 - 12.7

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).
4. No ion abundance ratio; report concentration found.

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Method 1613B Analysis Results
PCDD/PCDF Calibration Verification
Native Analytes

Lab Name	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171130A_06	GC Column ID	USP117525H
Injected By	SMT	ICAL ID	U171107
Analyzed	11/30/2017 16:15		

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
2,3,7,8-TCDD	M/M+2	0.78	0.65 - 0.89	9.7	7.8 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	0.58	0.52 - 0.70	48.9	39 - 65
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05 - 1.43	50.2	39 - 64
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05 - 1.43	51.3	39 - 64
1,2,3,7,8,9-HxCDD	M+2/M+4	1.30	1.05 - 1.43	51.0	41 - 61
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88 - 1.20	48.3	43 - 58
OCDD	M+2/M+4	0.88	0.76 - 1.02	103.5	79 - 126
2,3,7,8-TCDF	M/M+2	0.81	0.65 - 0.89	10.0	8.4 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32 - 1.78	50.4	41 - 60
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32 - 1.78	50.0	41 - 61
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05 - 1.43	50.2	45 - 56
1,2,3,6,7,8-HxCDF	M+2/M+4	1.30	1.05 - 1.43	50.8	44 - 57
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05 - 1.43	50.0	44 - 57
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05 - 1.43	49.3	45 - 56
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88 - 1.20	50.7	45 - 55
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88 - 1.20	51.2	43 - 58
OCDF	M+2/M+4	0.90	0.76 - 1.02	103.7	63 - 159

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).

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**Method 1613B Analysis Results
PCDD/PCDF Calibration Verification
Labeled Analytes**

Lab Name	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171203B_16	GC Column ID	USP117525H
Injected By	BAL	ICAL ID	U171107
Analyzed	12/04/2017 04:54		

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
Labeled Compounds					
1,2,3,4-TCDD-13C	M/M+2	0.77	0.65 - 0.89	----	----
2,3,7,8-TCDD-13C	M/M+2	0.76	0.65 - 0.89	108.2	82 - 121
1,2,3,7,8-PeCDD-13C	M+2/M+4	1.60	1.32 - 1.78	94.0	62 - 160
1,2,3,4,7,8-HxCDD-13C	M+2/M+4	1.26	1.05 - 1.43	92.4	85 - 117
1,2,3,6,7,8-HxCDD-13C	M+2/M+4	1.25	1.05 - 1.43	101.8	85 - 118
1,2,3,7,8,9-HxCDD-13C	M+2/M+4	1.20	1.05 - 1.43	----	----
1,2,3,4,6,7,8-HpCDD-13C	M+2/M+4	1.09	0.88 - 1.20	87.8	72 - 138
OCDD-13C	M+2/M+4	0.87	0.76 - 1.02	157.7	96 - 415
2,3,7,8-TCDF-13C	M/M+2	0.78	0.65 - 0.89	109.4	71 - 140
1,2,3,7,8-PeCDF-13C	M+2/M+4	1.62	1.32 - 1.78	102.7	76 - 130
2,3,4,7,8-PeCDF-13C	M+2/M+4	1.60	1.32 - 1.78	97.3	77 - 130
1,2,3,4,7,8-HxCDF-13C	M/M+2	0.51	0.43 - 0.59	95.6	76 - 131
1,2,3,6,7,8-HxCDF-13C	M/M+2	0.53	0.43 - 0.59	101.6	70 - 143
2,3,4,6,7,8-HxCDF-13C	M/M+2	0.53	0.43 - 0.59	101.5	73 - 137
1,2,3,7,8,9-HxCDF-13C	M/M+2	0.52	0.43 - 0.59	99.2	74 - 135
1,2,3,4,6,7,8-HpCDF-13C	M/M+2	0.45	0.37 - 0.51	89.6	78 - 129
1,2,3,4,7,8,9-HpCDF-13C	M/M+2	0.44	0.37 - 0.51	83.7	77 - 129
Cleanup Standard					
2,3,7,8-TCDD-37Cl4	M+2/M+4	(4)		10.4	7.9 - 12.7

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).
4. No ion abundance ratio; report concentration found.

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Method 1613B Analysis Results
PCDD/PCDF Calibration Verification
Native Analytes

Lab Name	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171203B_16	GC Column ID	USP117525H
Injected By	BAL	ICAL ID	U171107
Analyzed	12/04/2017 04:54		

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
2,3,7,8-TCDD	M/M+2	0.79	0.65 - 0.89	10.6	7.8 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	0.63	0.52 - 0.70	48.2	39 - 65
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05 - 1.43	47.1	39 - 64
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05 - 1.43	52.8	39 - 64
1,2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05 - 1.43	49.9	41 - 61
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.02	0.88 - 1.20	49.6	43 - 58
OCDD	M+2/M+4	0.84	0.76 - 1.02	100.9	79 - 126
2,3,7,8-TCDF	M/M+2	0.78	0.65 - 0.89	10.2	8.4 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32 - 1.78	51.4	41 - 60
2,3,4,7,8-PeCDF	M+2/M+4	1.67	1.32 - 1.78	52.4	41 - 61
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05 - 1.43	50.4	45 - 56
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05 - 1.43	51.7	44 - 57
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05 - 1.43	52.8	44 - 57
1,2,3,7,8,9-HxCDF	M+2/M+4	1.24	1.05 - 1.43	51.5	45 - 56
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.02	0.88 - 1.20	52.0	45 - 55
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88 - 1.20	50.7	43 - 58
OCDF	M+2/M+4	0.87	0.76 - 1.02	101.0	63 - 159

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).

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Method 1613B Analysis Results
PCDD/PCDF Calibration Verification
Labeled Analytes

Lab Name	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171204A_13	GC Column ID	USP117525H
Injected By	SMT	ICAL ID	U171107
Analyzed	12/04/2017 14:41		

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
Labeled Compounds					
1,2,3,4-TCDD-13C	M/M+2	0.80	0.65 - 0.89	----	----
2,3,7,8-TCDD-13C	M/M+2	0.75	0.65 - 0.89	112.8	82 - 121
1,2,3,7,8-PeCDD-13C	M+2/M+4	1.54	1.32 - 1.78	99.7	62 - 160
1,2,3,4,7,8-HxCDD-13C	M+2/M+4	1.21	1.05 - 1.43	100.6	85 - 117
1,2,3,6,7,8-HxCDD-13C	M+2/M+4	1.23	1.05 - 1.43	98.8	85 - 118
1,2,3,7,8,9-HxCDD-13C	M+2/M+4	1.23	1.05 - 1.43	----	----
1,2,3,4,6,7,8-HpCDD-13C	M+2/M+4	1.00	0.88 - 1.20	93.8	72 - 138
OCDD-13C	M+2/M+4	0.91	0.76 - 1.02	147.1	96 - 415
2,3,7,8-TCDF-13C	M/M+2	0.79	0.65 - 0.89	114.5	71 - 140
1,2,3,7,8-PeCDF-13C	M+2/M+4	1.60	1.32 - 1.78	105.8	76 - 130
2,3,4,7,8-PeCDF-13C	M+2/M+4	1.59	1.32 - 1.78	103.2	77 - 130
1,2,3,4,7,8-HxCDF-13C	M/M+2	0.52	0.43 - 0.59	105.0	76 - 131
1,2,3,6,7,8-HxCDF-13C	M/M+2	0.53	0.43 - 0.59	104.3	70 - 143
2,3,4,6,7,8-HxCDF-13C	M/M+2	0.52	0.43 - 0.59	103.3	73 - 137
1,2,3,7,8,9-HxCDF-13C	M/M+2	0.51	0.43 - 0.59	102.1	74 - 135
1,2,3,4,6,7,8-HpCDF-13C	M/M+2	0.46	0.37 - 0.51	98.3	78 - 129
1,2,3,4,7,8,9-HpCDF-13C	M/M+2	0.46	0.37 - 0.51	86.5	77 - 129
Cleanup Standard					
2,3,7,8-TCDD-37Cl4	M+2/M+4	(4)		10.5	7.9 - 12.7

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).
4. No ion abundance ratio; report concentration found.

REPORT OF LABORATORY ANALYSIS

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Method 1613B Analysis Results
PCDD/PCDF Calibration Verification
Native Analytes

Lab Name	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171204A_13	GC Column ID	USP117525H
Injected By	SMT	ICAL ID	U171107
Analyzed	12/04/2017 14:41		

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
2,3,7,8-TCDD	M/M+2	0.77	0.65 - 0.89	10.0	7.8 - 12.9
1,2,3,7,8-PeCDD	M+2/M+4	0.62	0.52 - 0.70	49.3	39 - 65
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05 - 1.43	52.3	39 - 64
1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05 - 1.43	50.6	39 - 64
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05 - 1.43	50.7	41 - 61
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88 - 1.20	48.9	43 - 58
OCDD	M+2/M+4	0.84	0.76 - 1.02	101.6	79 - 126
2,3,7,8-TCDF	M/M+2	0.82	0.65 - 0.89	10.1	8.4 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32 - 1.78	52.2	41 - 60
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32 - 1.78	50.5	41 - 61
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05 - 1.43	50.0	45 - 56
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05 - 1.43	50.2	44 - 57
2,3,4,6,7,8-HxCDF	M+2/M+4	1.23	1.05 - 1.43	52.6	44 - 57
1,2,3,7,8,9-HxCDF	M+2/M+4	1.19	1.05 - 1.43	51.8	45 - 56
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88 - 1.20	50.6	45 - 55
1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.98	0.88 - 1.20	50.8	43 - 58
OCDF	M+2/M+4	0.88	0.76 - 1.02	103.2	63 - 159

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).

REPORT OF LABORATORY ANALYSIS

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**Calibration Verification (Confirmation)
Method 1613B**

Lab Name	CS3/CPM-11321-081	Instrument ID	10MSHR12 (Y)
Filename	Y171210A_02	GC Column ID	USE571612H
Injected By	BAL	ICAL ID	Y171009-DB225
Analyzed	12/10/2017 14:16		

Native Isomers	m/z's Forming Ratio (1)	Ion Abund. Ratio	QC Limits (2)	Conc Found	Conc. Range (ng/ml) (3)
Native Analyte					
2,3,7,8-TCDF	M/M+2	0.78	0.65 - 0.89	11.6	8.6 - 11.6
Labeled Analyte					
2,3,7,8-TCDF-13C	M/M+2	0.79	0.65 - 0.89	100.0	76 - 131
Recovery Standard					
1,2,3,4-TCDD-13C	M/M+2	0.82	0.65 - 0.89	----	----
Cleanup Standard					
2,3,7,8-TCDD-37Cl4	M+2/M+4	(4)		9.6	8.3 - 12.1

1. See Table 8, Method 1613, for m/z specifications.
2. Ion Abundance Ratio Control Limits from Table 9, Method 1613.
3. Contract-required concentration range as specified in Table 6, Method 1613, under VER (10/94 Revision).
4. No ion abundance ratio; report concentration found.

REPORT OF LABORATORY ANALYSIS

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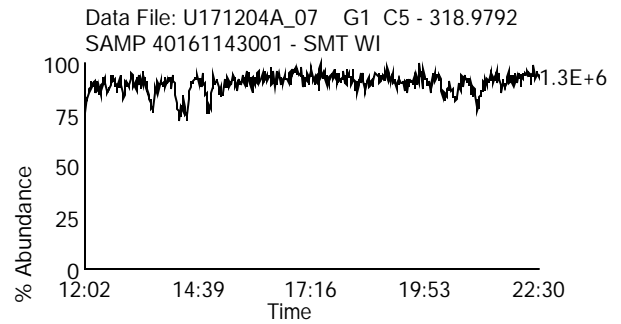
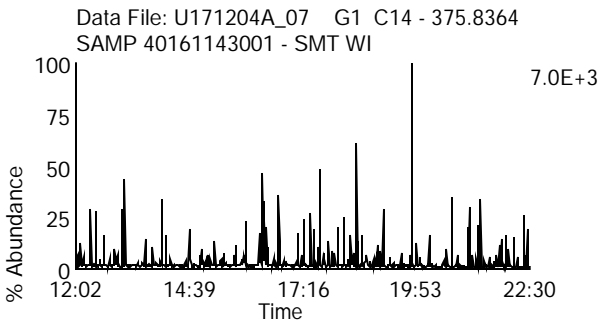
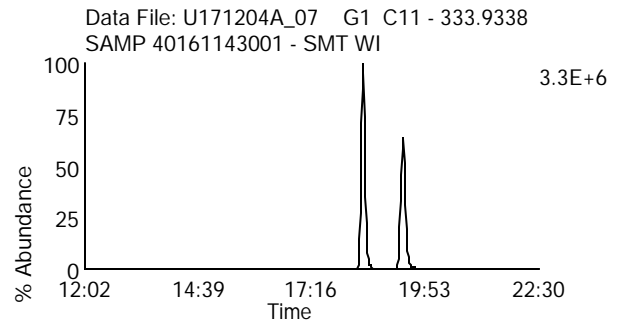
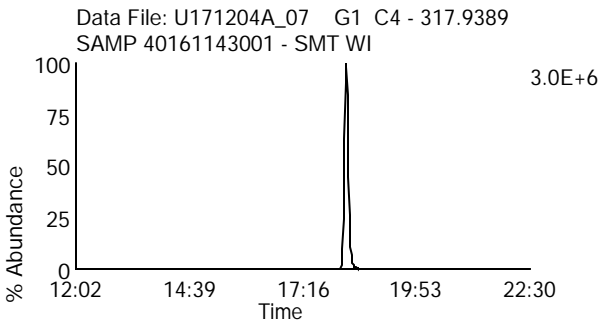
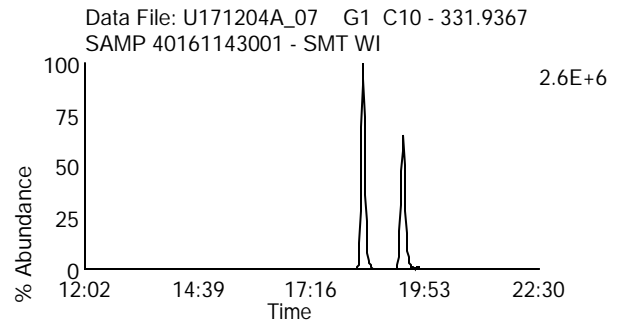
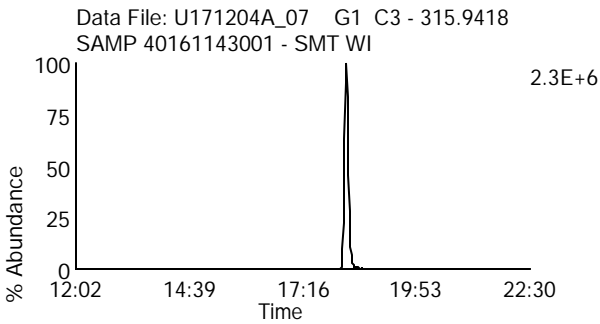
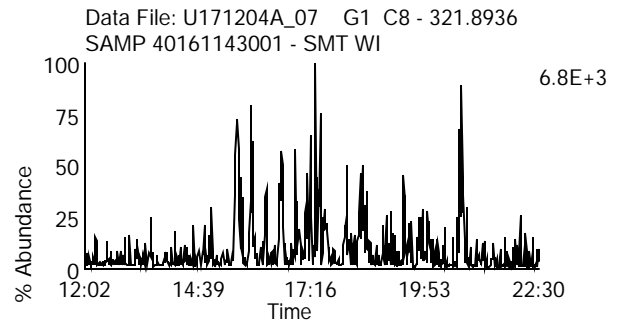
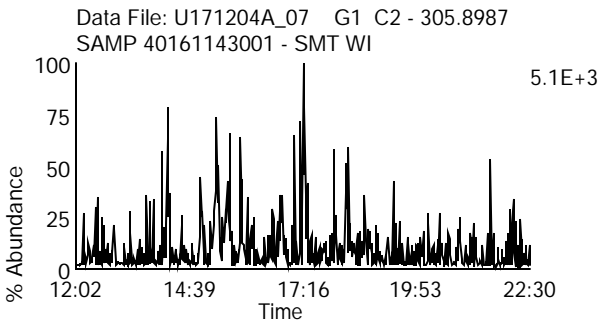
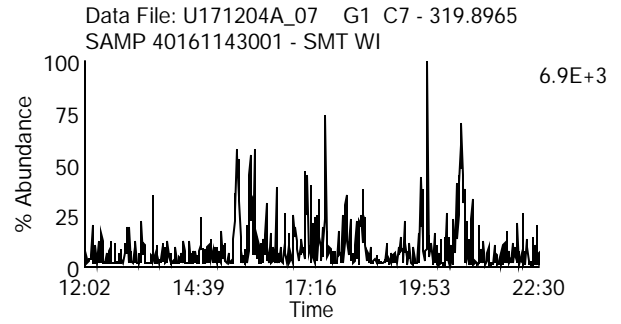
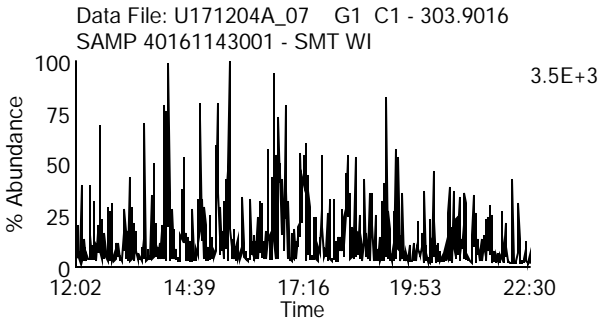
Appendix D

Sample Raw Data

Homologue Group: Tetras

Data File Name: U171204A_07
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143001 - SMT WI

Lab Sample ID: 40161143001
Client Sample ID: 111717022
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171204A_07

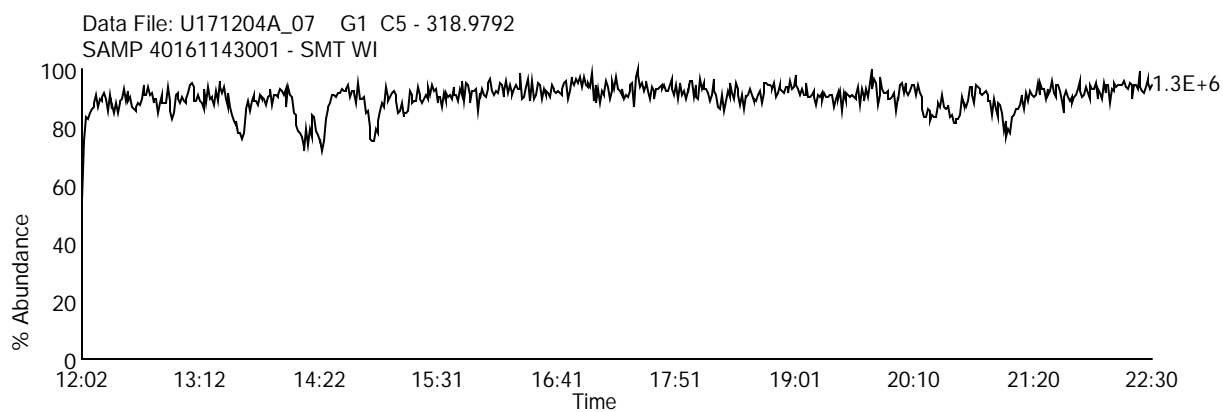
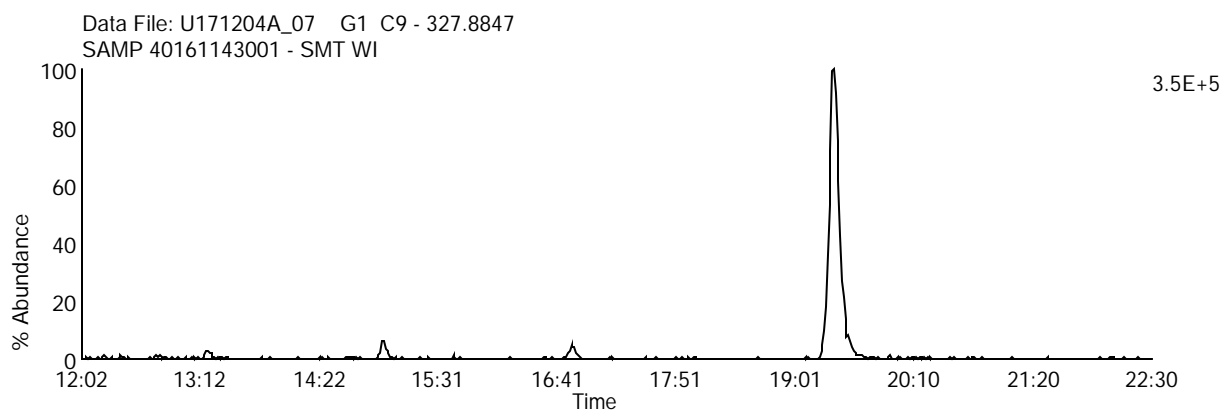
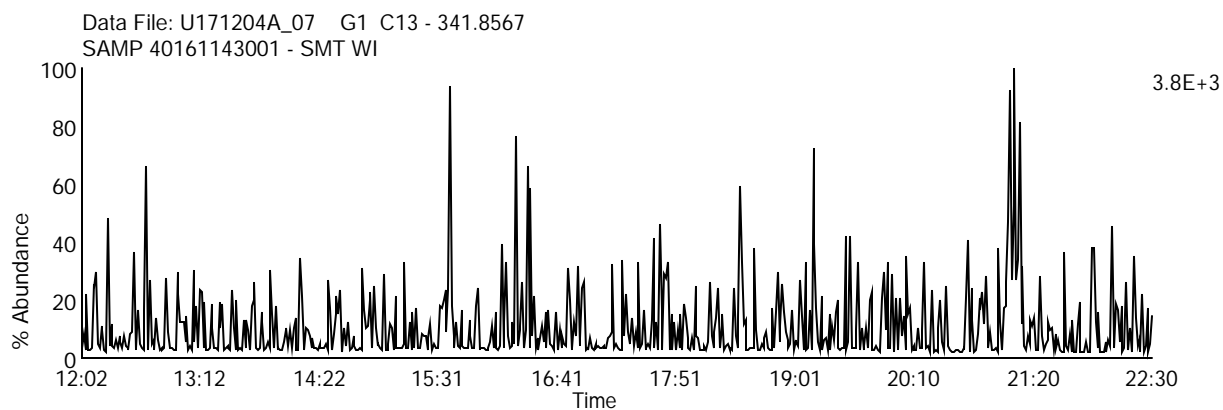
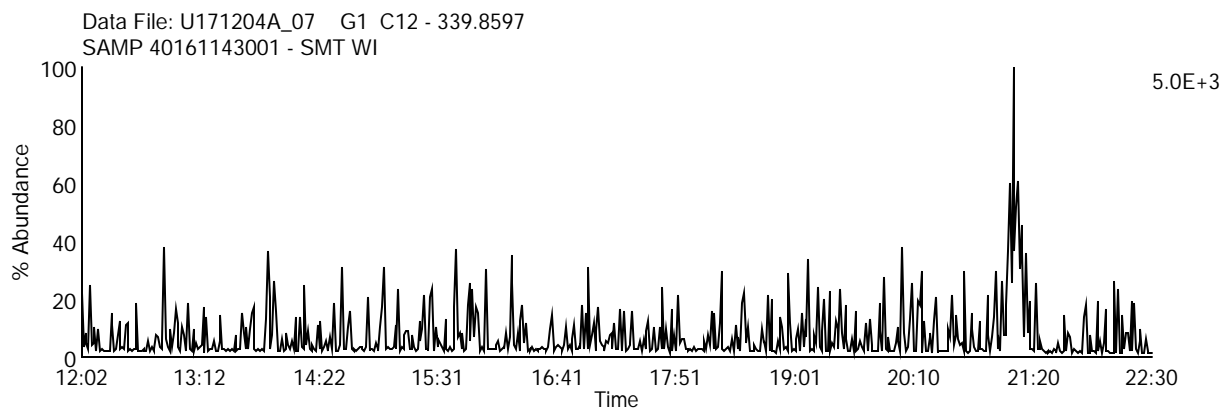
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001 - SMT WI

Lab Sample ID: 40161143001

Client Sample ID: 111717022

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171204A_07

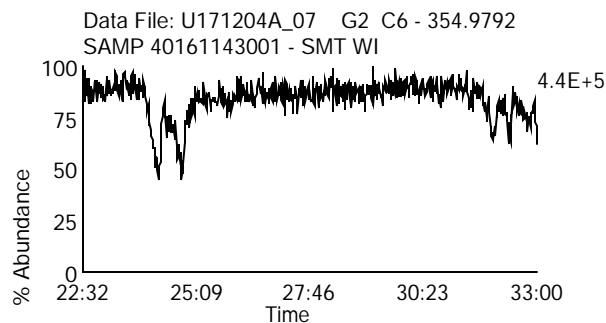
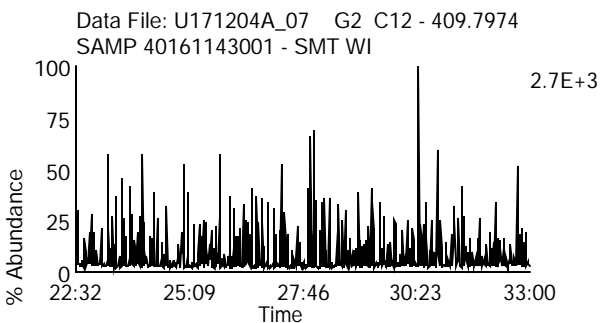
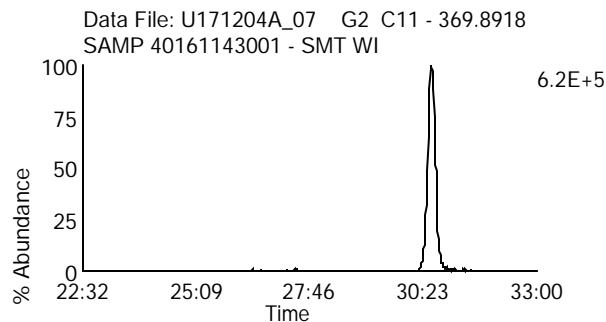
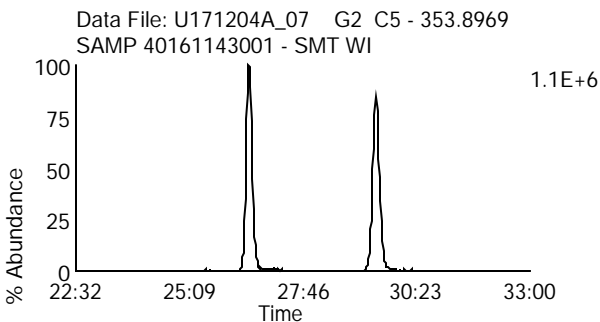
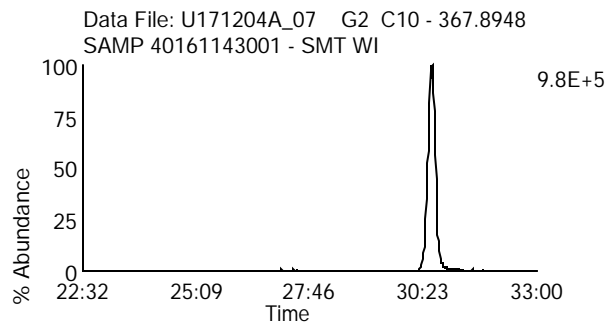
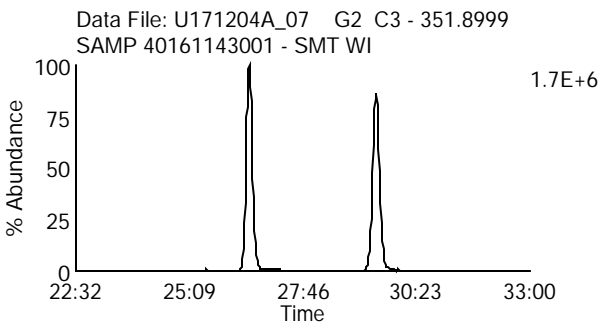
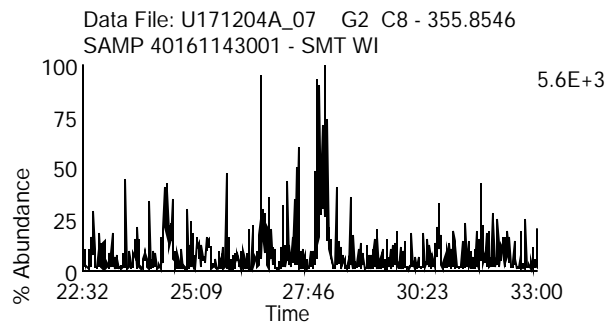
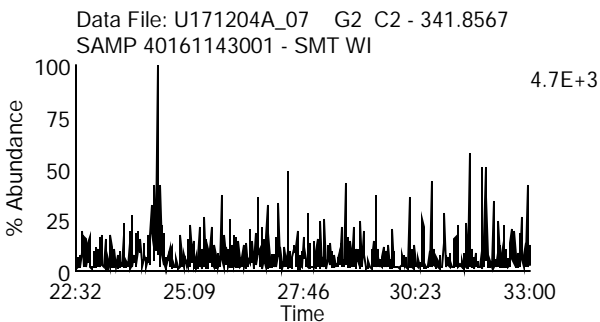
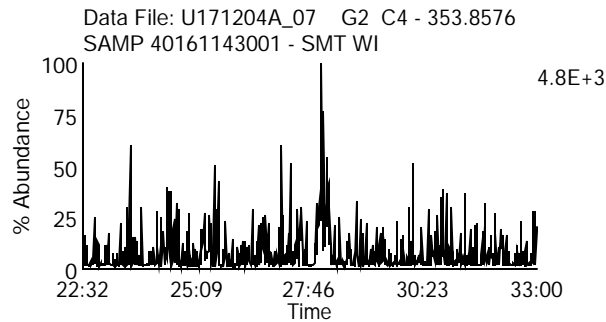
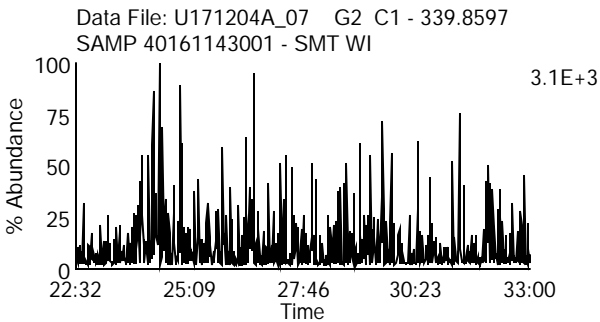
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001 - SMT WI

Lab Sample ID: 40161143001

Client Sample ID: 111717022

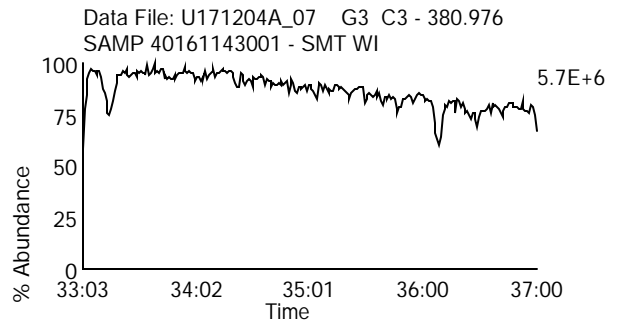
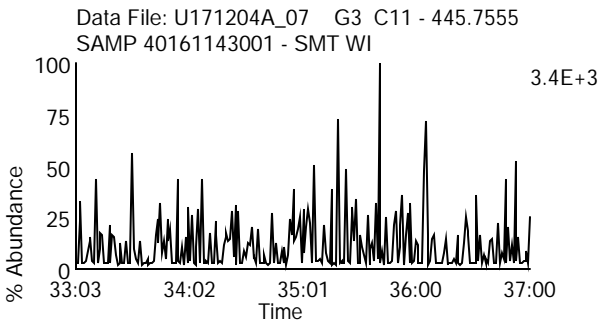
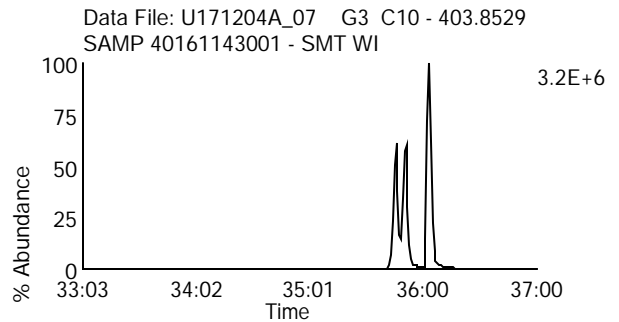
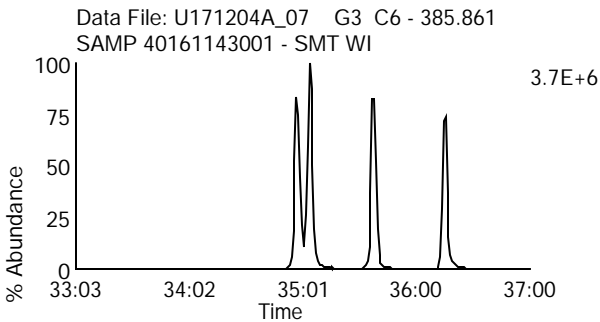
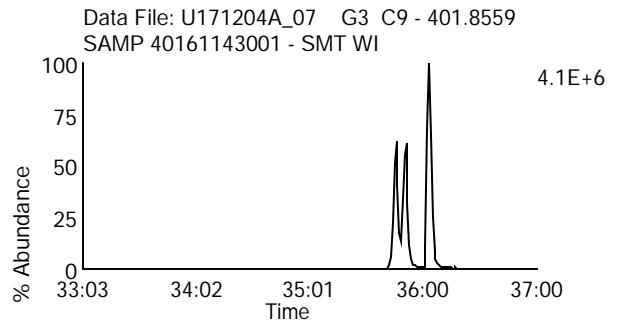
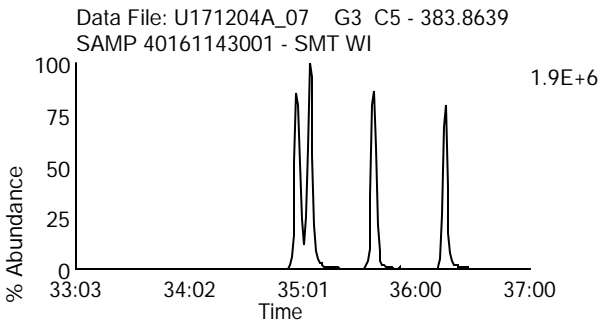
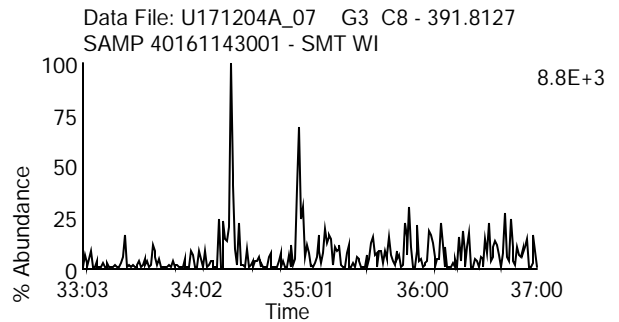
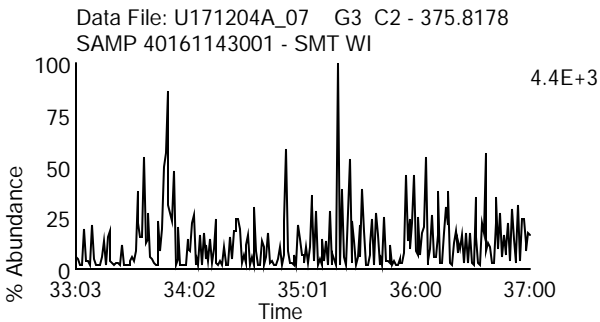
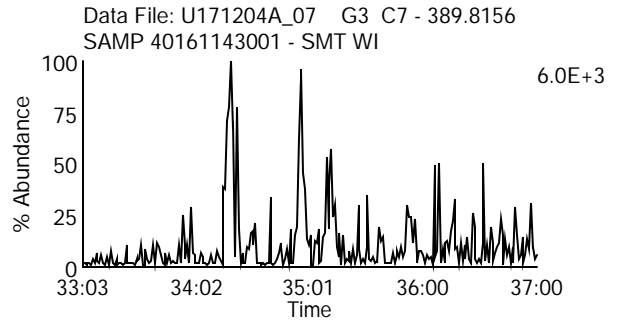
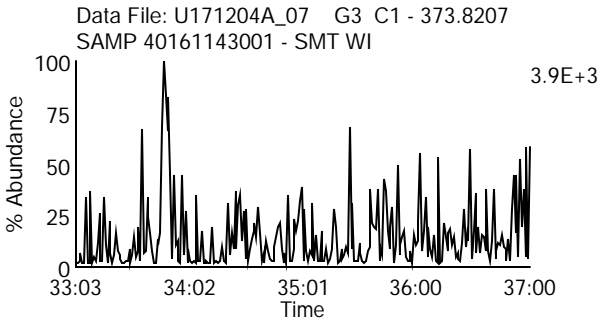
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171204A_07
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143001 - SMT WI

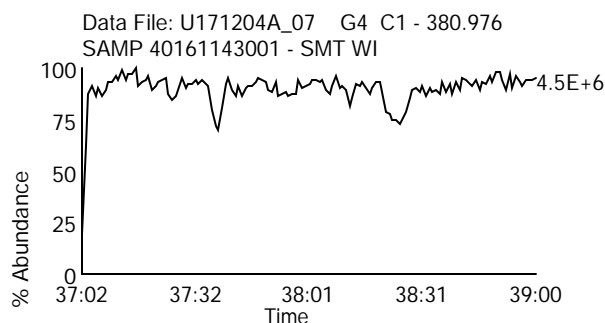
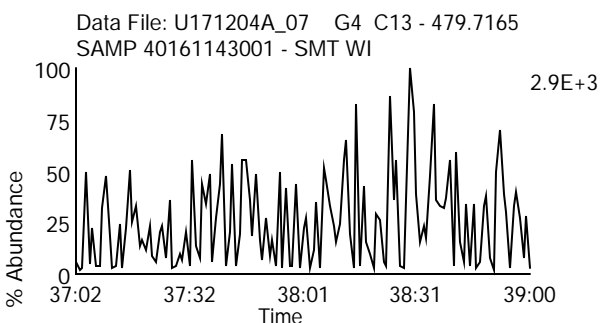
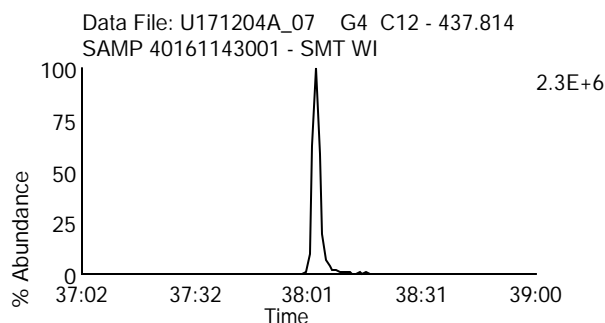
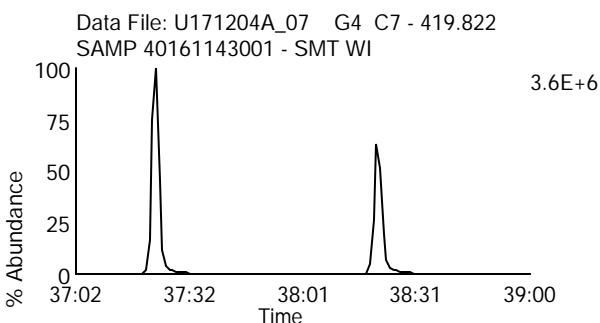
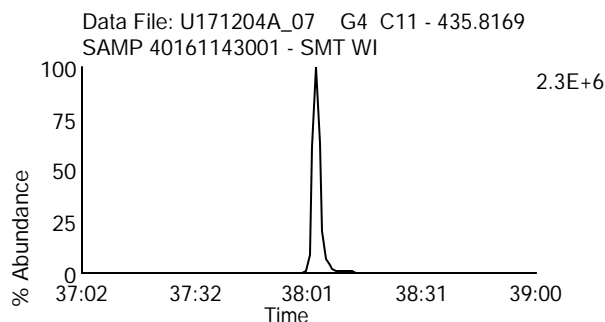
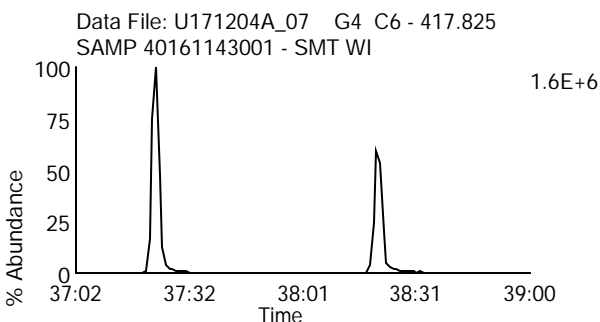
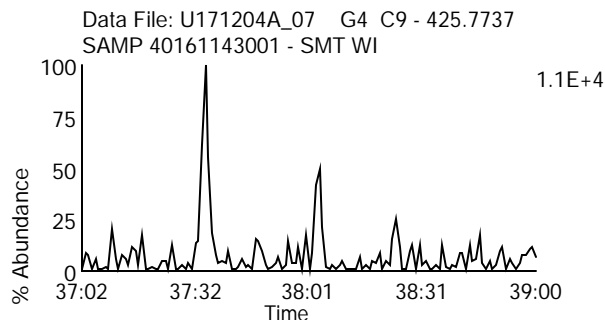
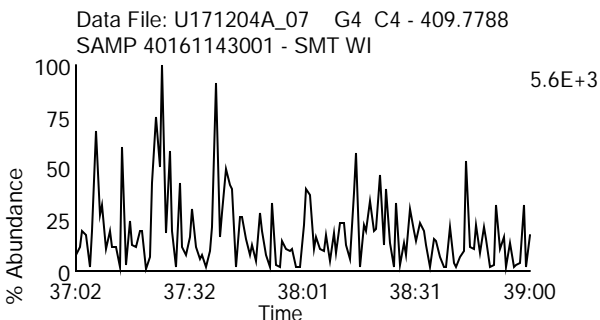
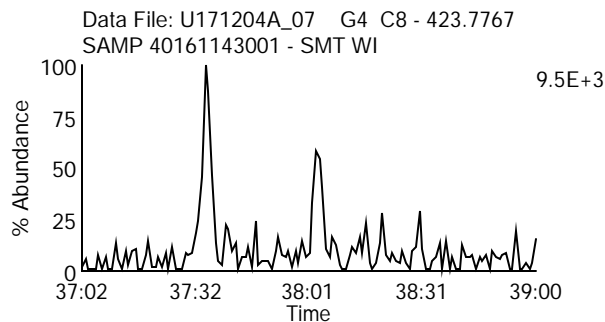
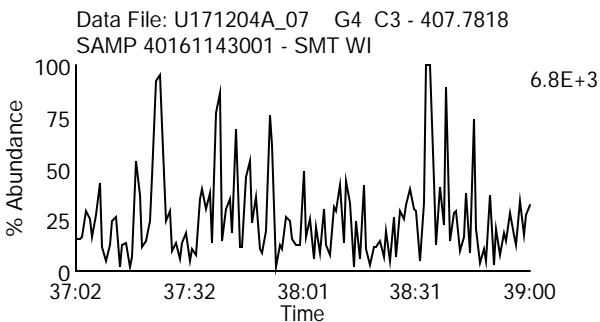
Lab Sample ID: 40161143001
Client Sample ID: 111717022
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171204A_07
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143001 - SMT WI

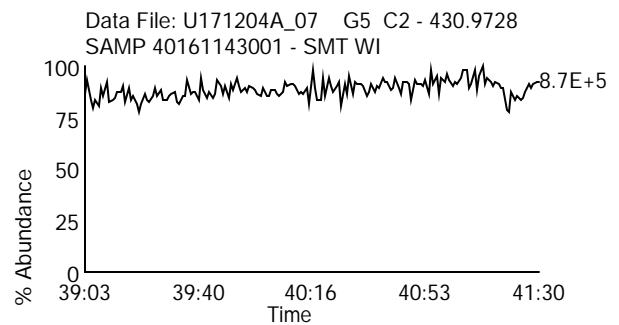
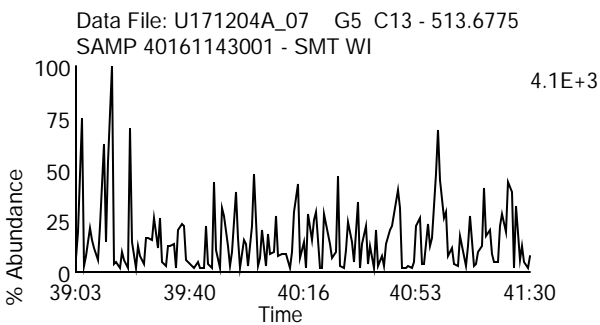
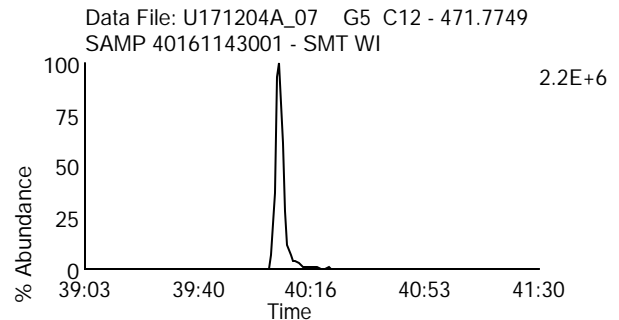
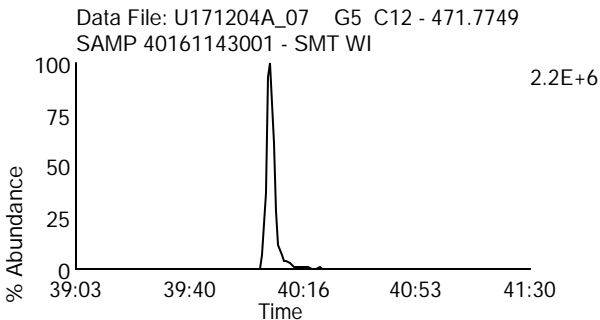
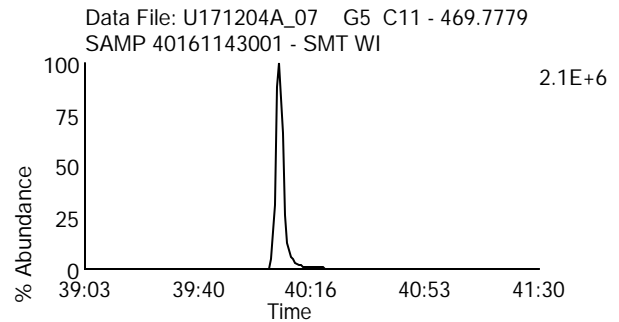
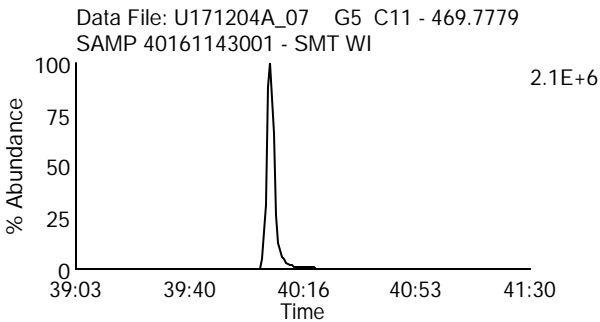
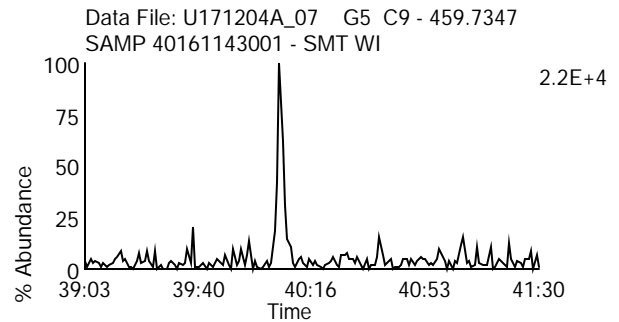
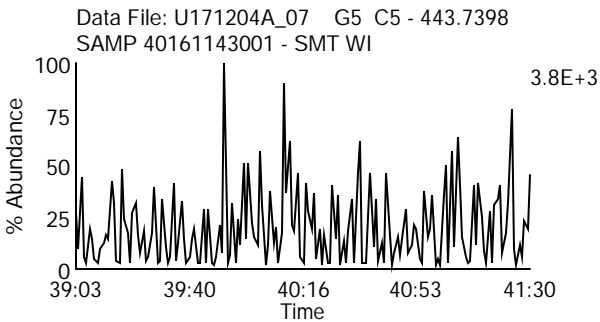
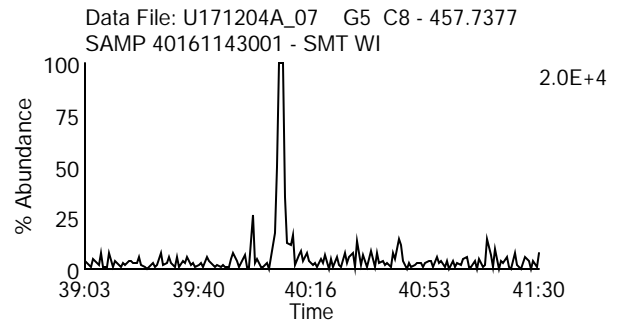
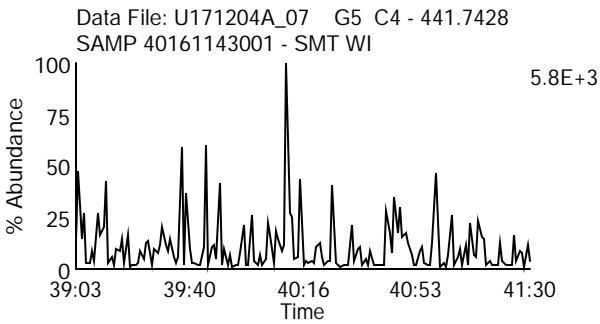
Lab Sample ID: 40161143001
Client Sample ID: 111717022
Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171204A_07
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143001 - SMT WI

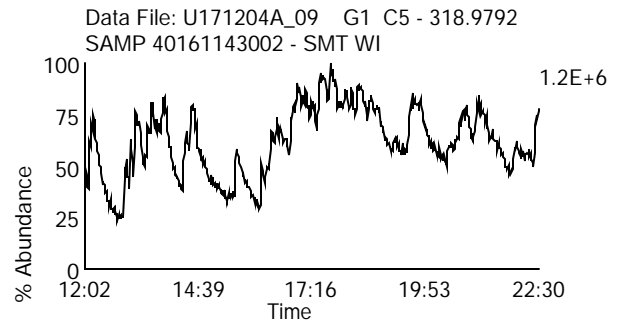
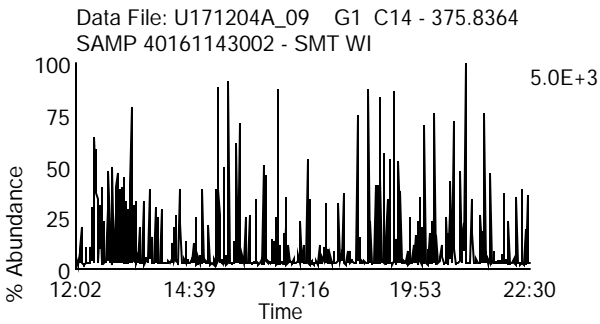
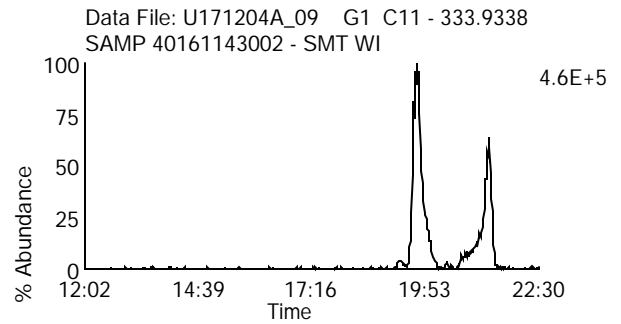
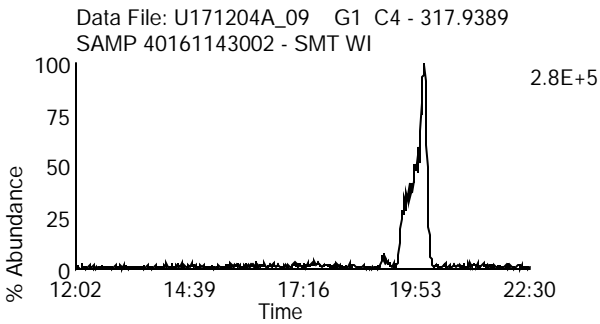
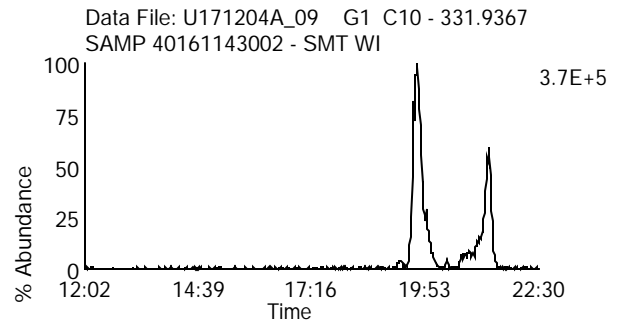
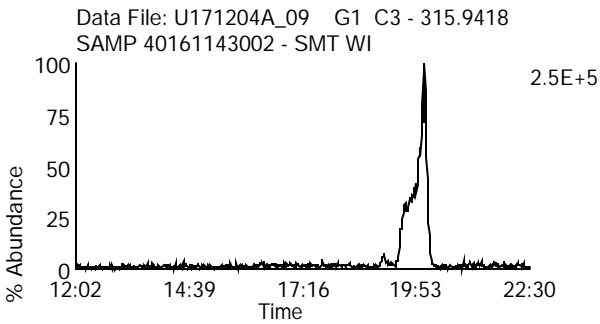
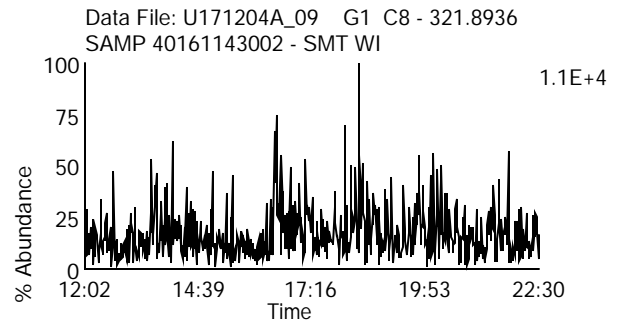
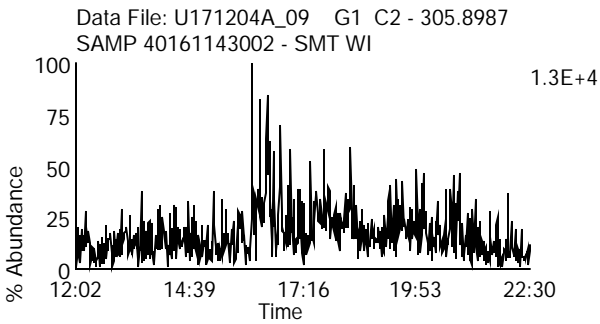
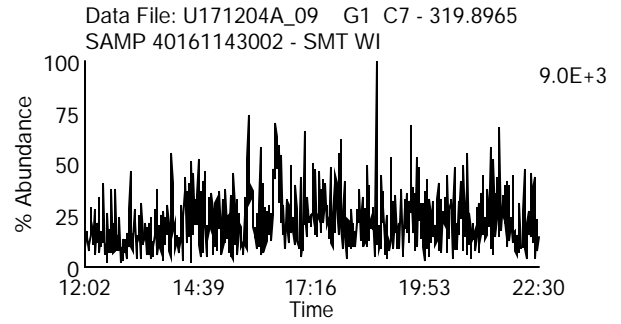
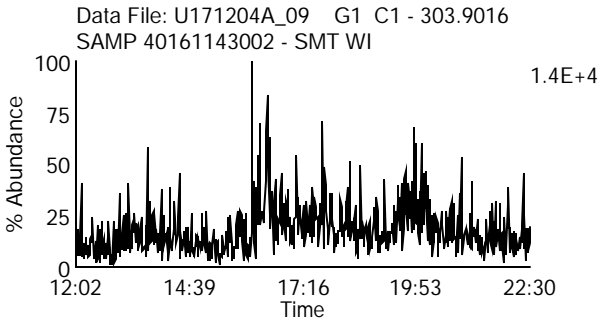
Lab Sample ID: 40161143001
Client Sample ID: 111717022
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171204A_09
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143002 - SMT WI

Lab Sample ID: 40161143002
Client Sample ID: 111717024
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171204A_09

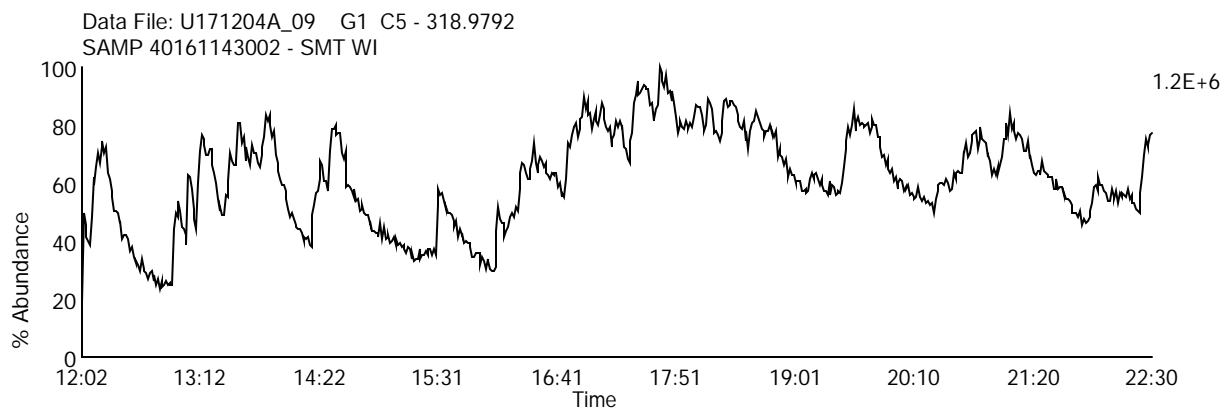
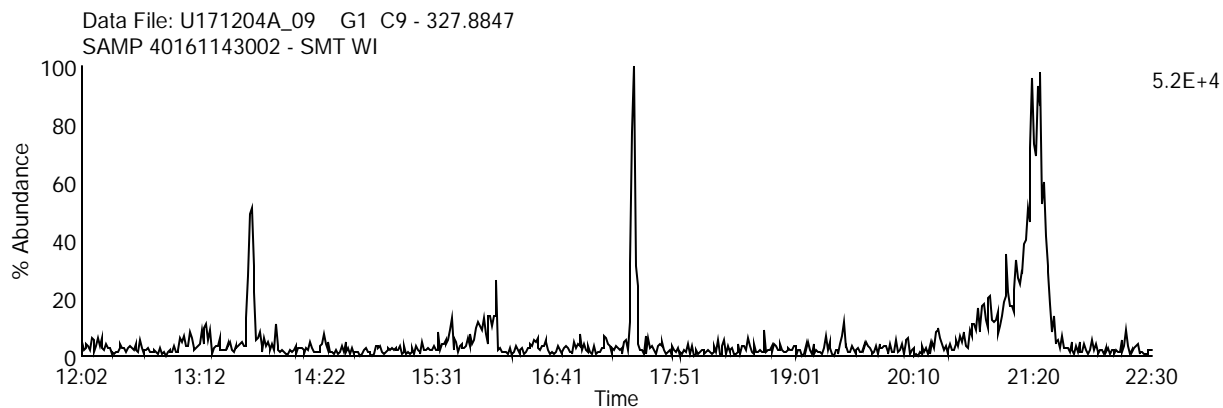
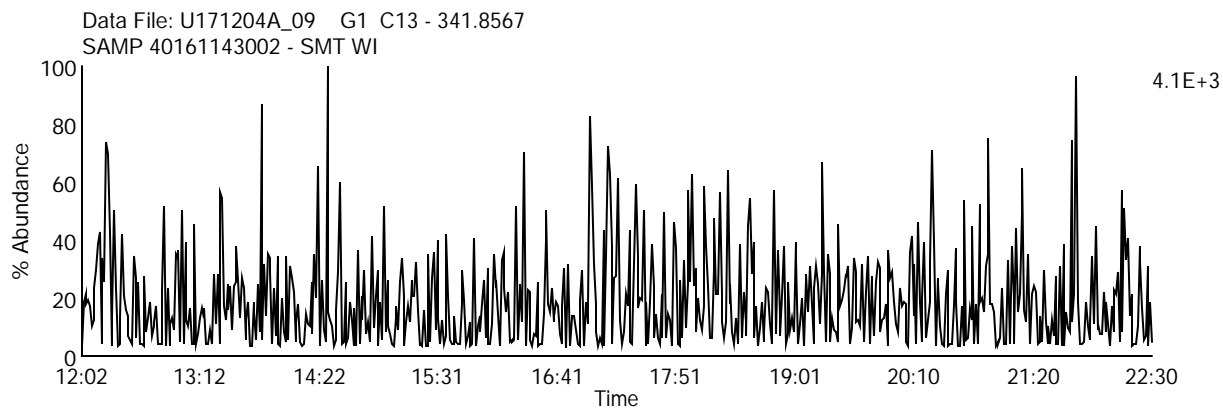
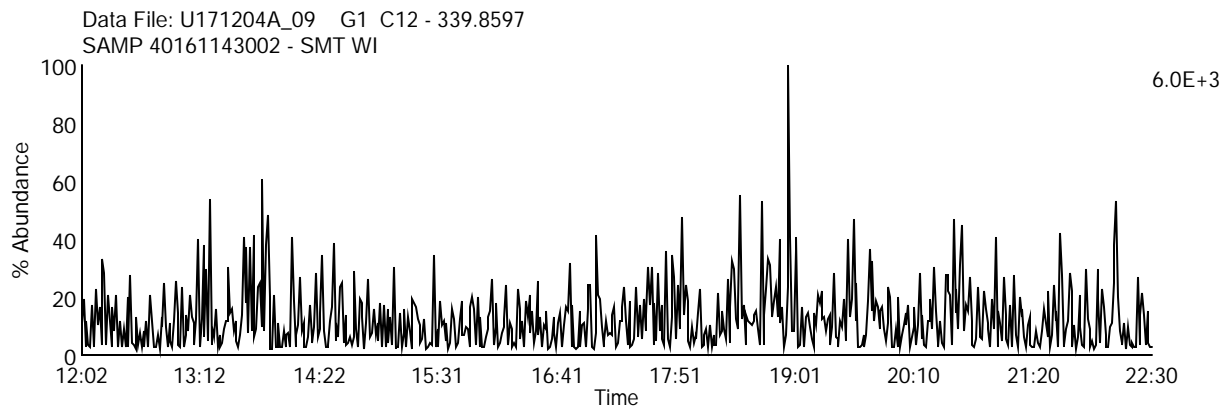
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143002 - SMT WI

Lab Sample ID: 40161143002

Client Sample ID: 111717024

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171204A_09

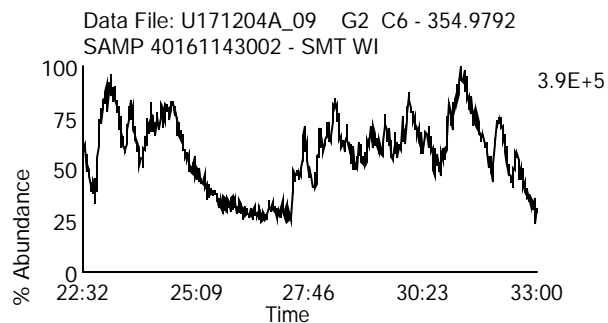
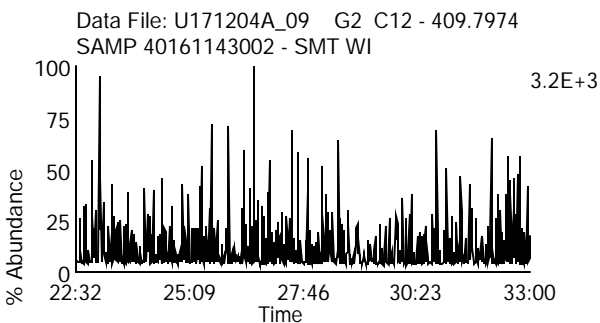
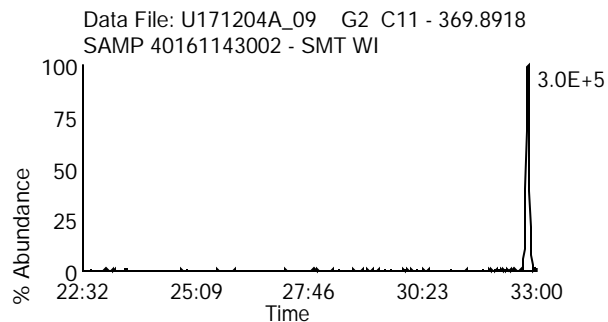
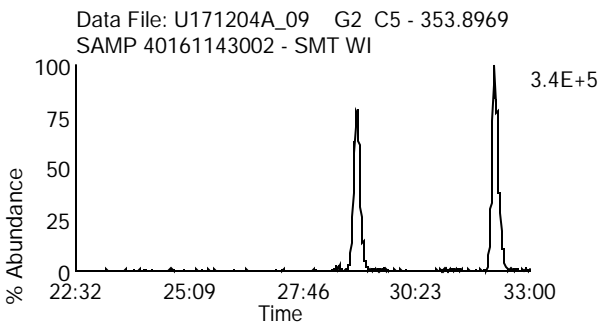
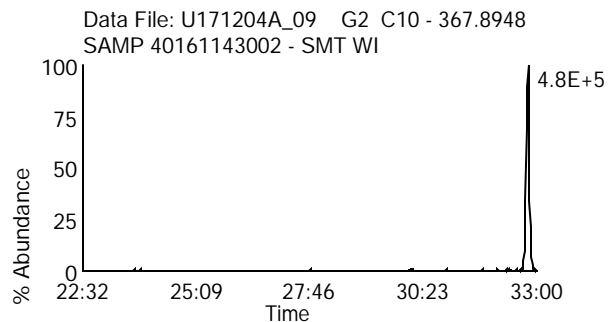
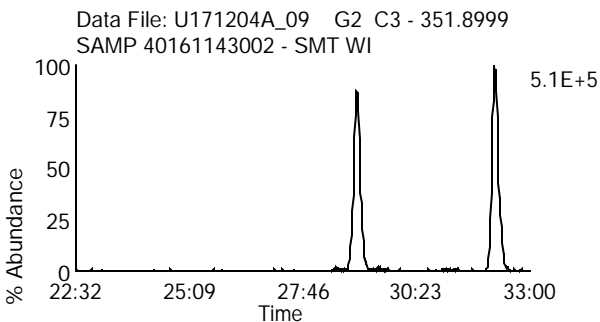
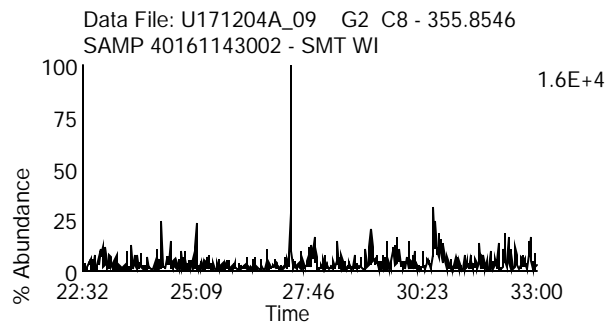
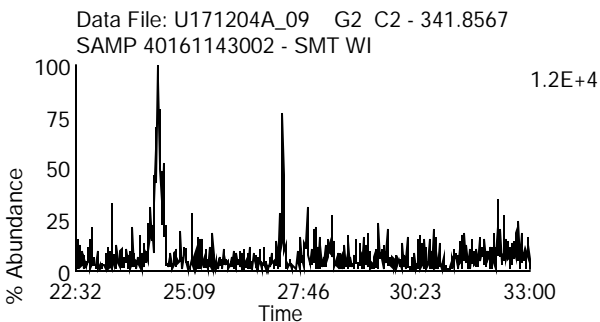
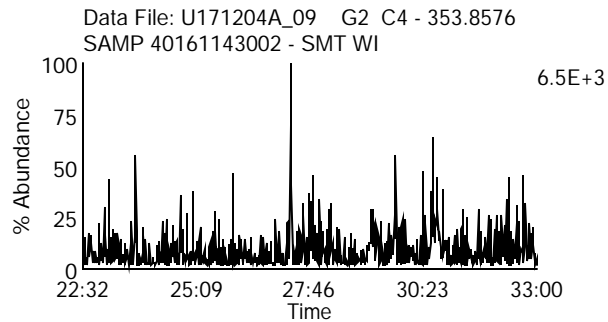
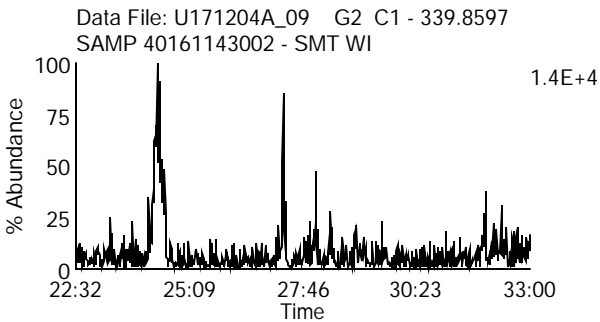
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143002 - SMT WI

Lab Sample ID: 40161143002

Client Sample ID: 111717024

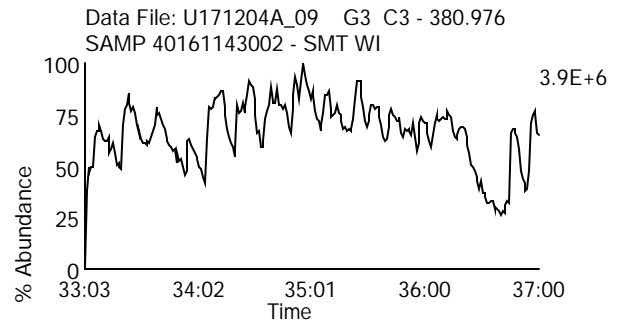
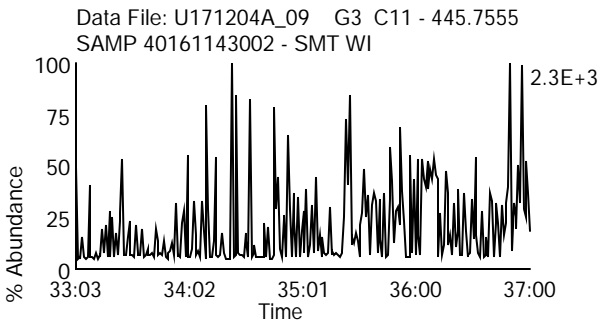
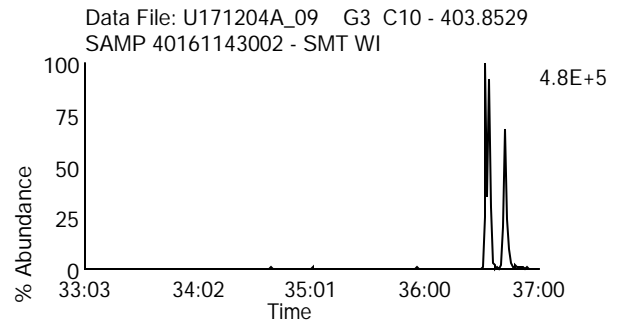
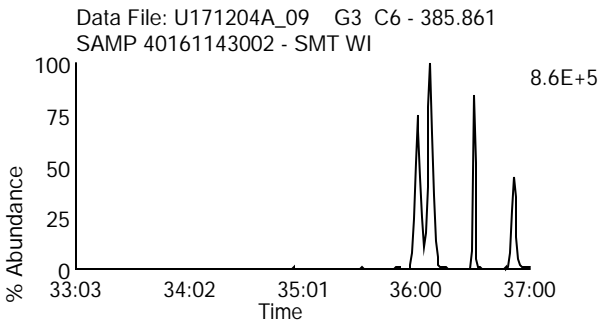
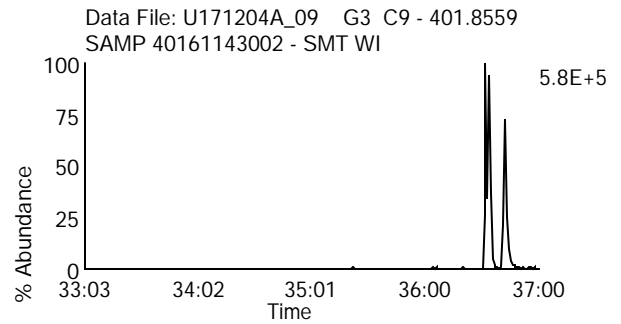
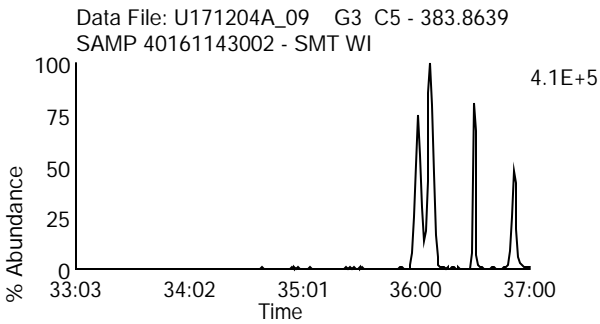
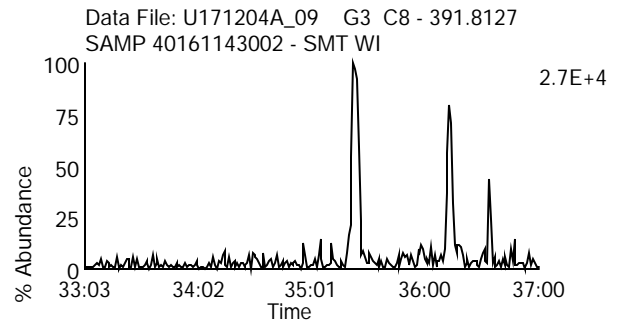
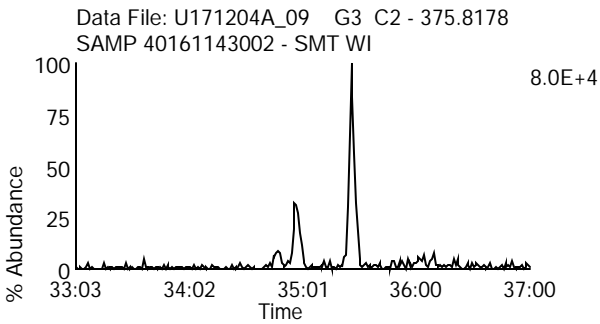
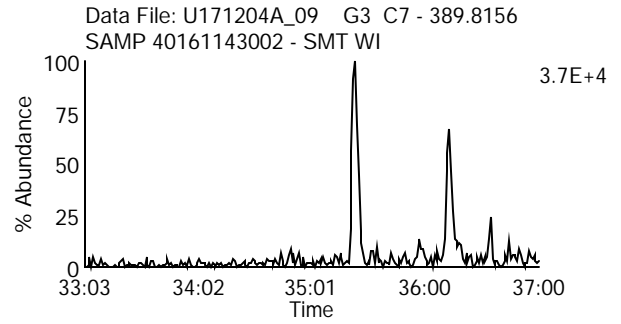
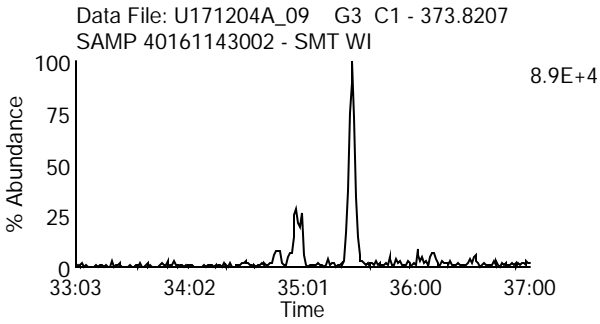
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171204A_09
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143002 - SMT WI

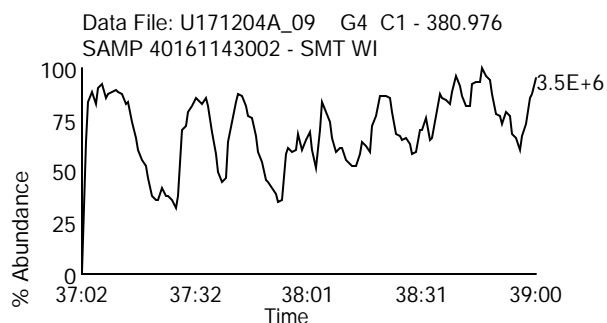
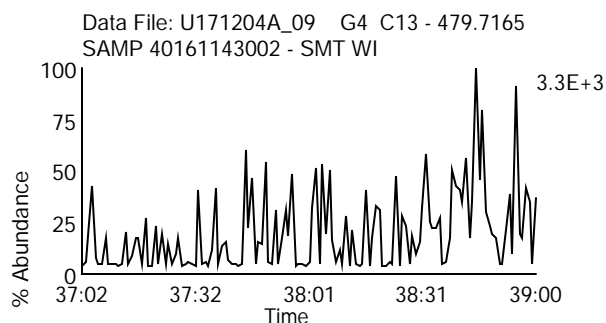
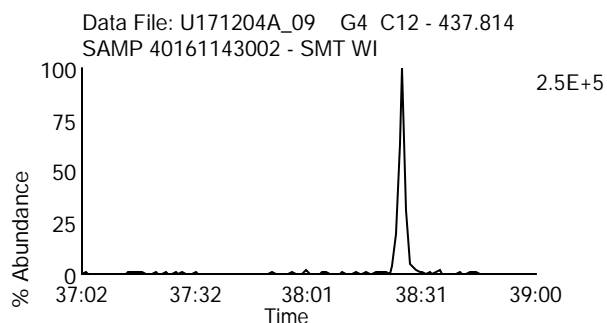
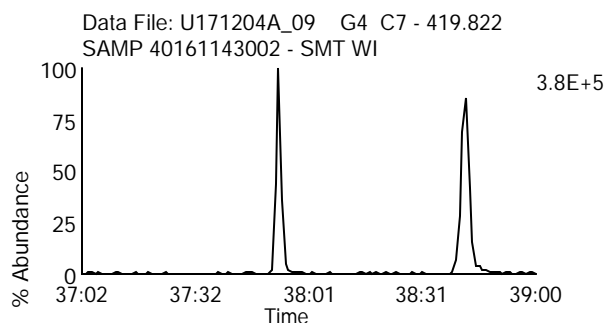
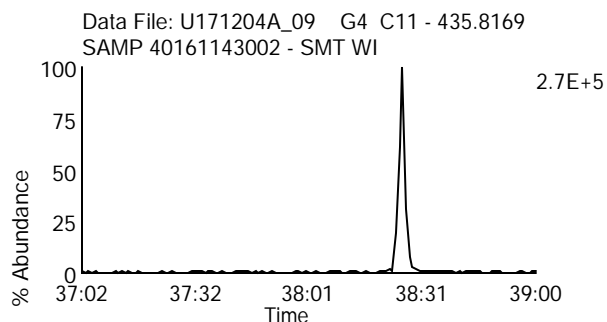
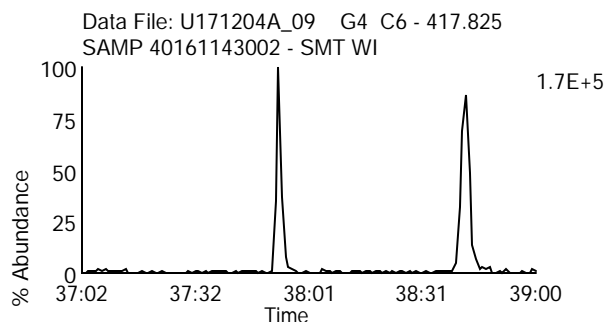
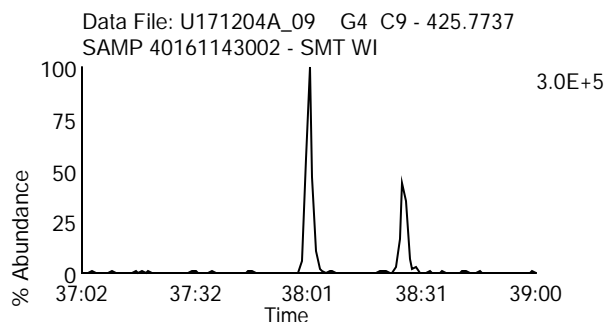
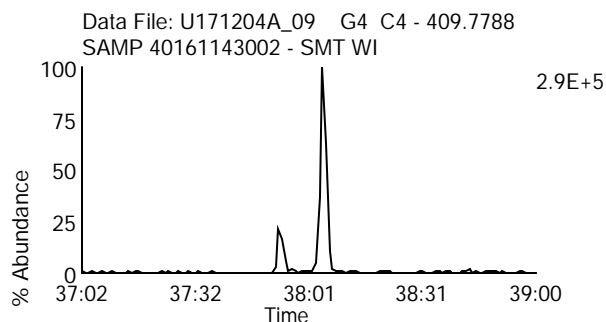
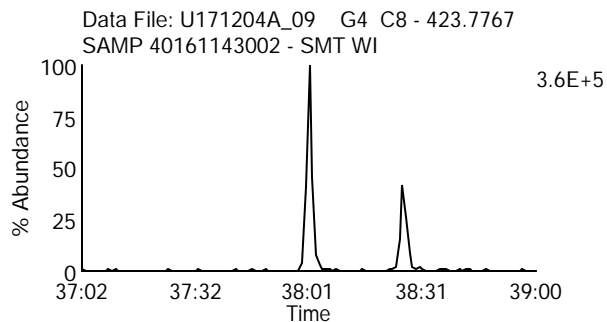
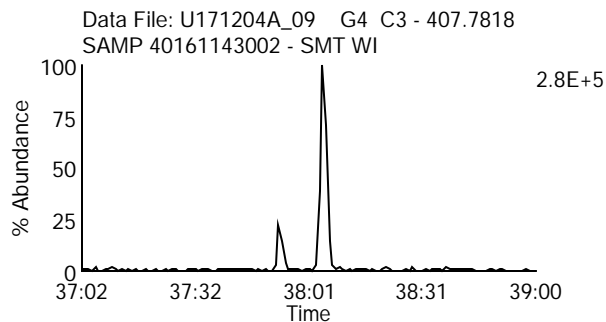
Lab Sample ID: 40161143002
Client Sample ID: 111717024
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171204A_09
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143002 - SMT WI

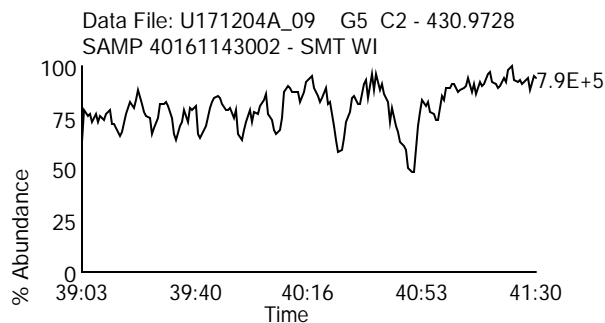
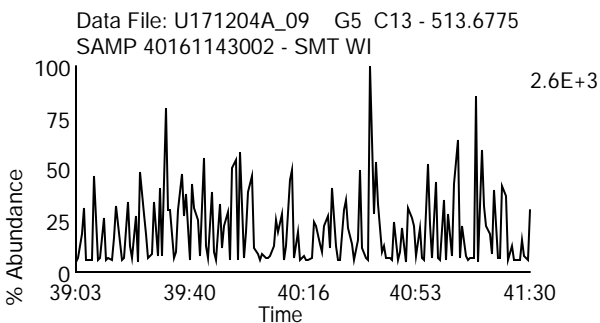
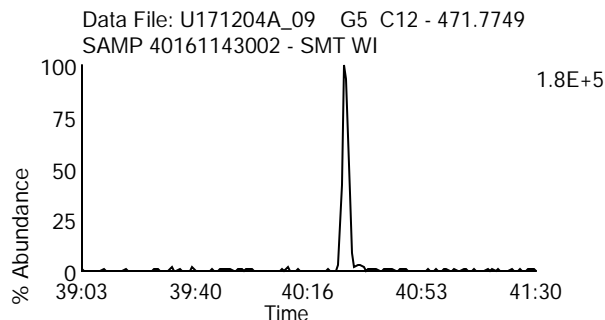
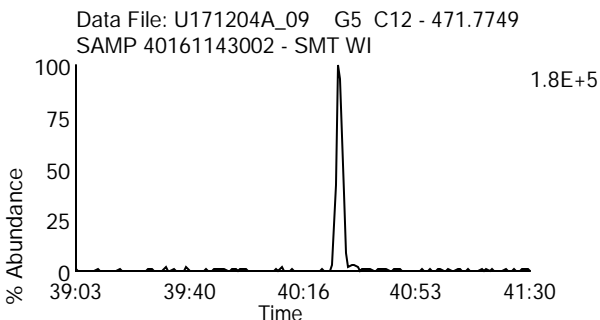
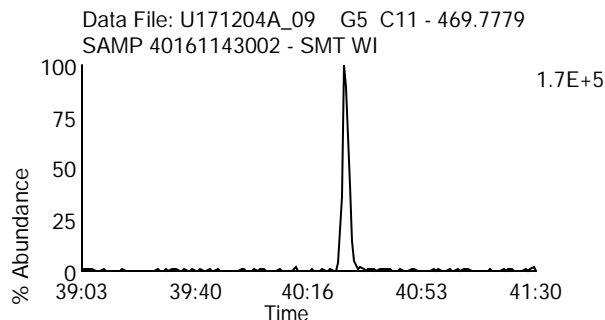
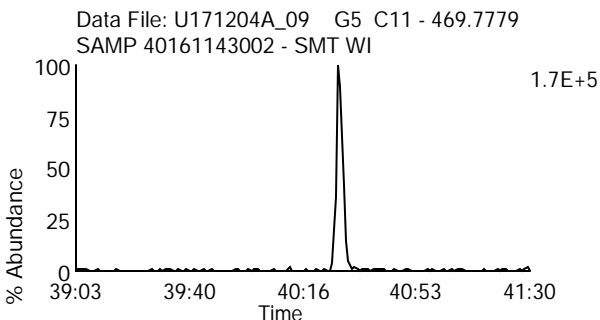
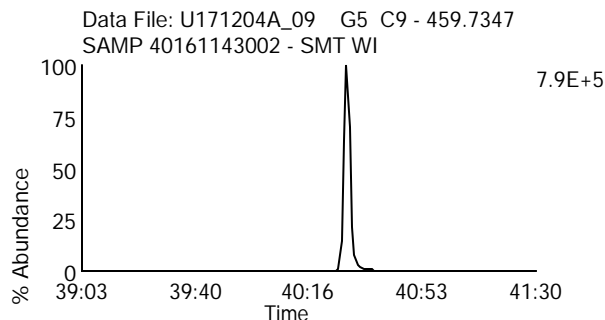
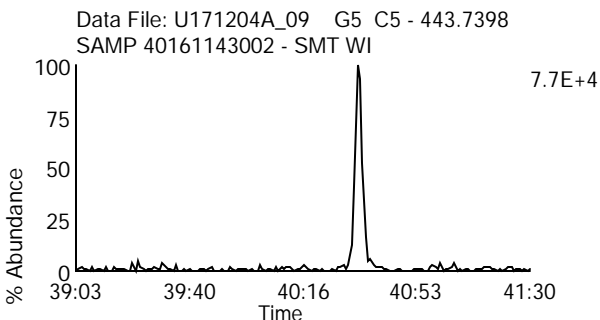
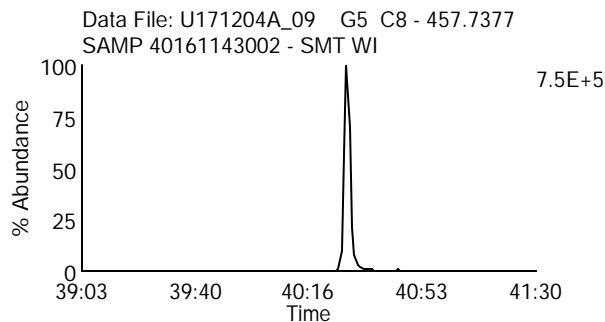
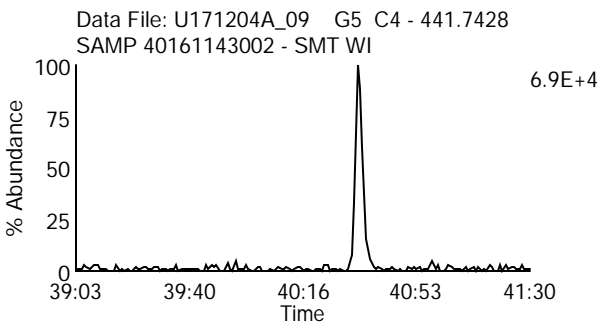
Lab Sample ID: 40161143002
Client Sample ID: 111717024
Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171204A_09
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143002 - SMT WI

Lab Sample ID: 40161143002
Client Sample ID: 111717024
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171204B_13

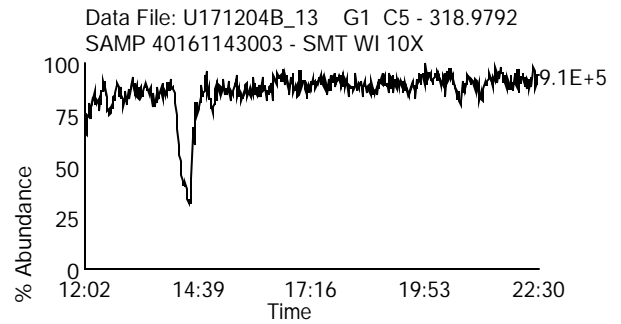
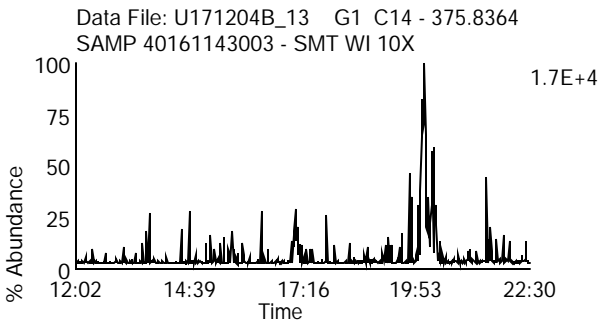
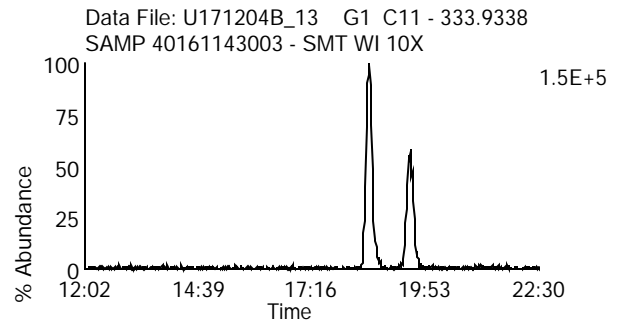
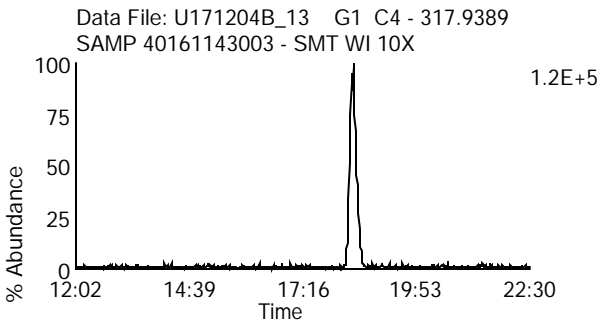
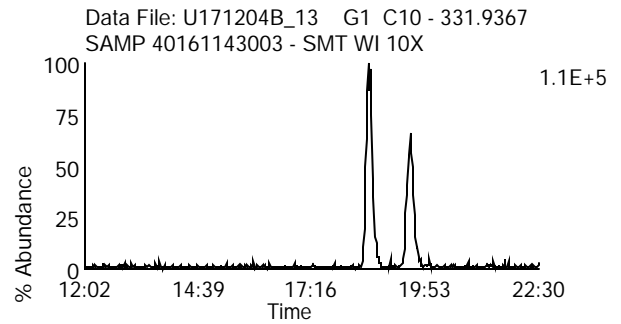
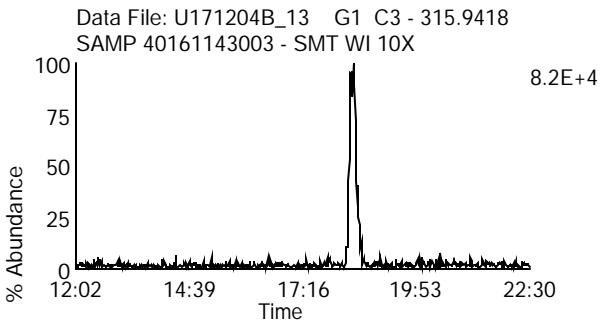
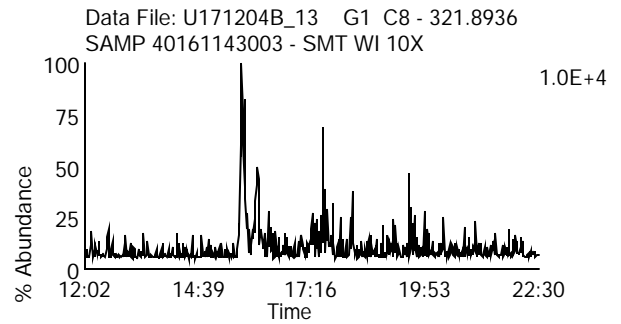
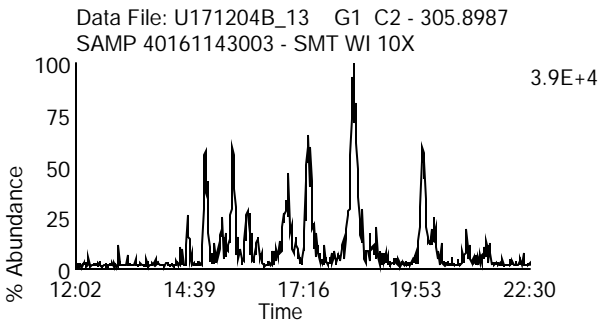
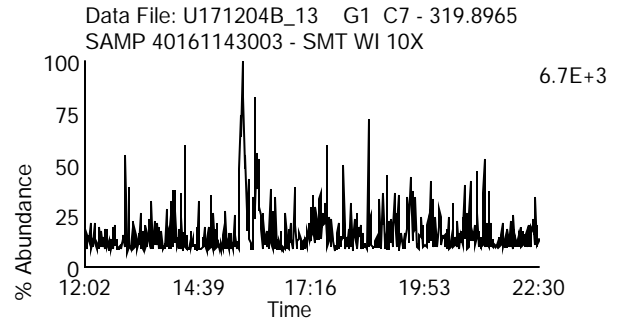
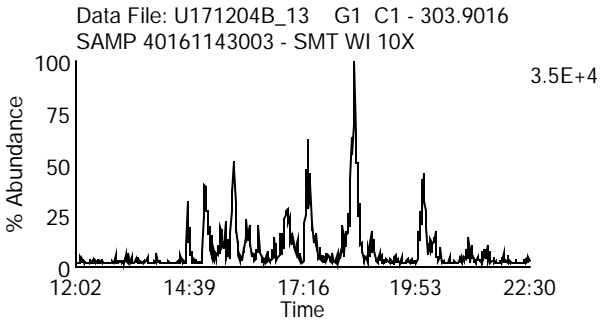
Date Acquired: 12/5/2017

Sample Description: SAMP 40161143003 - SMT WI 10X

Lab Sample ID: 40161143003

Client Sample ID: 111717026

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171204B_13

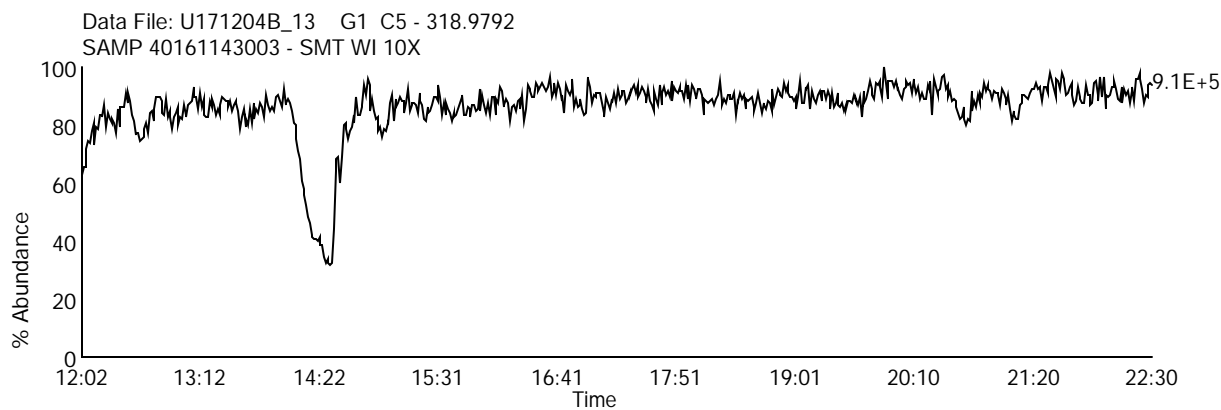
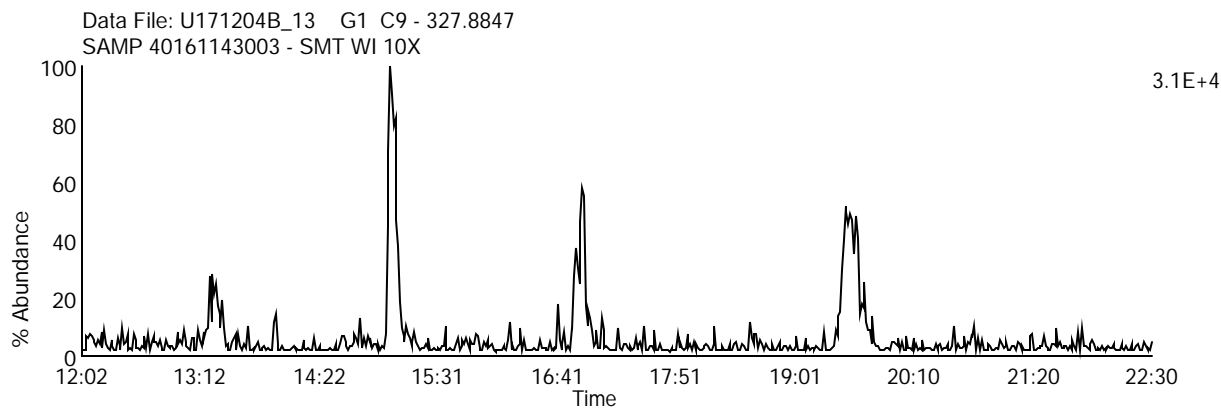
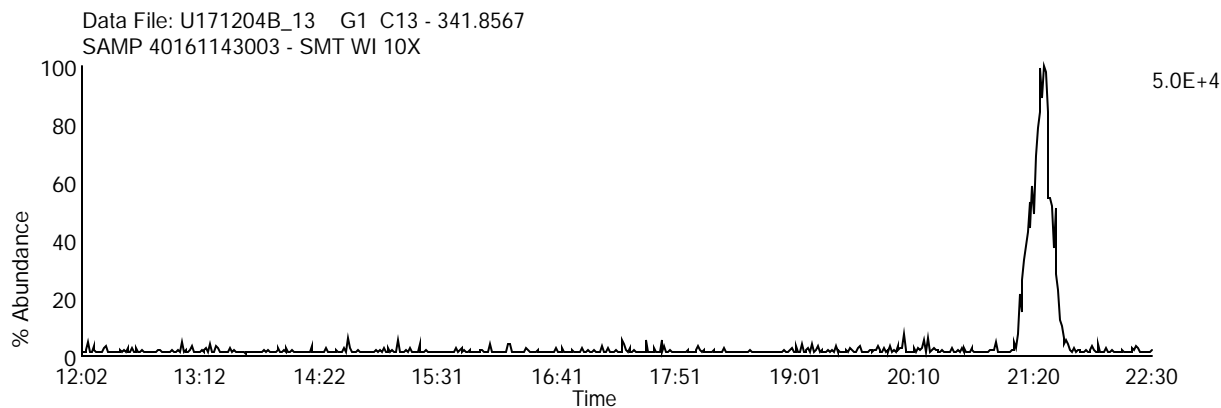
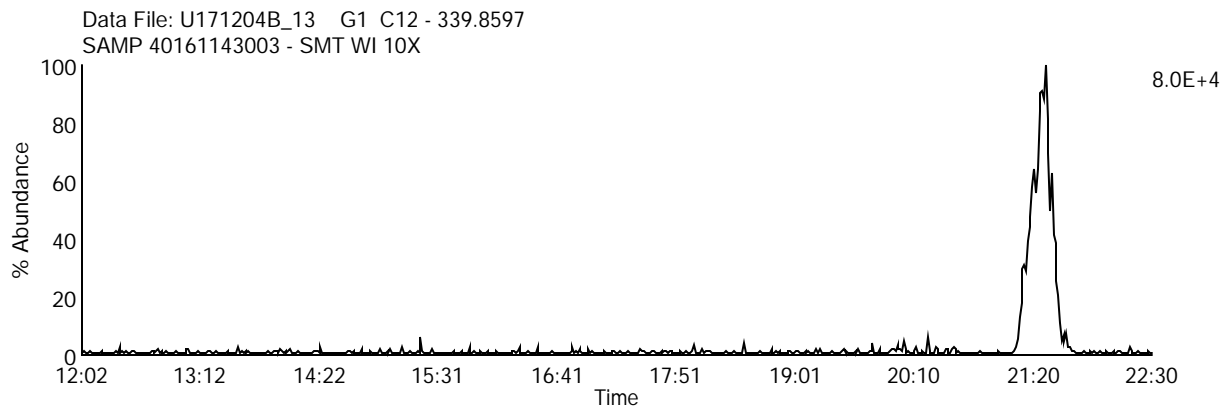
Date Acquired: 12/5/2017

Sample Description: SAMP 40161143003 - SMT WI 10X

Lab Sample ID: 40161143003

Client Sample ID: 111717026

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171204B_13

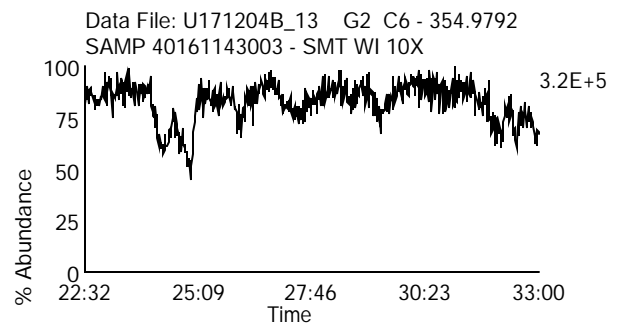
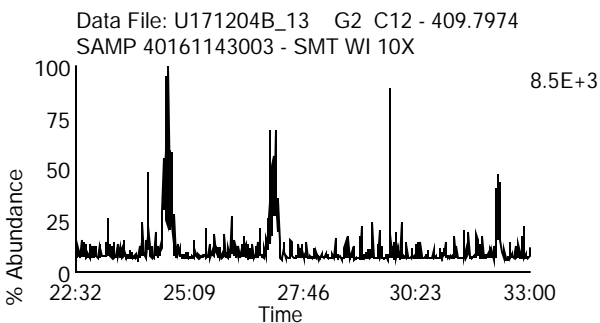
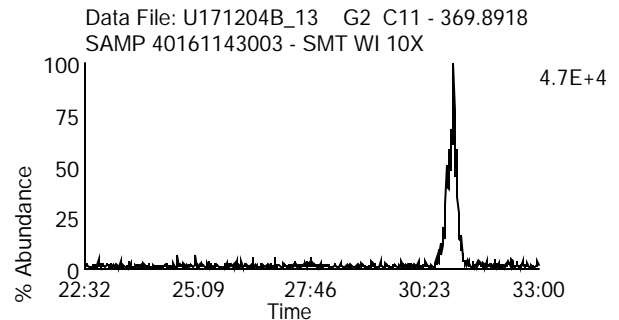
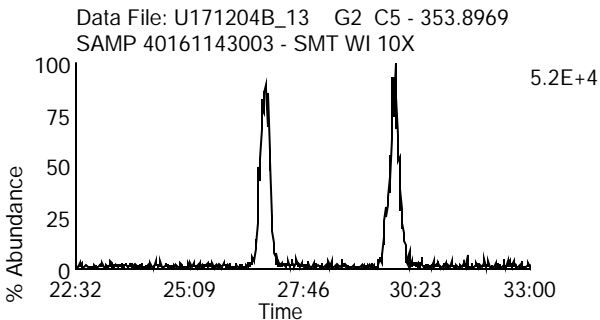
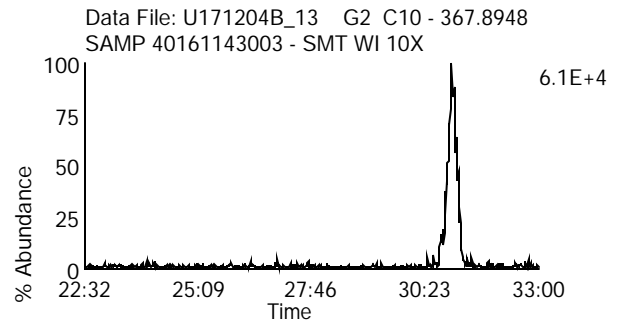
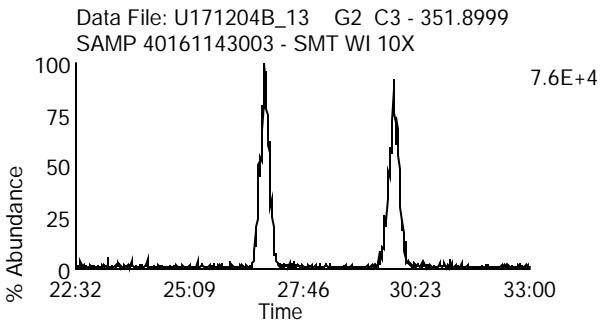
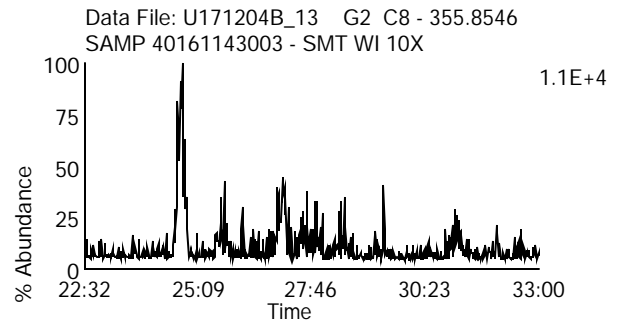
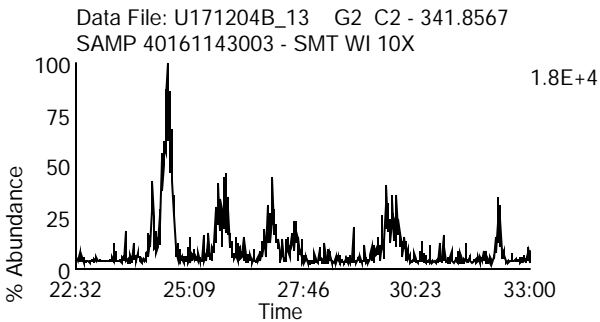
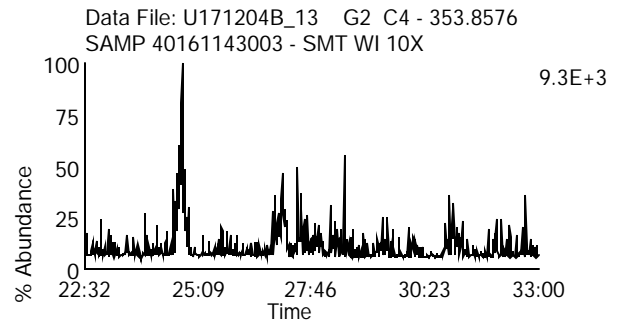
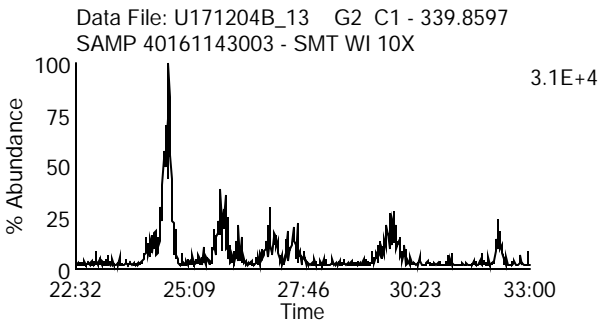
Date Acquired: 12/5/2017

Sample Description: SAMP 40161143003 - SMT WI 10X

Lab Sample ID: 40161143003

Client Sample ID: 111717026

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171204B_13

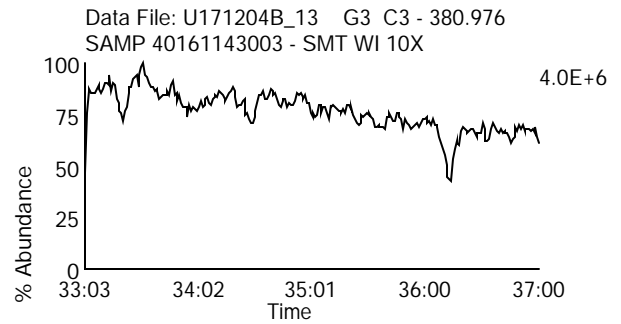
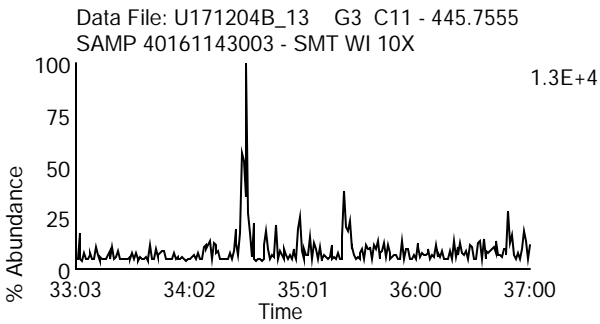
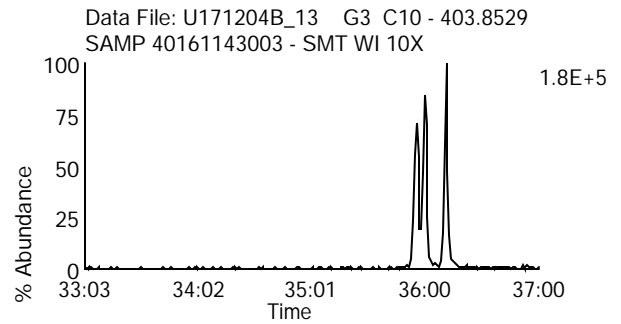
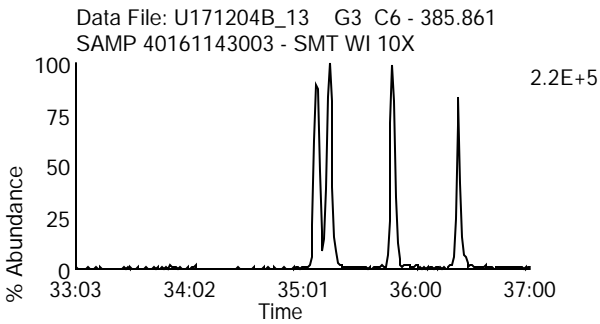
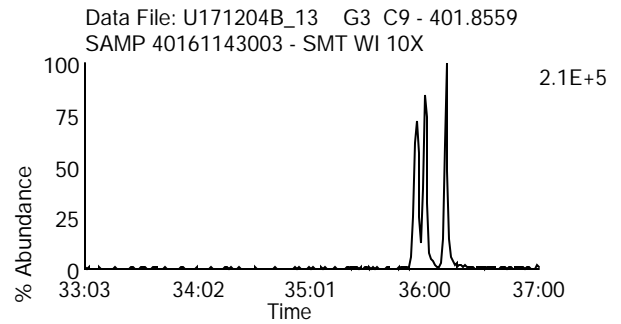
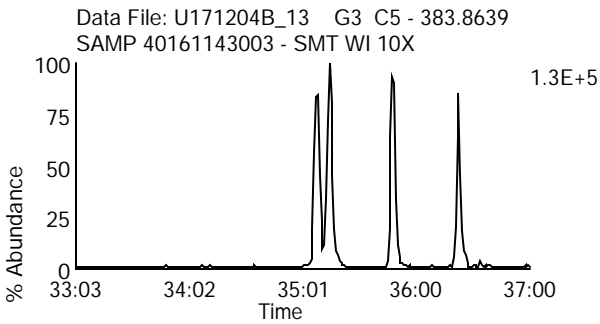
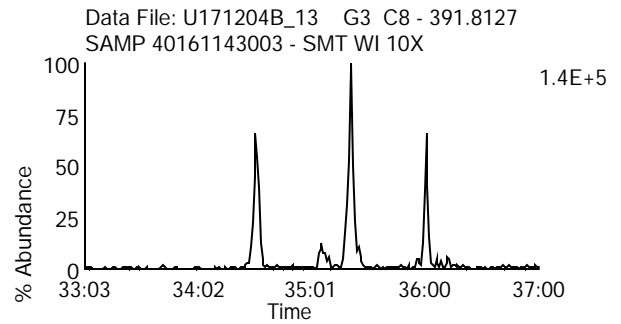
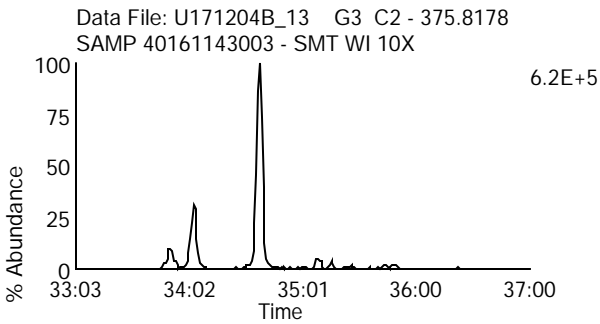
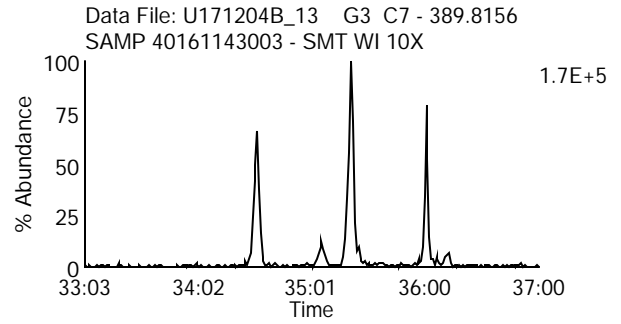
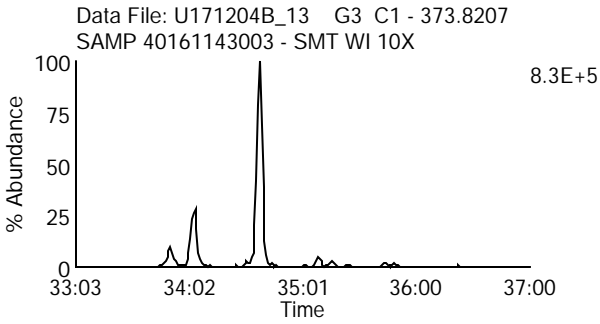
Date Acquired: 12/5/2017

Sample Description: SAMP 40161143003 - SMT WI 10X

Lab Sample ID: 40161143003

Client Sample ID: 111717026

Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171204B_13

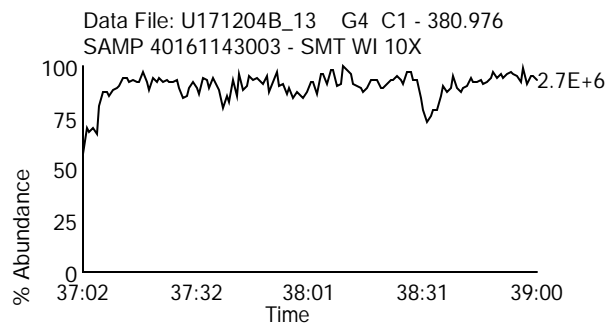
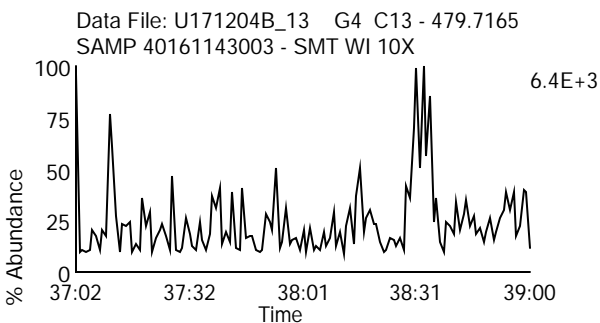
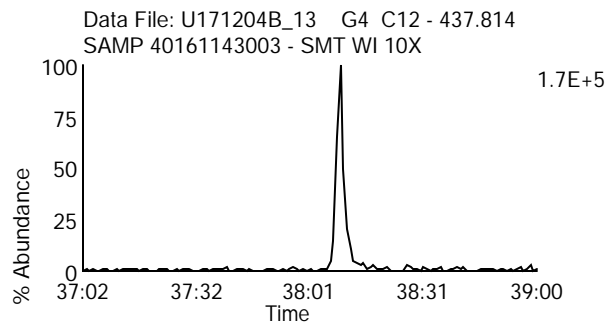
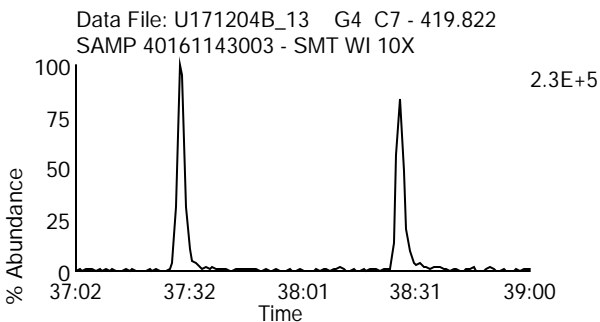
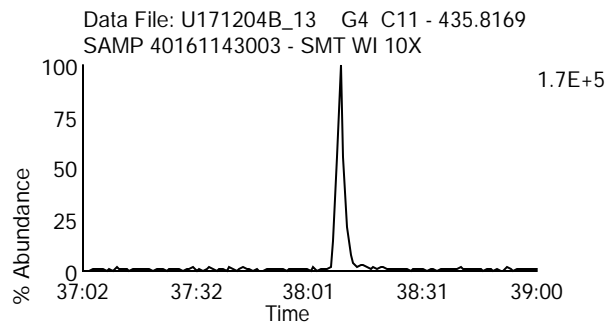
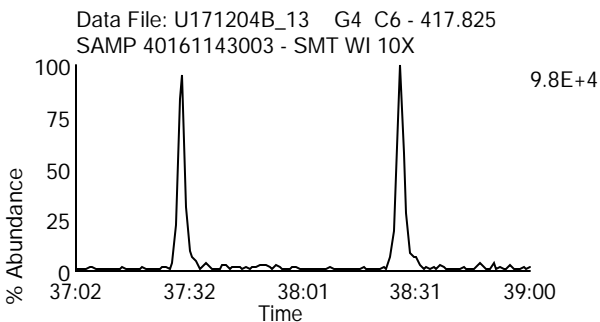
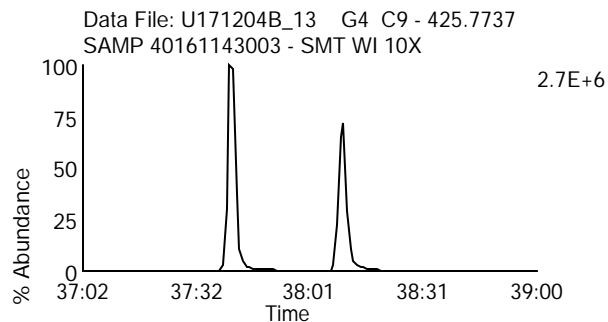
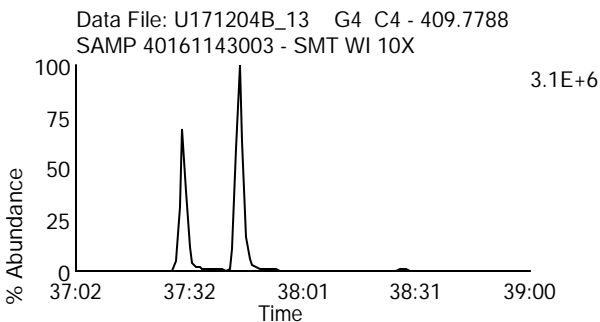
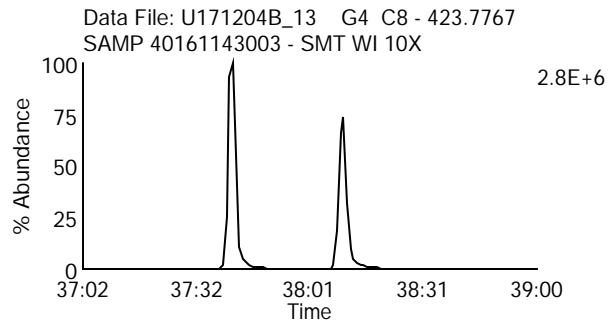
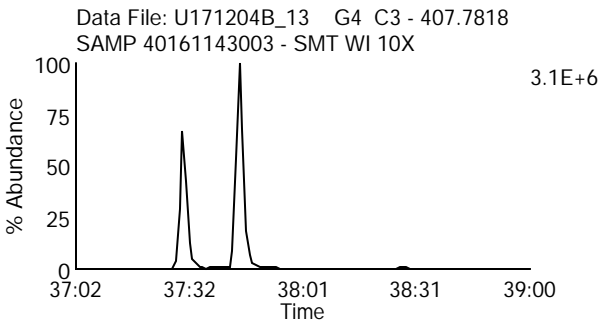
Date Acquired: 12/5/2017

Sample Description: SAMP 40161143003 - SMT WI 10X

Lab Sample ID: 40161143003

Client Sample ID: 111717026

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171204B_13

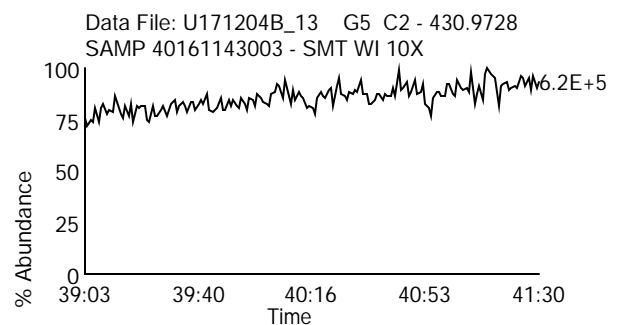
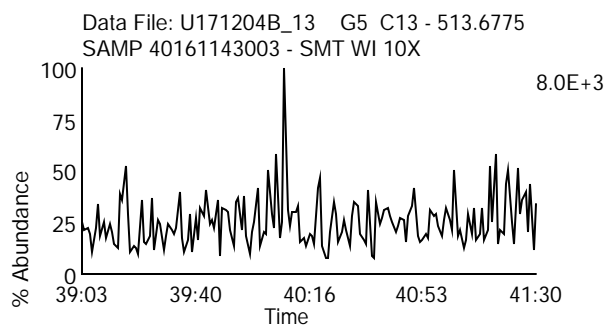
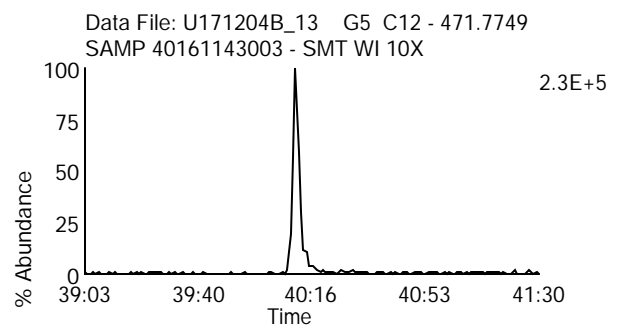
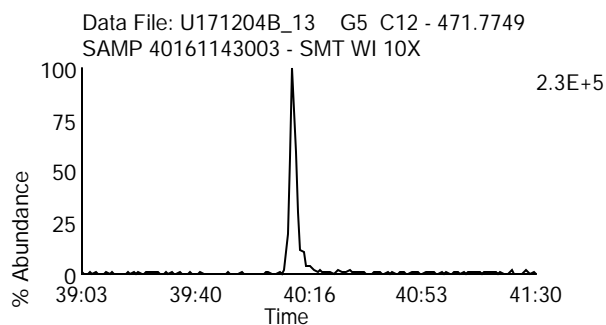
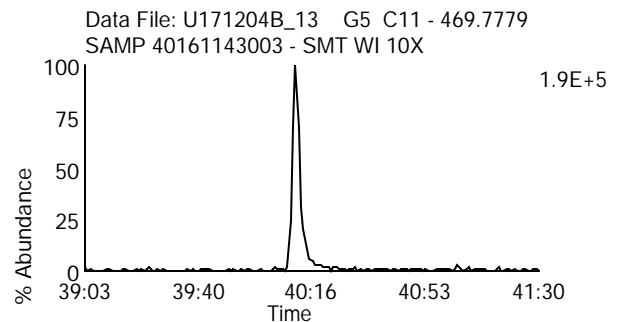
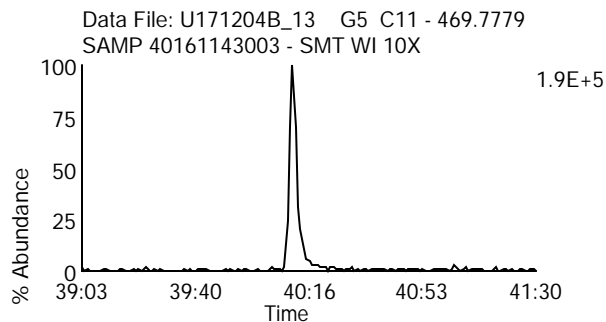
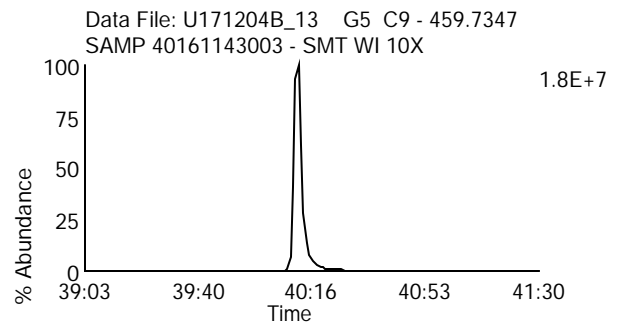
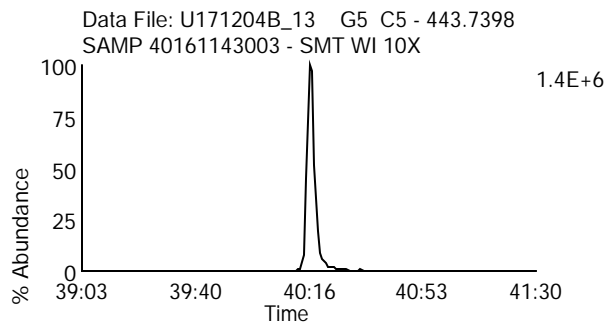
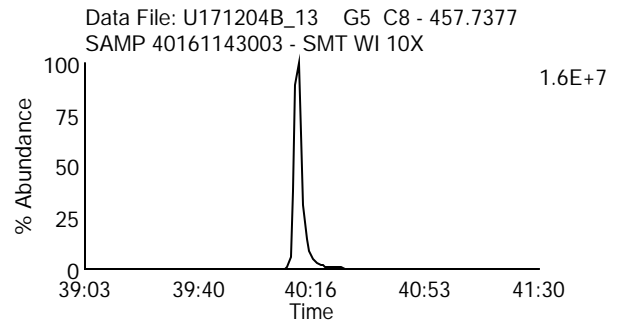
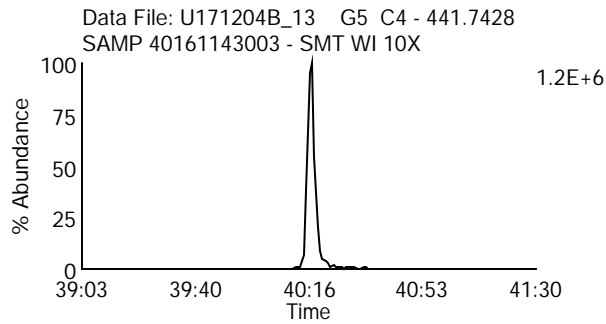
Date Acquired: 12/5/2017

Sample Description: SAMP 40161143003 - SMT WI 10X

Lab Sample ID: 40161143003

Client Sample ID: 111717026

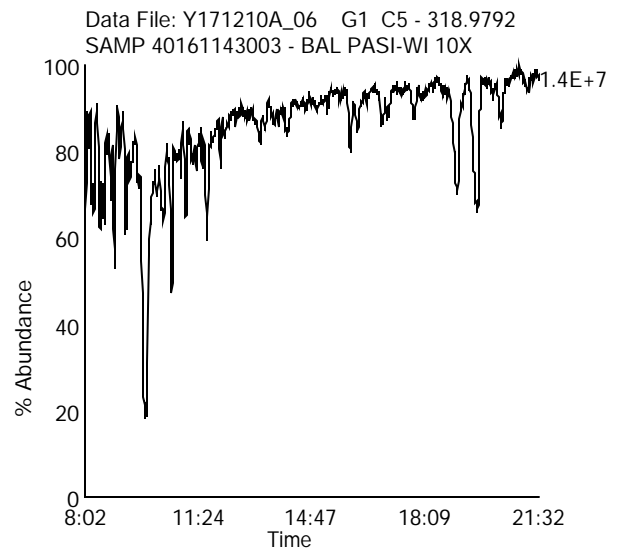
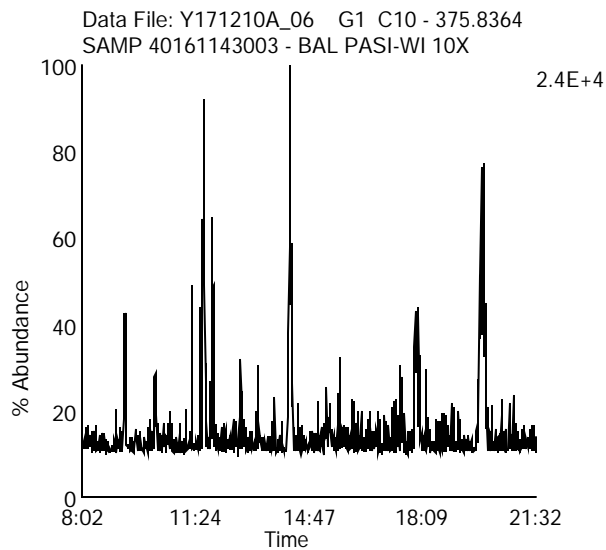
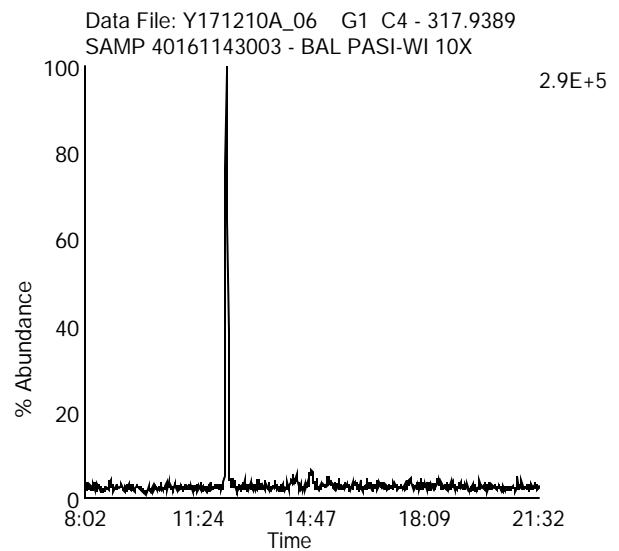
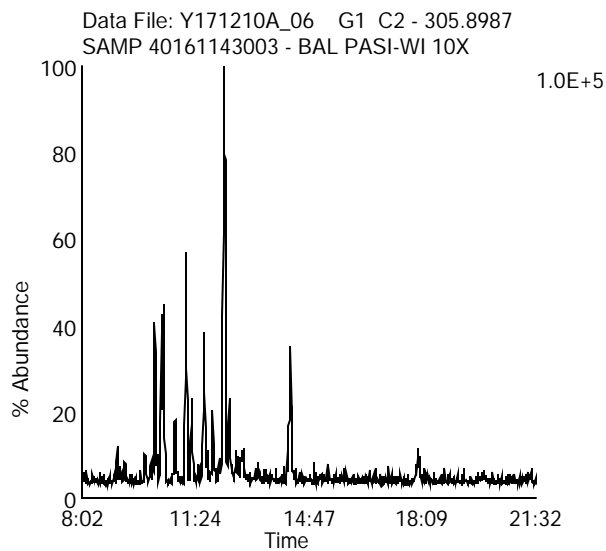
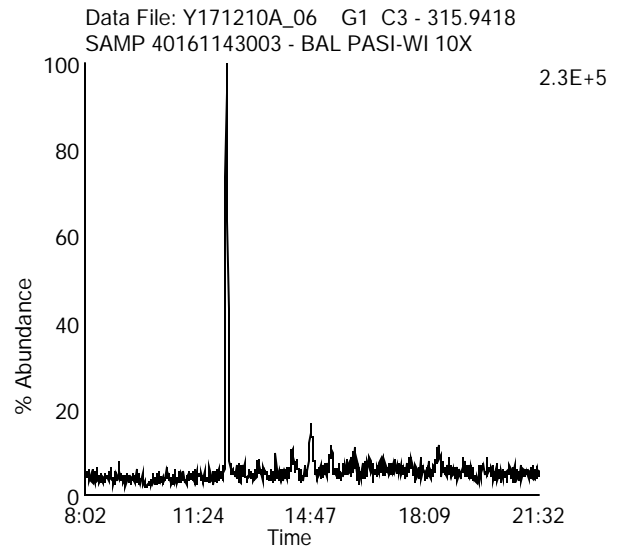
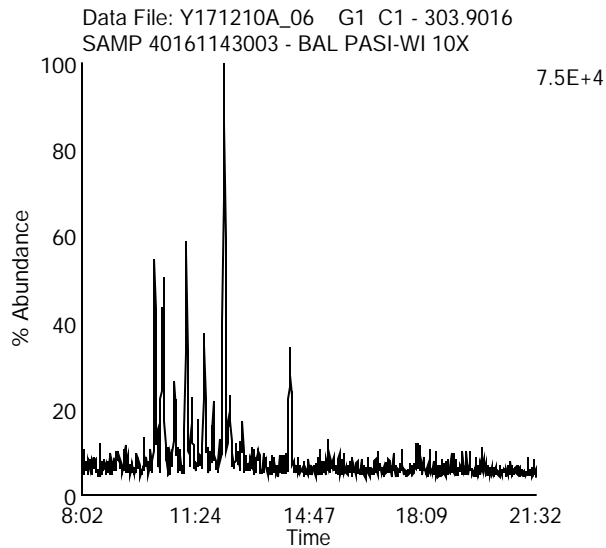
Instrument: 10MSHR06 (U)



TCDF Confirmation Analysis

Data File Name: Y171210A_06
Date Acquired: 12/10/2017
Sample Description: SAMP 40161143003 - BAL PASI-WI 10X

Lab Sample ID: 40161143003
Client Sample ID: 111717026
Instrument: 10MSHR12 (Y)





PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name PACE Wisconsin
Client ID 111717022
Lab ID 40161143001
Filename U171204A_07
Analyzed 12/04/2017 10:06

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:16	1.54e7	2.00e7	2.30e6	3.02e6	3.550e3	1.046e3	0.77	
2,3,7,8-TCDF	18:18	(M)9.37e3	(M)1.21e4	1.46e3	2.70e3	8.306e2	6.521e2	0.78	
Other TCDF	1 15:35	1.12e4	1.57e4					0.72	
	2 17:16	1.47e4	2.24e4					0.66	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:27	1.65e7	2.09e7	2.62e6	3.31e6	2.177e3	6.413e2	0.79	
2,3,7,8-TCDD-13C	19:23	1.20e7	1.53e7	1.70e6	2.13e6	1.612e3	1.910e3	0.78	
2,3,7,8-TCDD-37Cl4	19:24	2.52e6		3.49e5		1.155e3	----		
2,3,7,8-TCDD	19:24	(M)2.96e3	(M)8.01e3	1.07e3	2.73e3	7.104e2	6.338e2	0.37	I
Other TCDD	1 18:27	1.32e4	1.88e4					0.70	
	2 15:32	2.45e4	3.61e4					0.68	

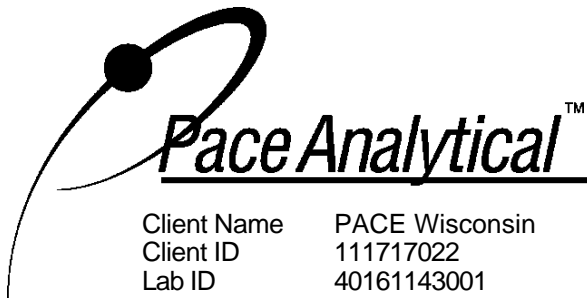
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:32	1.63e7	1.04e7	1.66e6	1.07e6	4.193e2	1.153e3	1.56	
2,3,4,7,8-PeCDF-13C	29:27	1.61e7	1.01e7	1.44e6	9.10e5	1.610e3	1.282e3	1.60	
1,2,3,7,8-PeCDF	26:34	ND	ND	ND	ND	6.282e2	6.941e2		
2,3,4,7,8-PeCDF	29:30	ND	ND	ND	ND	4.642e2	4.819e2		
Other PeCDF	1 21:09	2.77e4	1.97e4					1.41	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:34	1.20e7	7.79e6	9.83e5	6.15e5	8.279e2	4.222e2	1.54	
1,2,3,7,8-PeCDD	30:36	ND	ND	ND	ND	5.582e2	5.941e2		
Other PeCDD	1 28:03	2.88e4	4.90e4					0.59	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:58	5.15e6	9.88e6	1.59e6	3.12e6	6.000e3	6.635e2	0.52	
1,2,3,6,7,8-HxCDF-13C	35:05	6.36e6	1.22e7	1.86e6	3.74e6	7.363e3	1.135e4	0.52	
2,3,4,6,7,8-HxCDF-13C	35:39	4.99e6	9.61e6	1.60e6	3.11e6	5.382e3	2.717e2	0.52	

REPORT OF LABORATORY ANALYSIS

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Client Name PACE Wisconsin
Client ID 111717022
Lab ID 40161143001
Filename U171204A_07
Analyzed 12/04/2017 10:06

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

1,2,3,7,8,9-HxCDF-13C	36:16	4.08e6	8.21e6	1.49e6	2.76e6	1.675e3	2.338e3	0.50
1,2,3,4,7,8-HxCDF	34:59	ND	ND	ND	ND	7.838e2	7.611e2	
1,2,3,6,7,8-HxCDF	35:06	ND	ND	ND	ND	5.049e2	8.210e2	
2,3,4,6,7,8-HxCDF	35:40	ND	ND	ND	ND	7.514e2	1.167e3	
1,2,3,7,8,9-HxCDF	36:17	ND	ND	ND	ND	1.300e3	7.996e2	
Other HxCDF	1	33:49	1.58e4	1.33e4				1.19

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:47	7.28e6	5.59e6	2.55e6	1.96e6	1.459e3	5.032e2	1.30	
1,2,3,6,7,8-HxCDD-13C	35:52	7.32e6	5.75e6	2.55e6	1.96e6	1.095e3	1.956e3	1.27	
1,2,3,7,8,9-HxCDD-13C	36:04	9.89e6	7.73e6	4.10e6	3.22e6	5.462e2	5.774e2	1.28	
1,2,3,4,7,8-HxCDD	35:47	ND	ND	ND	ND	7.551e2	1.115e3		
1,2,3,6,7,8-HxCDD	35:53	(M)6.88e3	(M)6.58e3	1.13e3	1.98e3	5.917e2	1.392e3	1.05	
1,2,3,7,8,9-HxCDD	36:04	ND	ND	ND	ND	6.333e2	1.309e3		
Other HxCDD	1	34:57	2.09e4	1.54e4				1.36	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:24	3.58e6	7.98e6	1.59e6	3.56e6	5.221e3	2.911e3	0.45	
1,2,3,4,7,8,9-HpCDF-13C	38:21	2.39e6	5.52e6	9.40e5	2.25e6	1.159e3	1.923e3	0.43	
1,2,3,4,6,7,8-HpCDF	37:24	(M)1.94e4	(M)1.34e4	5.05e3	4.76e3	1.953e3	1.363e3	1.45	I
1,2,3,4,7,8,9-HpCDF	38:22	ND	ND	ND	ND	1.604e3	1.548e3		

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:04	5.43e6	5.29e6	2.31e6	2.29e6	3.489e3	5.969e3	1.03	
1,2,3,4,6,7,8-HpCDD	38:04	(M)1.60e4	(M)1.10e4	5.01e3	4.59e3	1.103e3	1.133e3	1.46	I
Other HpCDD	1	37:35	2.75e4	2.43e4				1.13	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:12	ND	ND	ND	ND	1.116e3	1.140e3		

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
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REPORT OF LABORATORY ANALYSIS

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID	111717022	Instrument ID	10MSHR06 (U)
Lab ID	40161143001	GC Column ID	USP117525H
Filename	U171204A_07	ICAL ID	U171107
Analyzed	12/04/2017 10:06		

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OCDD-13C	40:06	6.37e6	6.93e6	2.11e6	2.23e6	6.735e2	8.303e2	0.92	
OCDD	40:07	5.86e4	5.38e4	1.91e4	2.10e4	1.095e3	1.482e3	1.09	I

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name PACE Wisconsin
Client ID 111717024
Lab ID 40161143002
Filename U171204A_09
Analyzed 12/04/2017 11:35

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	20:04	(M)4.35e6	(M)5.63e6	2.42e5	2.80e5	3.482e3	4.210e3	0.77	
2,3,7,8-TCDF	20:07	ND	ND	ND	ND	1.907e3	1.706e3		

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	19:42	5.58e6	6.74e6	3.72e5	4.60e5	1.418e3	1.327e3	0.83	
2,3,7,8-TCDD-13C	21:21	(M)3.17e6	(M)4.34e6	2.20e5	2.96e5	2.430e3	1.455e3	0.73	
2,3,7,8-TCDD-37Cl4	21:25	(M)8.03e5		4.92e4		2.701e3	----		
2,3,7,8-TCDD	21:23	ND	ND	ND	ND	1.777e3	1.819e3		

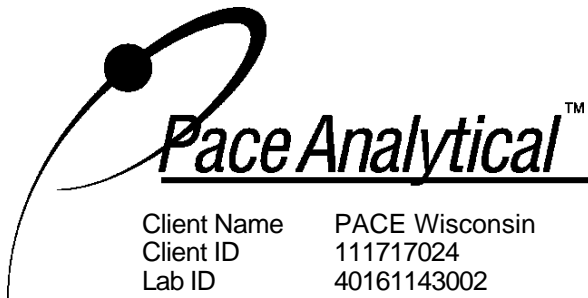
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:01	4.86e6	2.84e6	4.50e5	2.65e5	1.582e3	1.172e3	1.71	
2,3,4,7,8-PeCDF-13C	32:12	5.42e6	3.31e6	5.13e5	3.36e5	4.072e2	1.499e3	1.64	
1,2,3,7,8-PeCDF	29:03	ND	ND	ND	ND	9.659e2	1.148e3		
2,3,4,7,8-PeCDF	32:15	ND	ND	ND	ND	1.225e3	1.089e3		
Other PeCDF	1 27:19	3.38e4	2.45e4					1.38	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:48	(M)2.40e6	(M)1.59e6	4.79e5	3.01e5	6.192e2	7.853e2	1.51	
1,2,3,7,8-PeCDD	32:50	ND	ND	ND	ND	7.187e2	1.040e3		
Other PeCDD	1 27:20	1.42e4	2.11e4					0.67	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	36:01	1.14e6	2.23e6	3.02e5	6.42e5	8.342e2	8.973e2	0.51	
1,2,3,6,7,8-HxCDF-13C	36:08	1.40e6	2.70e6	4.04e5	8.56e5	3.329e1	2.607e3	0.52	
2,3,4,6,7,8-HxCDF-13C	36:31	5.73e5	1.13e6	3.26e5	7.26e5	2.025e3	4.598e2	0.51	
1,2,3,7,8,9-HxCDF-13C	36:52	(M)5.25e5	1.04e6	1.90e5	3.77e5	2.451e3	3.499e2	0.51	
1,2,3,4,7,8-HxCDF	36:01	(M)2.22e4	(M)2.02e4	5.41e3	2.36e3	2.176e3	2.211e3	1.10	
1,2,3,6,7,8-HxCDF	36:09	(M)1.70e4	(M)1.15e4	2.40e3	2.60e3	1.665e3	1.651e3	1.48	I
2,3,4,6,7,8-HxCDF	36:32	ND	ND	ND	ND	1.674e3	1.548e3		

REPORT OF LABORATORY ANALYSIS

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Client Name PACE Wisconsin
Client ID 111717024
Lab ID 40161143002
Filename U171204A_09
Analyzed 12/04/2017 11:35

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

1,2,3,7,8,9-HxCDF	36:52	ND	ND	ND	ND	1.528e3	1.380e3		
Other HxCDF	1	34:58	1.28e5	1.10e5					1.16
	2	35:28	3.39e5	2.78e5					1.22

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:32	(M)7.13e5	(M)5.96e5	5.74e5	4.81e5	1.696e3	9.124e2	1.20	
1,2,3,6,7,8-HxCDD-13C	36:34	(M)7.67e5	(M)5.88e5	5.74e5	4.81e5	1.260e3	7.322e2	1.30	
1,2,3,7,8,9-HxCDD-13C	36:42	1.05e6	8.30e5	4.18e5	3.29e5	2.629e3	1.683e3	1.27	
1,2,3,4,7,8-HxCDD	36:32	ND	ND	ND	ND	9.493e2	1.171e3		
1,2,3,6,7,8-HxCDD	36:34	(M)1.43e4	(M)1.61e4	5.69e3	9.69e3	2.628e3	1.592e3	0.89	I
1,2,3,7,8,9-HxCDD	36:42	ND	ND	ND	ND	2.271e3	1.898e3		
Other HxCDD	1	35:24	1.30e5	1.08e5					1.21
	2	36:14	1.01e5	7.26e4					1.39

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:53	2.76e5	6.23e5	1.72e5	3.76e5	1.331e3	2.504e3	0.44	
1,2,3,4,7,8,9-HpCDF-13C	38:43	(M)3.85e5	8.31e5	1.49e5	3.21e5	2.990e2	1.436e3	0.46	
1,2,3,4,6,7,8-HpCDF	37:54	1.03e5	1.15e5	6.15e4	6.02e4	2.507e3	1.488e3	0.90	
1,2,3,4,7,8,9-HpCDF	38:43	ND	ND	ND	ND	1.873e3	1.488e3		
Other HpCDF	1	38:05	5.54e5	5.26e5					1.05

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:26	5.19e5	4.76e5	2.70e5	2.48e5	1.469e3	1.068e3	1.09	
1,2,3,4,6,7,8-HpCDD	38:26	3.17e5	2.78e5	1.53e5	1.31e5	1.008e3	9.488e2	1.14	
Other HpCDD	1	38:02	6.35e5	5.71e5					1.11

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:34	1.94e5	2.24e5	6.76e4	7.65e4	1.161e3	1.589e3	0.87	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:28	4.24e5	4.33e5	1.66e5	1.81e5	1.302e3	1.629e3	0.98	

REPORT OF LABORATORY ANALYSIS

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID	111717024	Instrument ID	10MSHR06 (U)
Lab ID	40161143002	GC Column ID	USP117525H
Filename	U171204A_09	ICAL ID	U171107
Analyzed	12/04/2017 11:35		

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OCDD	40:29	1.81e6	1.96e6	7.53e5	7.90e5	1.124e3	6.299e2	0.92
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REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name PACE Wisconsin
Client ID 111717026
Lab ID 40161143003
Filename U171204B_13
Analyzed 12/05/2017 00:30

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:26	9.16e5	1.26e6	7.97e4	1.15e5	2.917e3	1.843e3	0.73	
2,3,7,8-TCDF	18:28	3.24e5	(M)4.37e5	3.24e4	3.59e4	6.009e2	9.040e2	0.74	
Other TCDF	1	15:01	1.07e5	1.30e5				0.82	
	2	15:22	4.18e4	4.72e4				0.89	
	3	15:40	1.03e5	1.48e5				0.69	
	4	16:15	2.42e4	3.39e4				0.71	
	5	16:55	8.94e4	1.20e5				0.75	
	6	17:24	1.61e5	2.31e5				0.70	

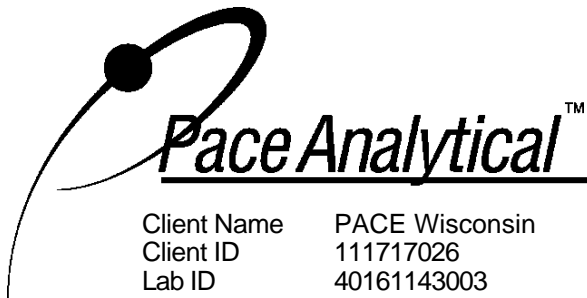
Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:35	1.12e6	1.49e6	1.10e5	1.50e5	1.625e3	1.488e3	0.75	
2,3,7,8-TCDD-13C	19:32	8.08e5	9.56e5	7.26e4	8.70e4	1.991e3	1.751e3	0.85	
2,3,7,8-TCDD-37Cl4	19:30	(M)1.78e5		1.46e4		1.510e3	----		
2,3,7,8-TCDD	19:34	(M)1.19e4	(M)9.48e3	1.42e3	1.47e3	6.415e2	4.861e2	1.25	I
Other TCDD	1	15:57	2.23e4	2.88e4				0.78	
	2	15:40	4.28e4	5.69e4				0.75	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:54	1.05e6	7.25e5	7.48e4	4.53e4	9.357e2	1.242e3	1.45	
2,3,4,7,8-PeCDF-13C	29:53	1.05e6	(M)7.01e5	6.83e4	5.09e4	1.622e3	1.772e3	1.49	
1,2,3,7,8-PeCDF	26:51	(M)1.96e4	(M)1.74e4	2.64e3	3.98e3	4.752e2	4.311e2	1.13	I
2,3,4,7,8-PeCDF	29:52	(M)1.19e5	(M)8.74e4	7.33e3	5.92e3	5.028e2	3.849e2	1.36	
Other PeCDF	1	25:48	5.94e4	4.18e4				1.42	
	2	27:38	5.96e4	3.72e4				1.60	
	3	21:28	1.03e6	6.66e5				1.55	
Ethers	1	24:41	3.08e5	2.13e5				1.45	P
	2	27:01	6.26e4	4.29e4				1.46	P

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:59	(M)8.79e5	(M)5.42e5	5.97e4	4.56e4	1.624e3	1.052e3	1.62	
1,2,3,7,8-PeCDD	31:03	ND	ND	ND	ND	3.163e2	3.553e2		

REPORT OF LABORATORY ANALYSIS

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Client Name PACE Wisconsin
Client ID 111717026
Lab ID 40161143003
Filename U171204B_13
Analyzed 12/05/2017 00:30

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

Other PeCDD	1	27:05	3.27e4	4.89e4						0.67
	2	24:47	6.30e4	9.74e4						0.65

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:09	3.44e5	6.44e5	1.04e5	1.98e5	8.800e2	2.381e3	0.53	
1,2,3,6,7,8-HxCDF-13C	35:16	4.20e5	7.48e5	1.24e5	2.22e5	1.120e3	2.381e3	0.56	
2,3,4,6,7,8-HxCDF-13C	35:48	(M)3.51e5	6.47e5	1.15e5	2.21e5	2.028e3	2.071e3	0.54	
1,2,3,7,8,9-HxCDF-13C	36:23	2.69e5	4.94e5	1.05e5	1.85e5	2.028e3	2.071e3	0.55	
1,2,3,4,7,8-HxCDF	35:09	(M)1.10e5	(M)1.03e5	2.93e4	2.45e4	1.415e3	1.487e3	1.07	
1,2,3,6,7,8-HxCDF	35:17	8.72e4	6.15e4	2.03e4	1.68e4	1.059e3	9.045e2	1.42	
2,3,4,6,7,8-HxCDF	35:49	(M)3.87e4	(M)3.33e4	1.53e4	9.05e3	9.796e2	7.647e2	1.16	
1,2,3,7,8,9-HxCDF	36:23	(M)1.32e4	(M)9.24e3	4.45e3	1.63e3	9.630e2	9.993e2	1.43	

Other HxCDF	1	33:52	3.02e5	2.65e5						1.14
	2	34:05	9.83e5	7.64e5						1.29
	3	34:39	2.71e6	2.21e6						1.23

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:56	4.50e5	3.44e5	1.49e5	1.30e5	6.215e2	1.153e3	1.31	
1,2,3,6,7,8-HxCDD-13C	36:01	4.46e5	4.12e5	1.74e5	1.55e5	2.003e3	1.724e3	1.08	
1,2,3,7,8,9-HxCDD-13C	36:12	4.46e5	3.88e5	2.06e5	1.83e5	8.988e2	6.630e2	1.15	
1,2,3,4,7,8-HxCDD	35:57	ND	ND	ND	ND	1.010e3	4.471e2		
1,2,3,6,7,8-HxCDD	36:01	2.81e5	2.22e5	1.32e5	9.48e4	1.097e3	4.596e2	1.27	
1,2,3,7,8,9-HxCDD	36:12	(M)3.60e4	(M)1.78e4	9.14e3	7.17e3	1.010e3	6.617e2	2.02	I

Other HxCDD	1	34:33	3.66e5	3.24e5						1.13
	2	35:07	7.22e4	6.56e4						1.10
	3	35:22	6.04e5	5.04e5						1.20

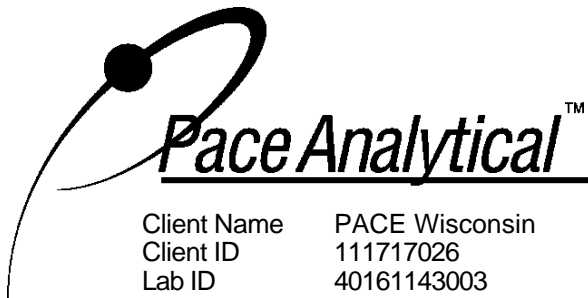
Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:31	2.13e5	5.54e5	9.20e4	2.26e5	2.504e3	1.909e3	0.38	
1,2,3,4,7,8,9-HpCDF-13C	38:27	2.37e5	4.81e5	9.66e4	1.88e5	2.504e3	1.996e3	0.49	
1,2,3,4,6,7,8-HpCDF	37:31	4.50e6	4.38e6	2.09e6	2.09e6	1.213e3	1.028e3	1.03	
1,2,3,4,7,8,9-HpCDF	38:27	8.81e4	8.97e4	3.15e4	2.34e4	1.492e3	1.333e3	0.98	

Other HpCDF	1	37:45	7.10e6	6.98e6						1.02
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Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:10	3.71e5	3.98e5	1.65e5	1.64e5	1.092e3	1.849e3	0.93	

REPORT OF LABORATORY ANALYSIS

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID	111717026	Instrument ID	10MSHR06 (U)
Lab ID	40161143003	GC Column ID	USP117525H
Filename	U171204B_13	ICAL ID	U171107
Analyzed	12/05/2017 00:30		

Page 3

1,2,3,4,6,7,8-HpCDD	38:10	5.20e6	5.07e6	2.08e6	1.97e6	8.808e2	1.095e3	1.03
Other HpCDD	1 37:42	6.95e6	6.88e6					1.01

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:18	3.38e6	4.35e6	1.16e6	1.42e6	1.219e3	1.014e3	0.78	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:11 (M)	5.66e5	6.11e5	1.89e5	2.32e5	3.332e3	1.041e3	0.93	
OCDD	40:12	5.13e7	5.82e7	1.59e7	1.82e7	1.399e3	1.553e3	0.88	

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TCDF Confirmation Detected Peak List

Prepared By _____ Date _____
 Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	BAL
Client ID	111717026	Instrument ID	10MSHR12 (Y)
Lab ID	40161143003	GC Column ID	USE571612H
Filename	Y171210A_06	ICAL ID	Y171009-DB225
Analyzed	12/10/2017 16:15		

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	12:16	9.79e5	1.20e6	2.19e5	2.81e5	7.639e3	3.985e3	0.81	
2,3,7,8-TCDF	12:16	3.03e5	4.00e5	7.06e4	9.69e4	1.653e3	2.210e3	0.76	

Cleanup & Recovery:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	11:19	1.03e6	1.28e6	2.78e5	3.58e5	6.830e3	3.085e3	0.80	
2,3,7,8-TCDD-37Cl4	11:11	1.53e5		4.25e4		----	----		

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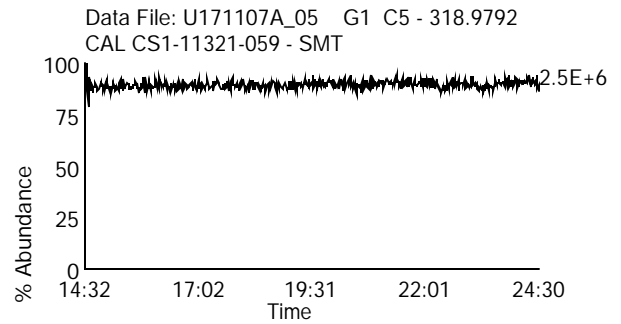
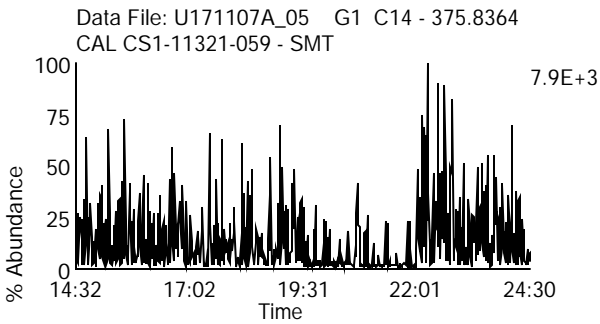
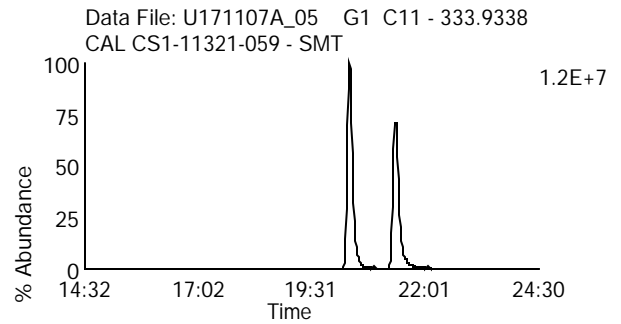
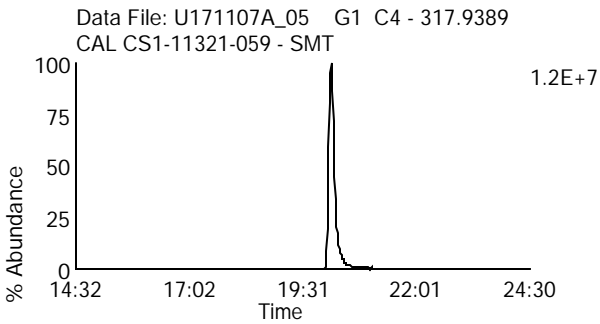
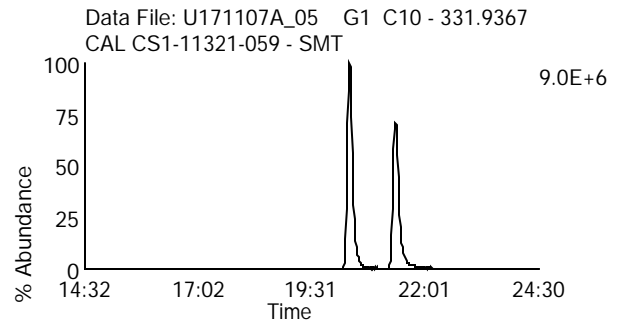
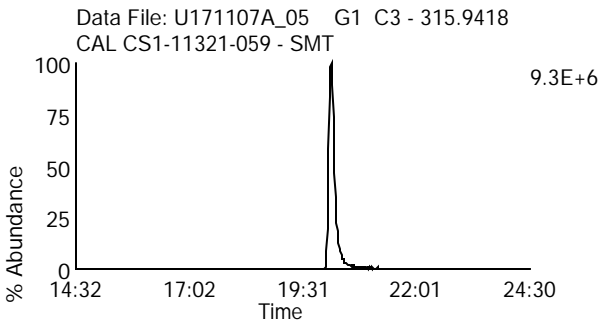
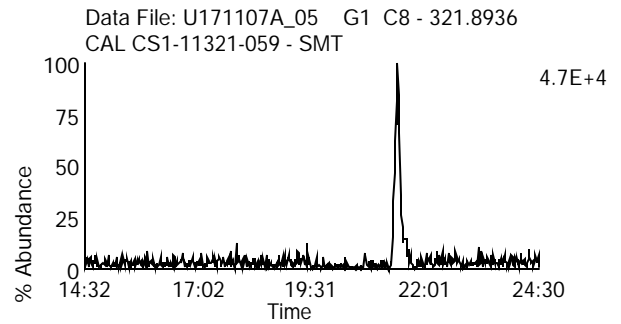
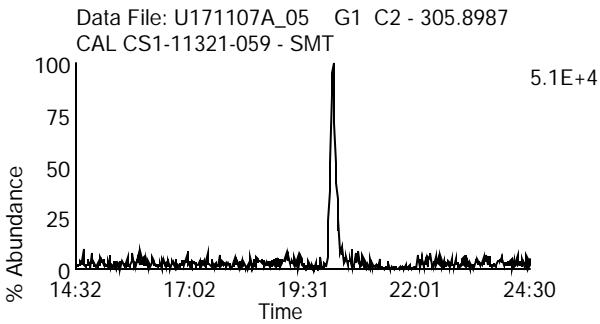
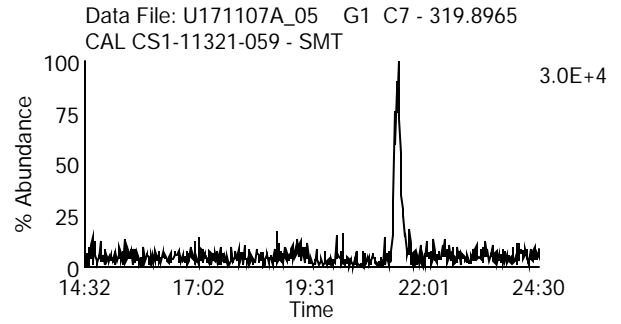
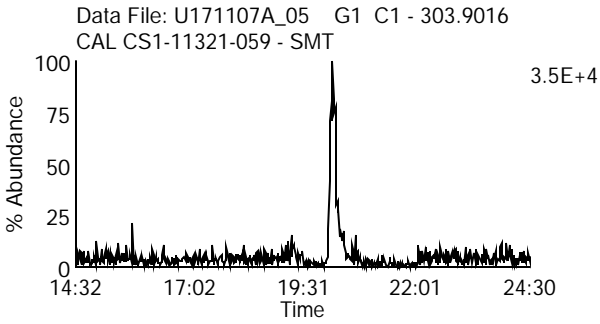
Appendix E

Calibration Raw Data

Homologue Group: Tetras

Data File Name: U171107A_05
Date Acquired: 11/7/2017
Sample Description: CAL CS1-11321-059 - SMT

Lab Sample ID: CS1-11321-059
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171107A_05

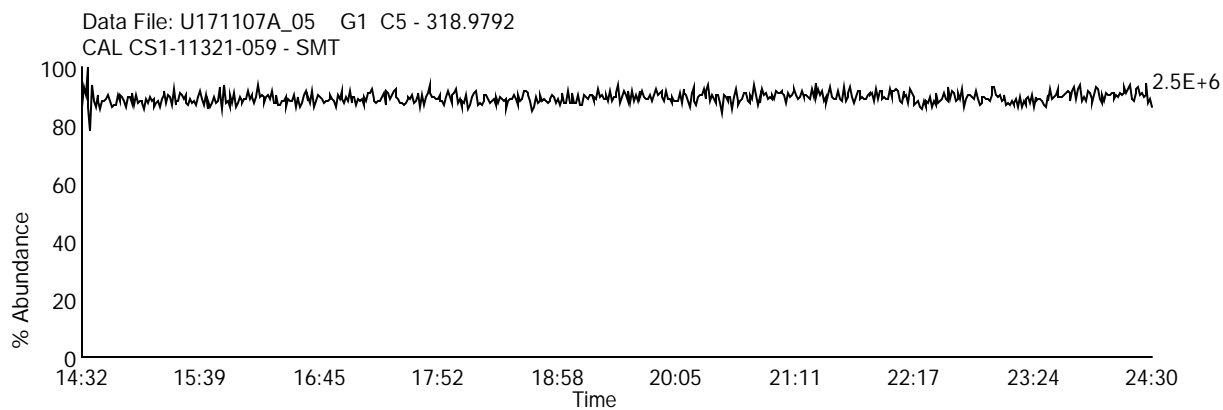
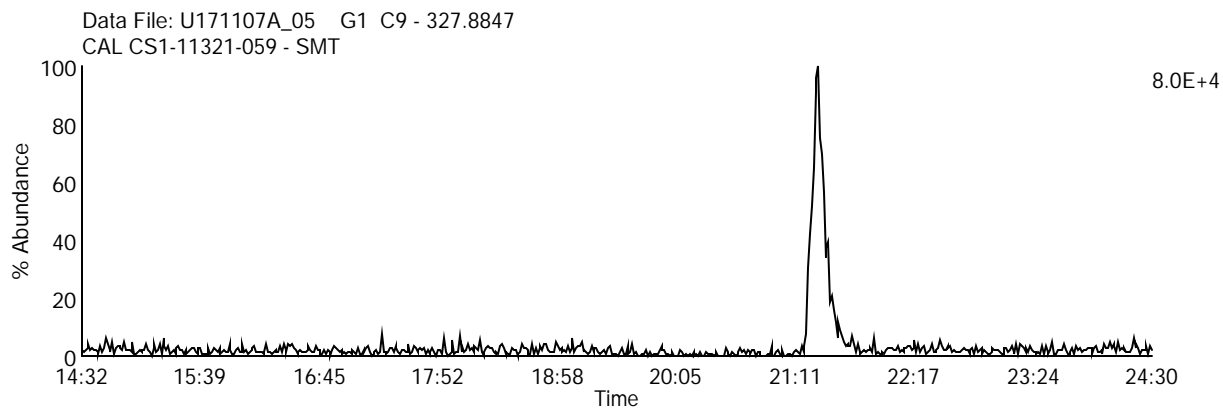
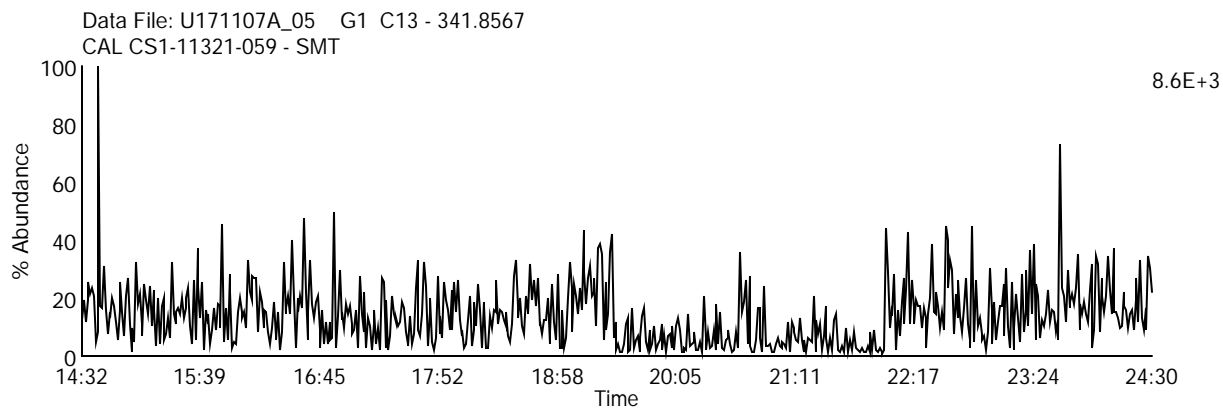
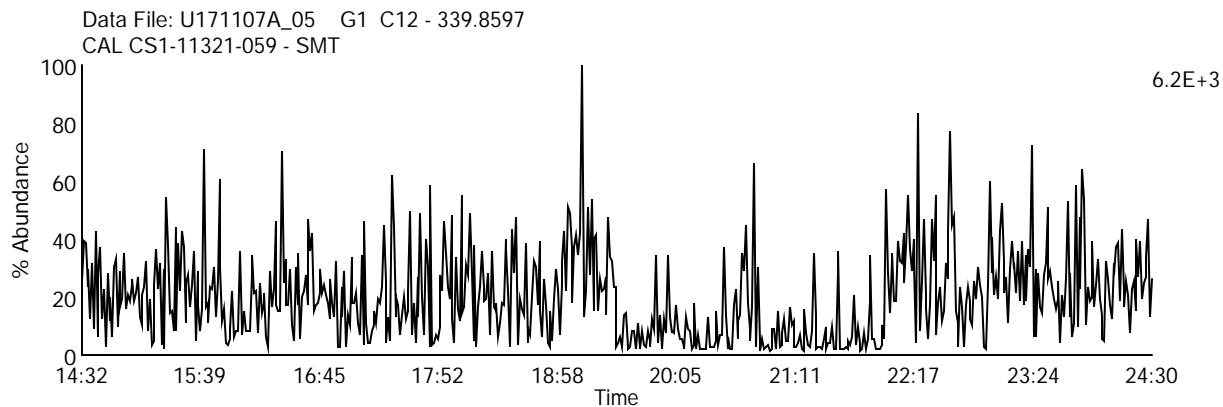
Lab Sample ID: CS1-11321-059

Date Acquired: 11/7/2017

Client Sample ID:

Sample Description: CAL CS1-11321-059 - SMT

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171107A_05

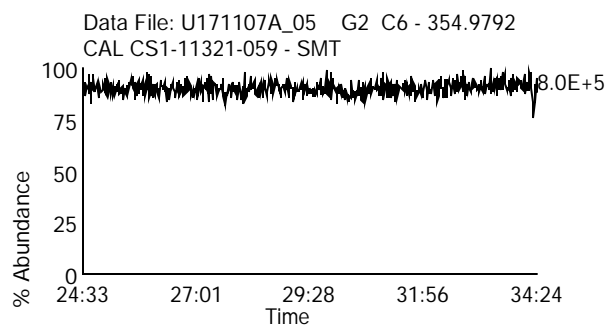
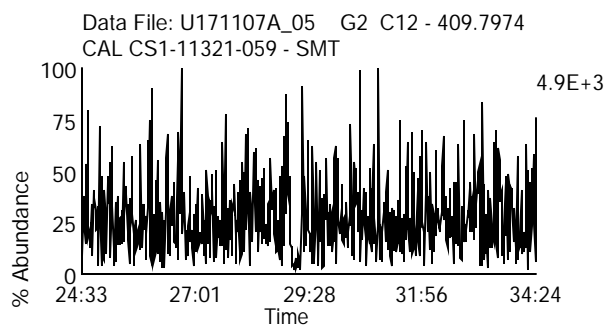
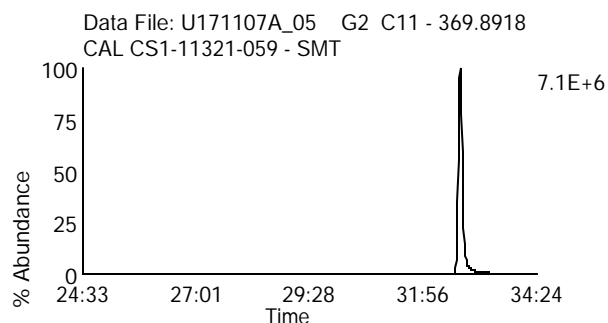
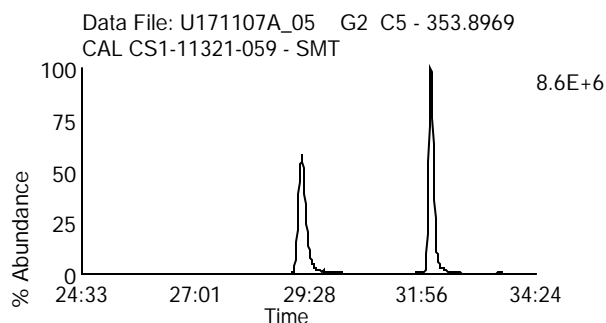
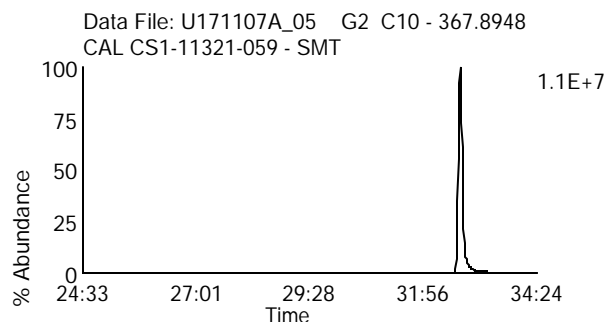
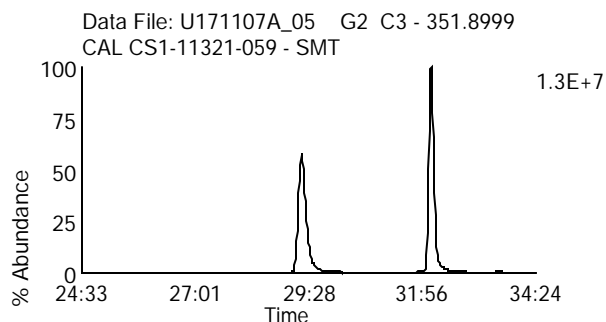
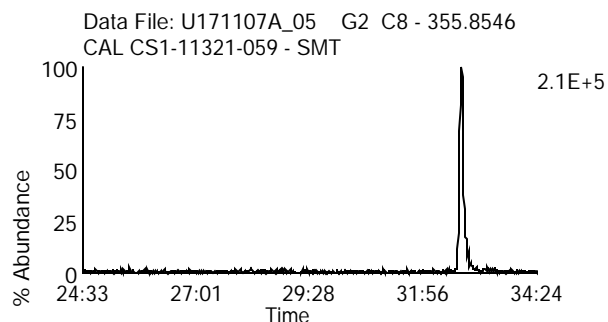
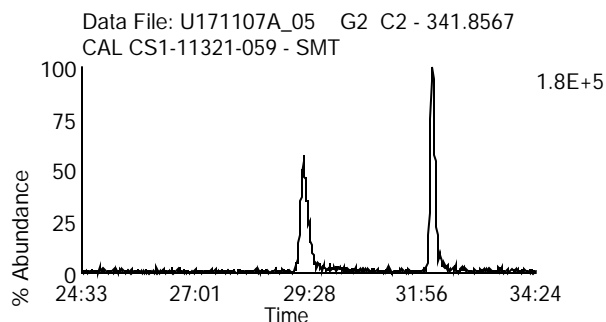
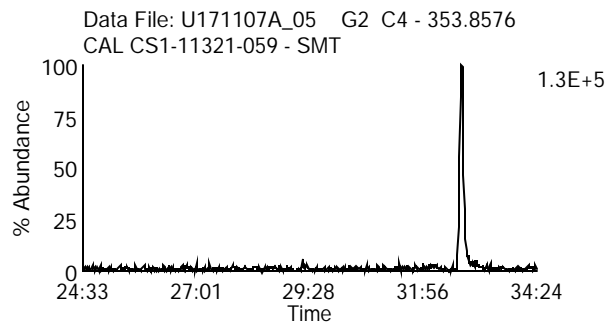
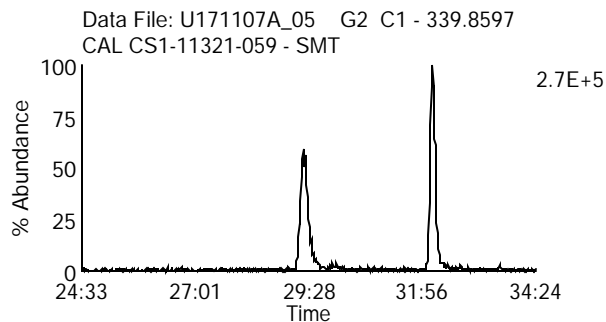
Date Acquired: 11/7/2017

Sample Description: CAL CS1-11321-059 - SMT

Lab Sample ID: CS1-11321-059

Client Sample ID:

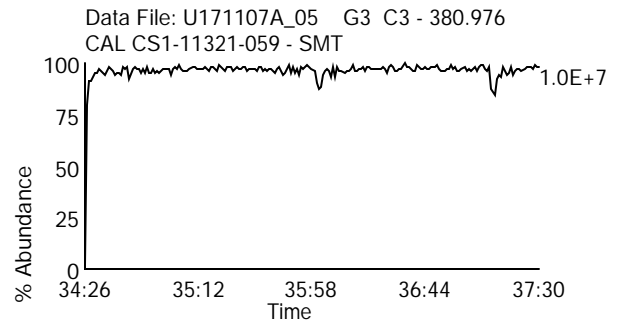
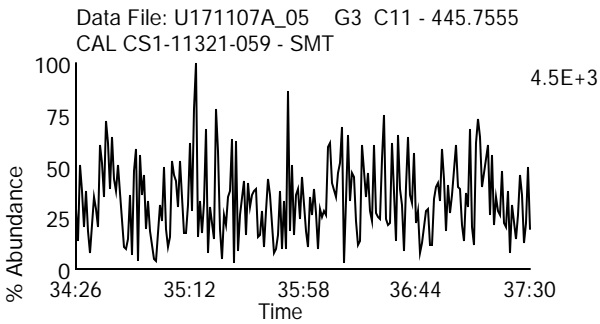
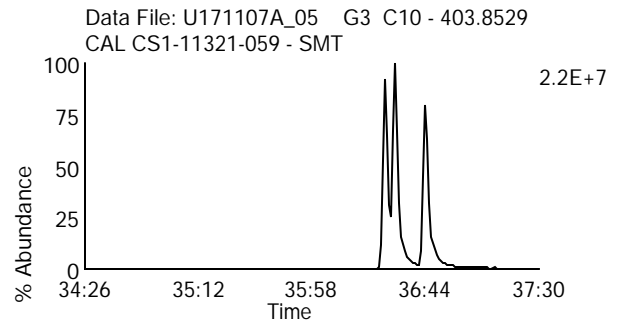
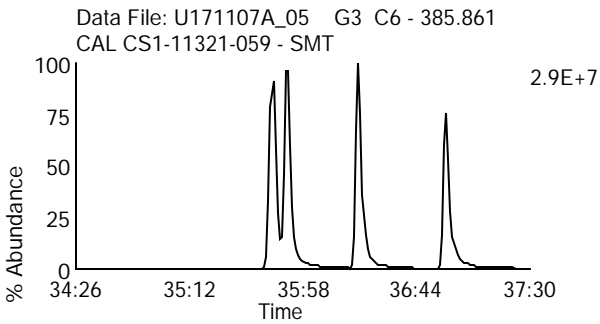
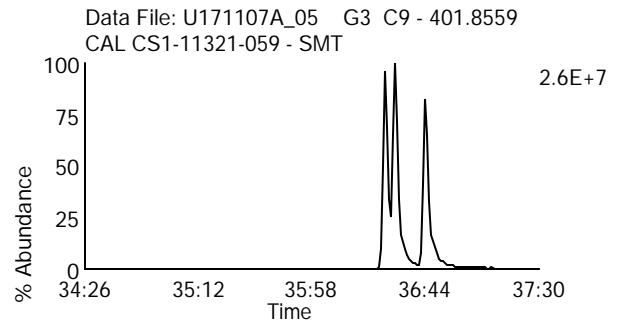
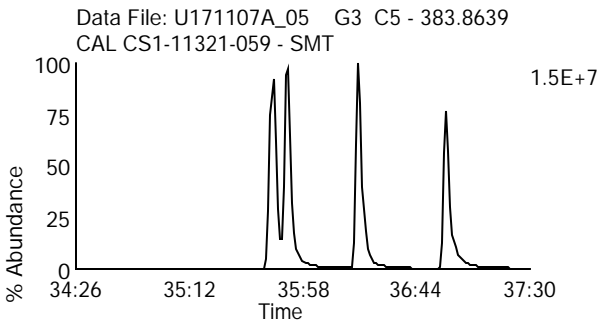
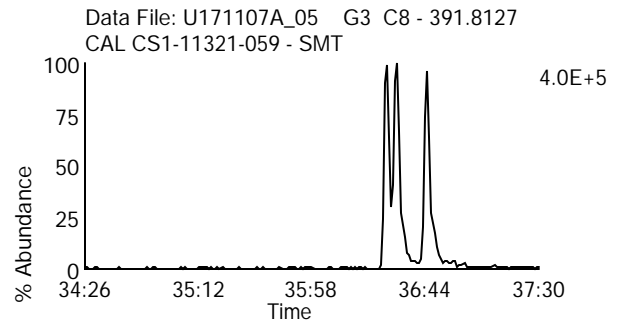
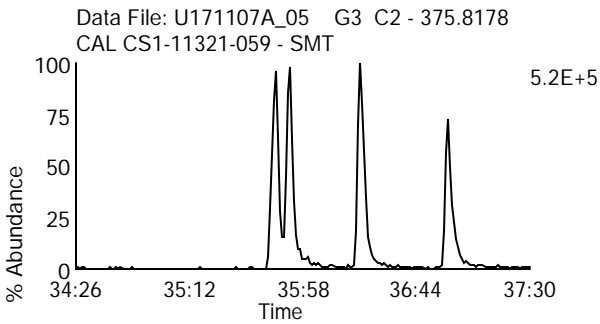
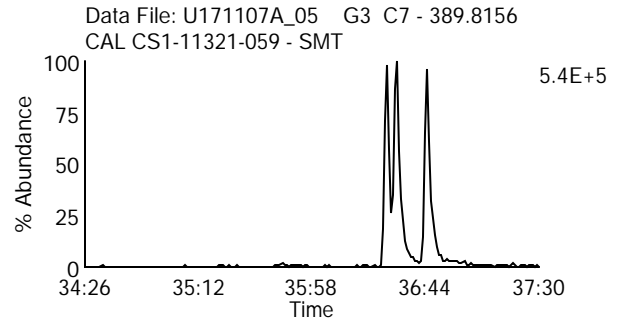
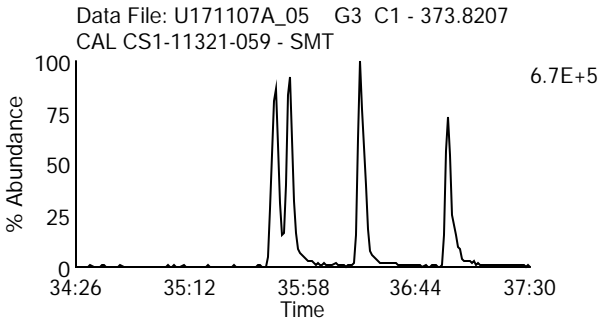
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171107A_05
Date Acquired: 11/7/2017
Sample Description: CAL CS1-11321-059 - SMT

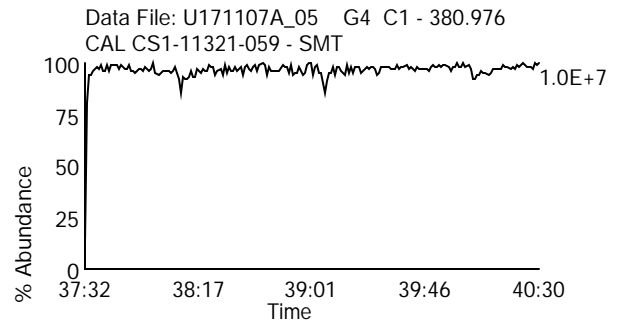
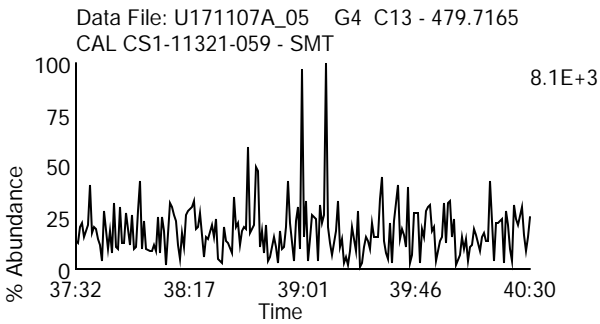
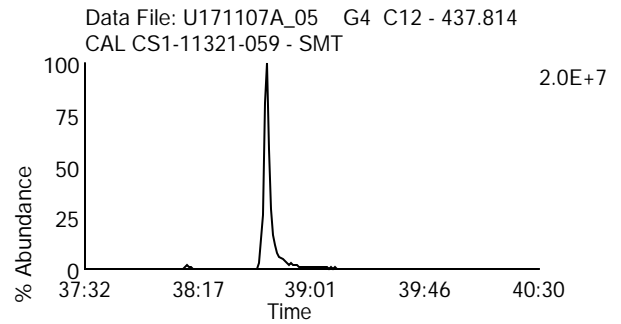
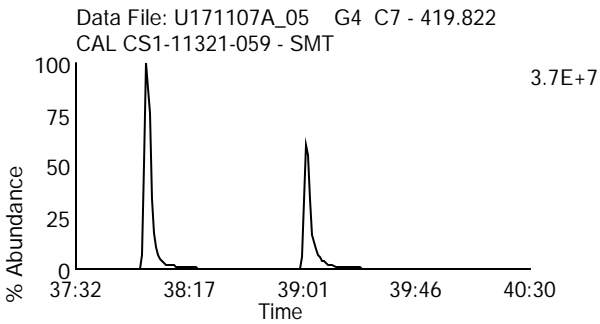
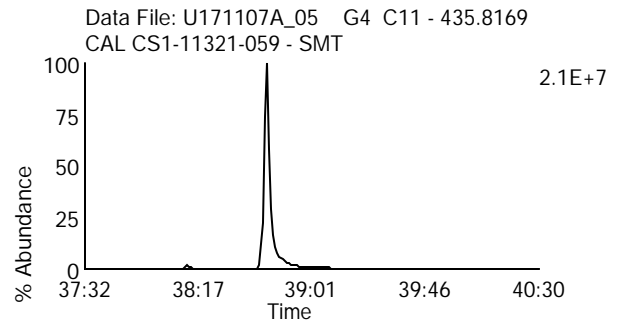
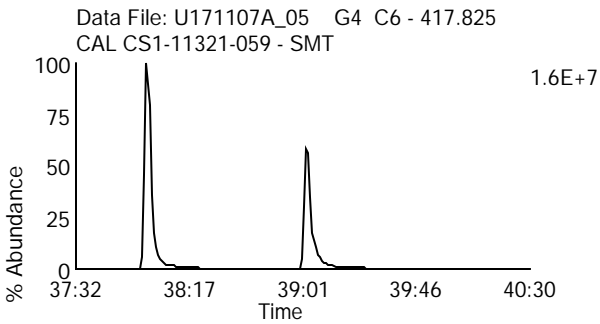
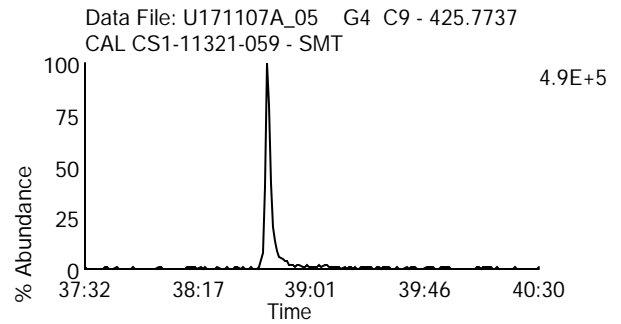
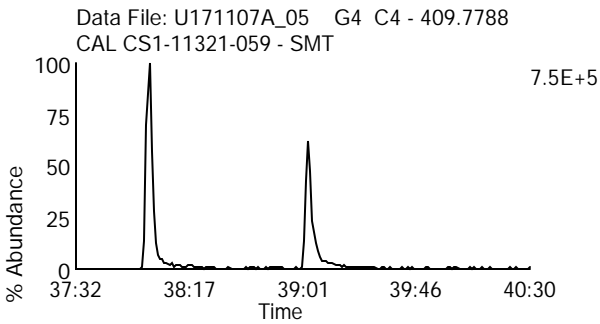
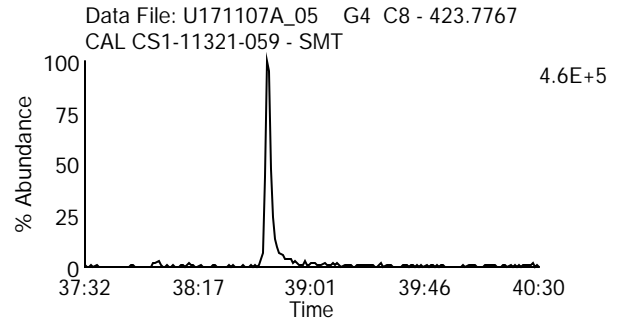
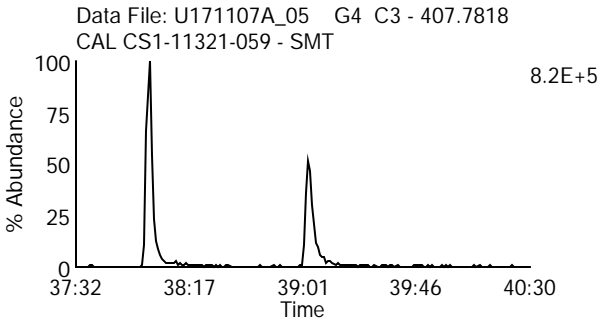
Lab Sample ID: CS1-11321-059
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171107A_05
Date Acquired: 11/7/2017
Sample Description: CAL CS1-11321-059 - SMT

Lab Sample ID: CS1-11321-059
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171107A_05

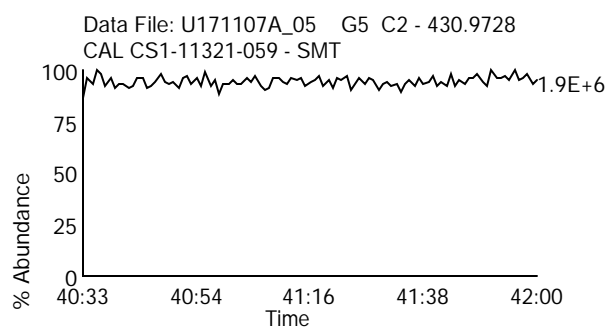
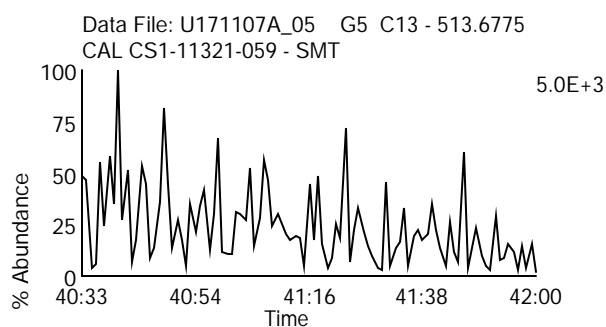
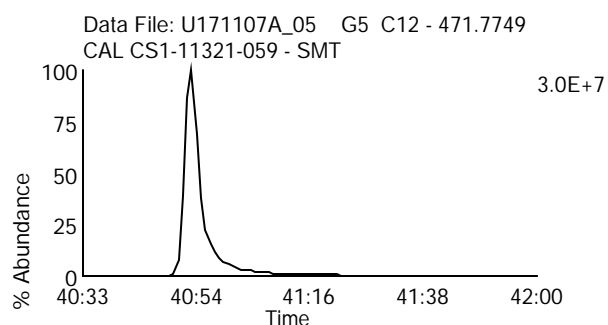
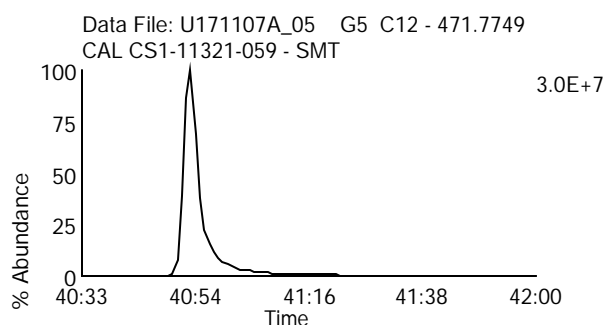
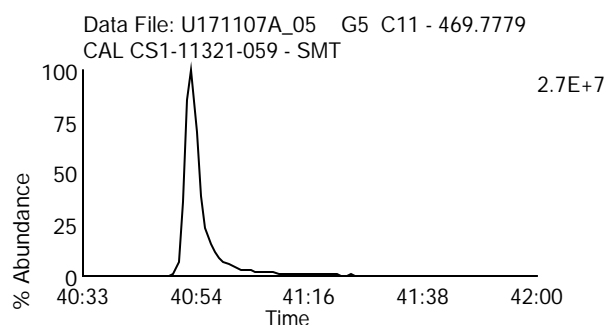
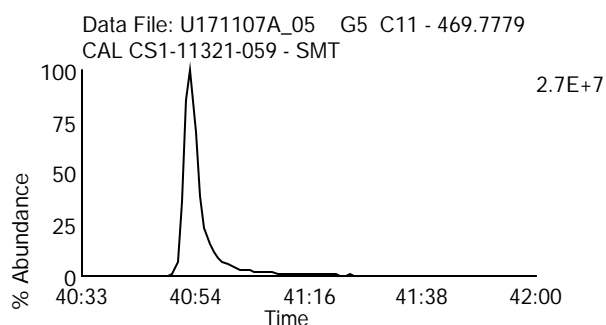
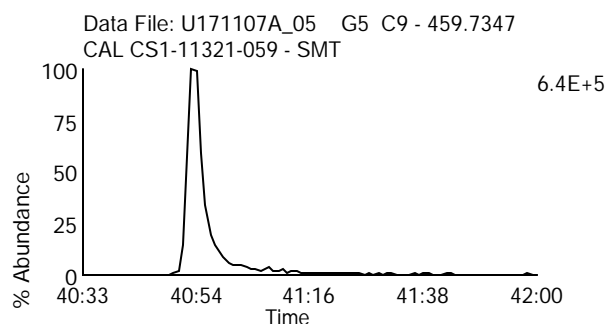
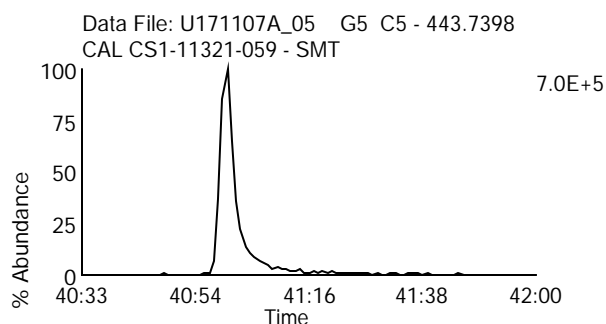
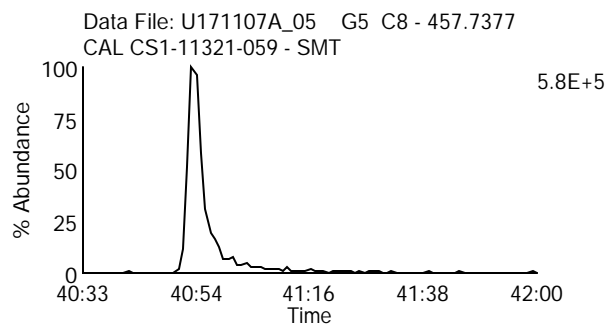
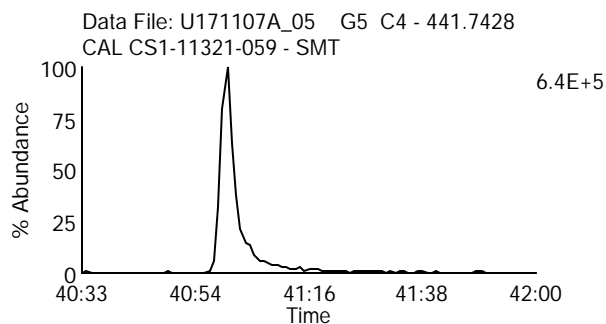
Date Acquired: 11/7/2017

Sample Description: CAL CS1-11321-059 - SMT

Lab Sample ID: CS1-11321-059

Client Sample ID:

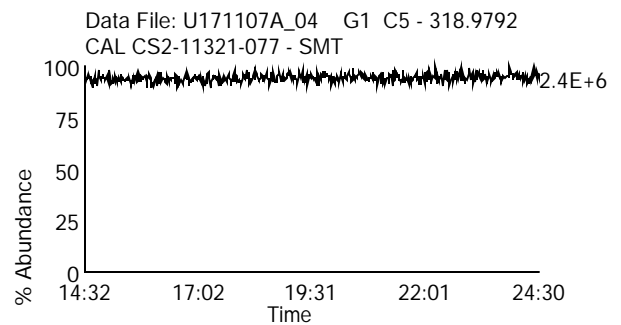
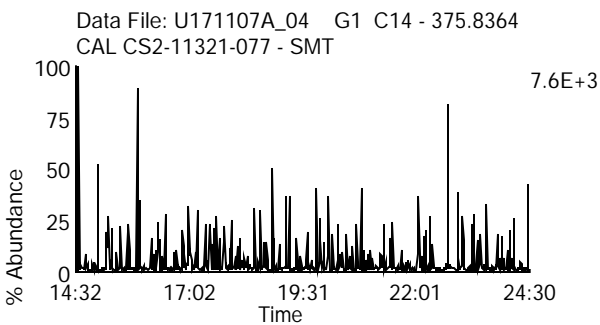
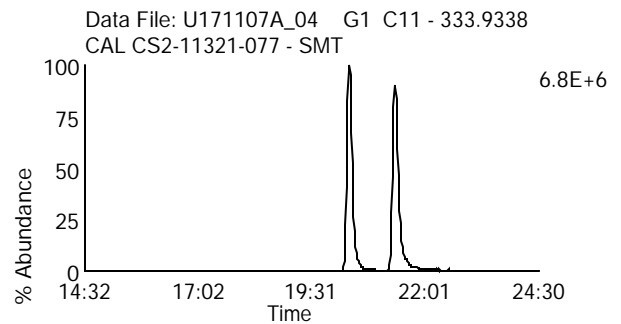
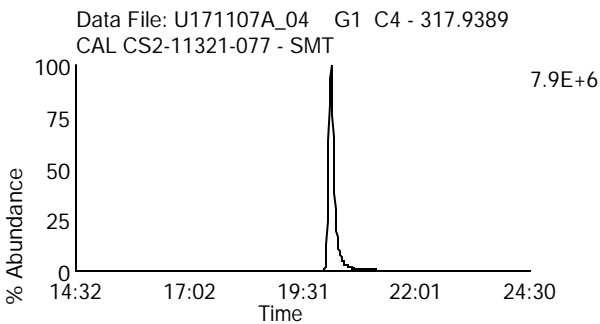
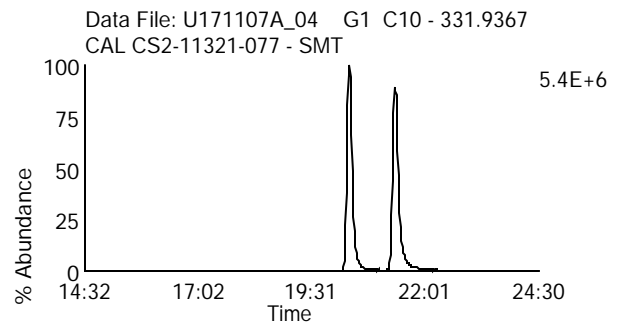
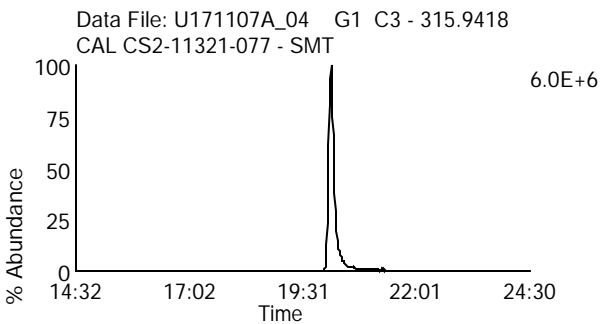
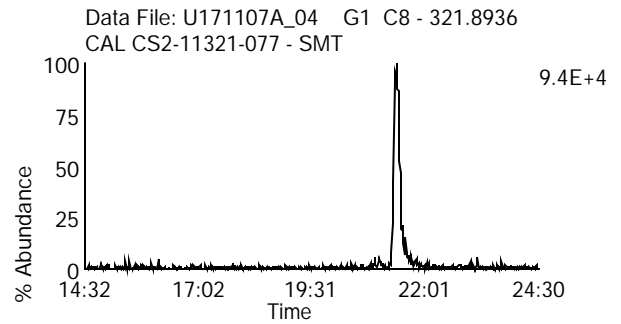
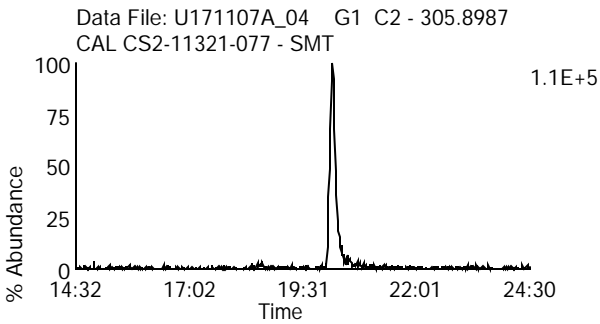
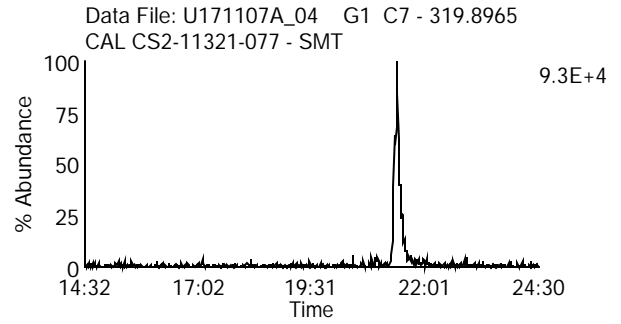
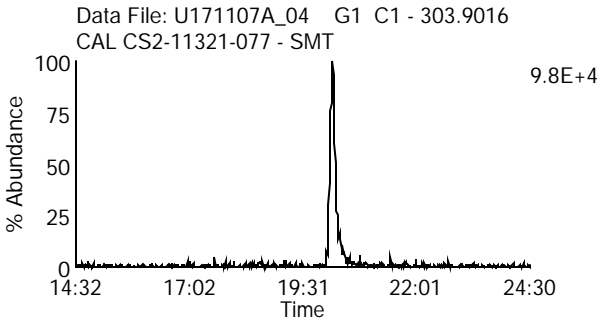
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171107A_04
Date Acquired: 11/7/2017
Sample Description: CAL CS2-11321-077 - SMT

Lab Sample ID: CS2-11321-077
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171107A_04

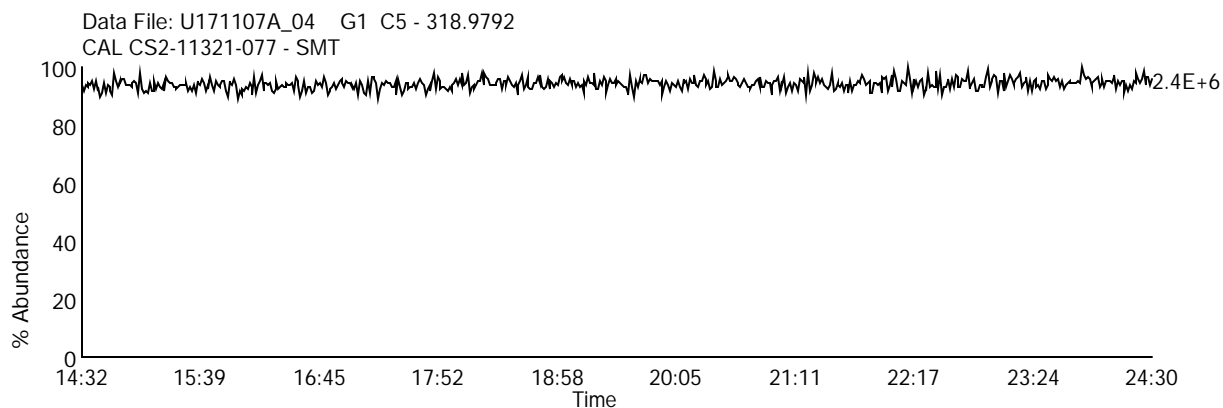
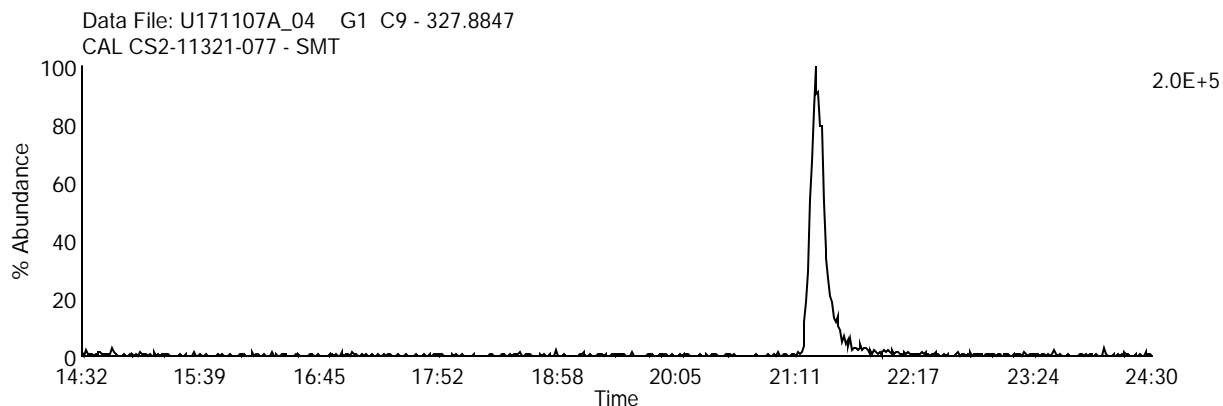
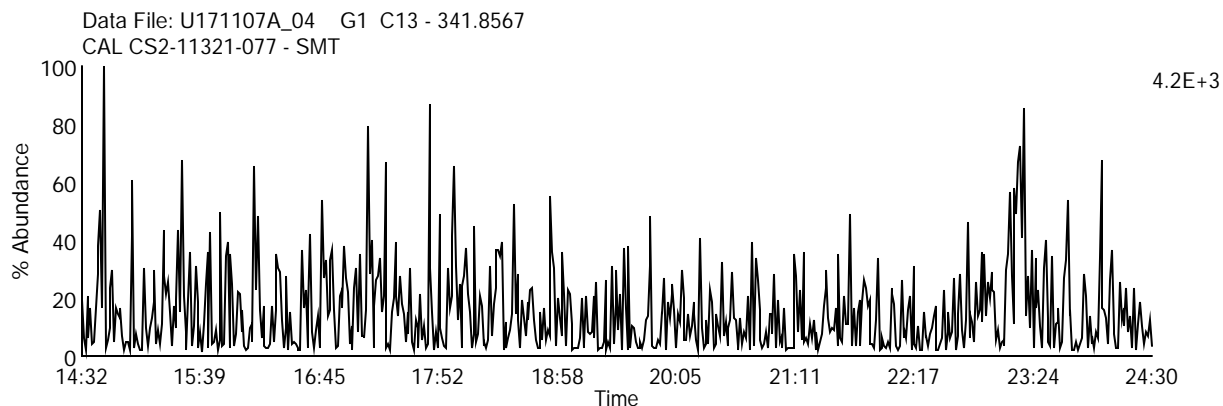
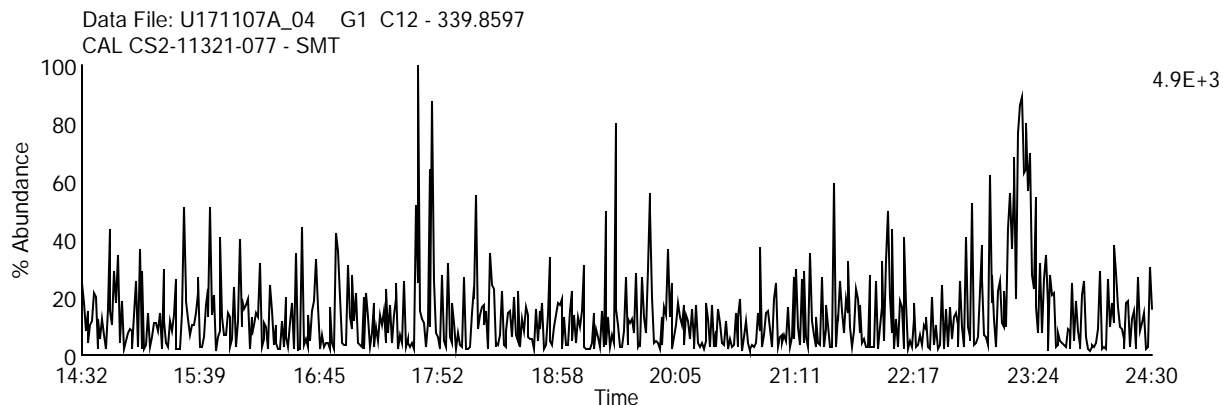
Date Acquired: 11/7/2017

Sample Description: CAL CS2-11321-077 - SMT

Lab Sample ID: CS2-11321-077

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171107A_04

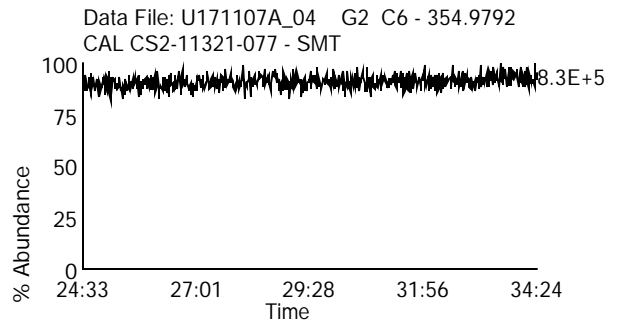
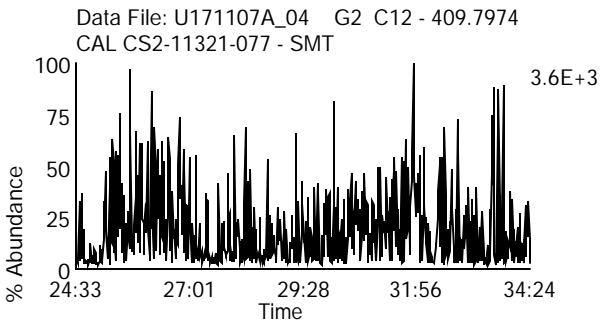
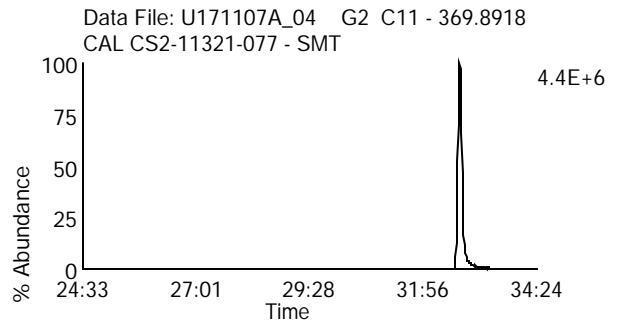
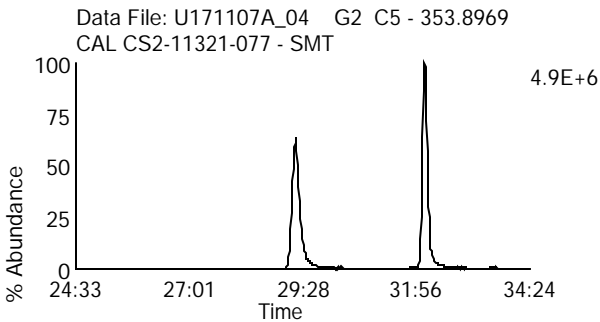
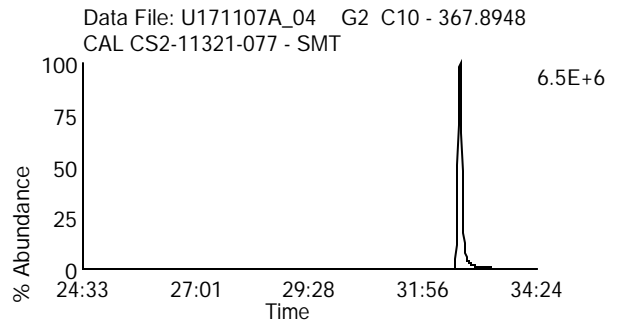
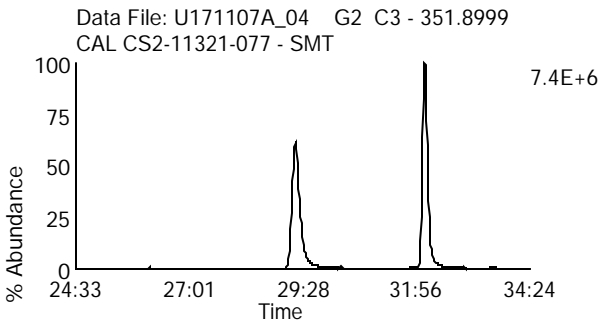
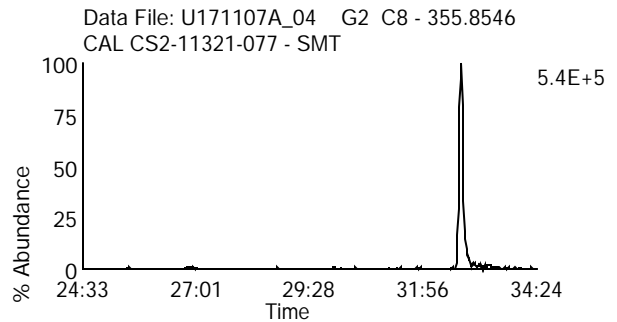
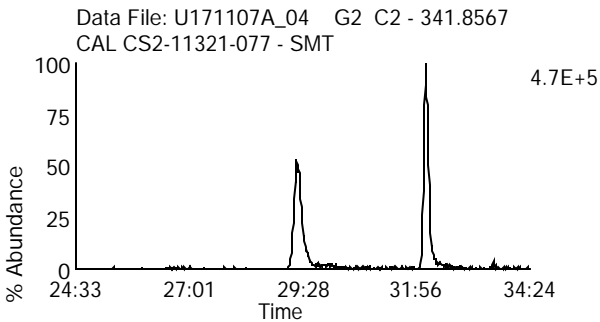
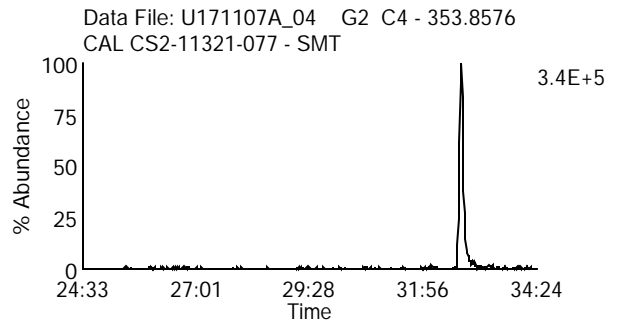
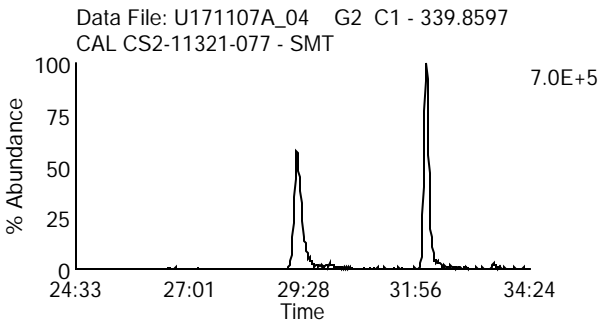
Date Acquired: 11/7/2017

Sample Description: CAL CS2-11321-077 - SMT

Lab Sample ID: CS2-11321-077

Client Sample ID:

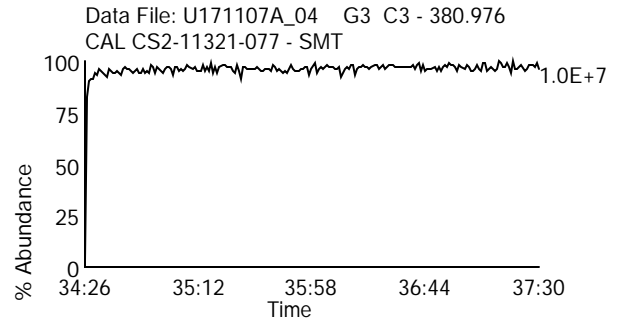
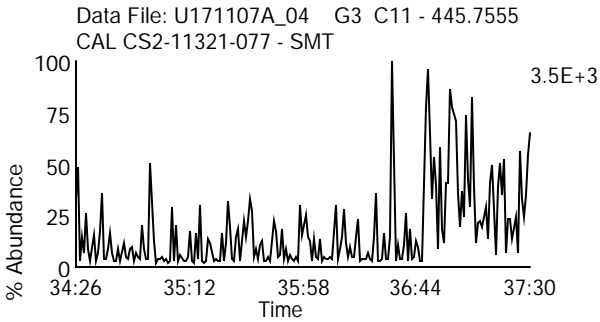
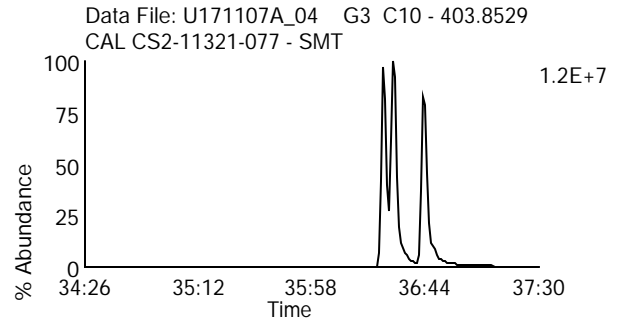
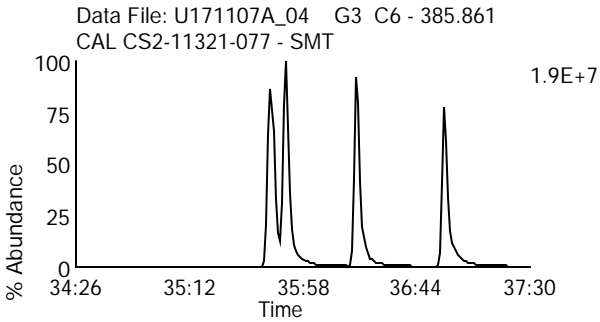
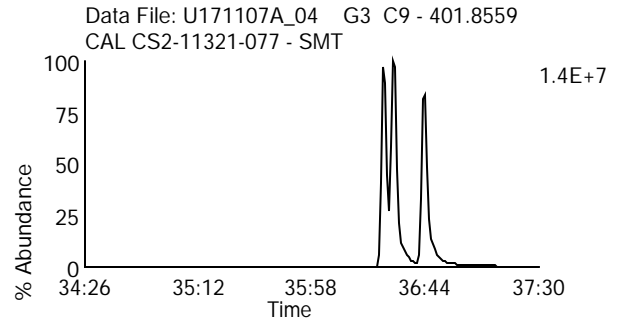
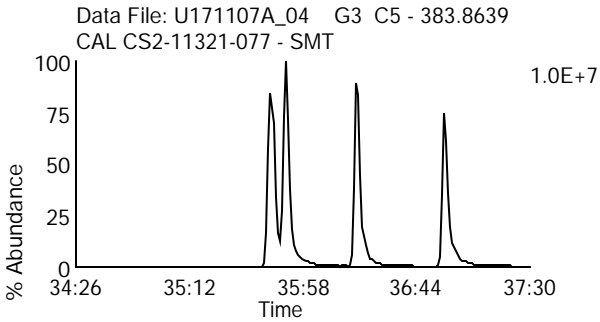
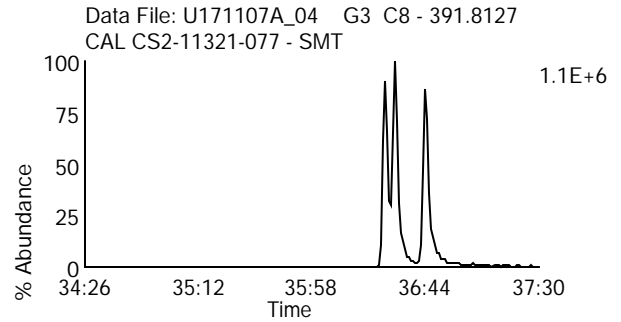
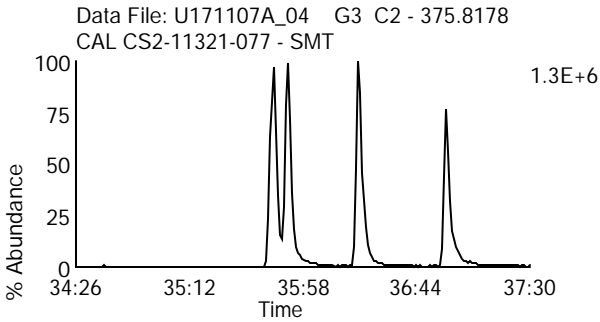
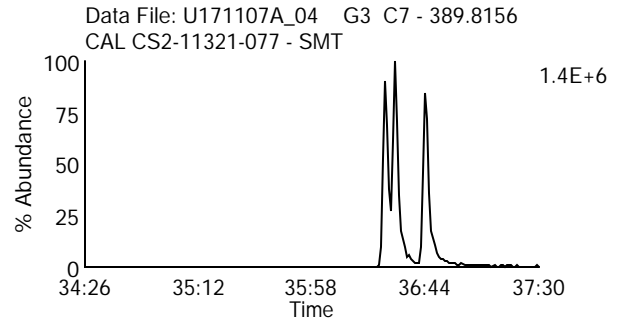
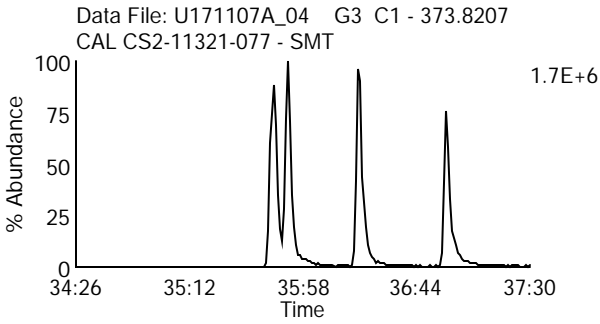
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171107A_04
Date Acquired: 11/7/2017
Sample Description: CAL CS2-11321-077 - SMT

Lab Sample ID: CS2-11321-077
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171107A_04

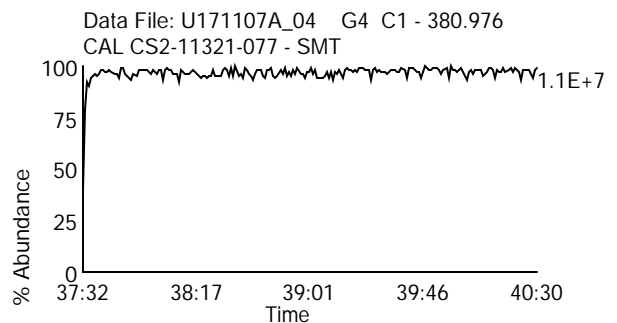
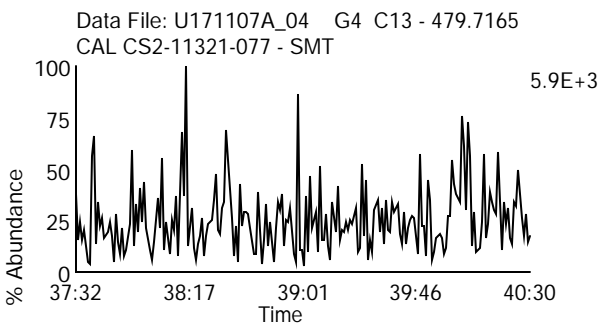
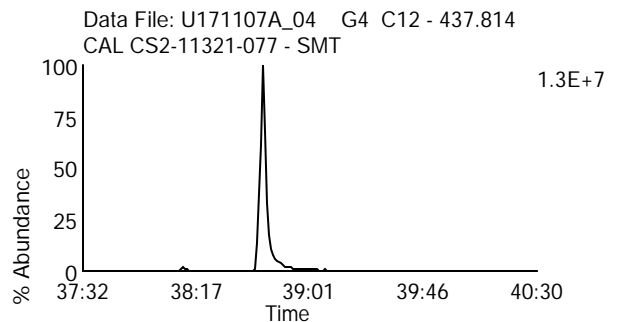
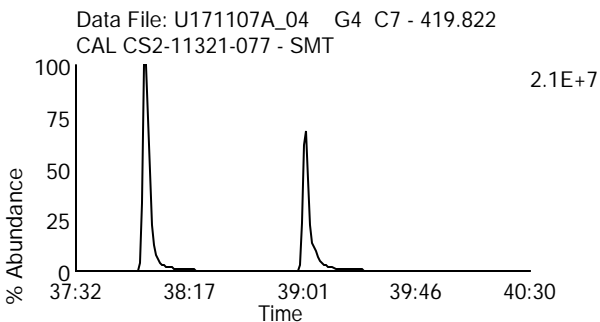
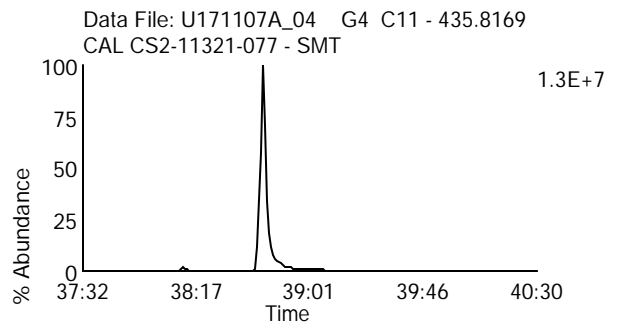
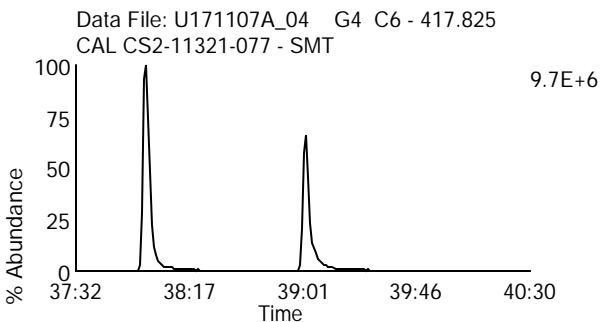
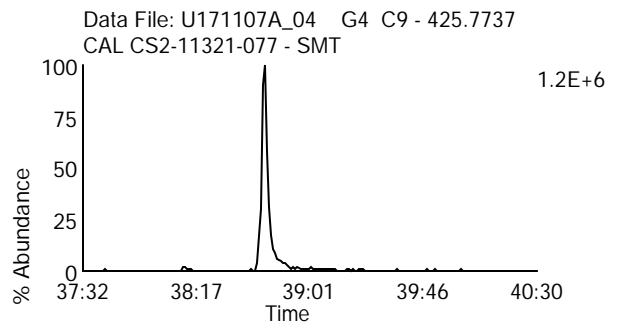
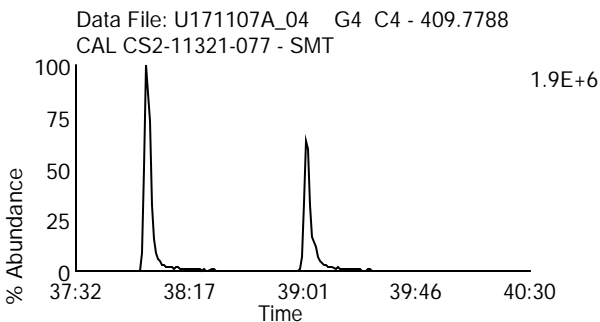
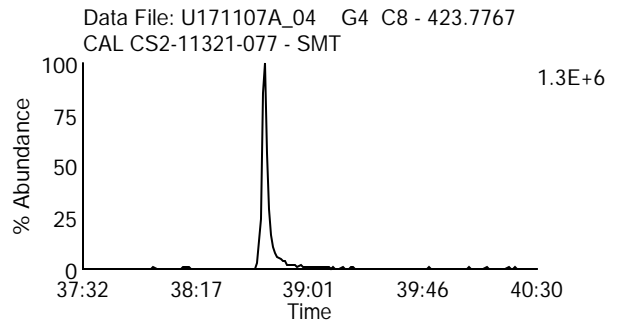
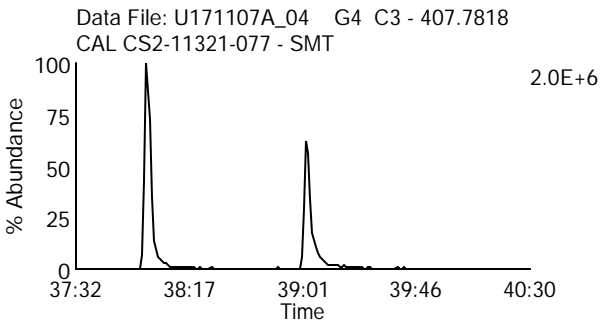
Date Acquired: 11/7/2017

Sample Description: CAL CS2-11321-077 - SMT

Lab Sample ID: CS2-11321-077

Client Sample ID:

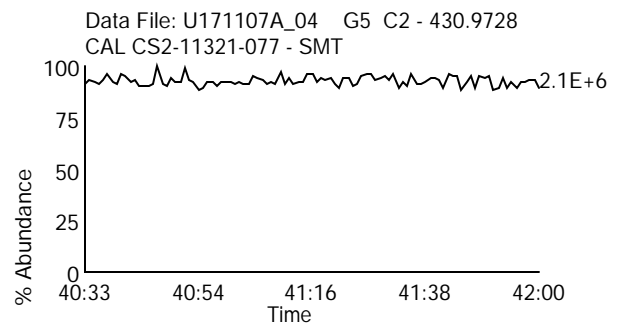
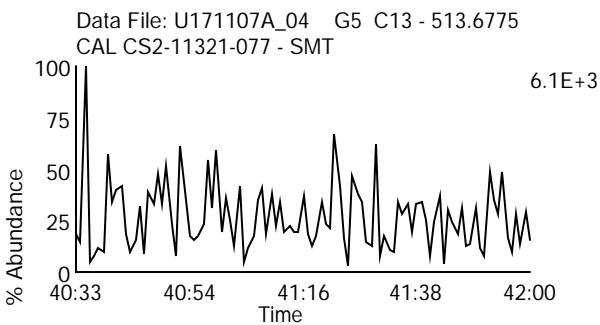
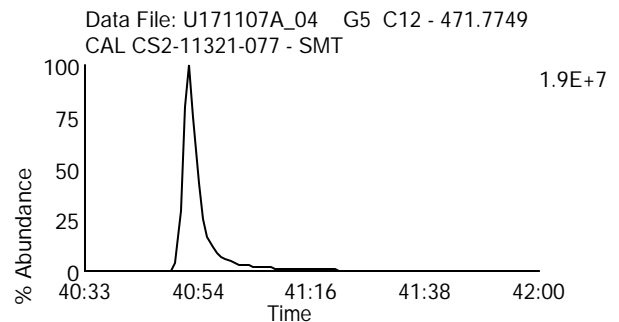
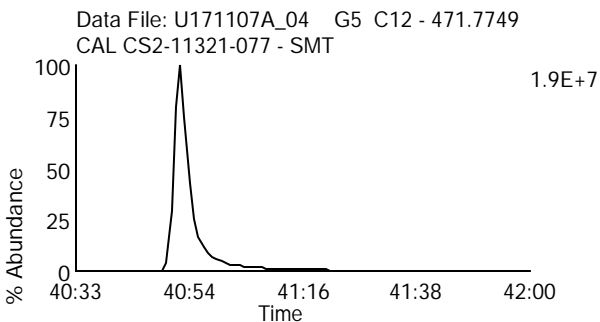
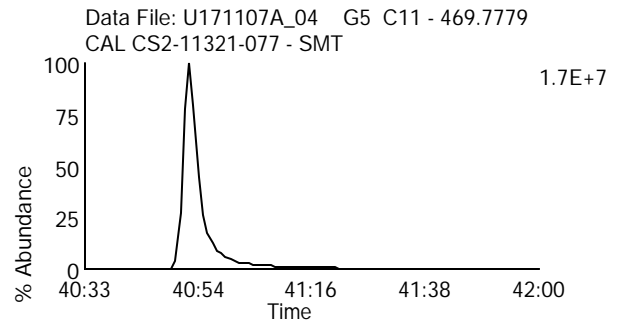
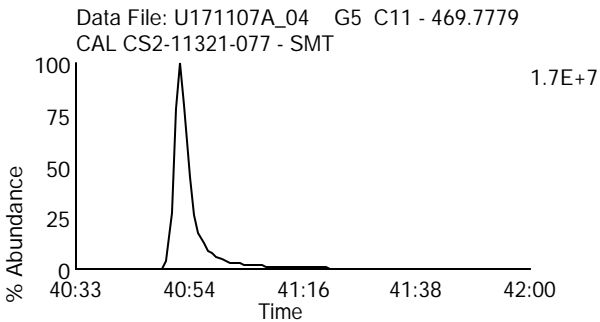
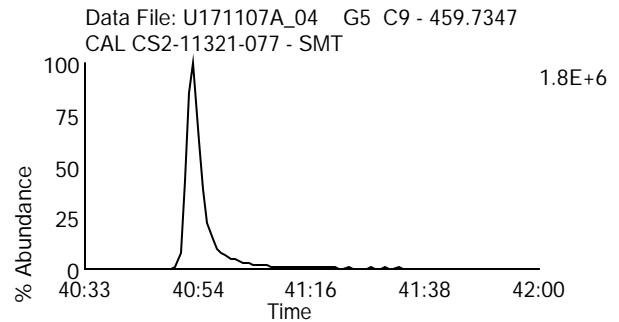
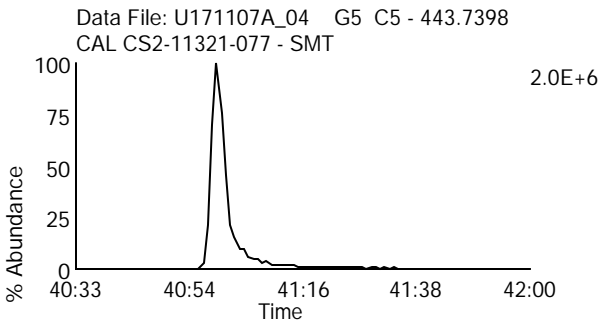
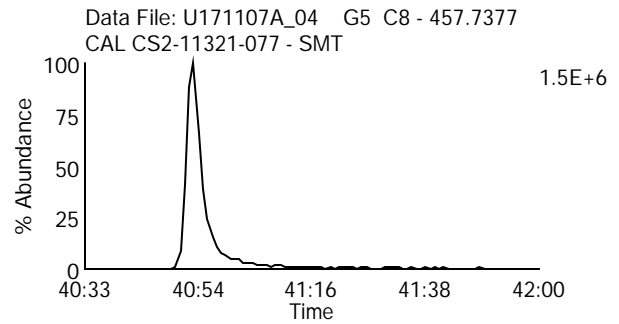
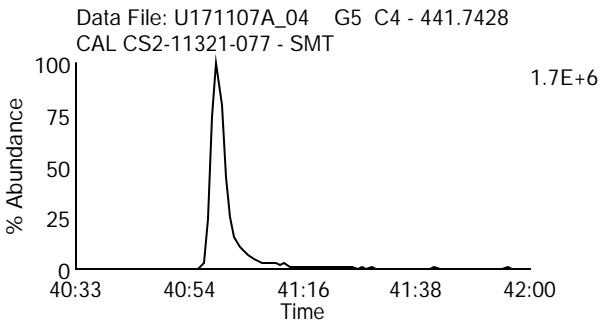
Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171107A_04
Date Acquired: 11/7/2017
Sample Description: CAL CS2-11321-077 - SMT

Lab Sample ID: CS2-11321-077
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171107A_03

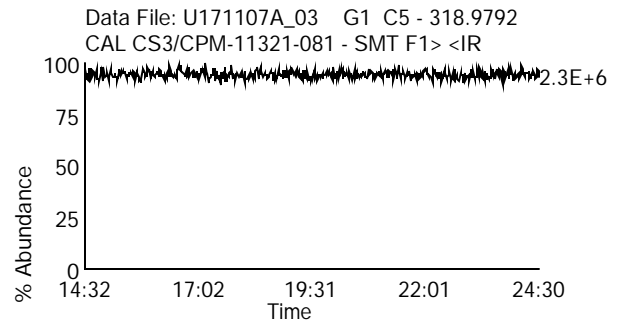
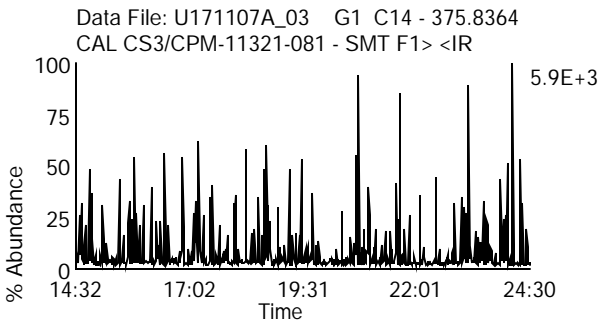
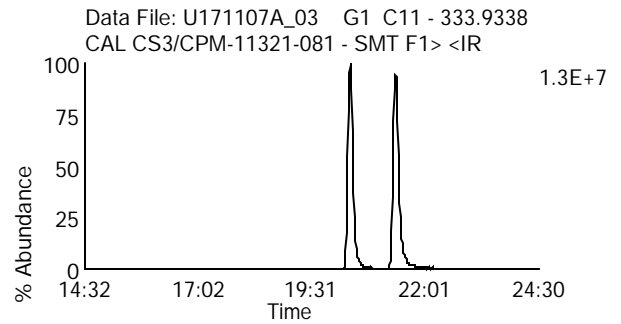
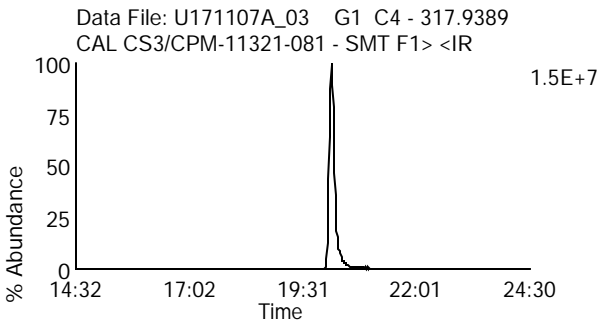
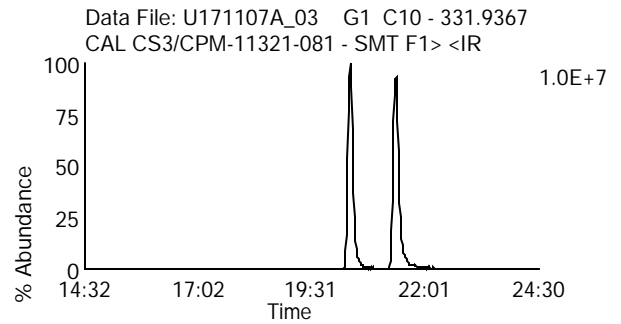
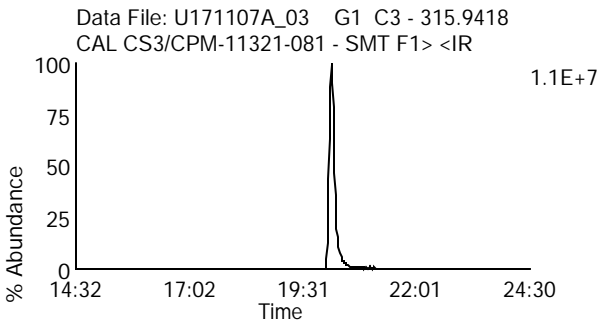
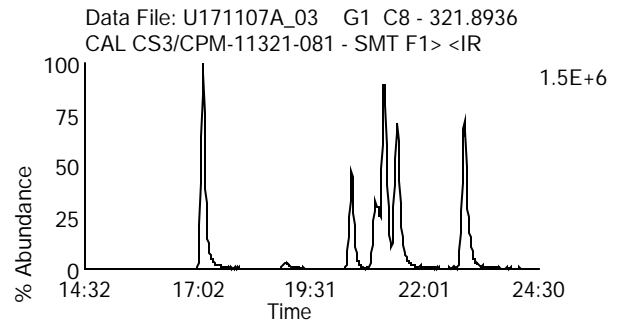
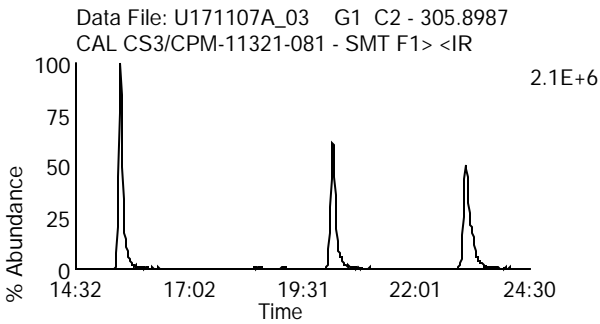
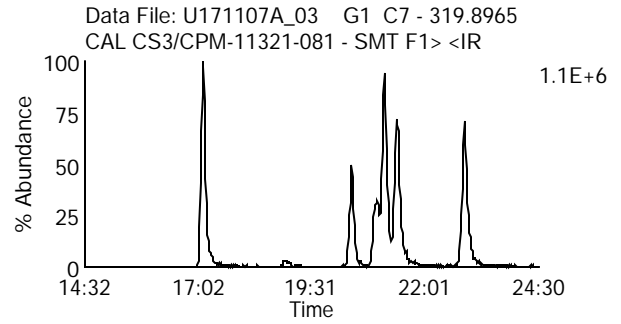
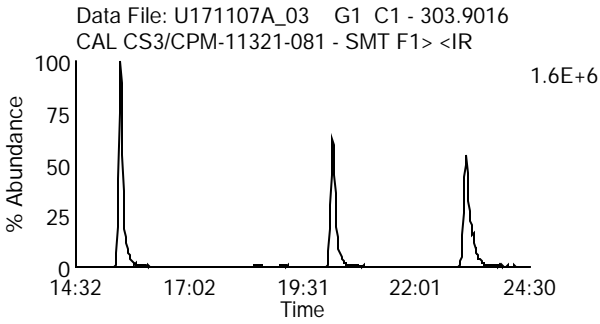
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171107A_03

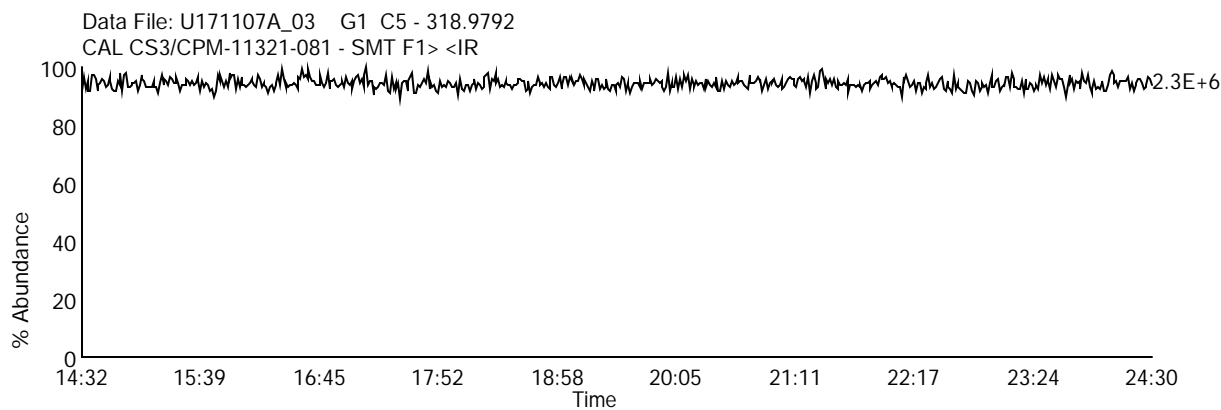
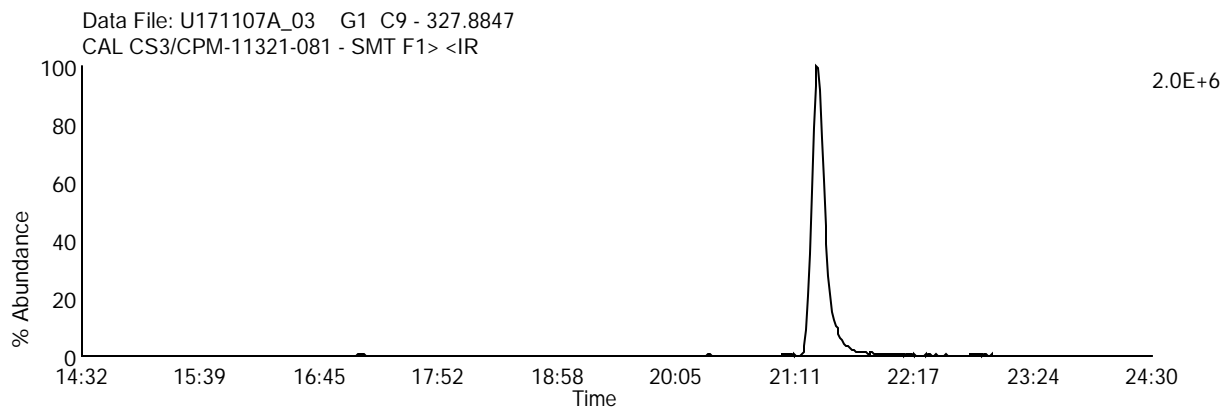
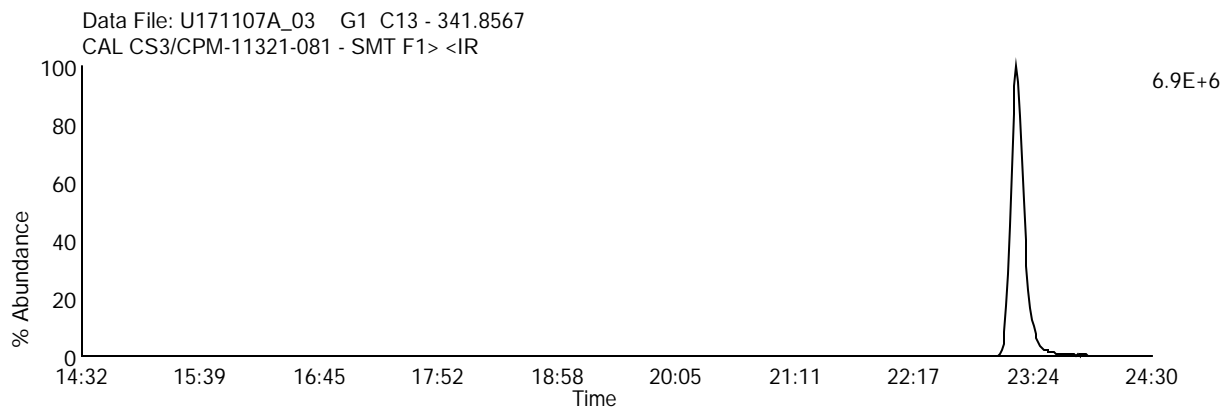
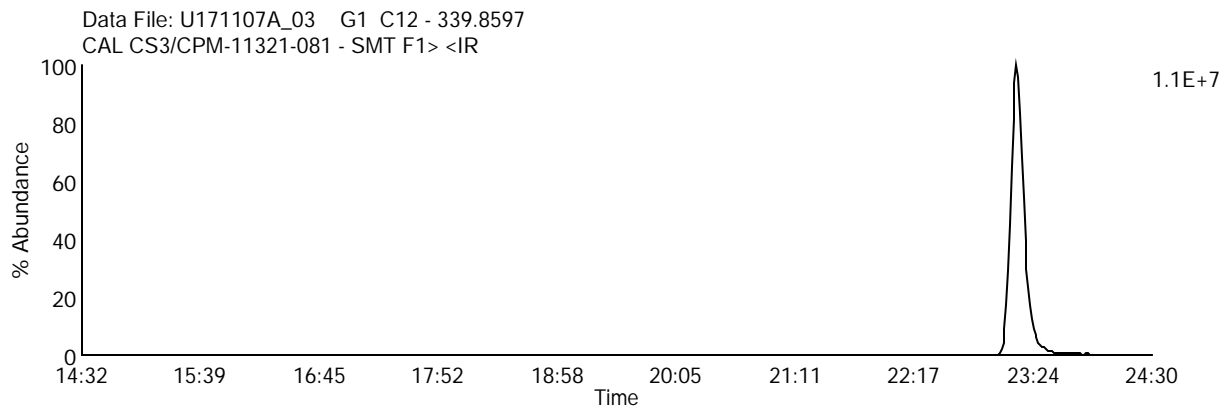
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171107A_03

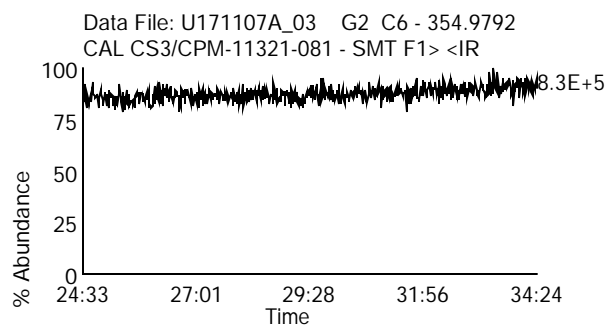
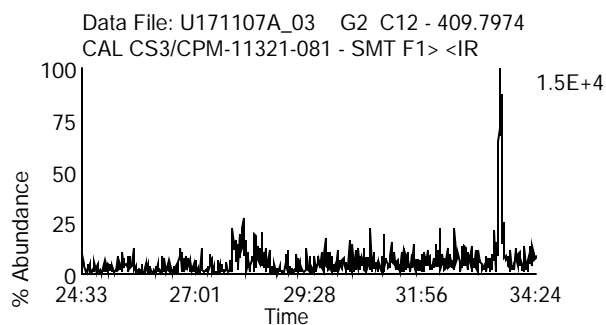
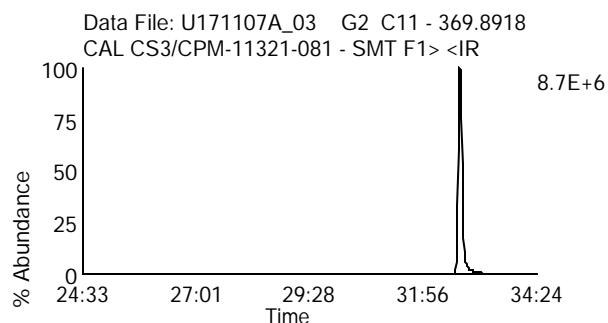
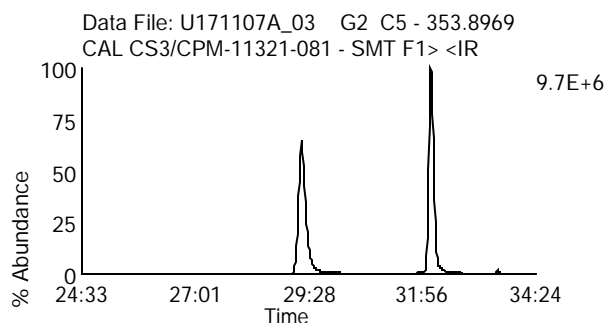
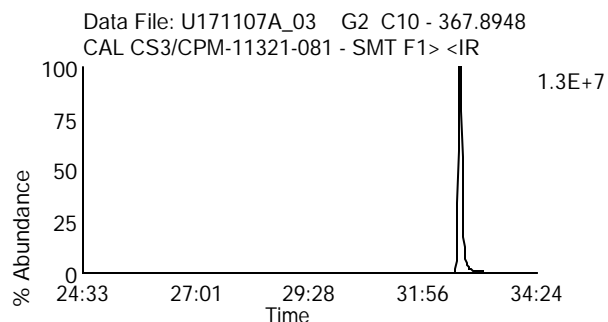
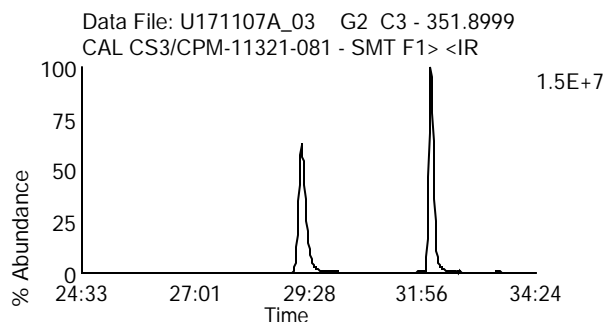
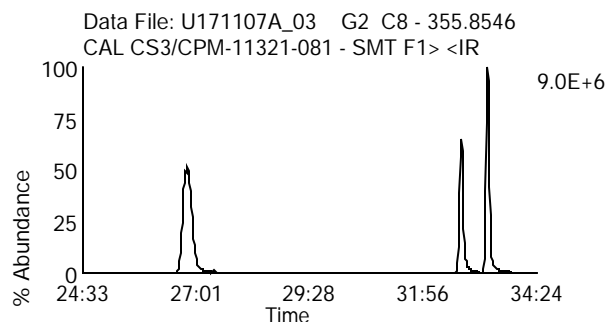
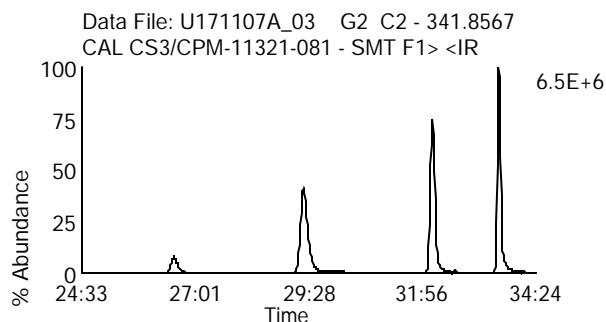
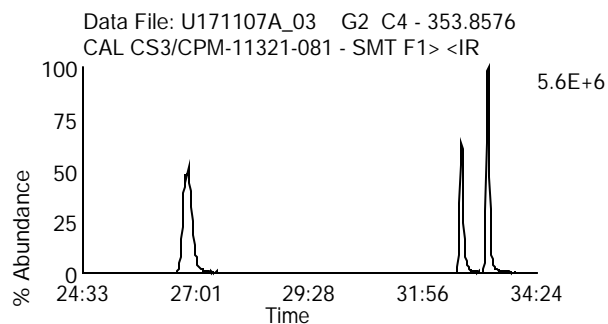
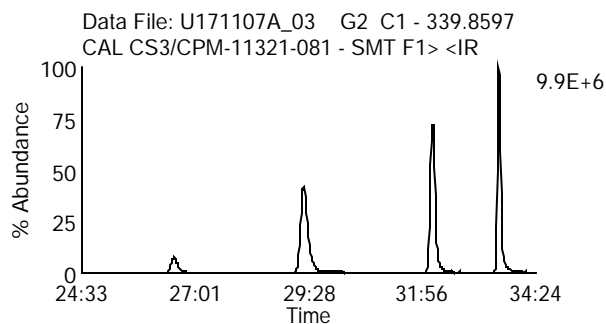
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171107A_03

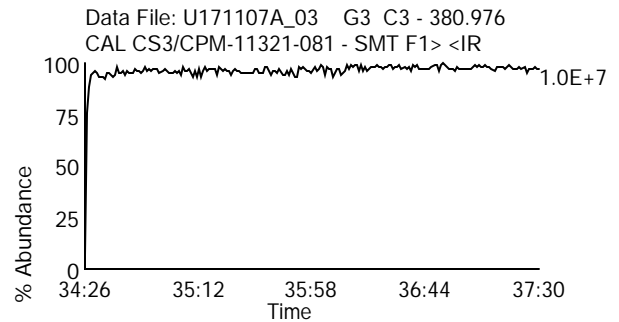
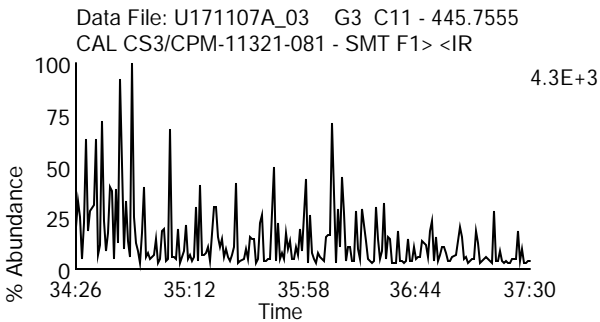
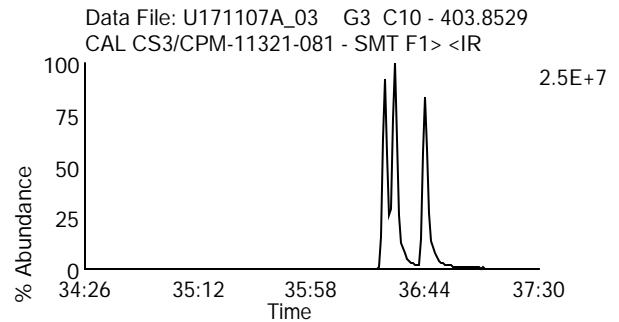
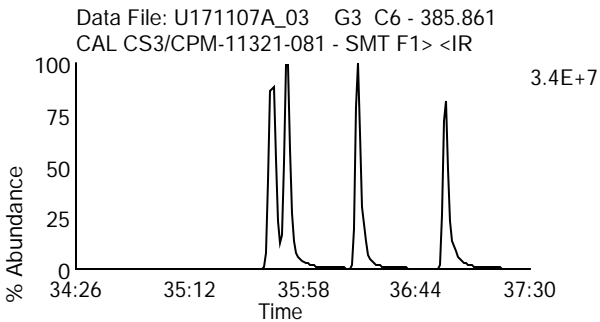
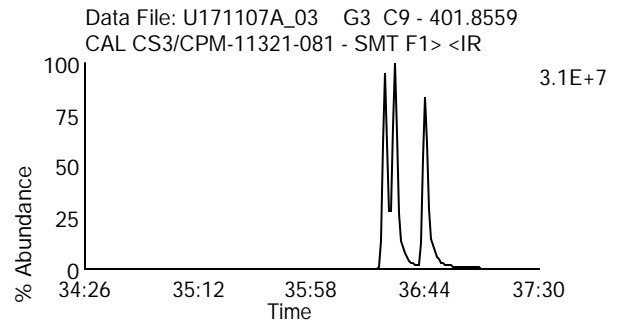
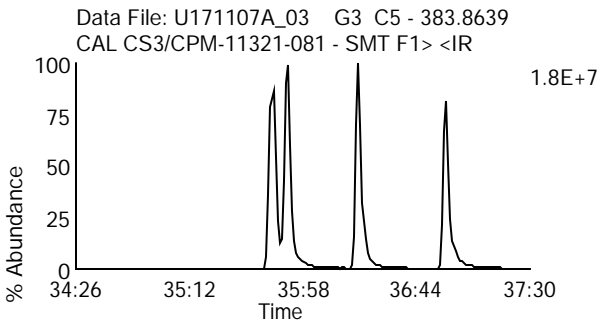
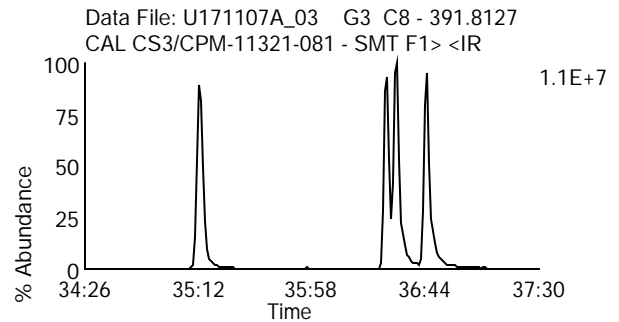
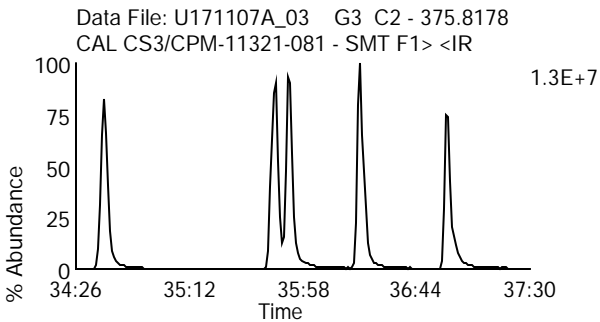
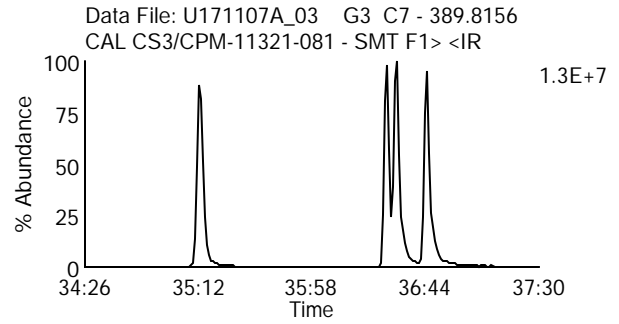
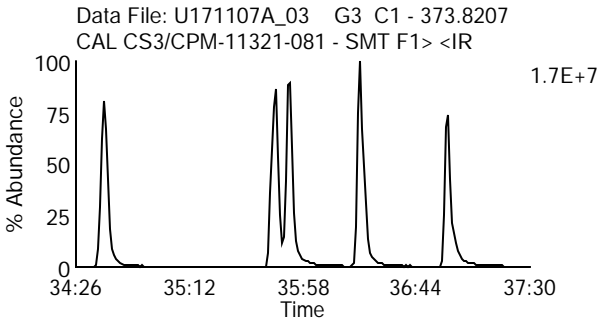
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171107A_03

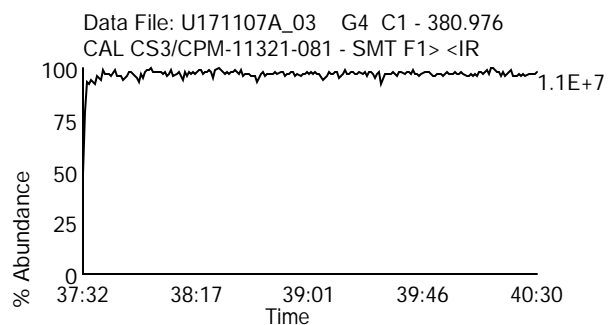
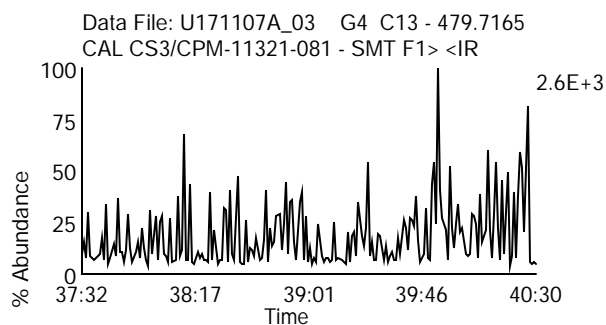
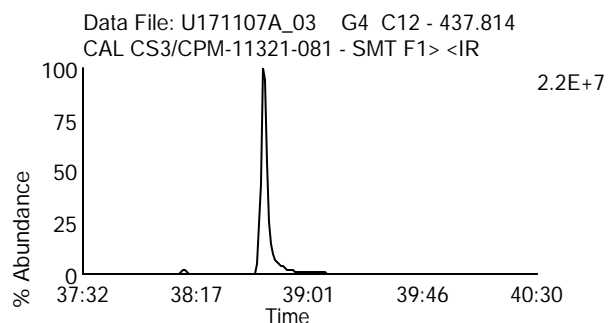
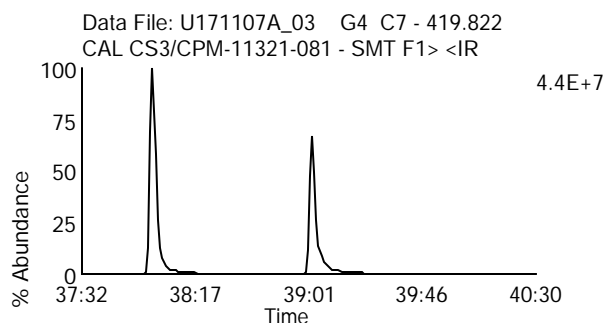
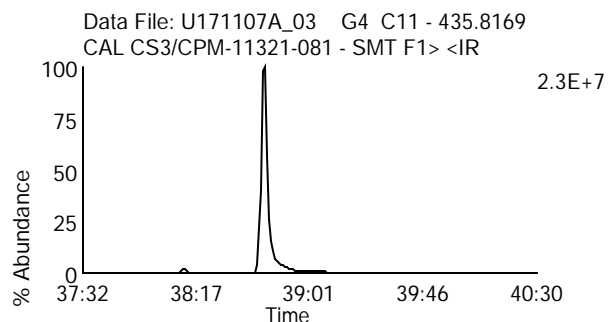
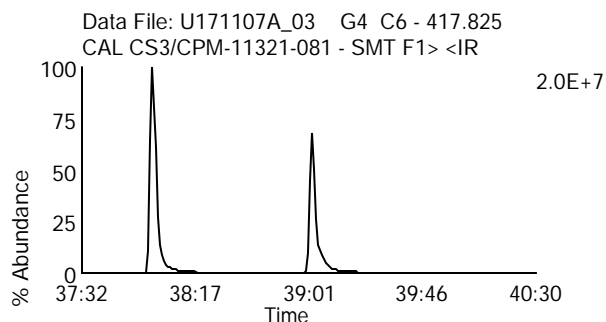
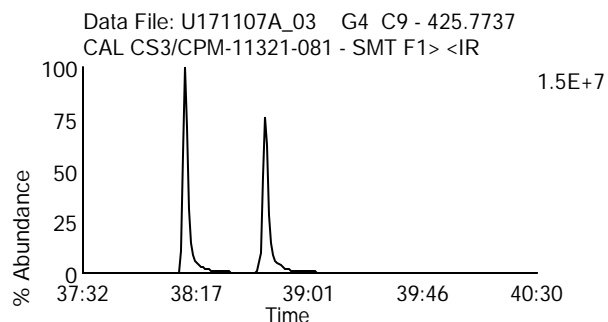
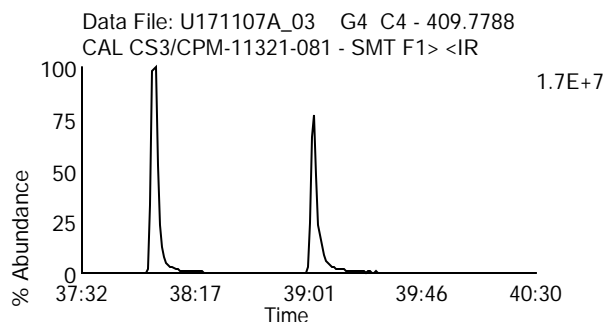
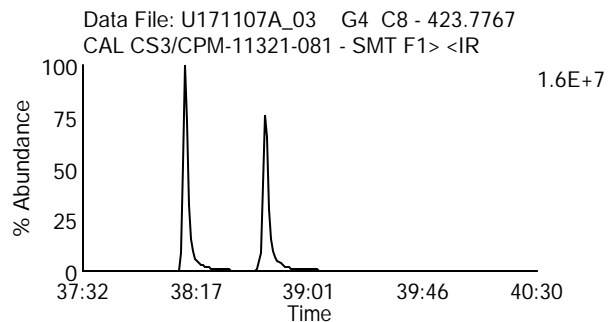
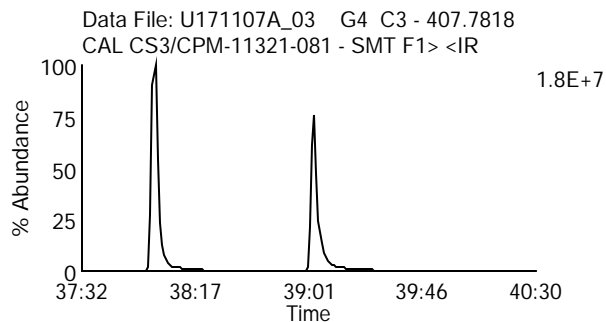
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171107A_03

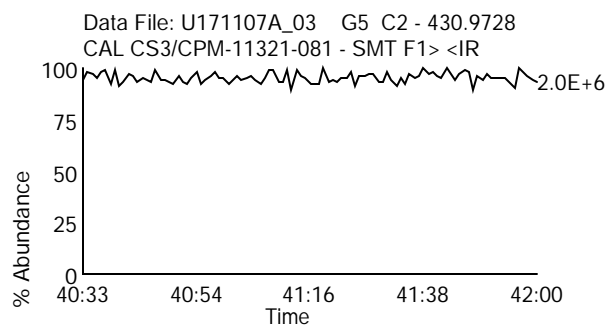
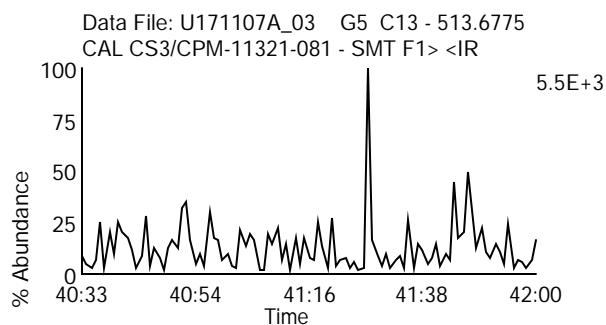
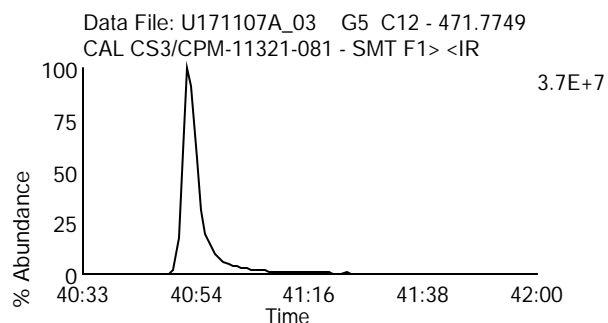
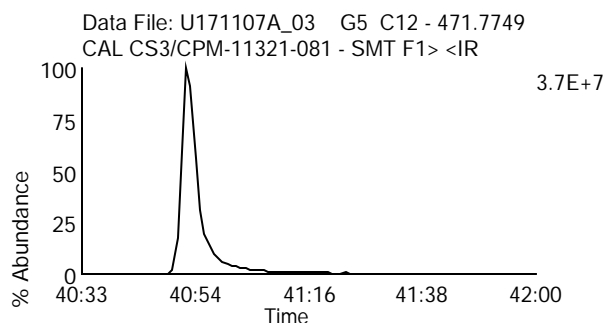
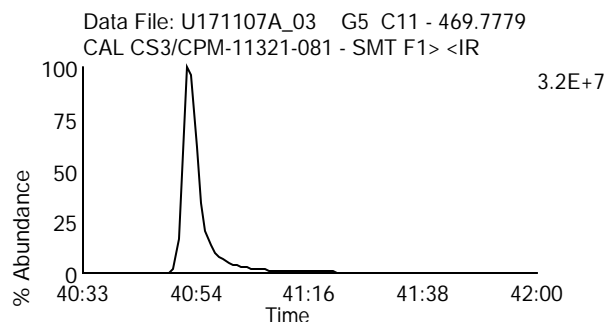
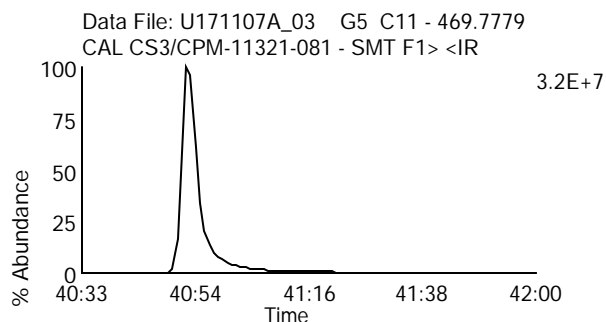
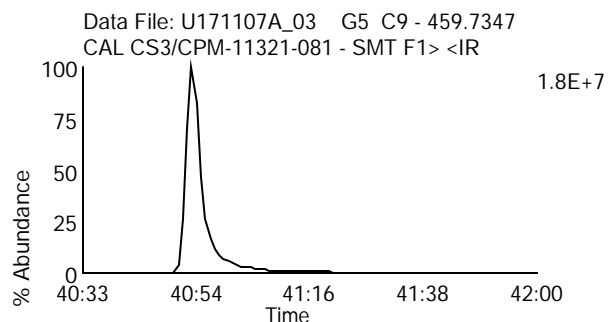
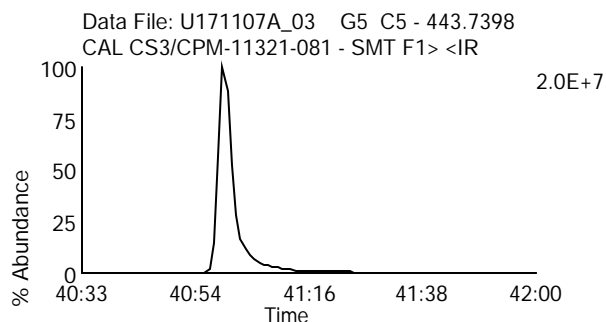
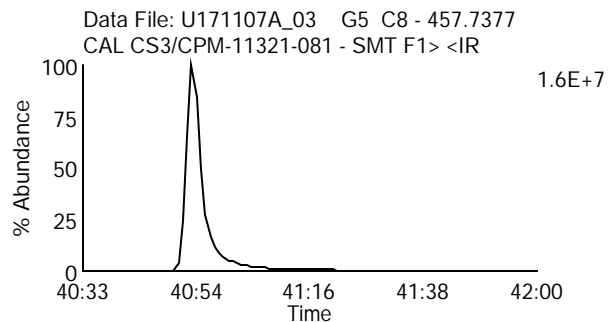
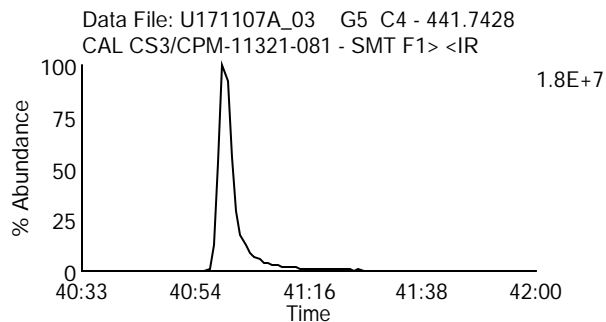
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

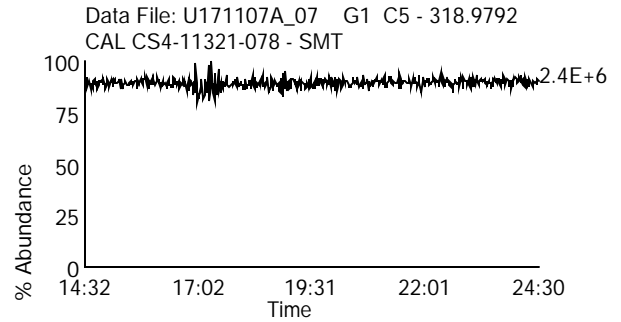
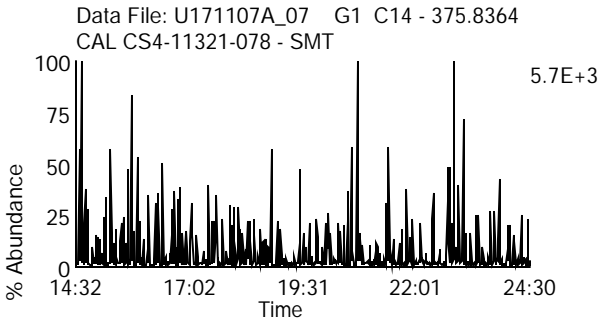
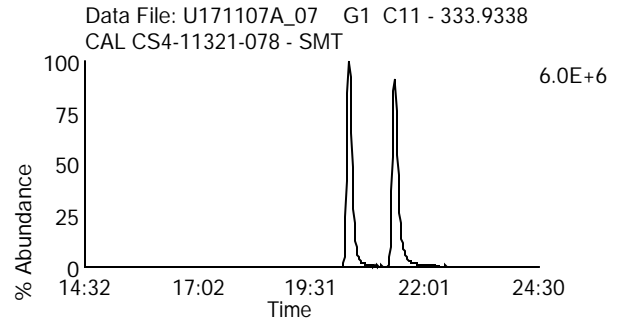
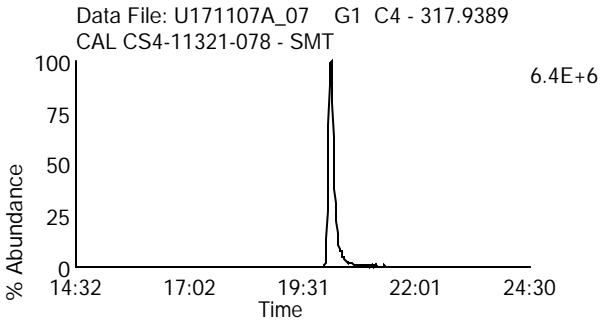
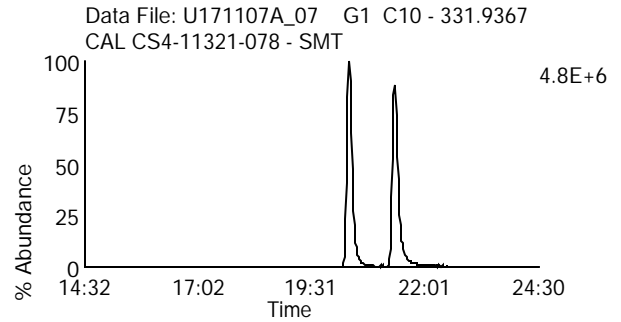
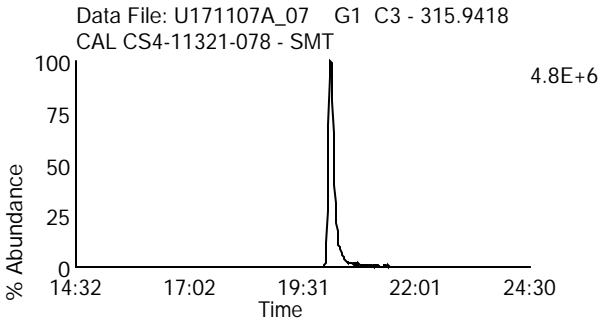
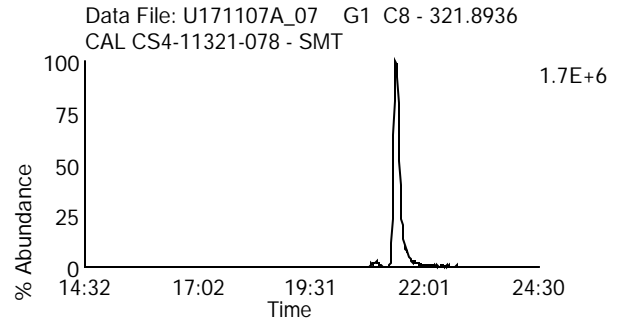
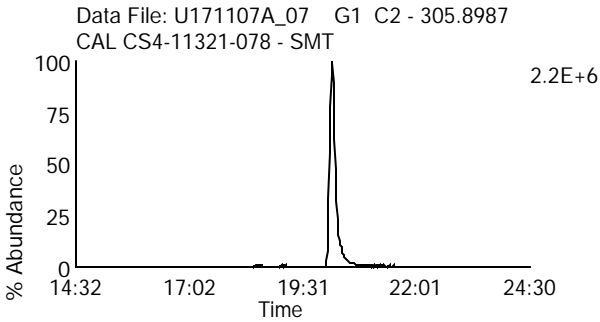
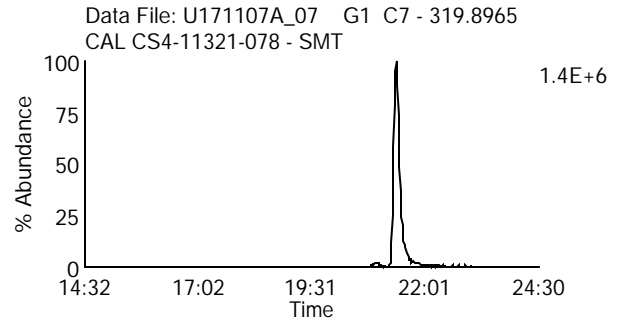
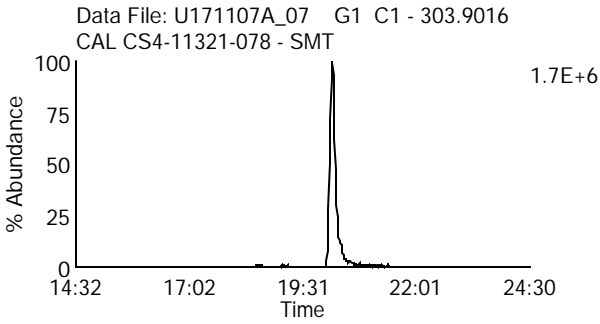
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171107A_07
Date Acquired: 11/7/2017
Sample Description: CAL CS4-11321-078 - SMT

Lab Sample ID: CS4-11321-078
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171107A_07

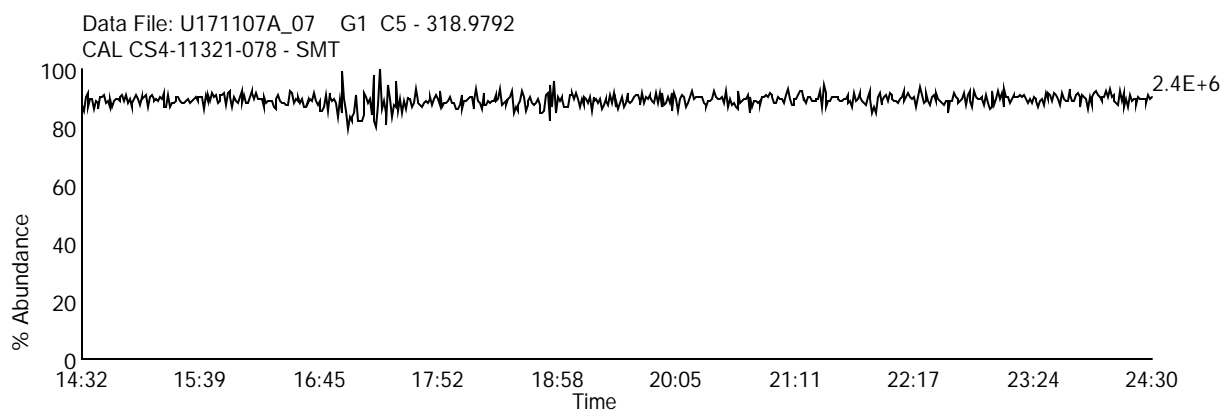
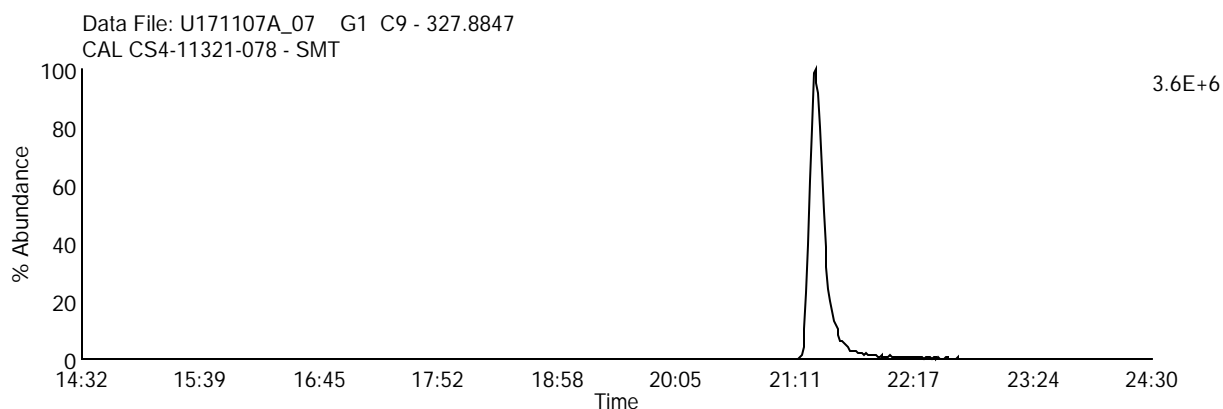
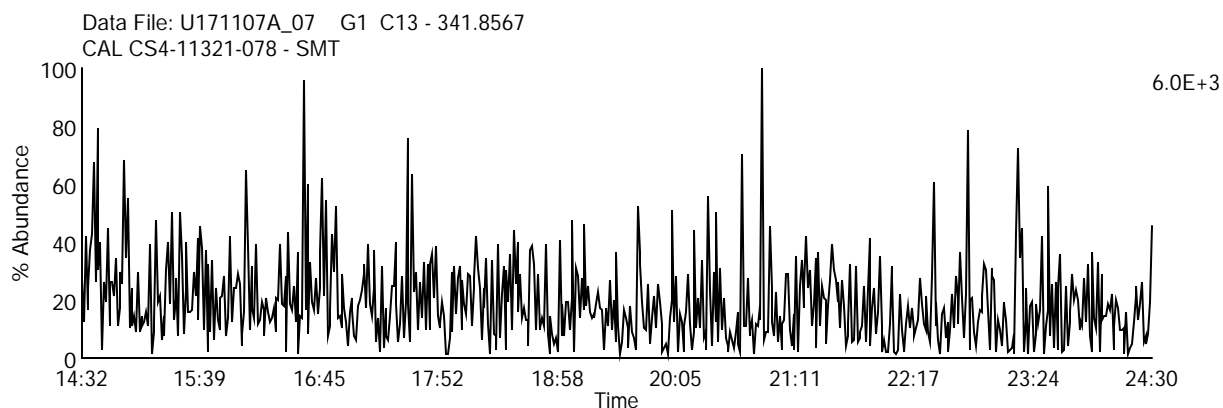
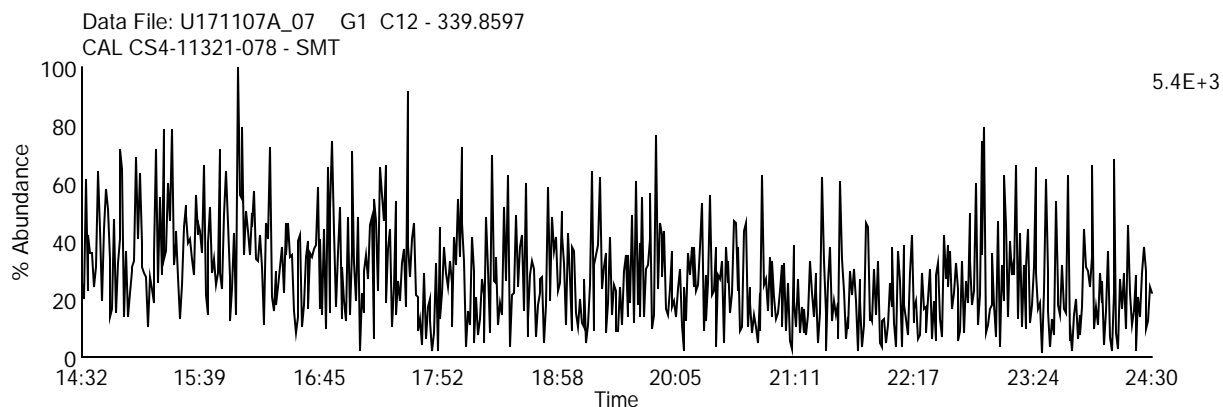
Lab Sample ID: CS4-11321-078

Date Acquired: 11/7/2017

Client Sample ID:

Sample Description: CAL CS4-11321-078 - SMT

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171107A_07

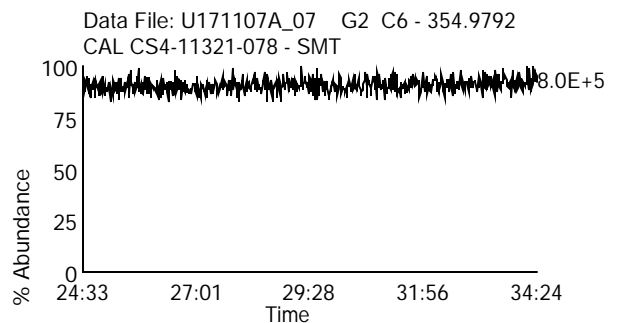
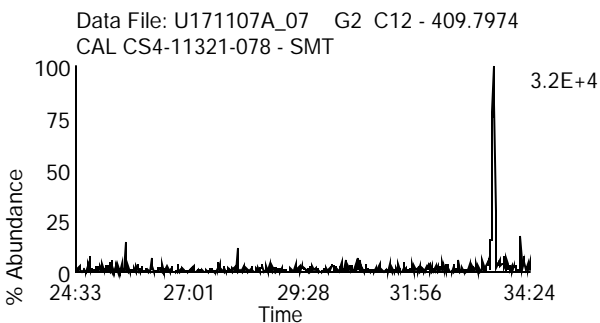
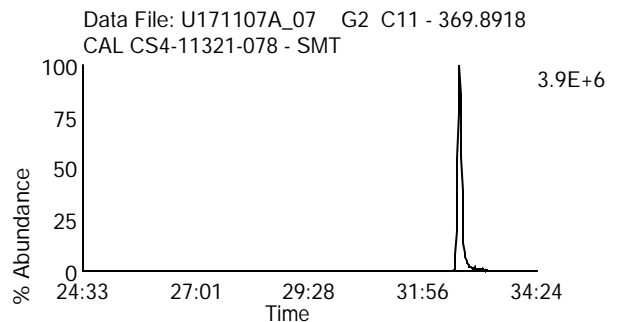
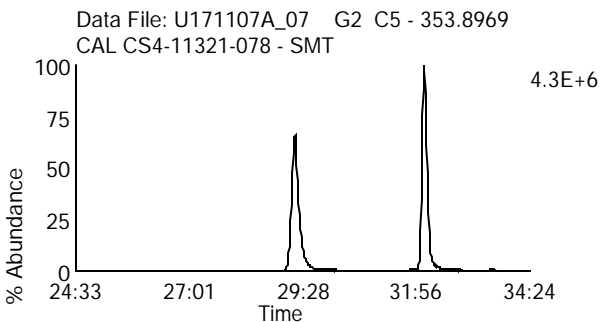
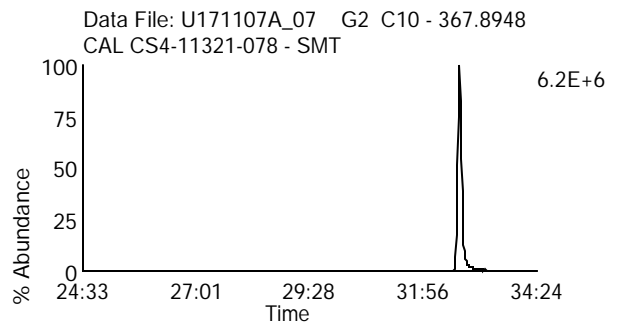
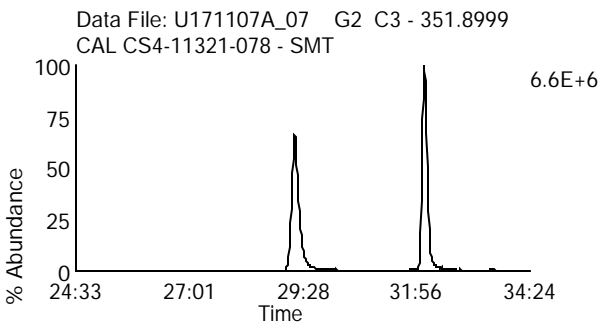
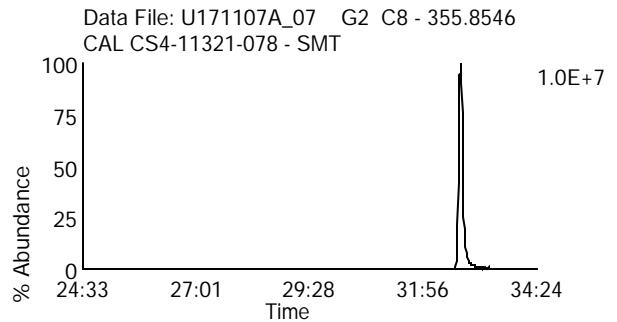
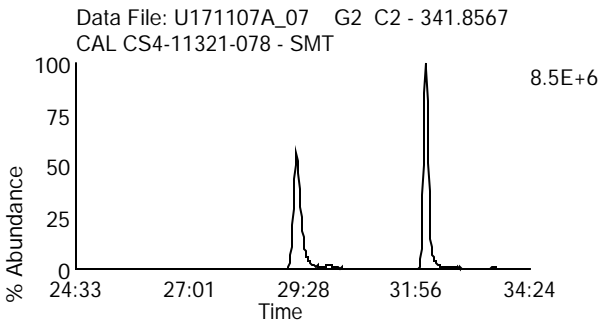
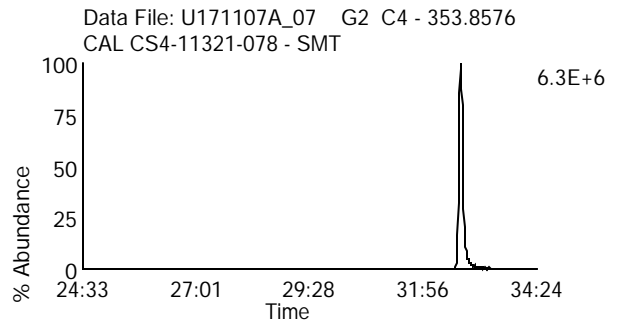
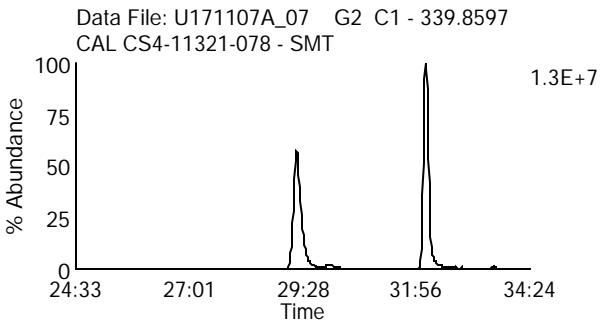
Date Acquired: 11/7/2017

Sample Description: CAL CS4-11321-078 - SMT

Lab Sample ID: CS4-11321-078

Client Sample ID:

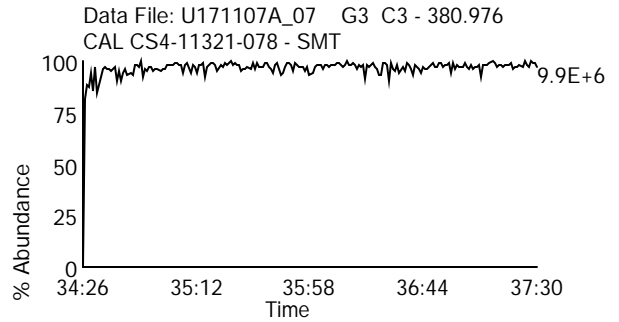
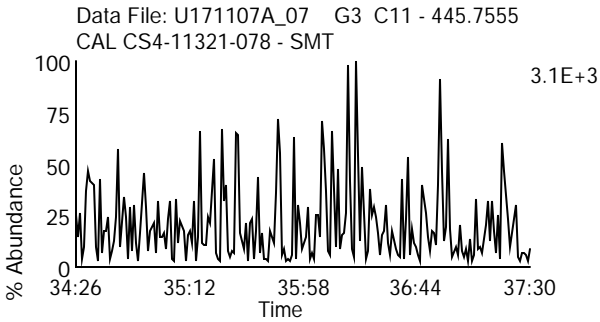
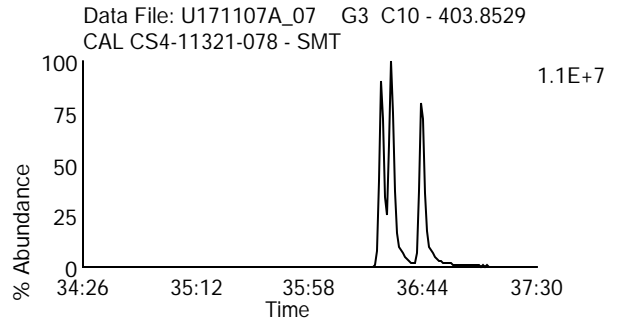
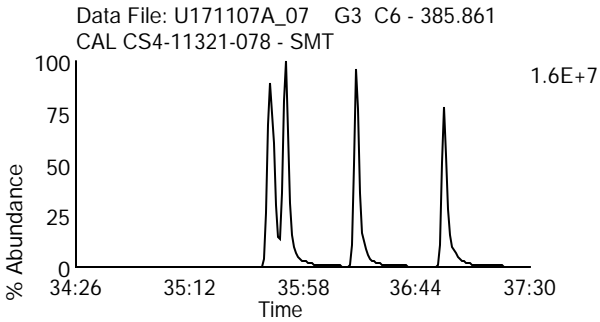
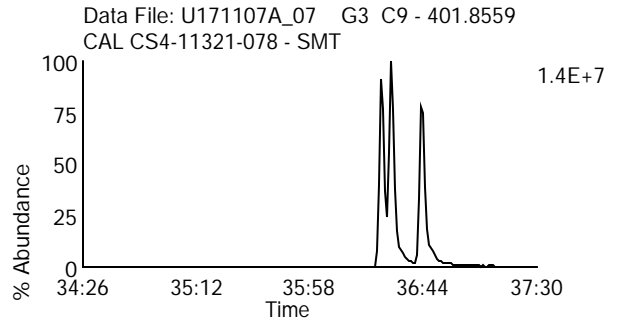
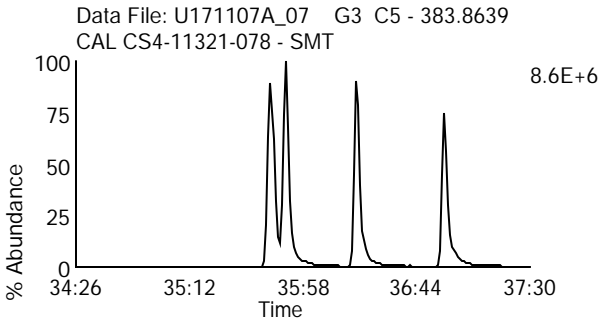
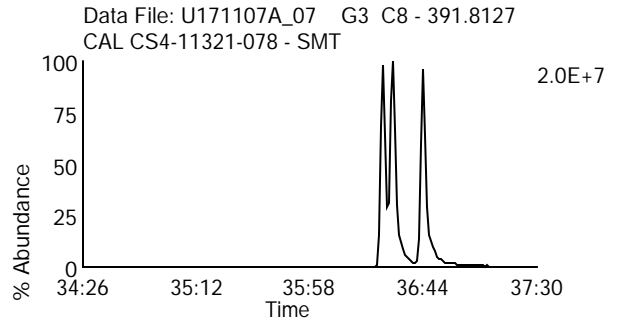
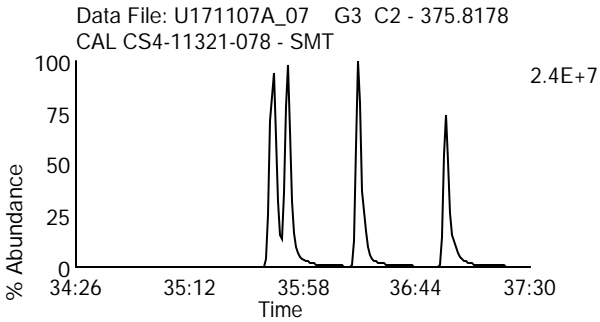
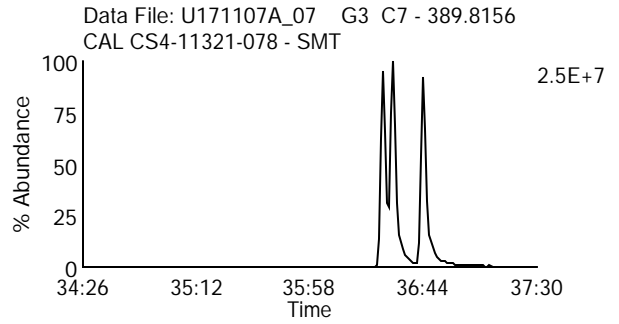
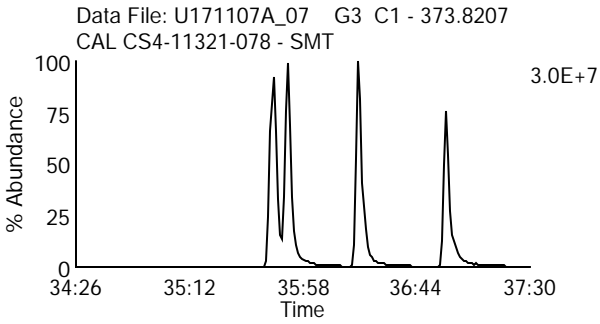
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171107A_07
Date Acquired: 11/7/2017
Sample Description: CAL CS4-11321-078 - SMT

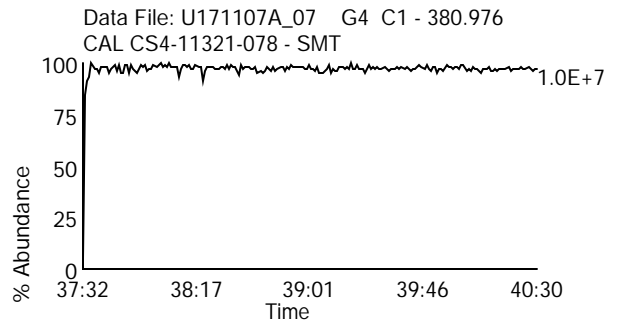
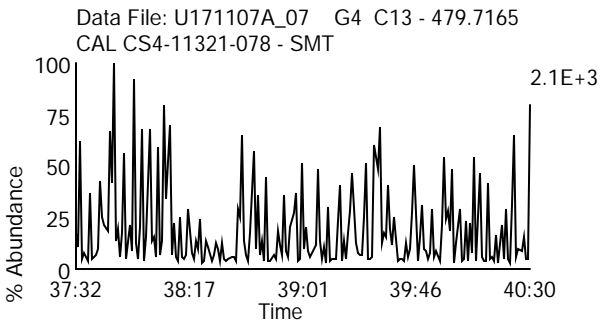
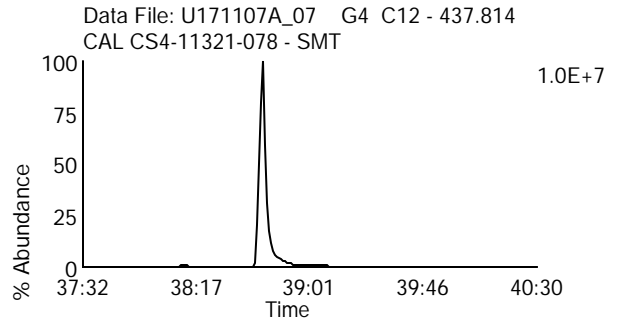
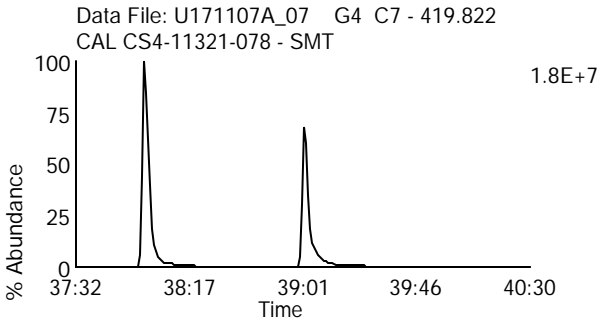
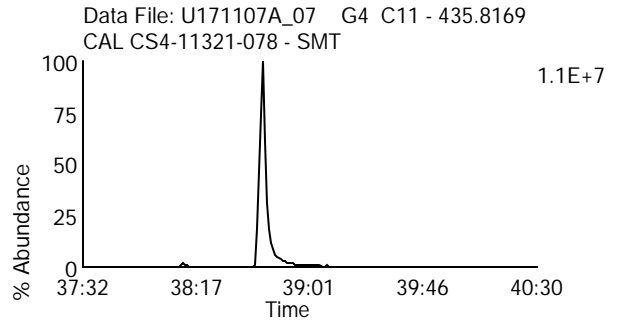
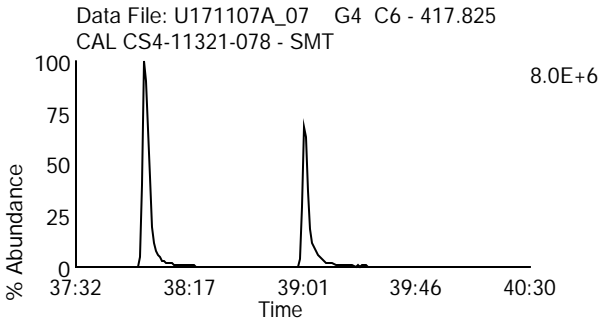
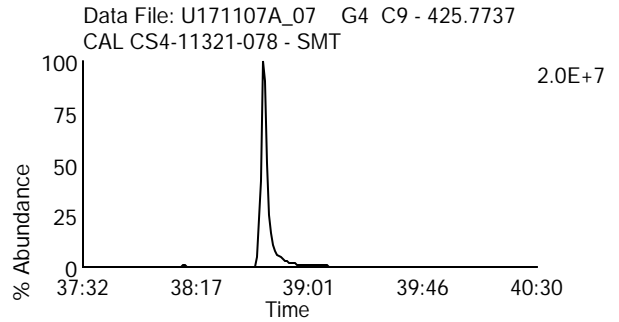
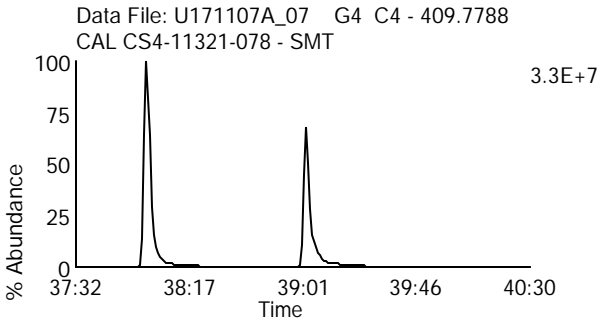
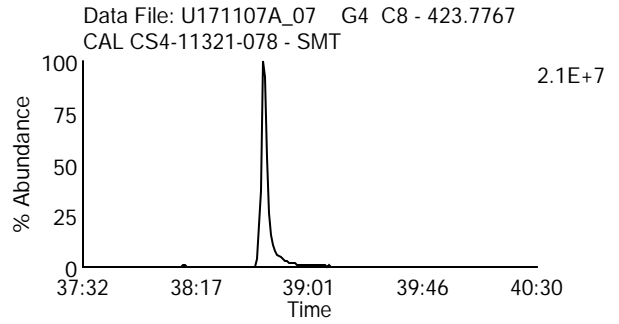
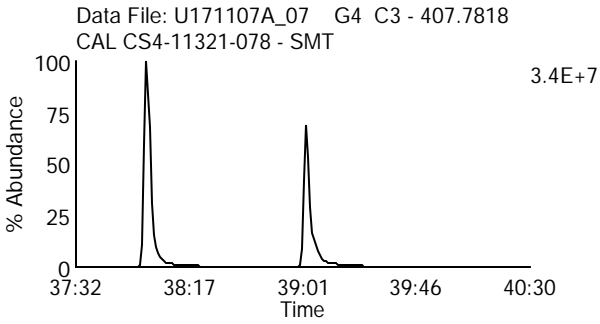
Lab Sample ID: CS4-11321-078
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171107A_07
Date Acquired: 11/7/2017
Sample Description: CAL CS4-11321-078 - SMT

Lab Sample ID: CS4-11321-078
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171107A_07

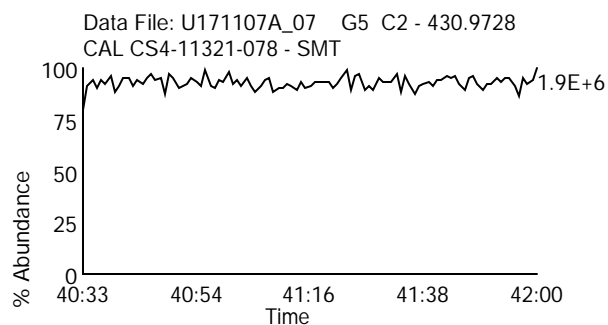
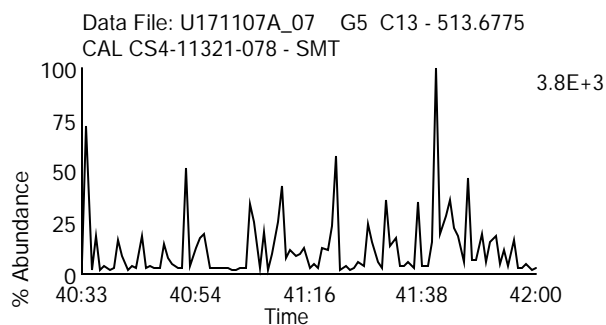
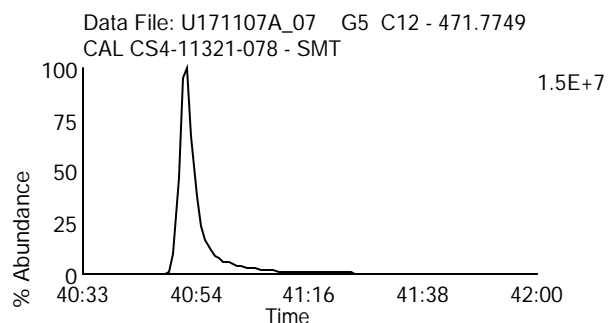
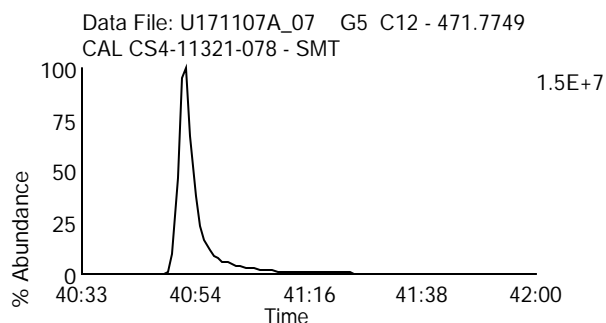
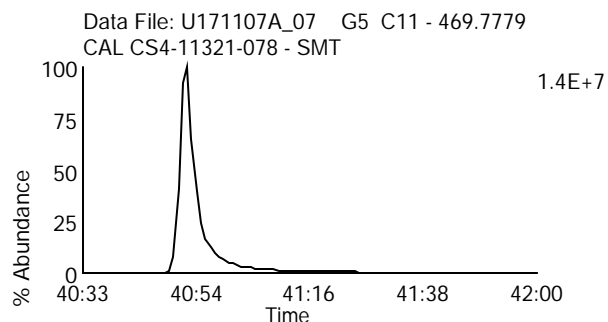
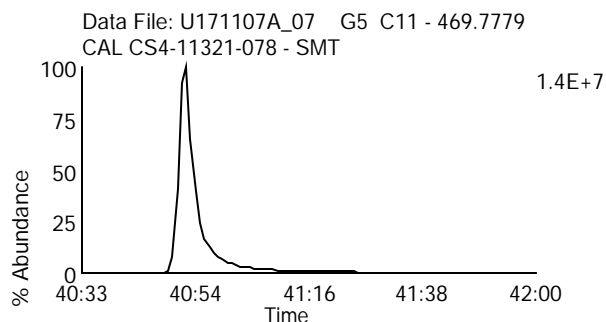
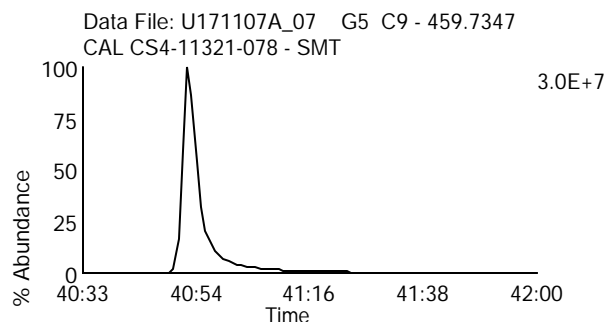
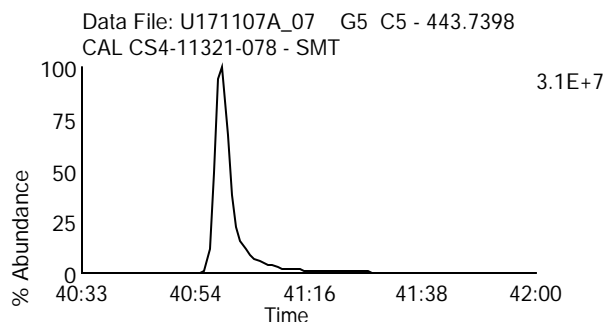
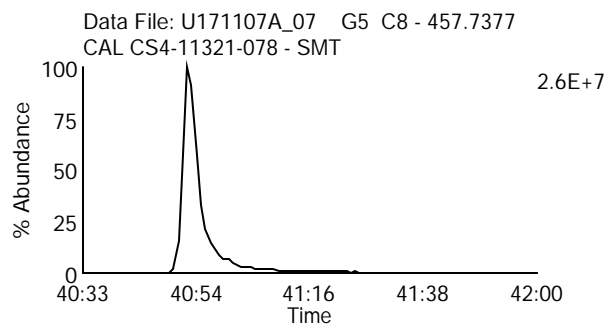
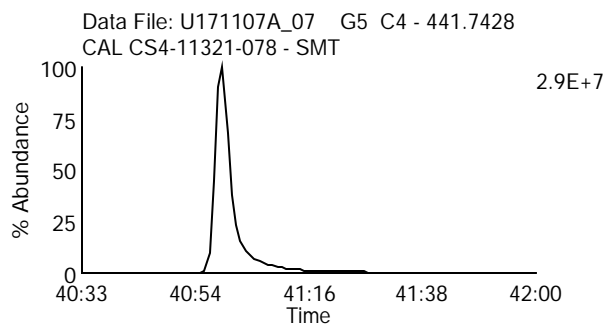
Date Acquired: 11/7/2017

Sample Description: CAL CS4-11321-078 - SMT

Lab Sample ID: CS4-11321-078

Client Sample ID:

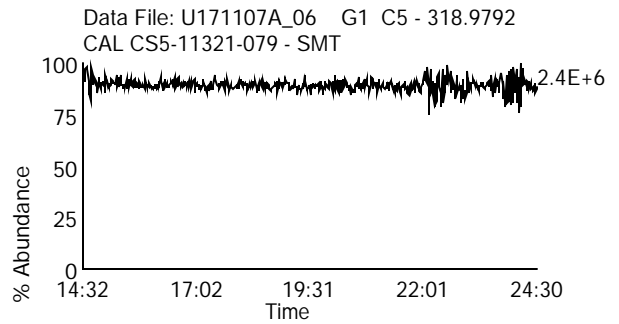
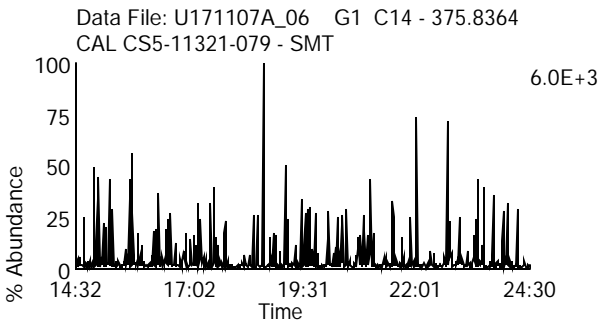
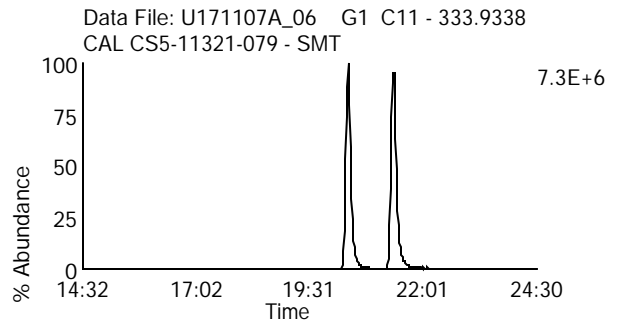
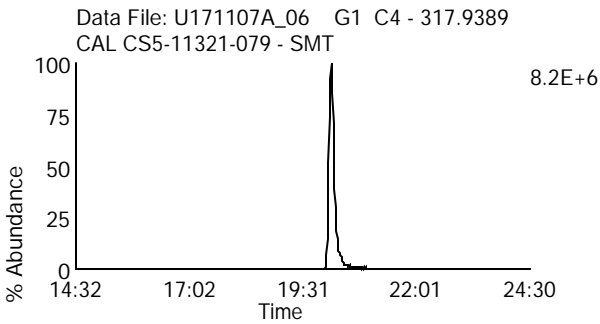
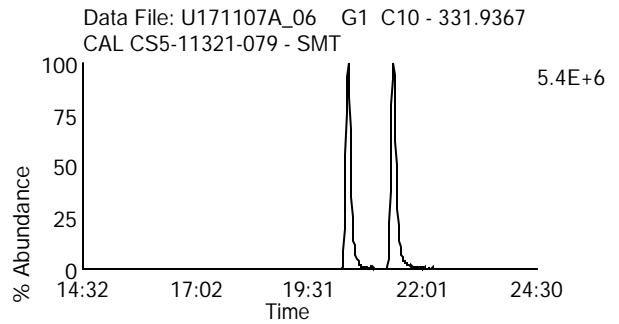
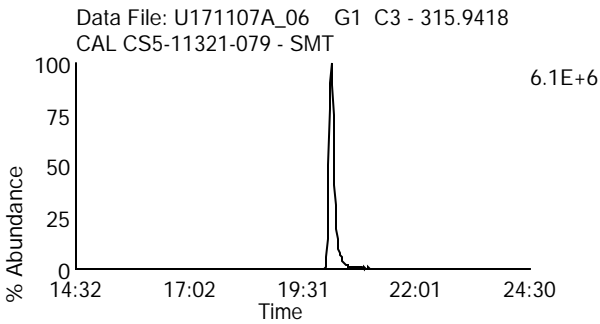
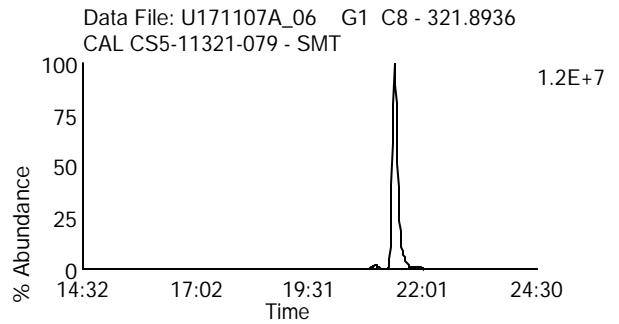
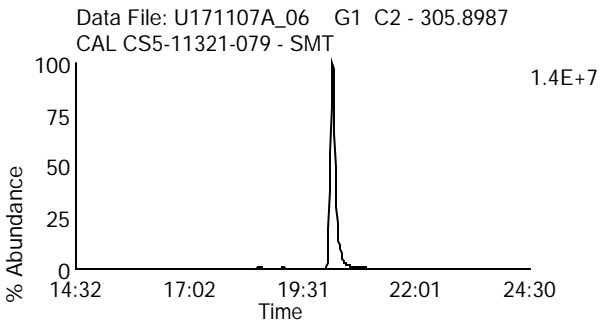
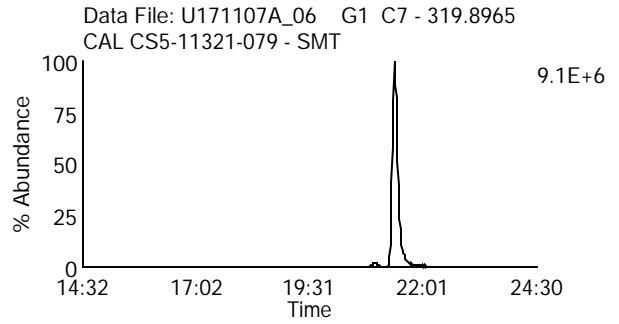
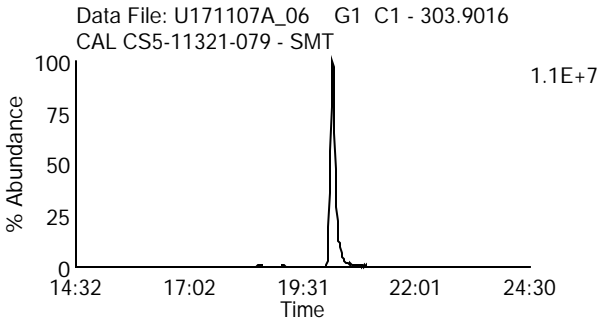
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171107A_06
Date Acquired: 11/7/2017
Sample Description: CAL CS5-11321-079 - SMT

Lab Sample ID: CS5-11321-079
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171107A_06

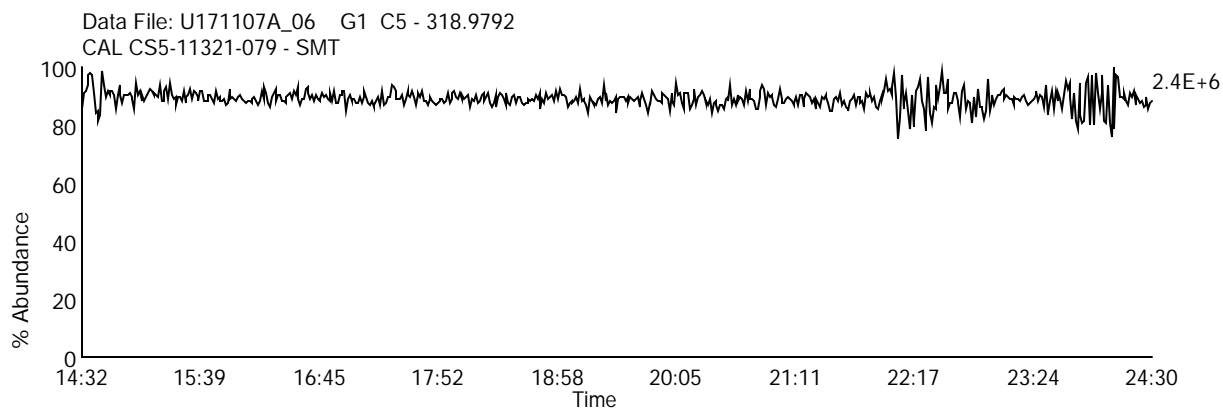
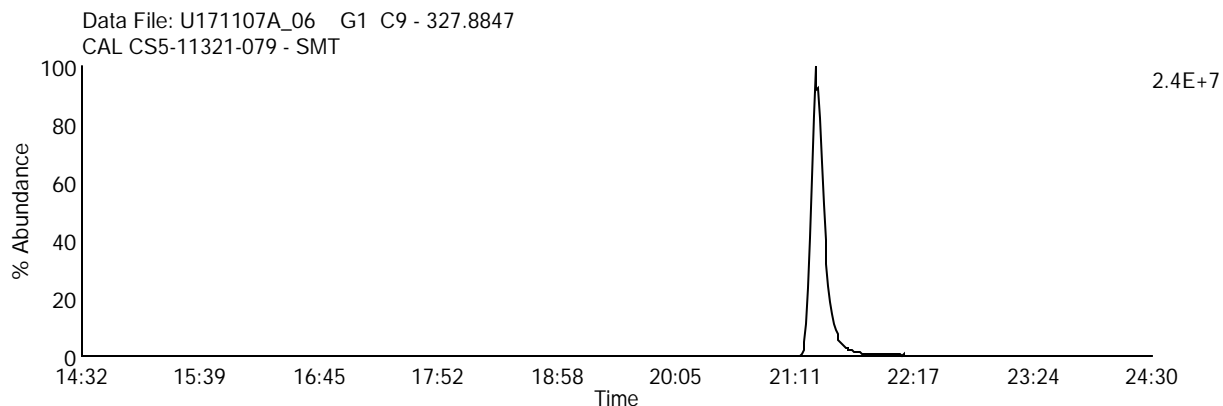
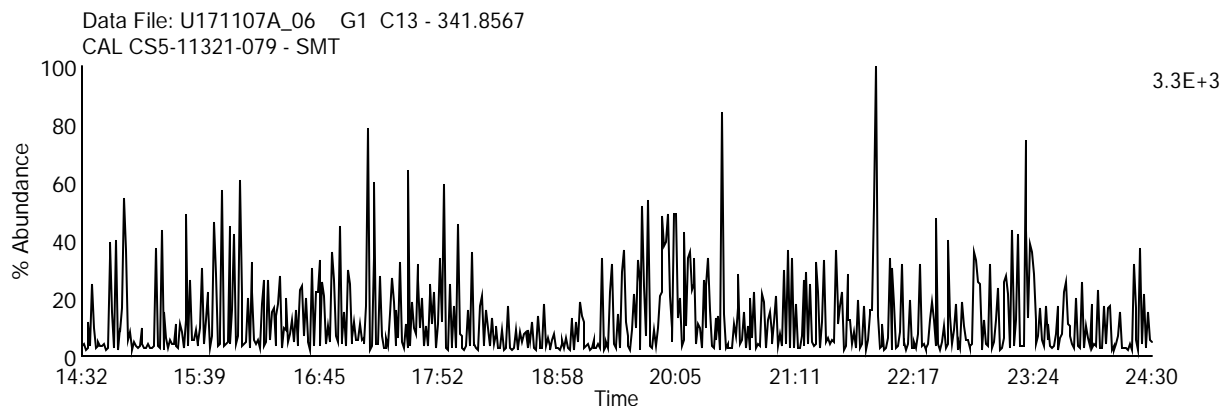
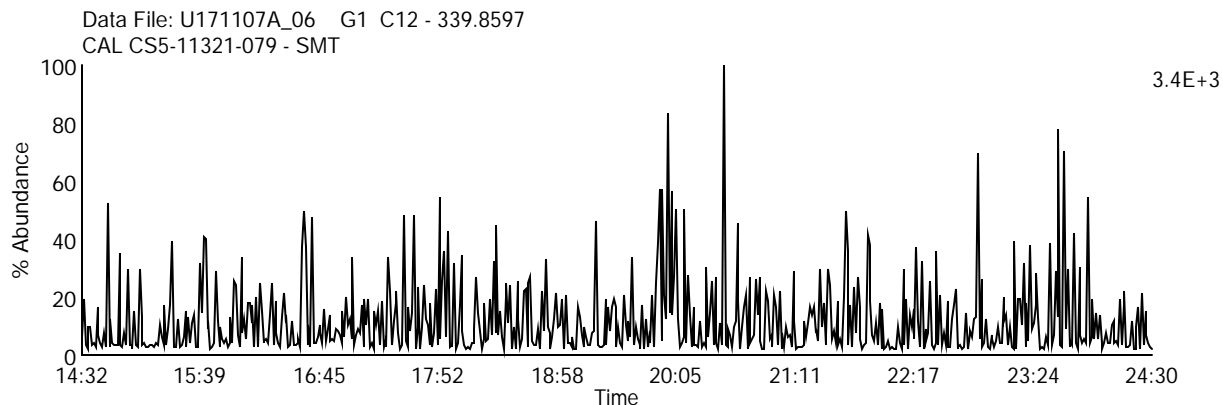
Lab Sample ID: CS5-11321-079

Date Acquired: 11/7/2017

Client Sample ID:

Sample Description: CAL CS5-11321-079 - SMT

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171107A_06

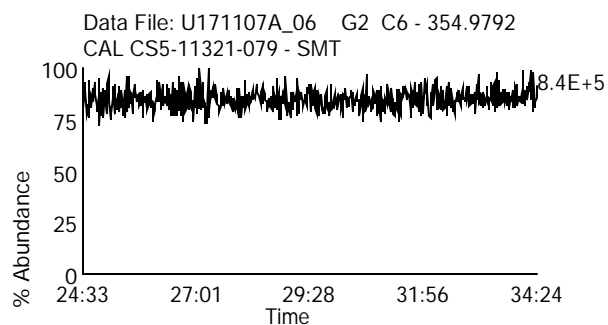
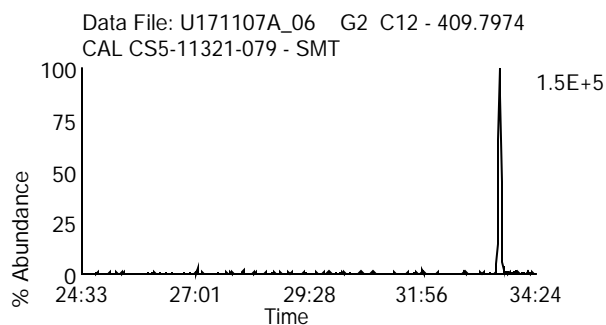
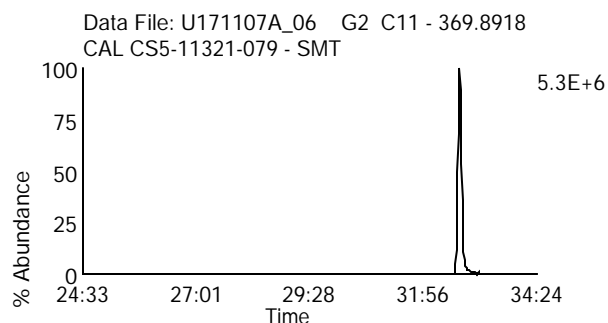
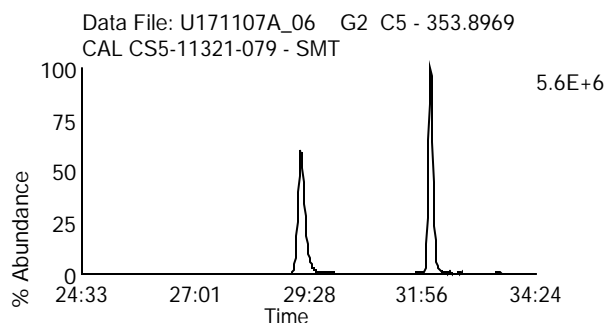
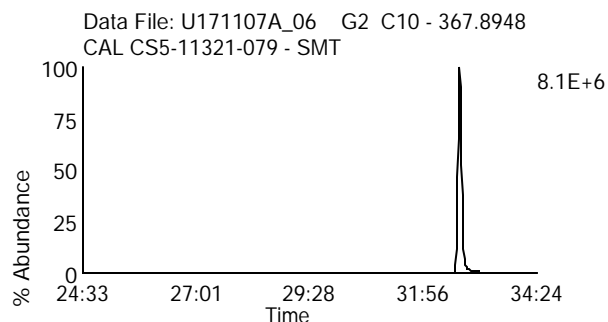
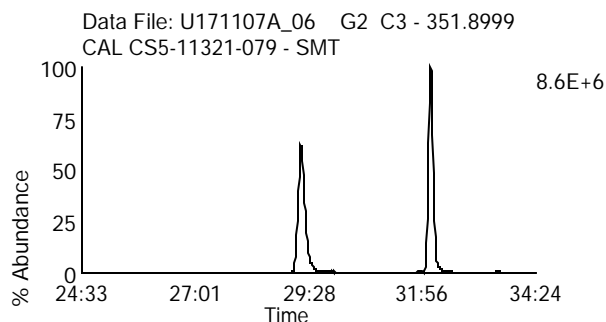
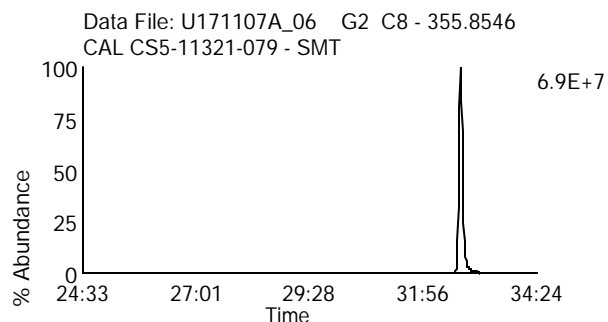
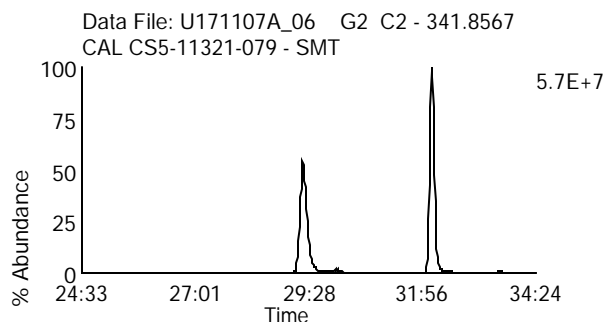
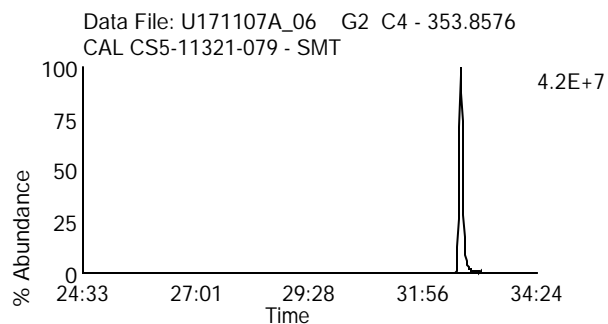
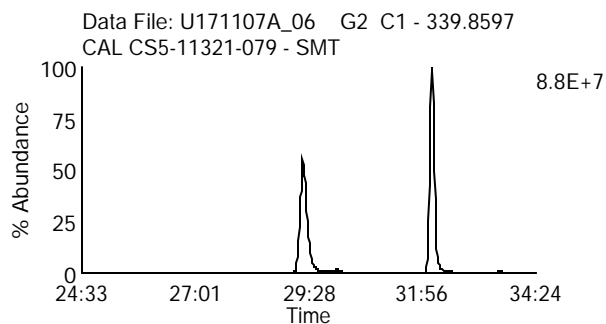
Date Acquired: 11/7/2017

Sample Description: CAL CS5-11321-079 - SMT

Lab Sample ID: CS5-11321-079

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171107A_06

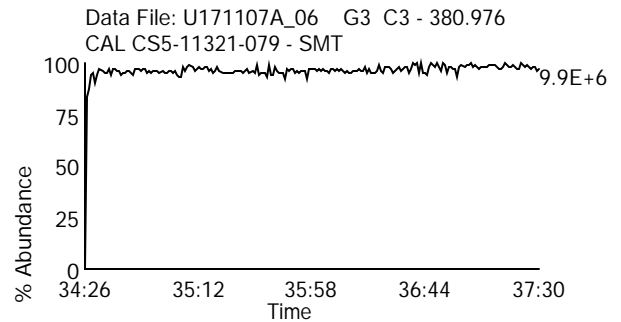
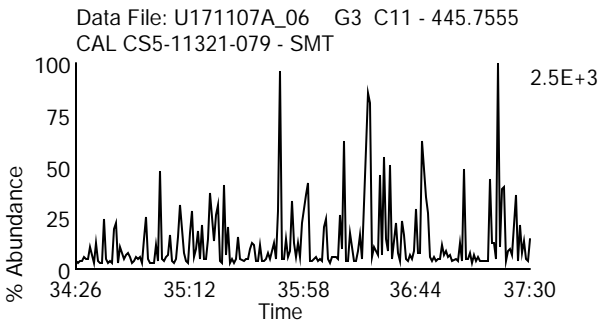
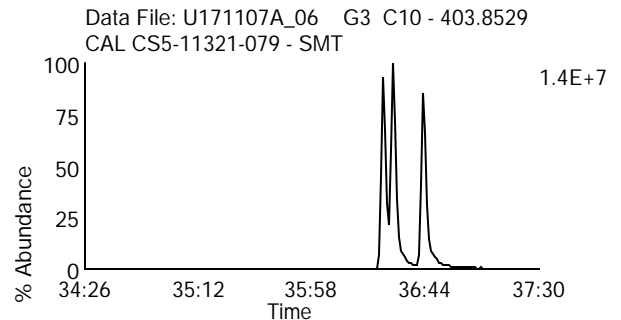
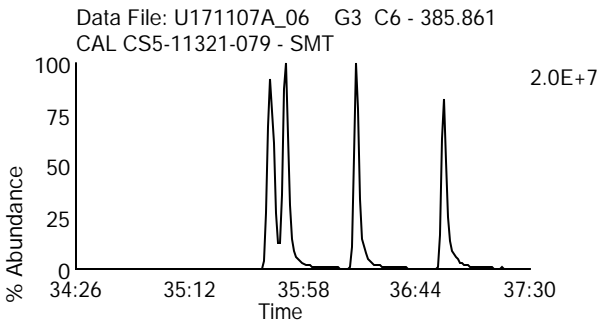
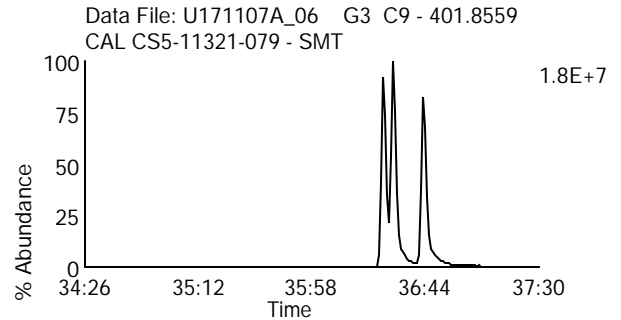
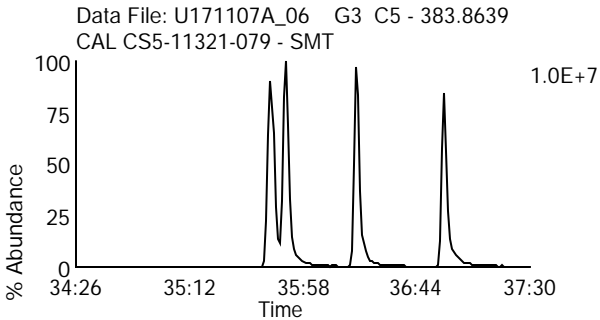
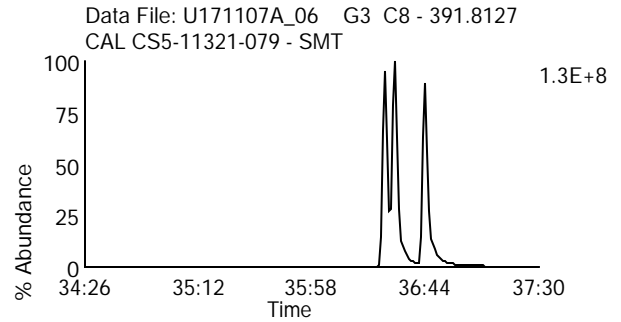
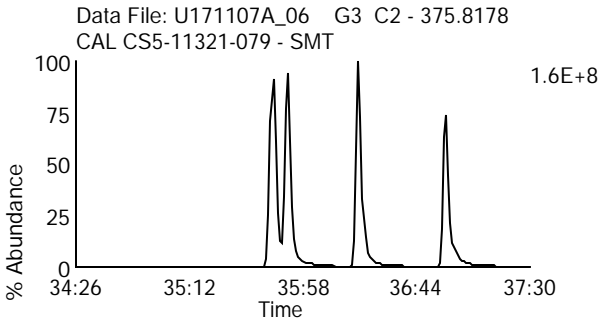
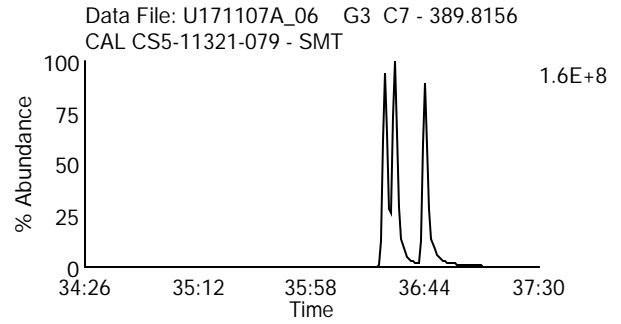
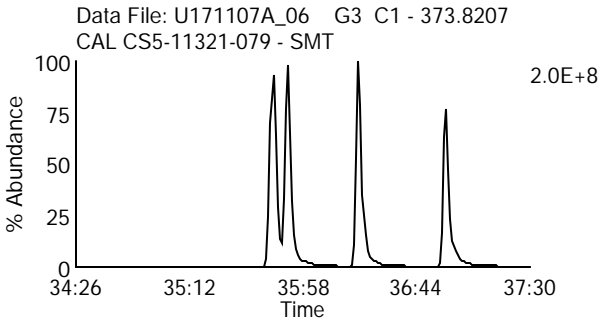
Date Acquired: 11/7/2017

Sample Description: CAL CS5-11321-079 - SMT

Lab Sample ID: CS5-11321-079

Client Sample ID:

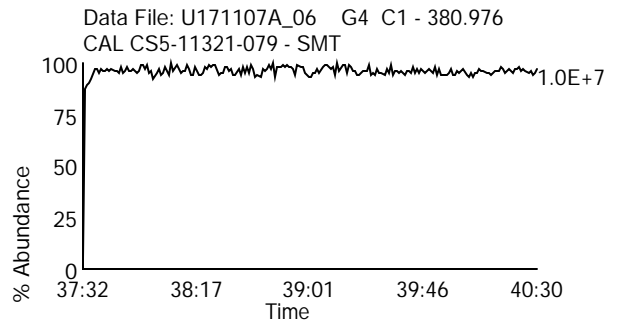
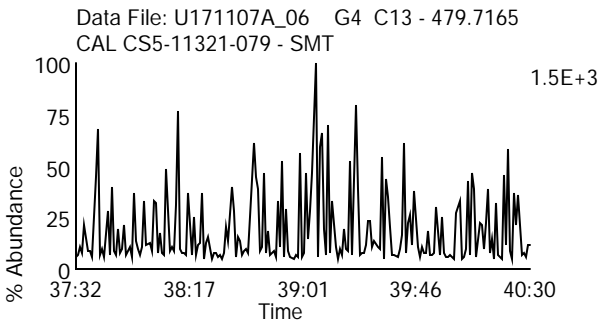
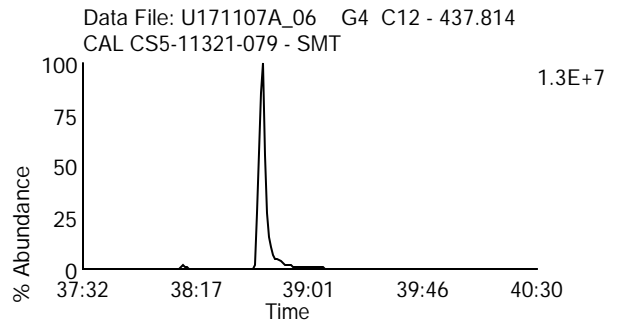
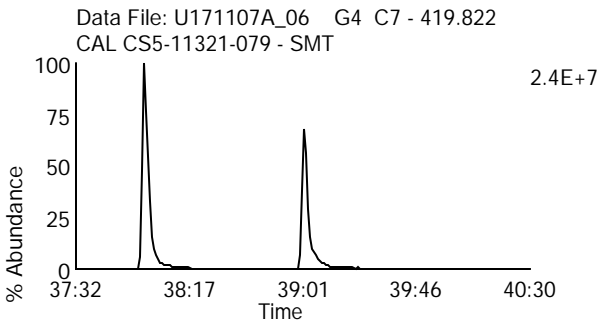
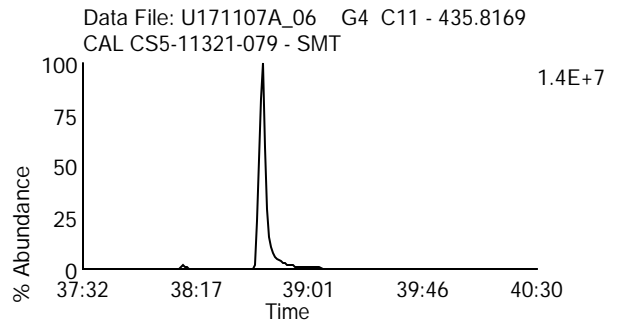
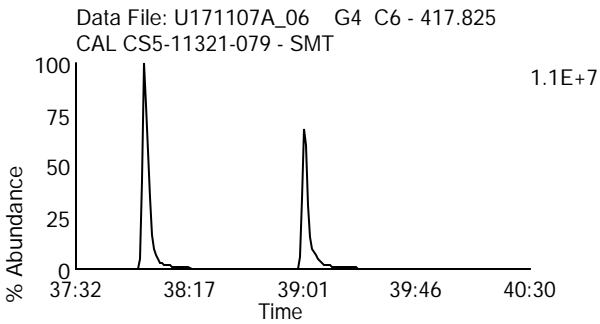
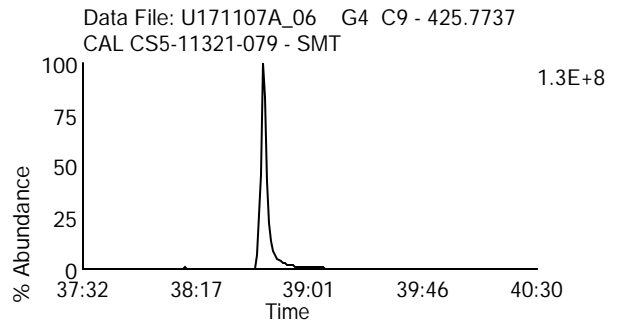
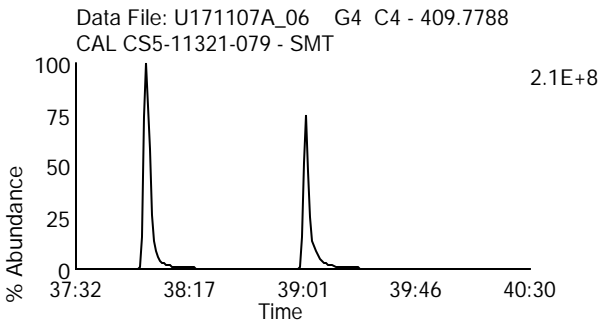
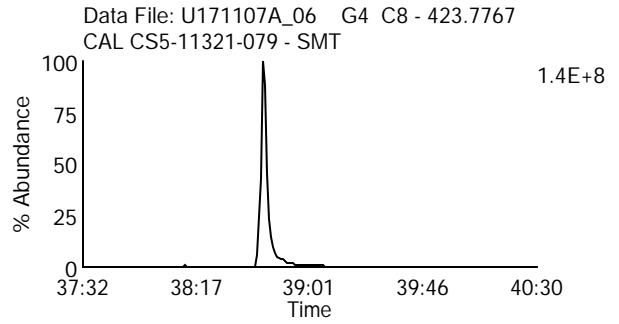
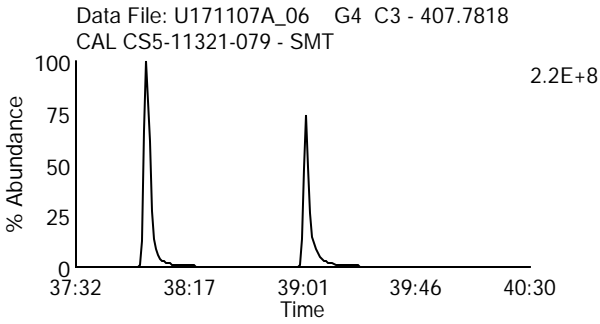
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171107A_06
Date Acquired: 11/7/2017
Sample Description: CAL CS5-11321-079 - SMT

Lab Sample ID: CS5-11321-079
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171107A_06

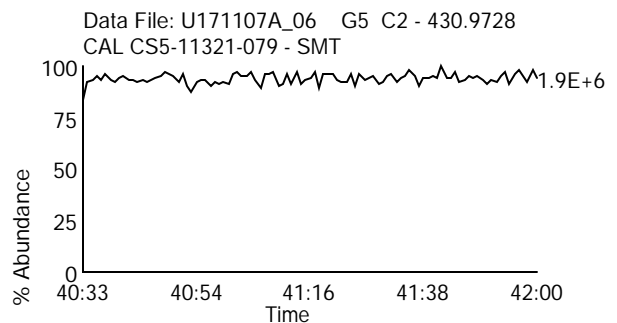
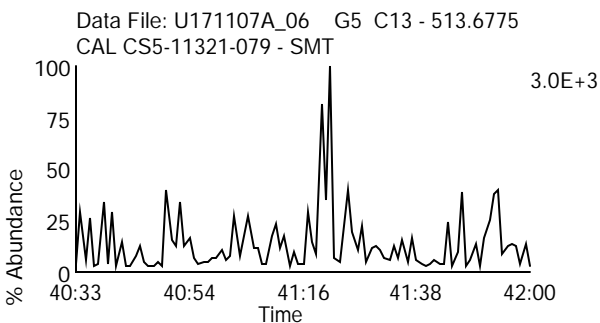
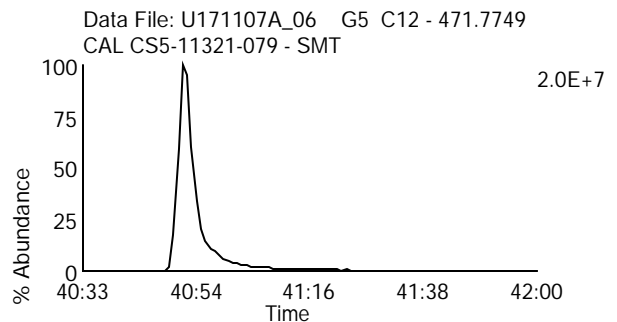
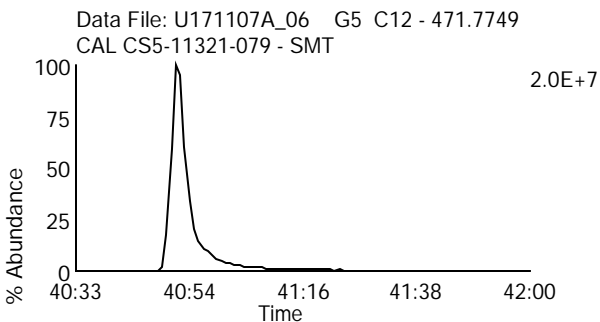
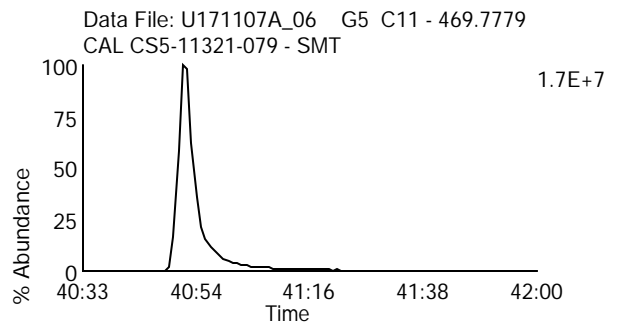
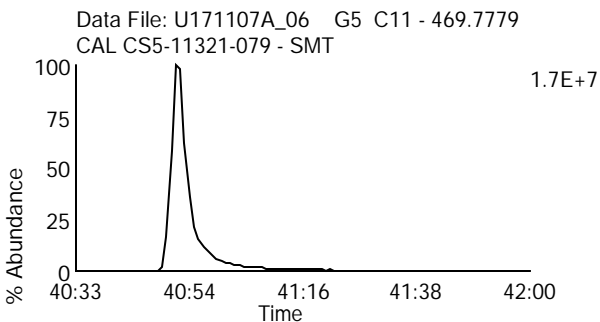
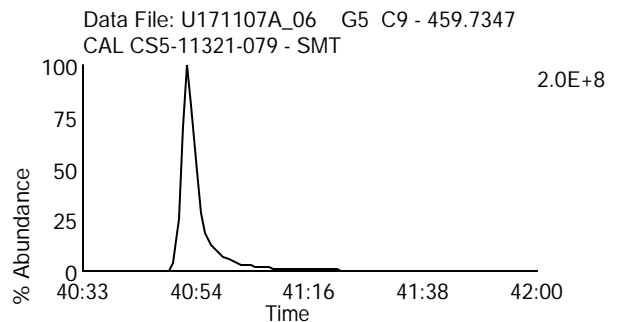
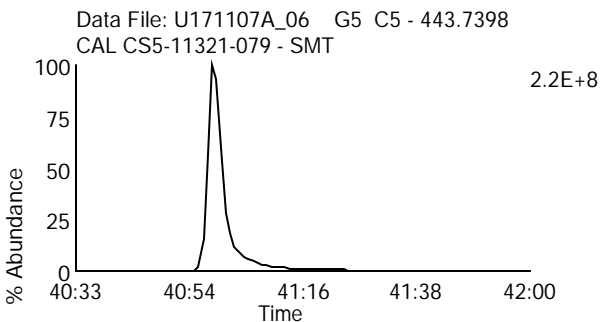
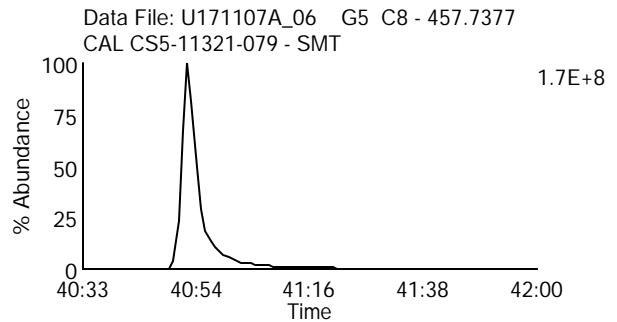
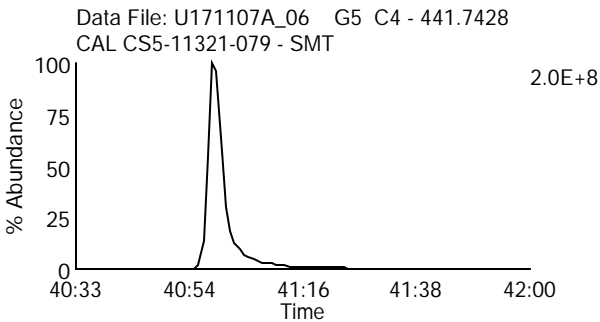
Date Acquired: 11/7/2017

Sample Description: CAL CS5-11321-079 - SMT

Lab Sample ID: CS5-11321-079

Client Sample ID:

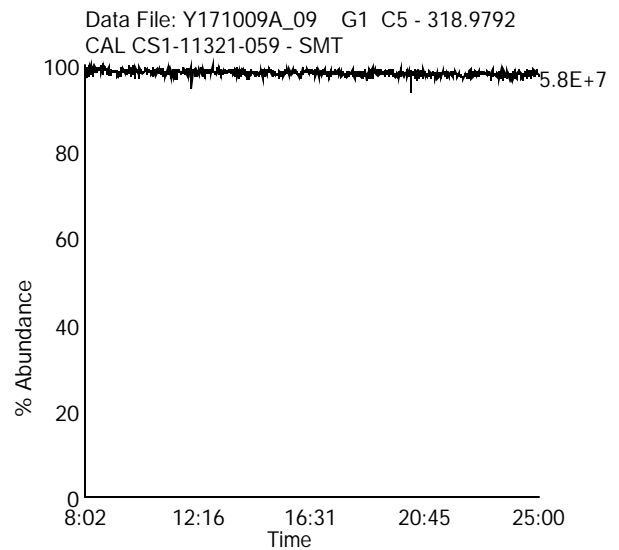
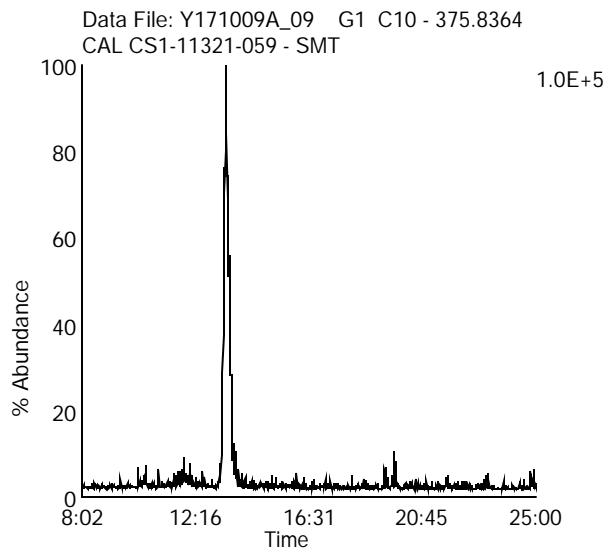
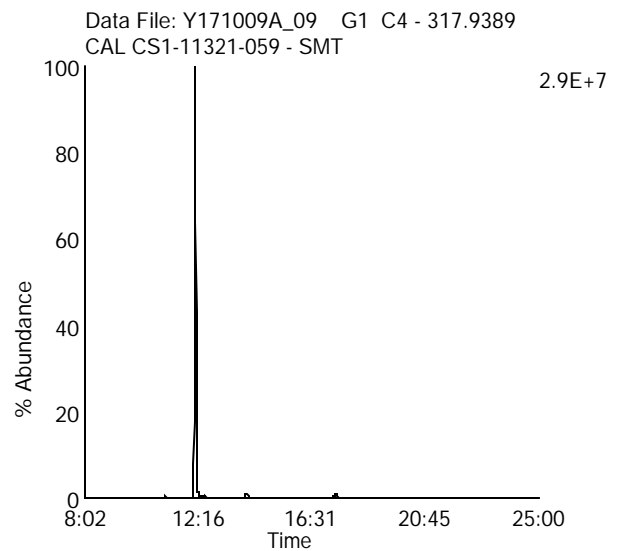
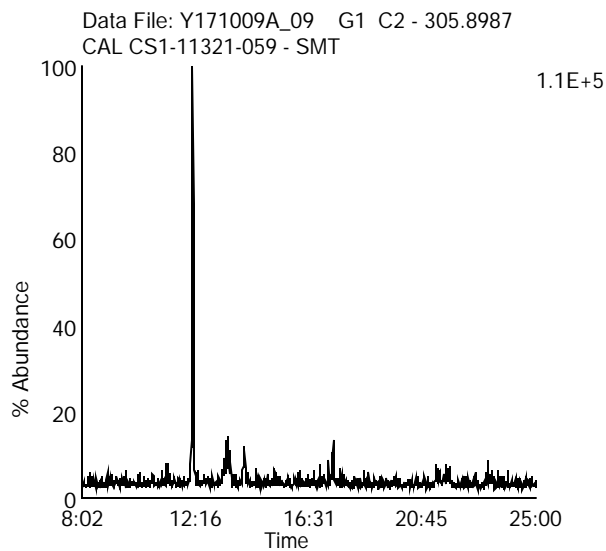
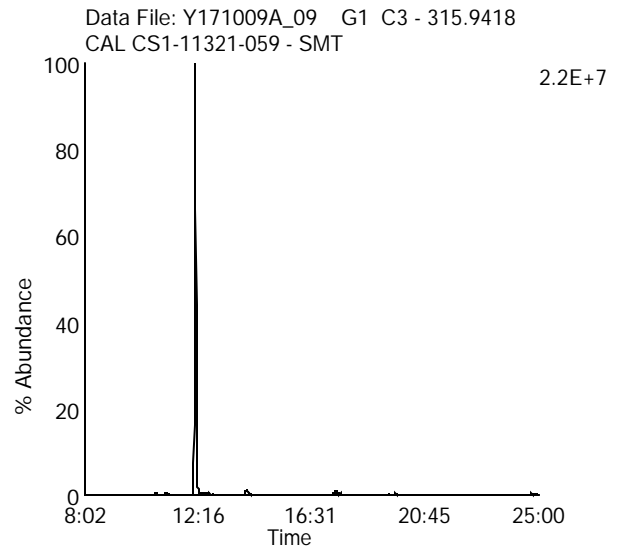
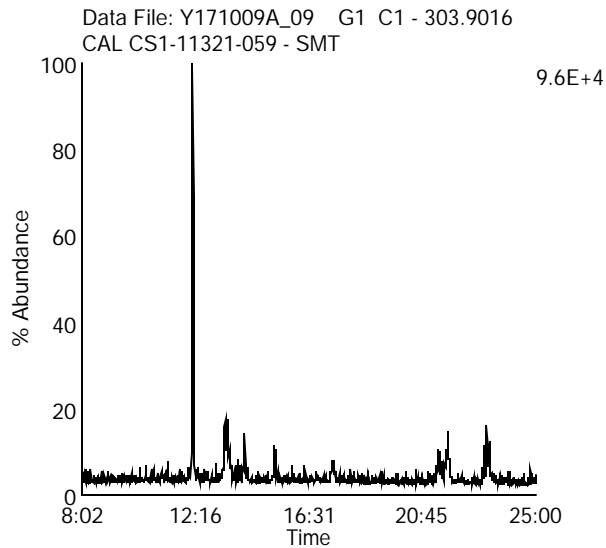
Instrument: 10MSHR06 (U)



TCDF Confirmation Analysis

Data File Name: Y171009A_09
Date Acquired: 10/9/2017
Sample Description: CAL CS1-11321-059 - SMT

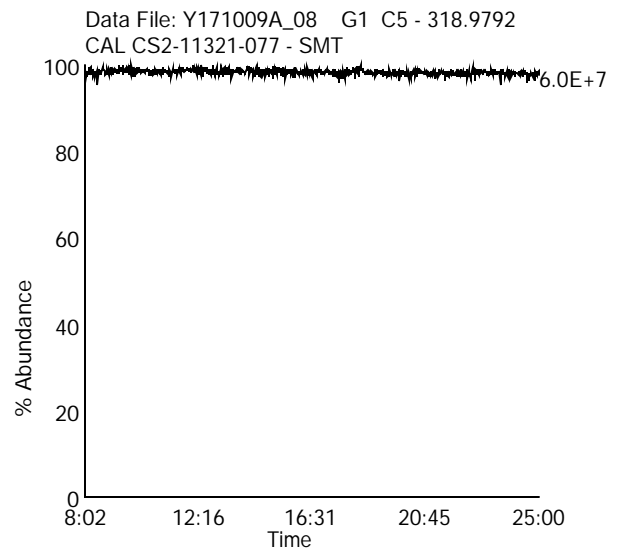
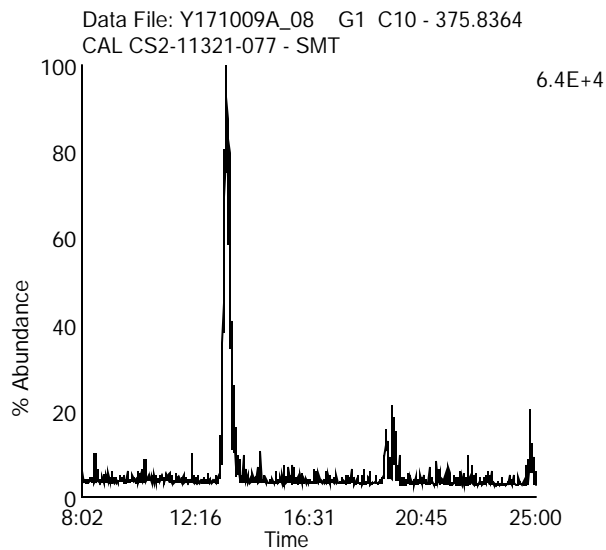
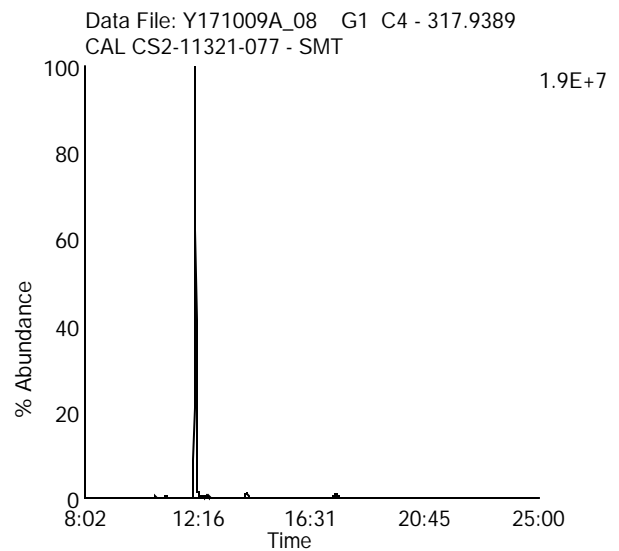
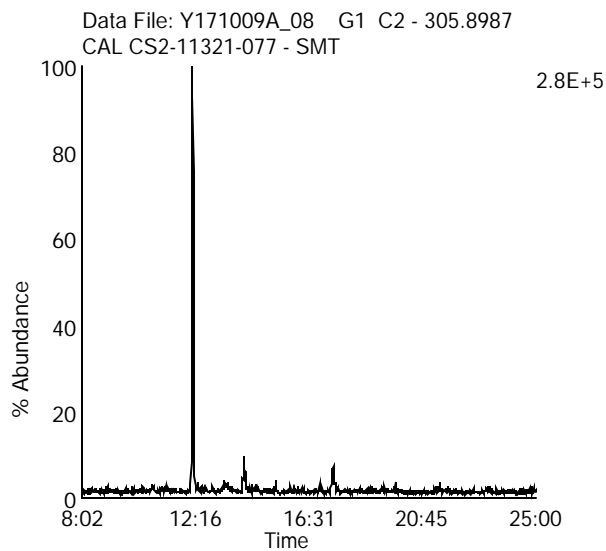
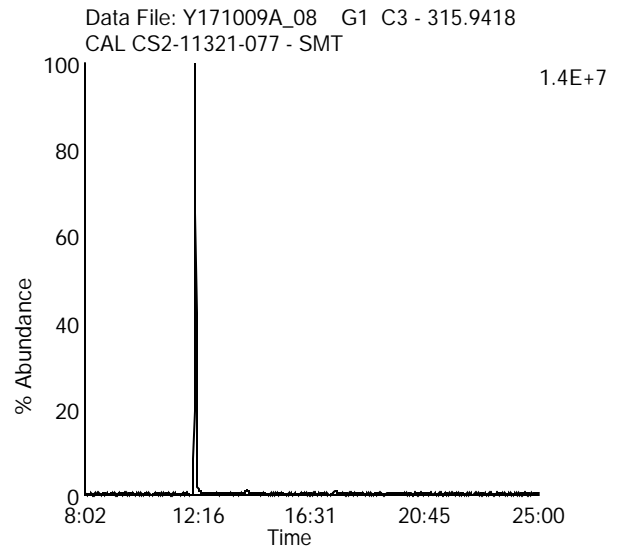
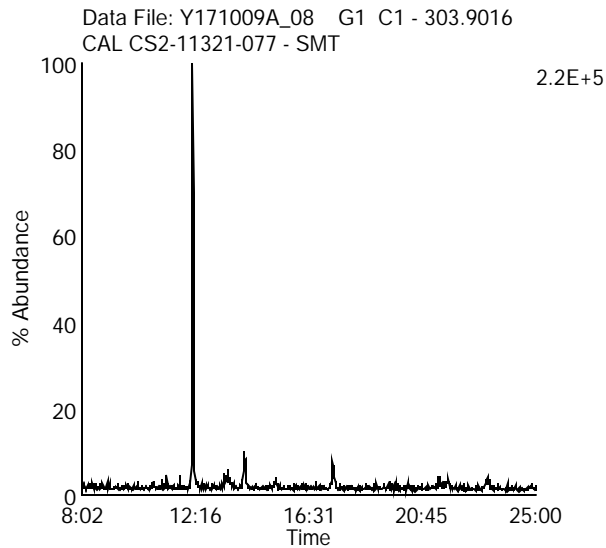
Lab Sample ID: CS1-11321-059
Client Sample ID:
Instrument: 10MSHR12 (Y)



TCDF Confirmation Analysis

Data File Name: Y171009A_08
Date Acquired: 10/9/2017
Sample Description: CAL CS2-11321-077 - SMT

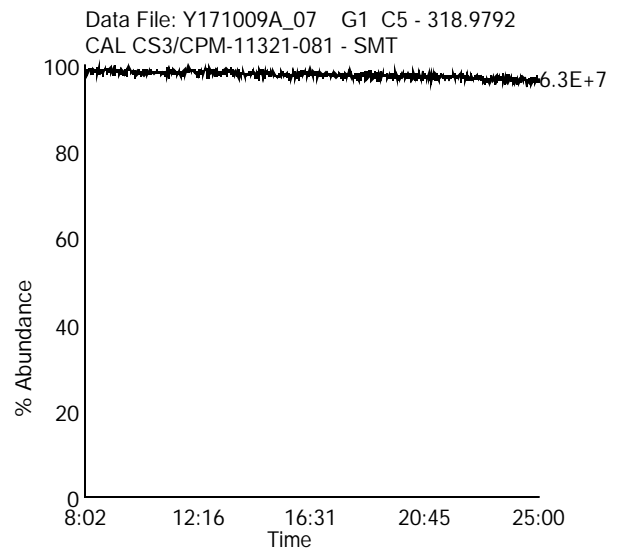
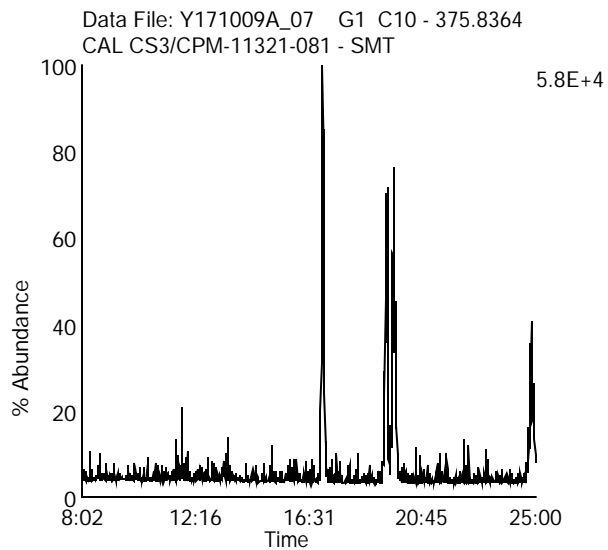
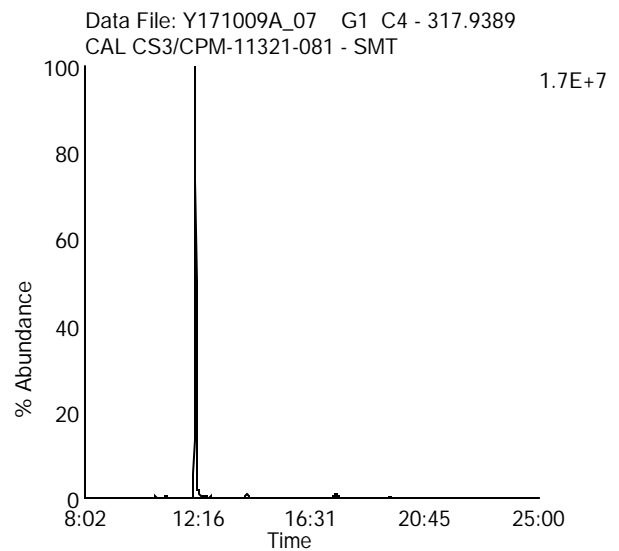
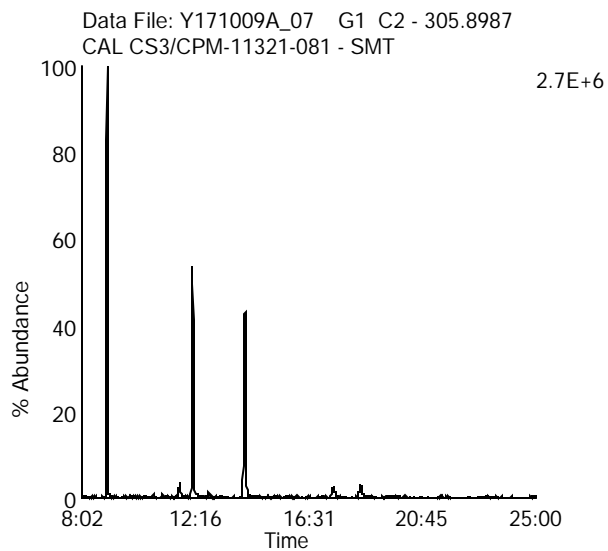
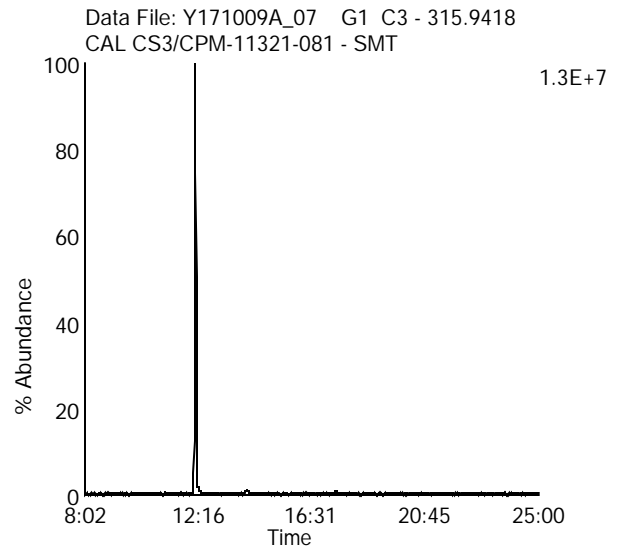
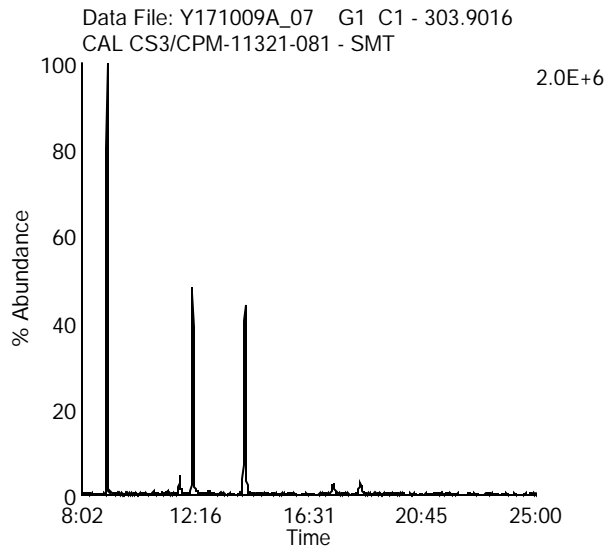
Lab Sample ID: CS2-11321-077
Client Sample ID:
Instrument: 10MSHR12 (Y)



TCDF Confirmation Analysis

Data File Name: Y171009A_07
Date Acquired: 10/9/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

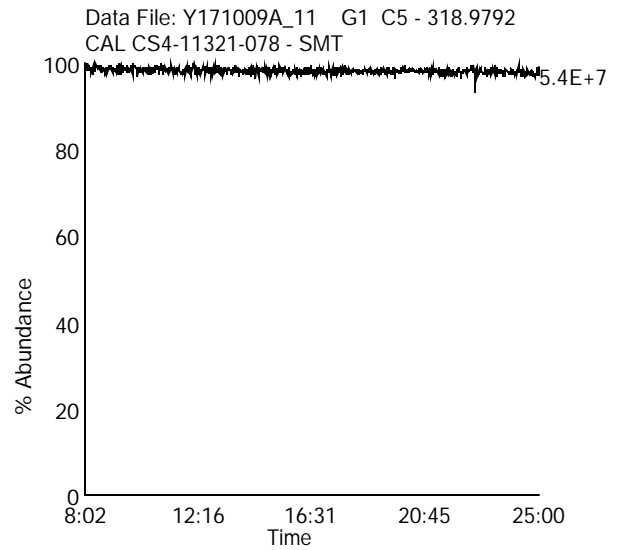
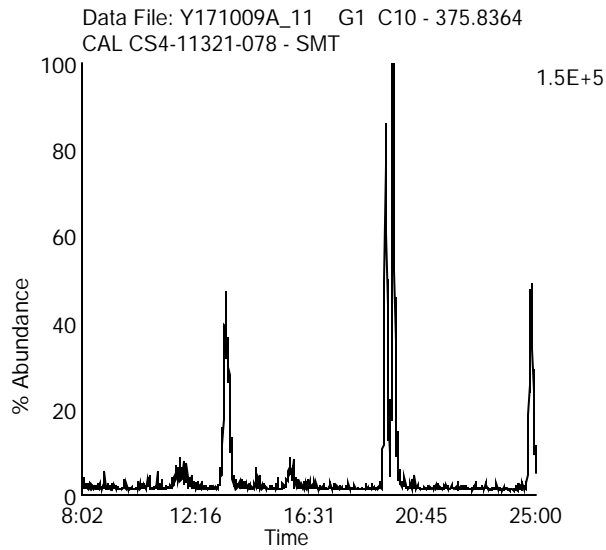
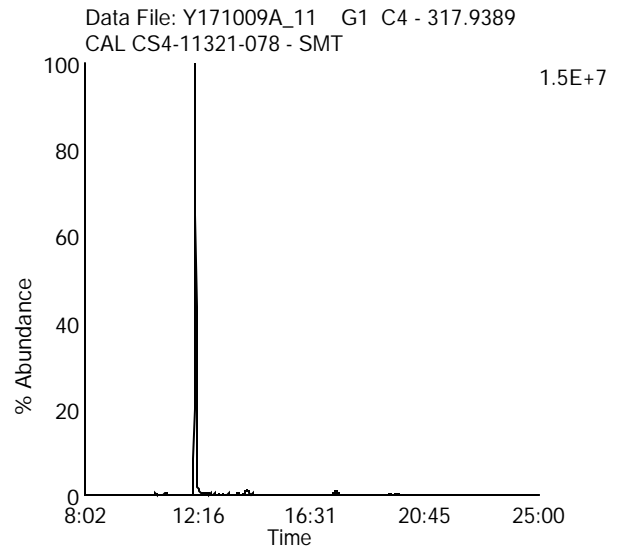
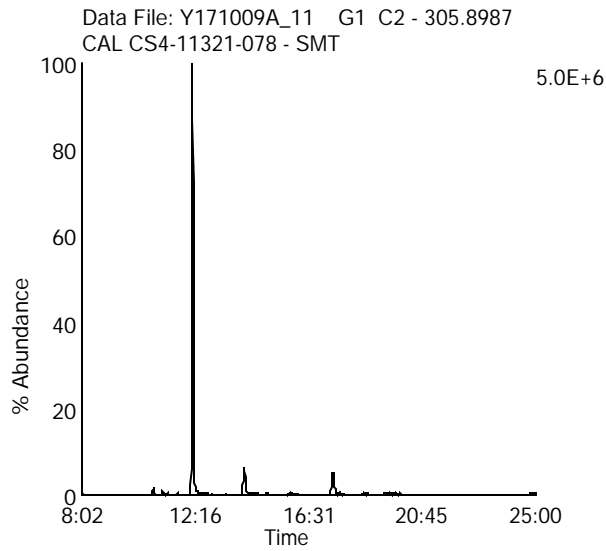
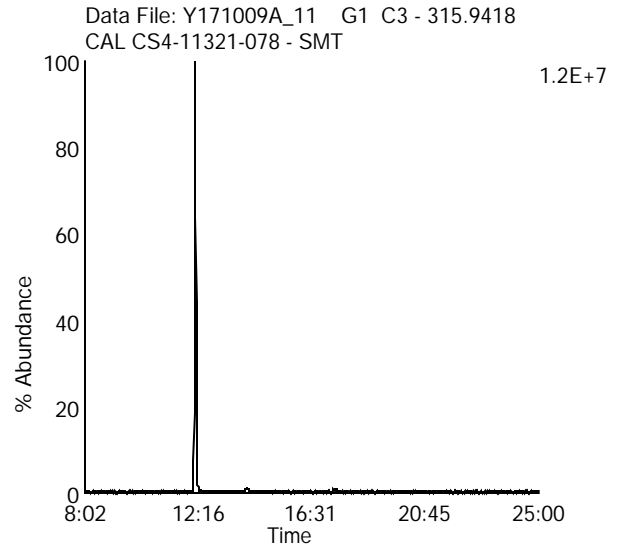
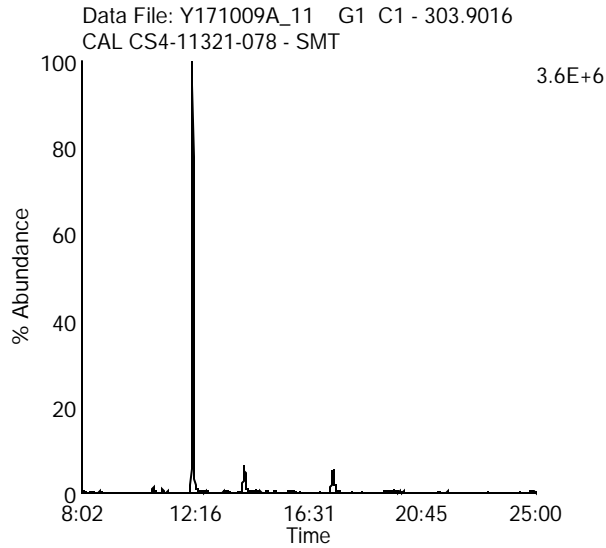
Lab Sample ID: CS3/CPM-11321-081
Client Sample ID:
Instrument: 10MSHR12 (Y)



TCDF Confirmation Analysis

Data File Name: Y171009A_11
Date Acquired: 10/9/2017
Sample Description: CAL CS4-11321-078 - SMT

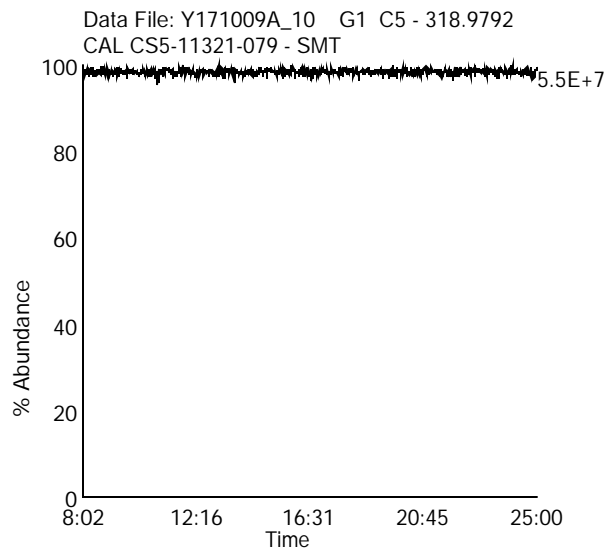
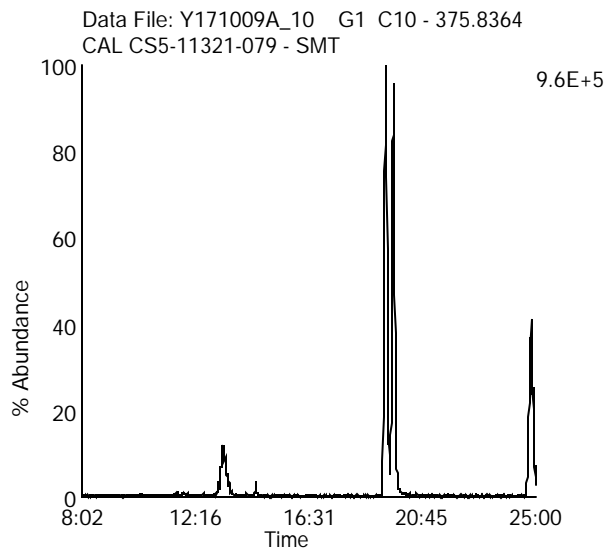
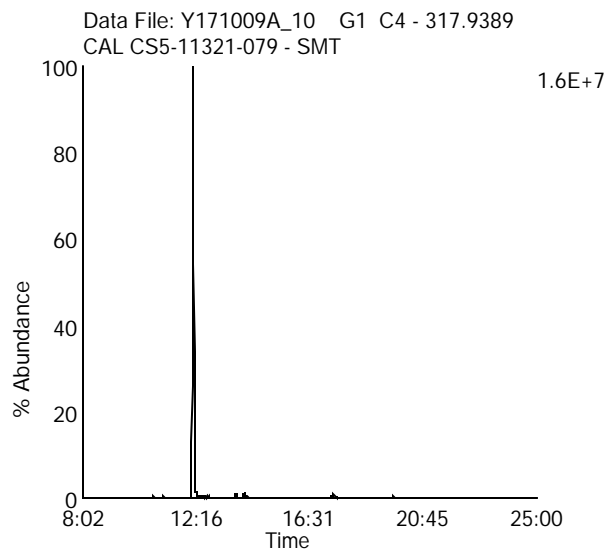
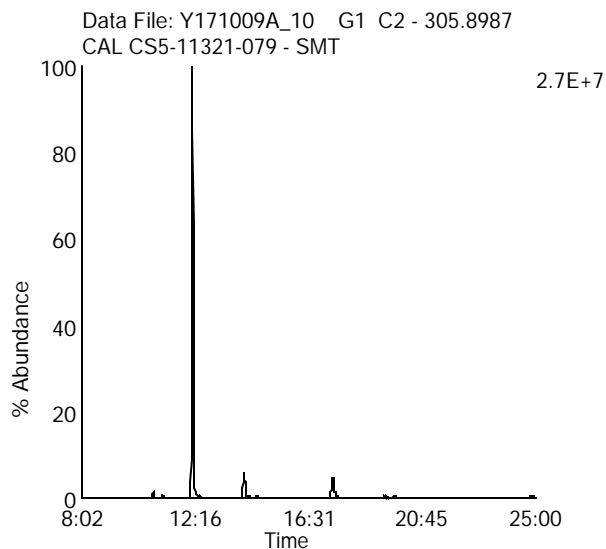
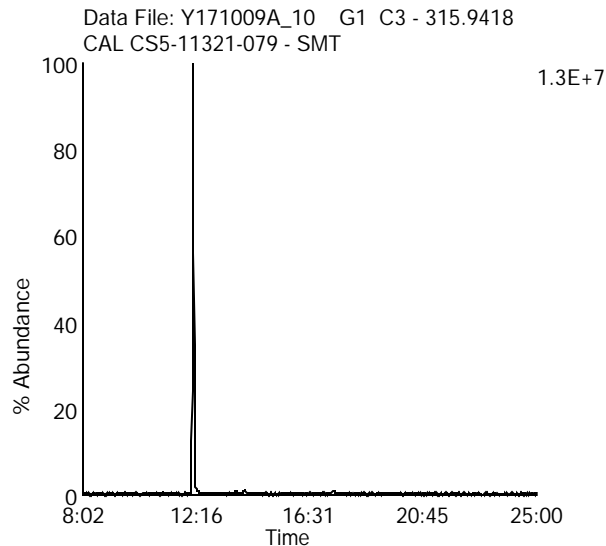
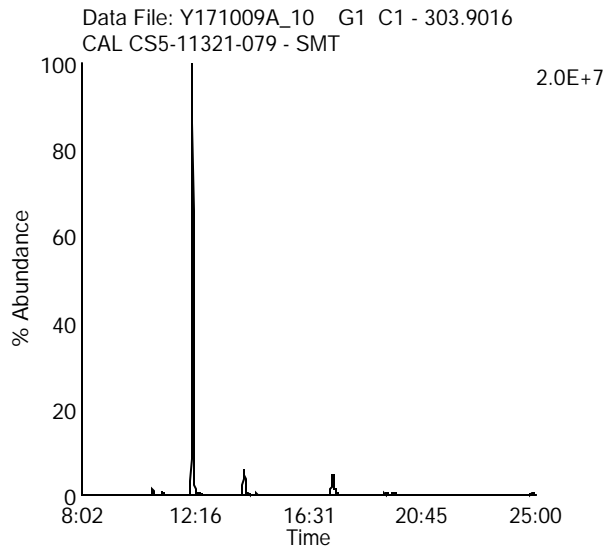
Lab Sample ID: CS4-11321-078
Client Sample ID:
Instrument: 10MSHR12 (Y)



TCDF Confirmation Analysis

Data File Name: Y171009A_10
Date Acquired: 10/9/2017
Sample Description: CAL CS5-11321-079 - SMT

Lab Sample ID: CS5-11321-079
Client Sample ID:
Instrument: 10MSHR12 (Y)



Homologue Group: Tetras

Data File Name: U171130A_06

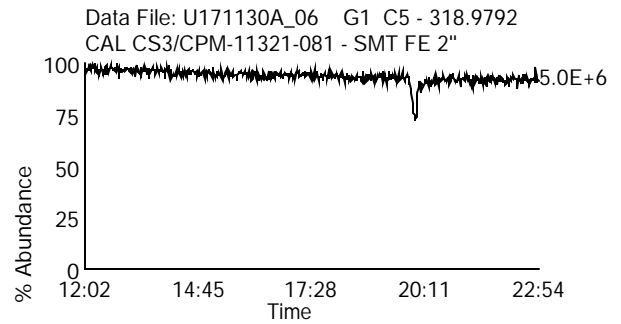
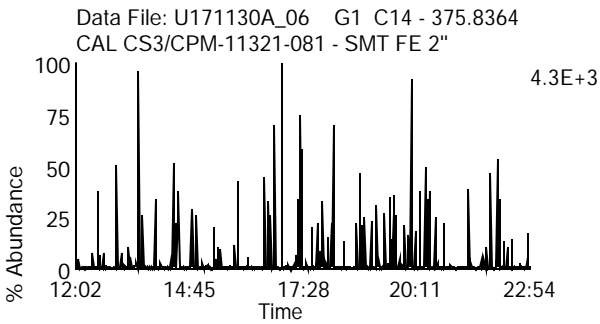
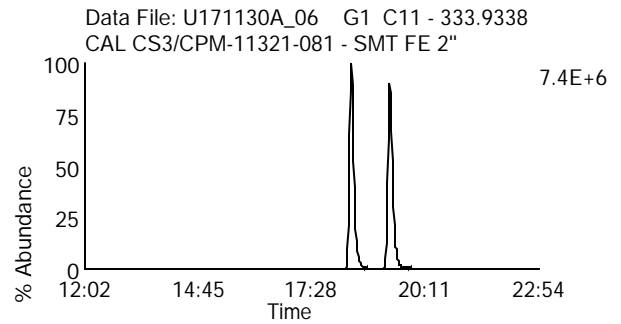
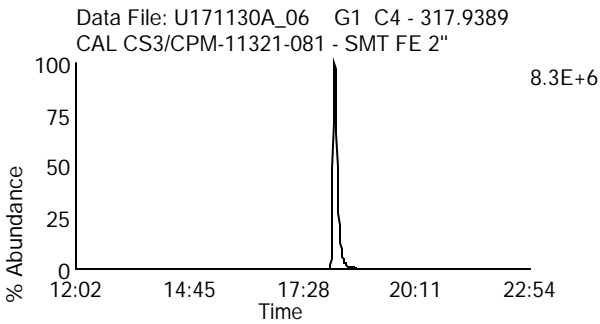
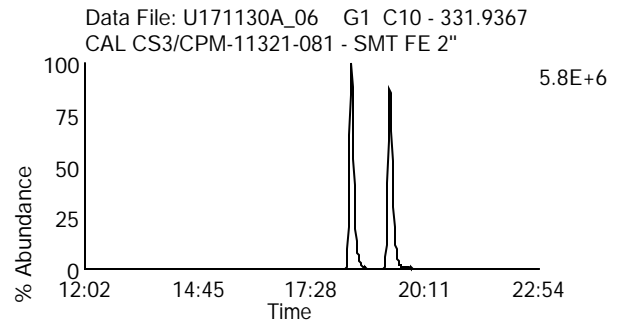
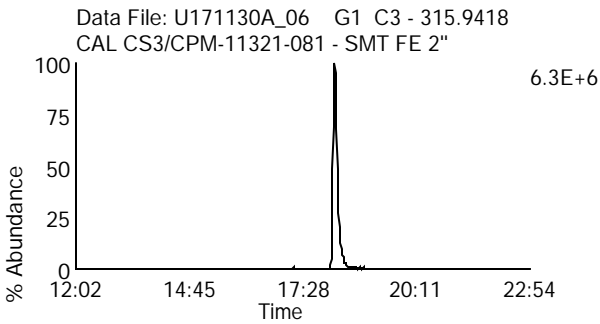
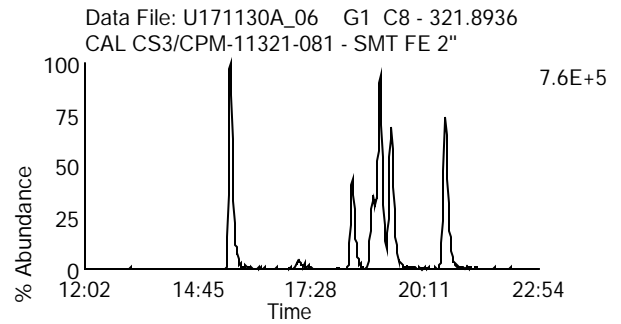
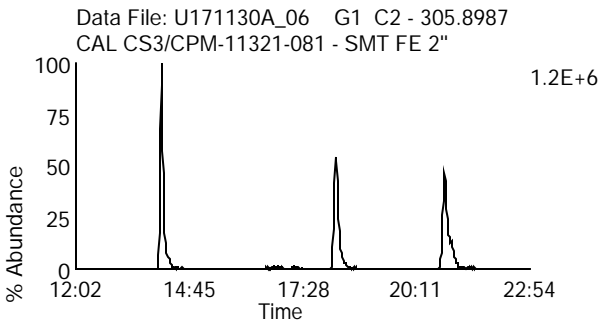
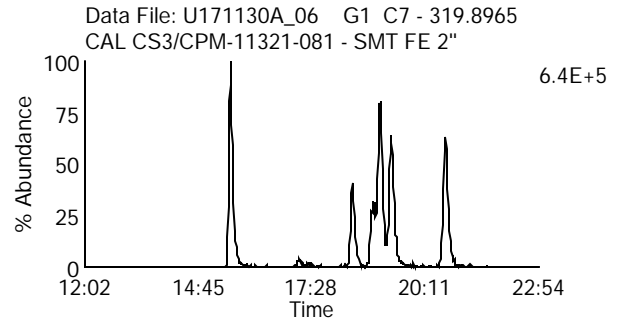
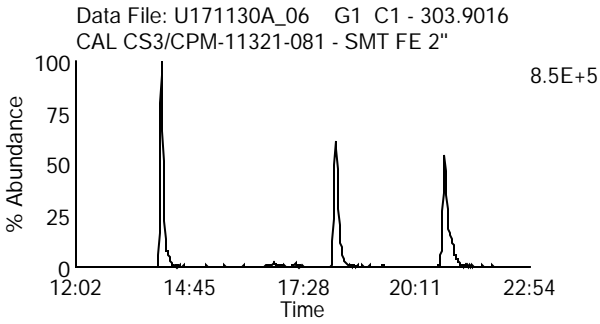
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171130A_06

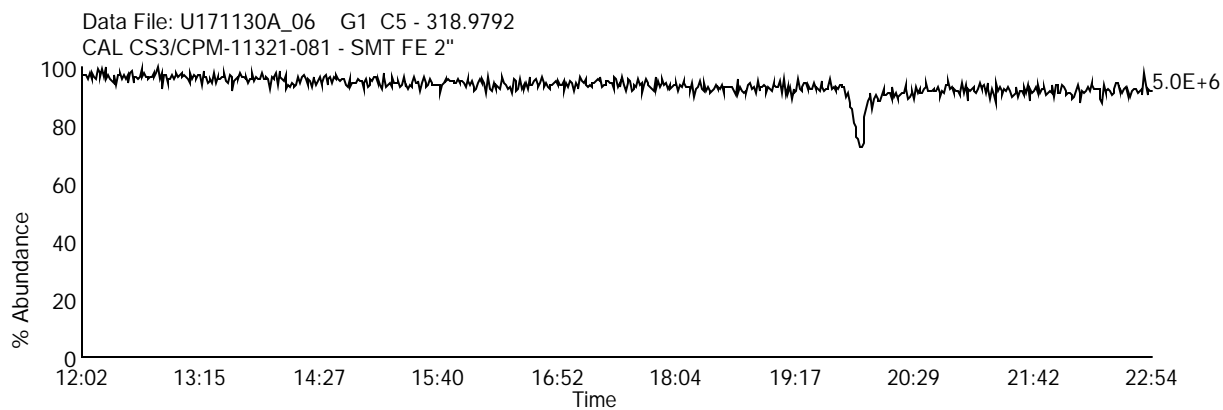
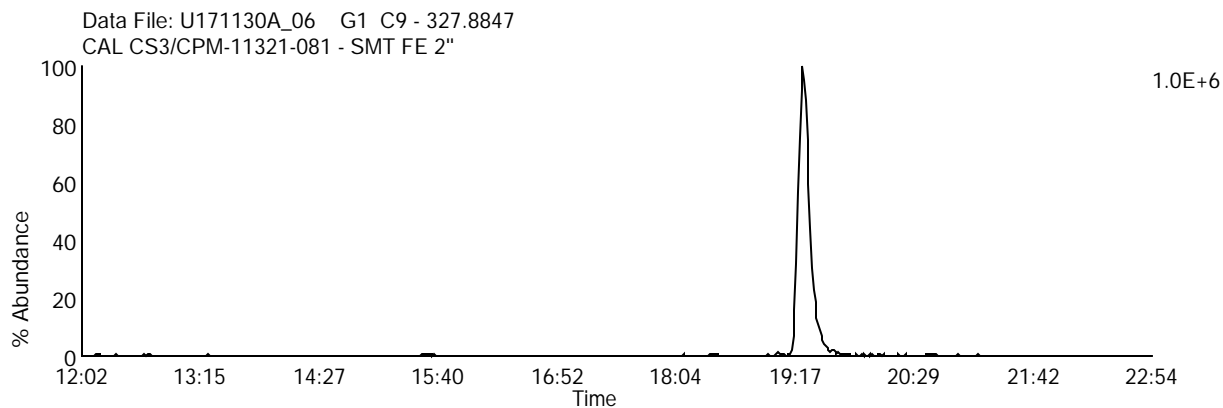
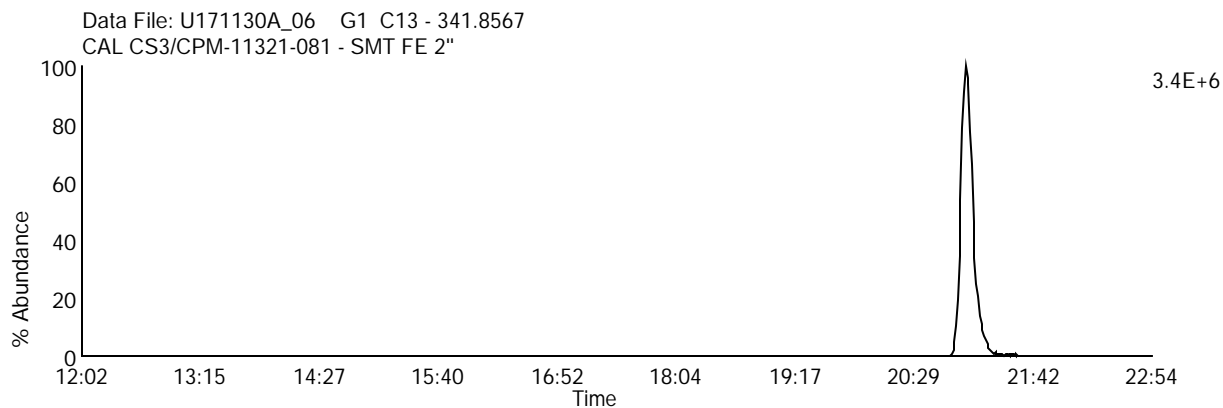
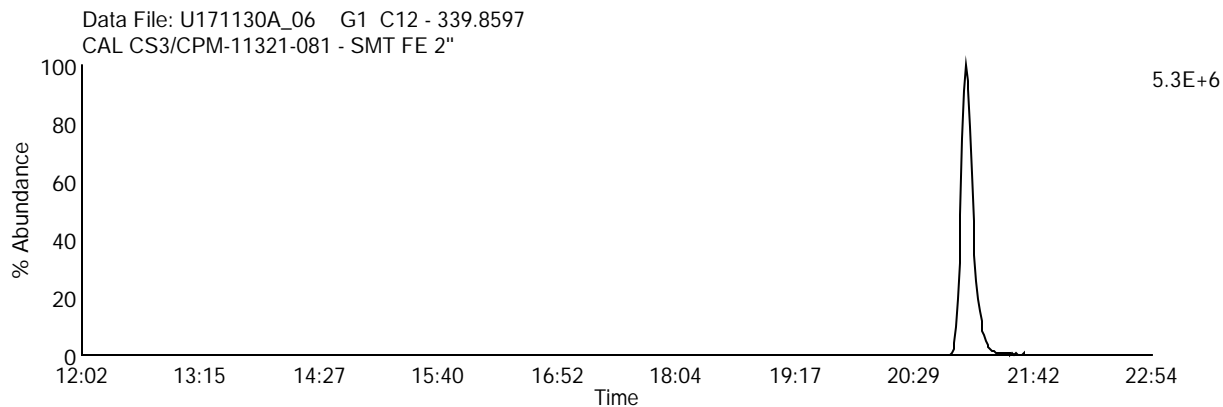
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171130A_06

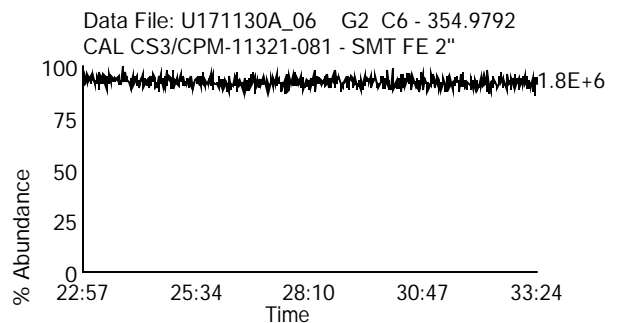
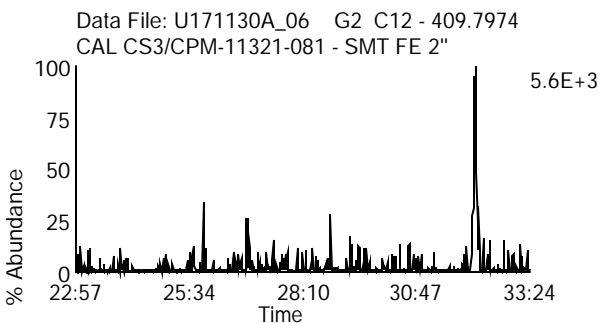
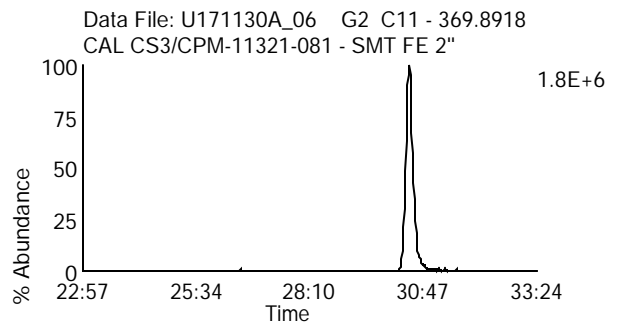
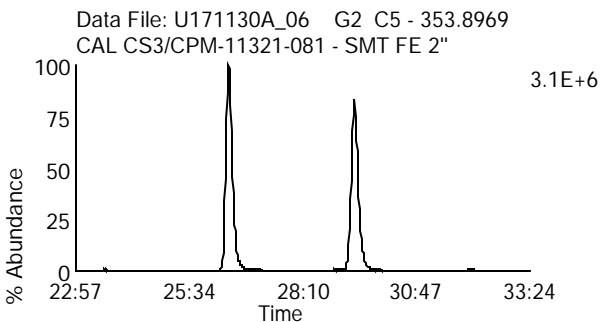
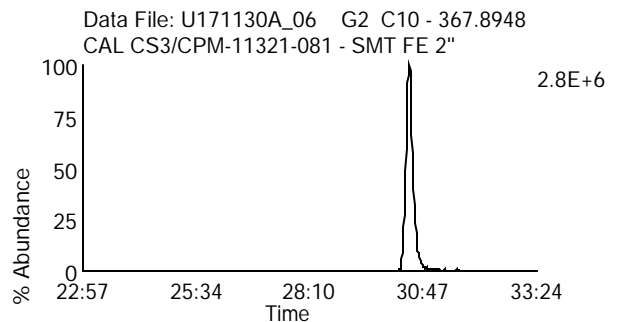
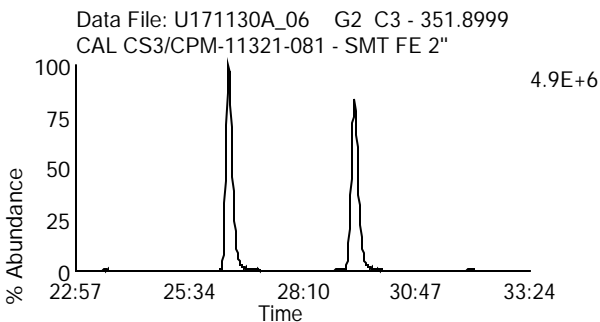
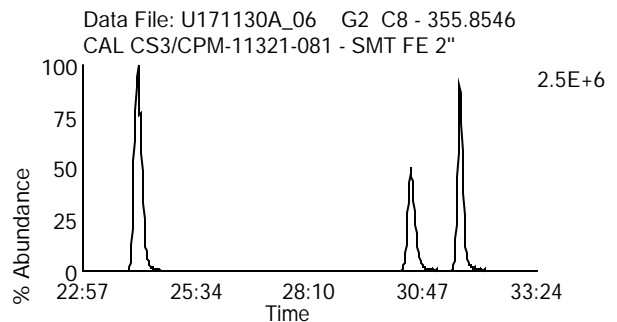
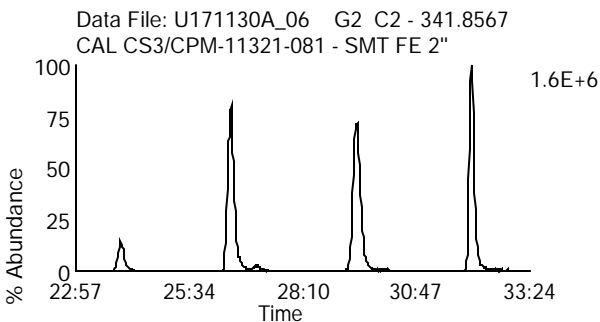
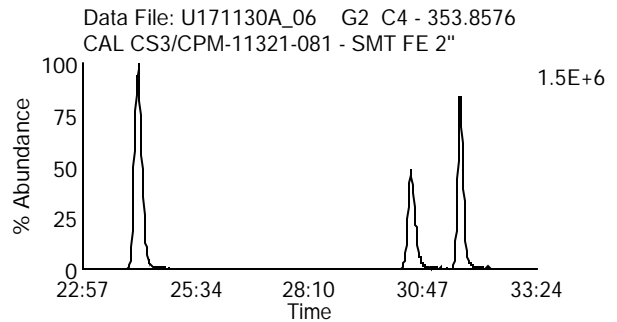
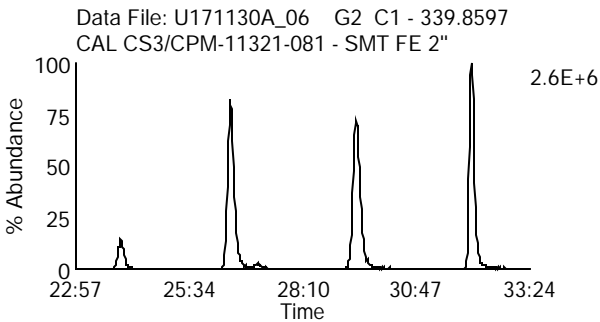
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171130A_06

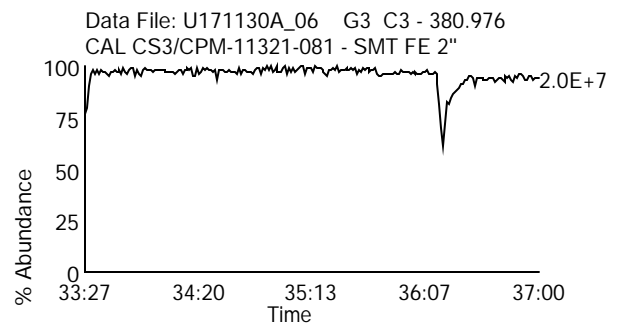
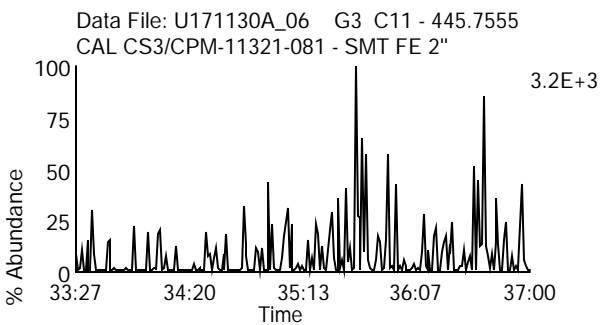
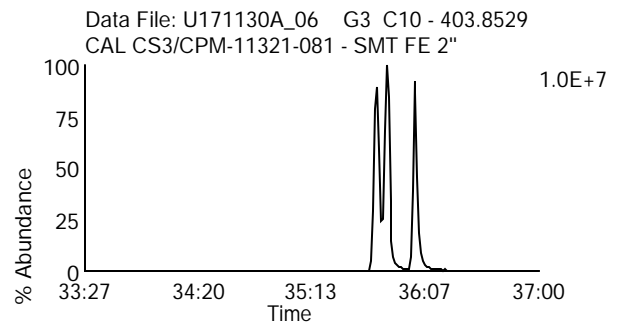
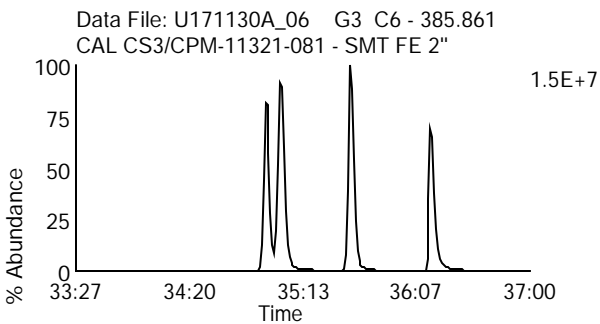
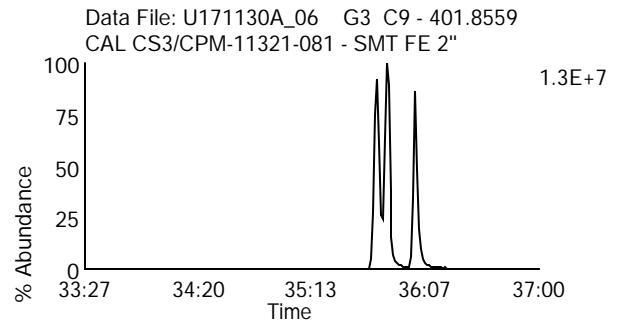
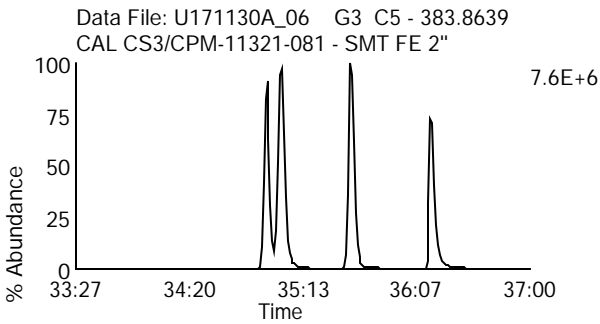
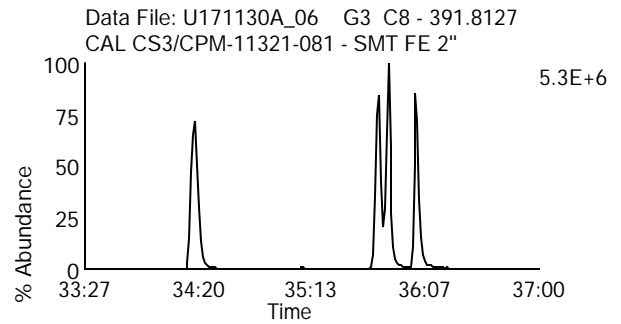
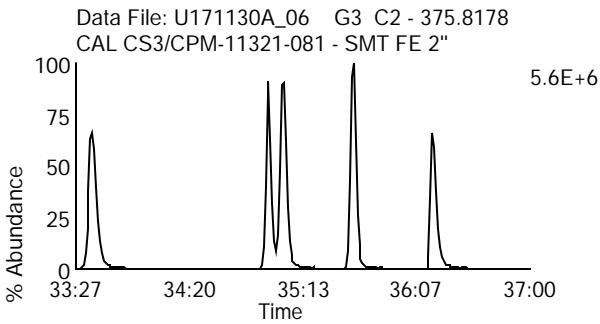
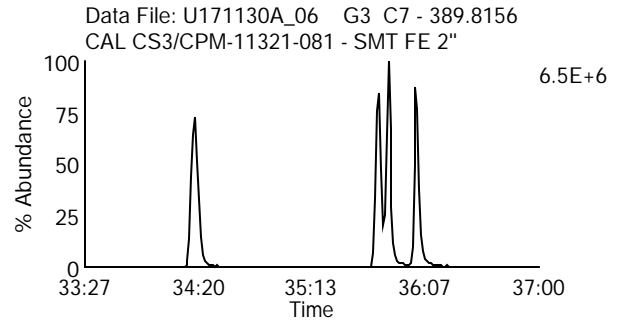
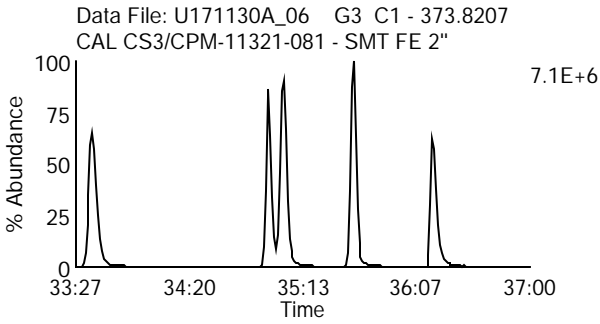
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171130A_06

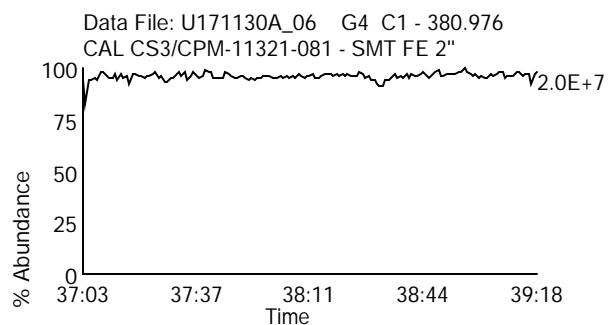
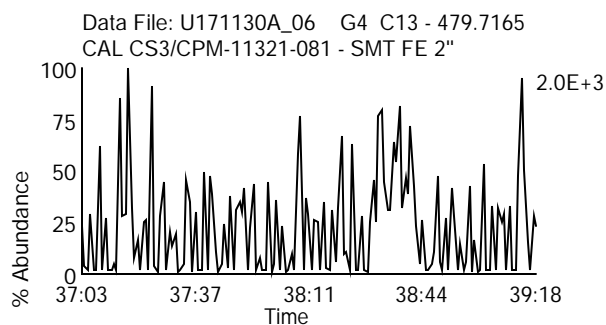
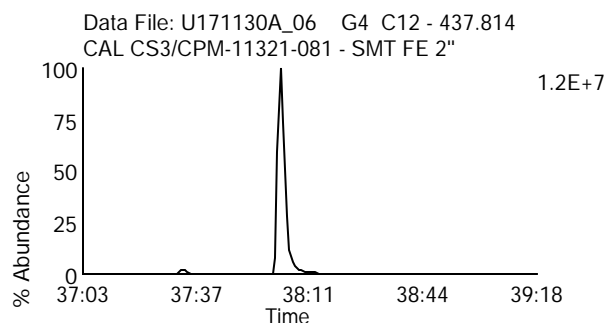
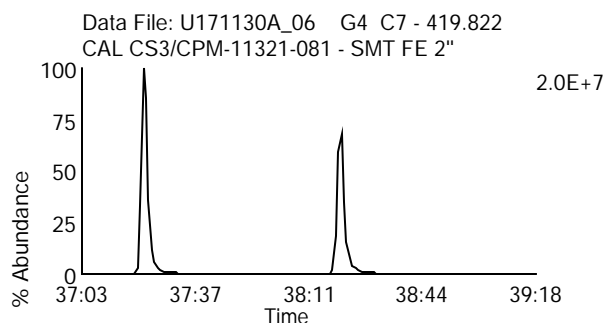
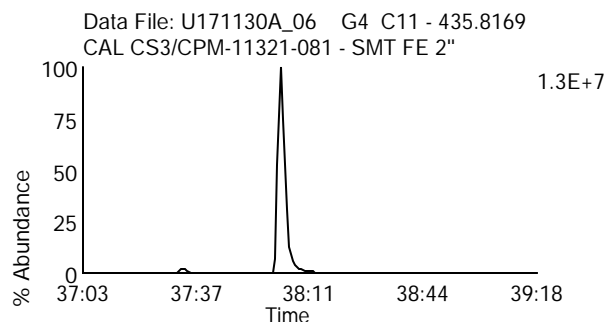
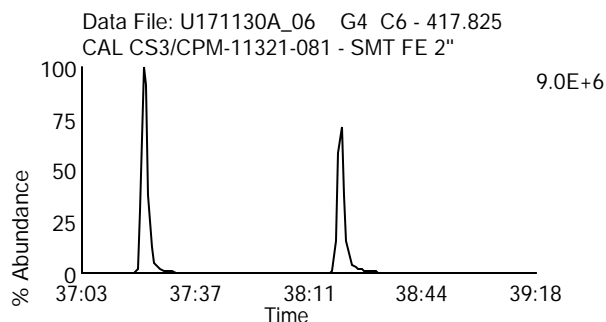
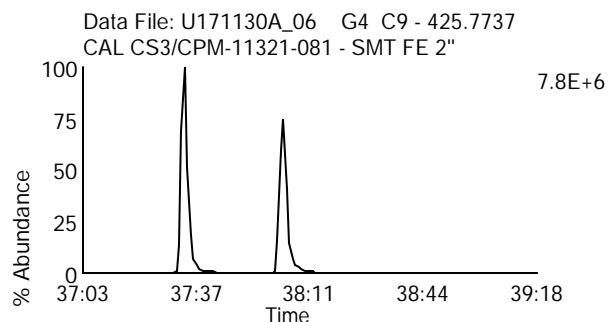
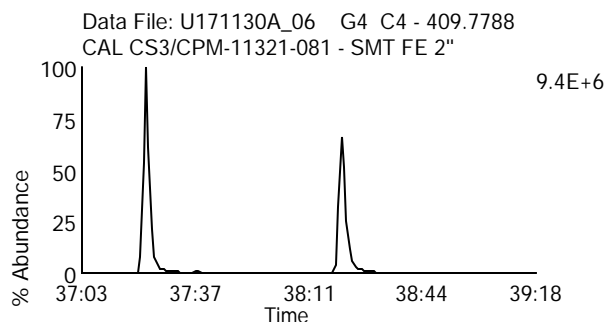
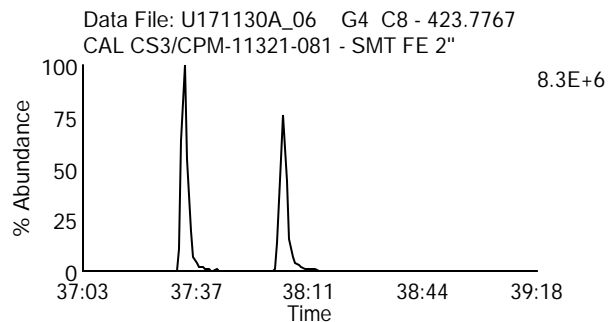
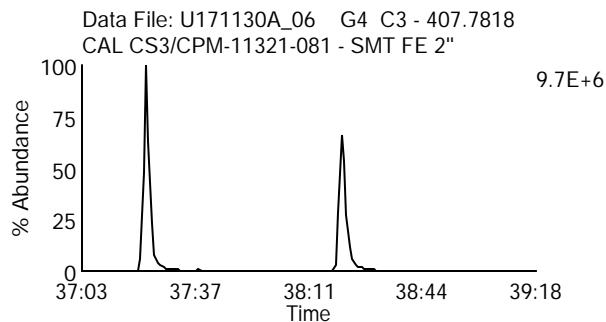
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171130A_06

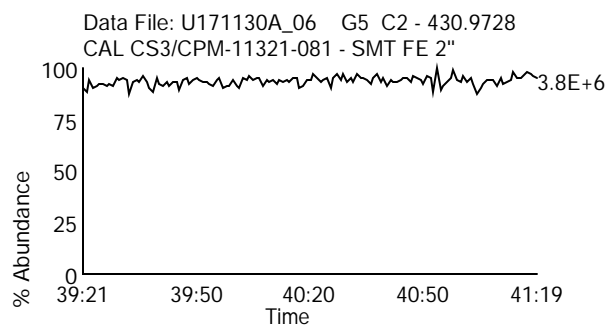
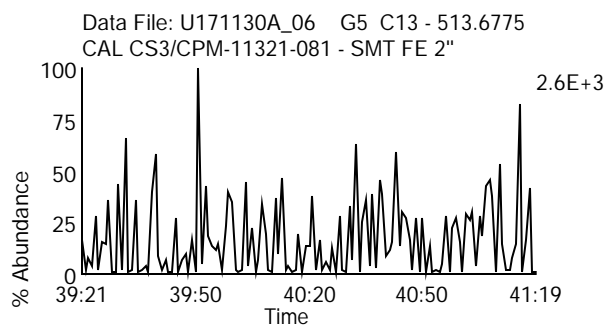
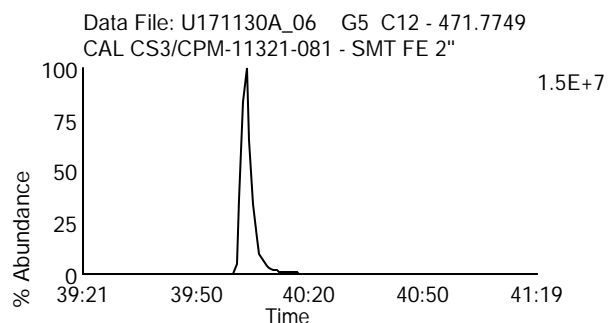
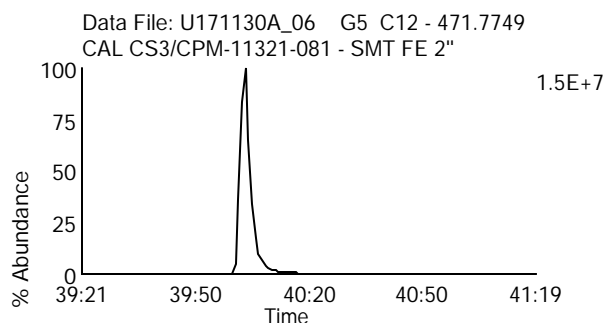
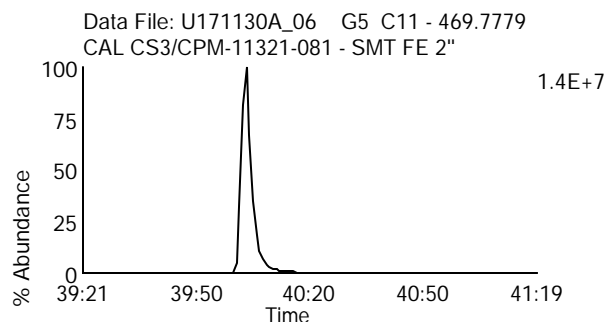
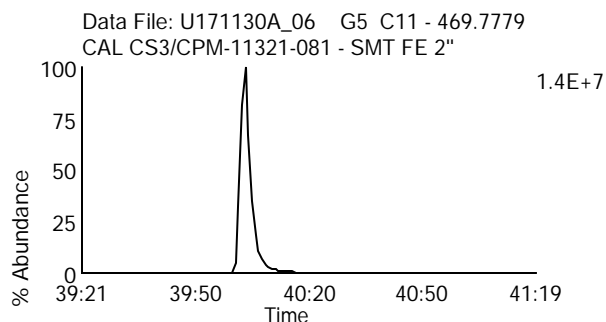
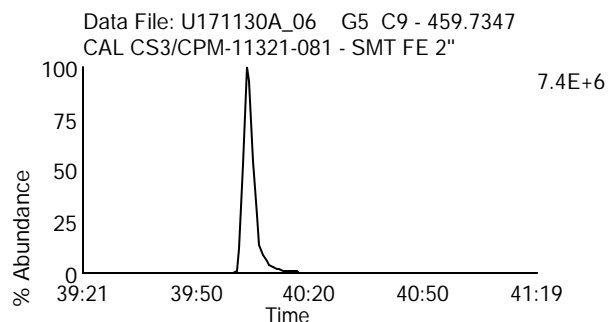
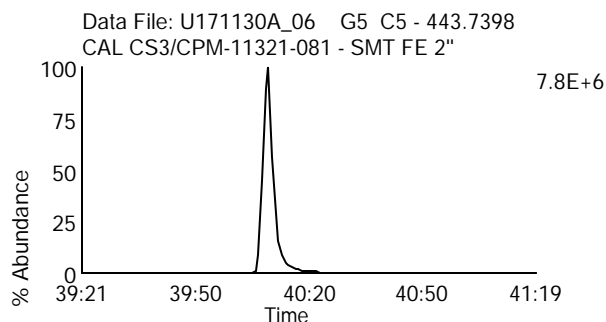
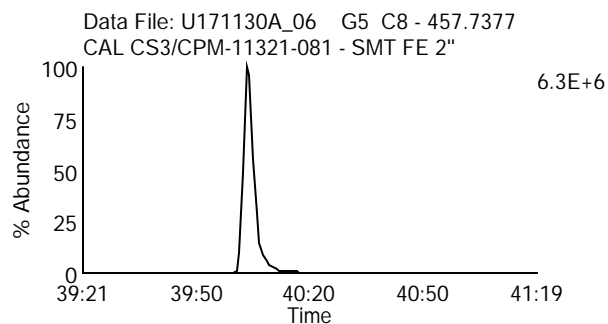
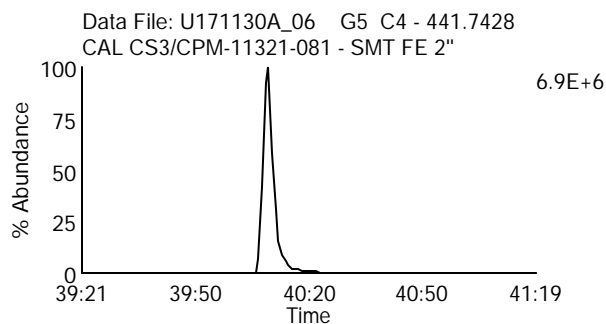
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

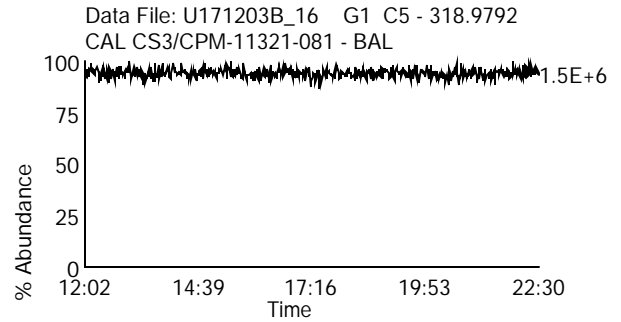
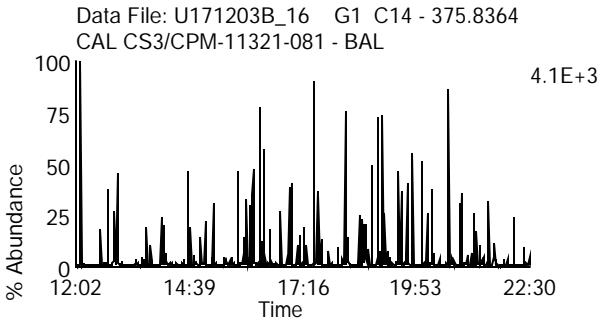
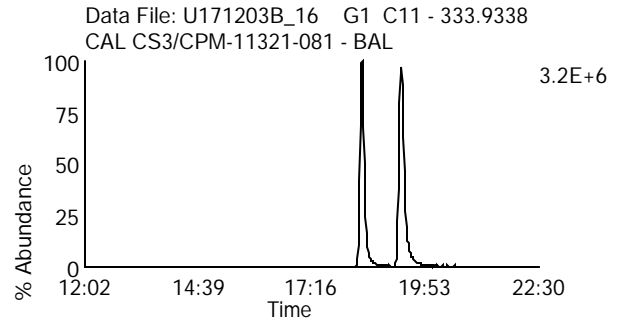
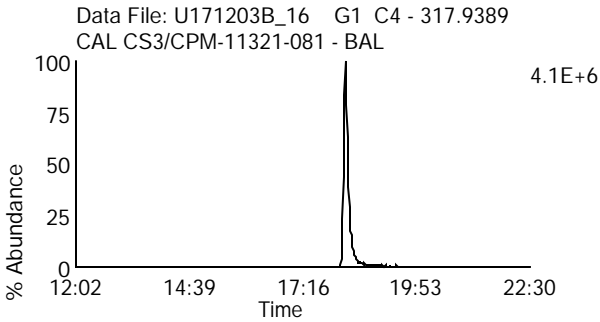
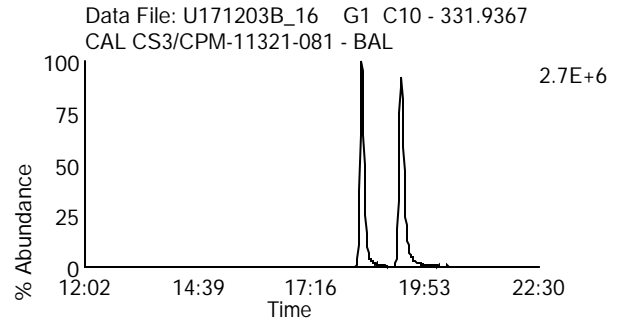
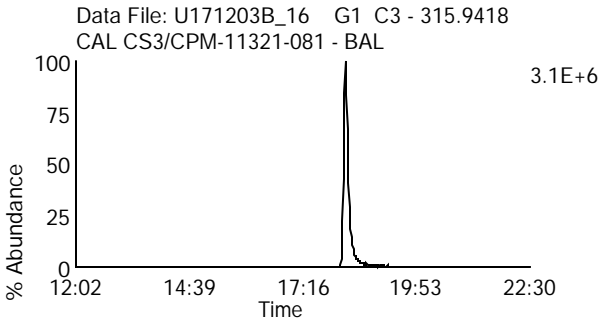
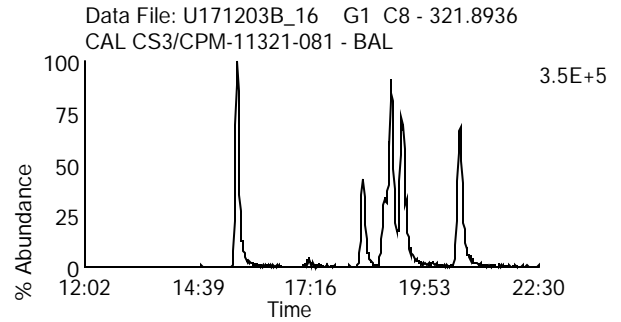
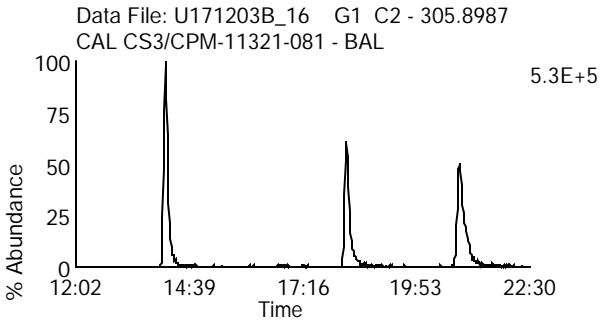
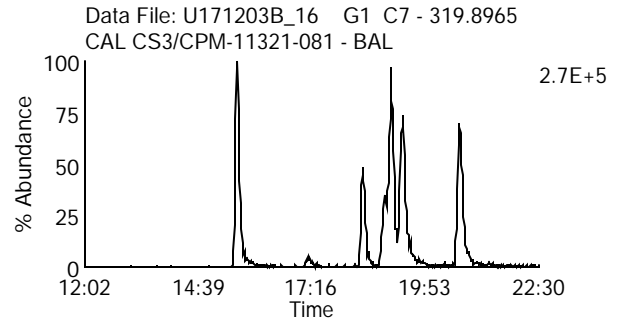
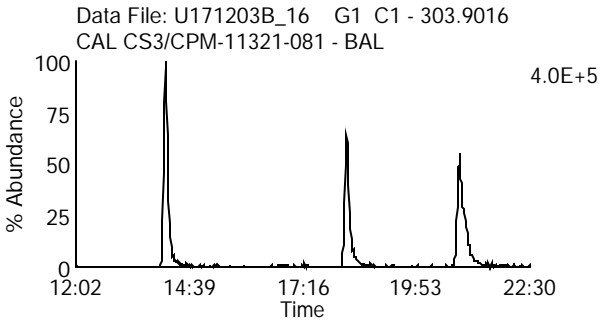
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171203B_16
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171203B_16

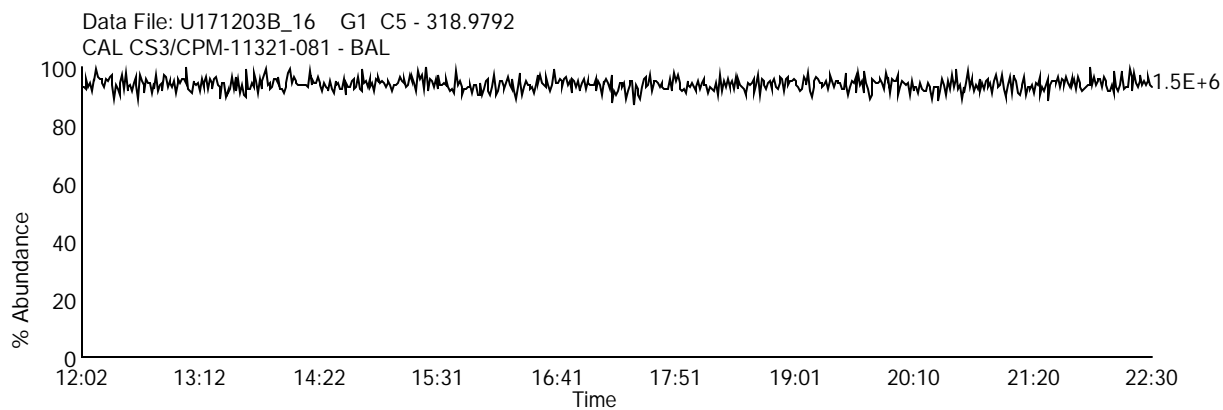
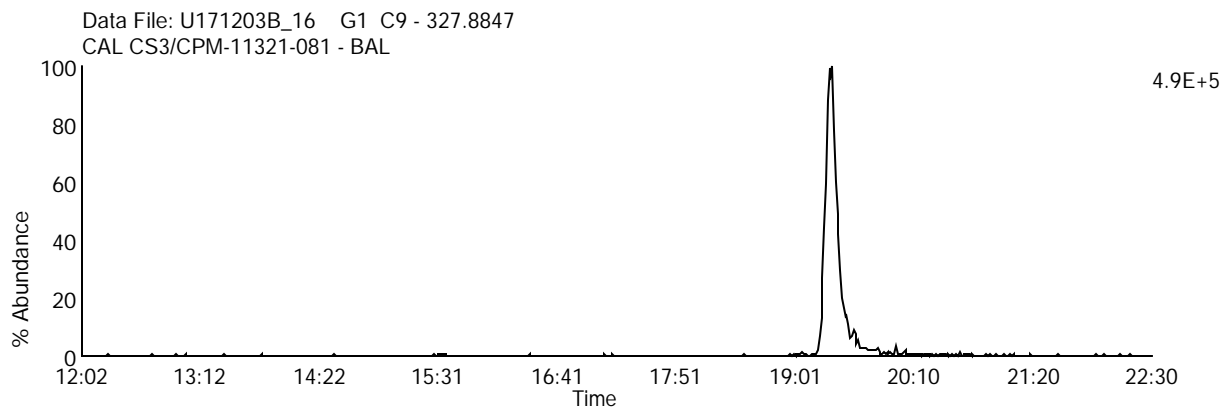
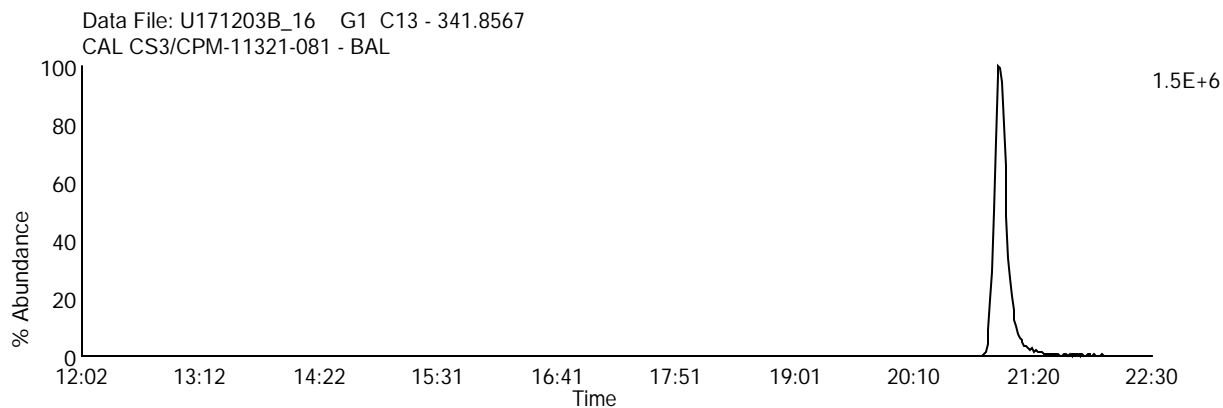
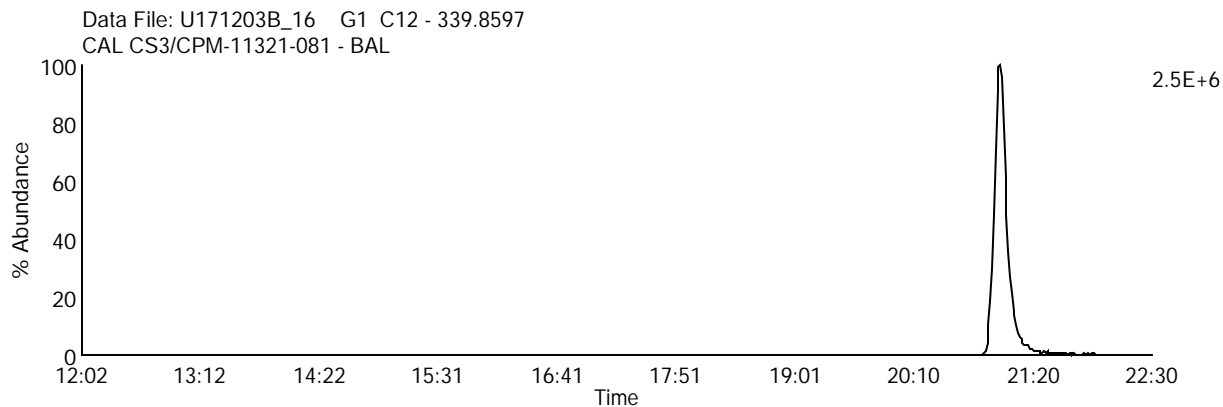
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171203B_16

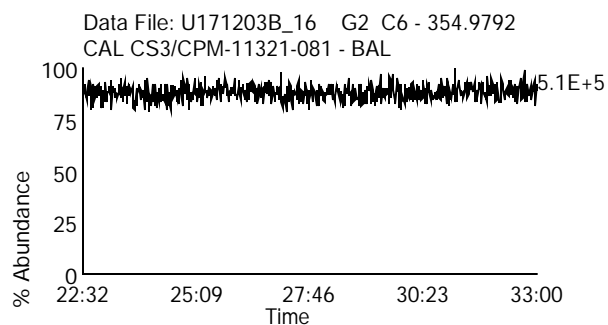
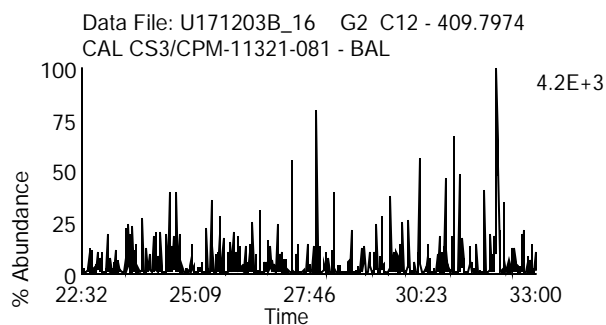
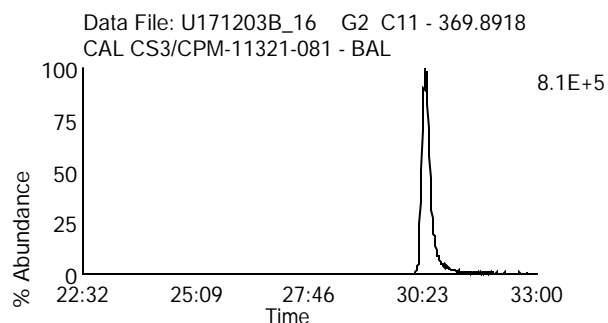
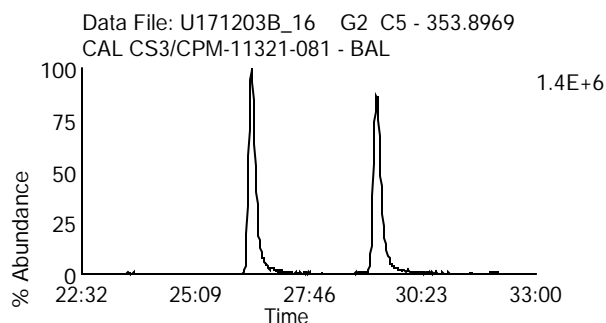
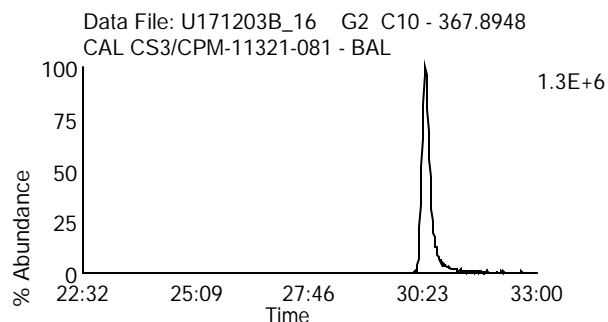
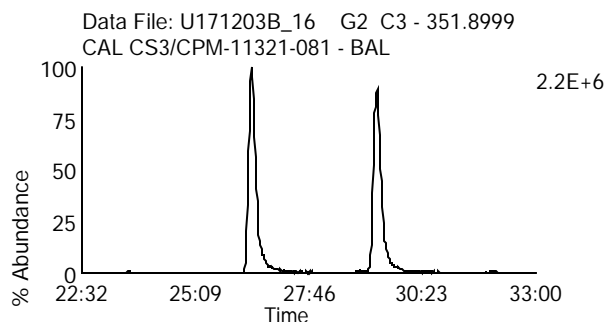
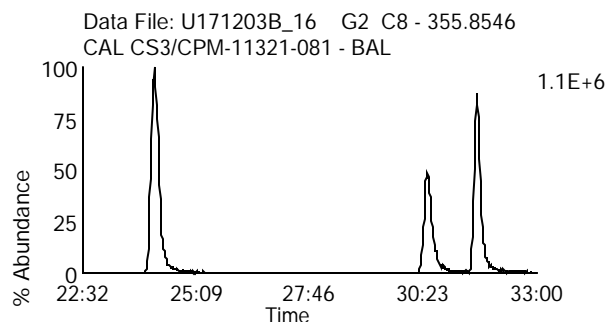
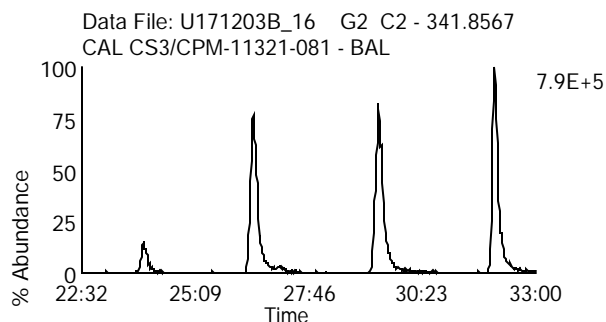
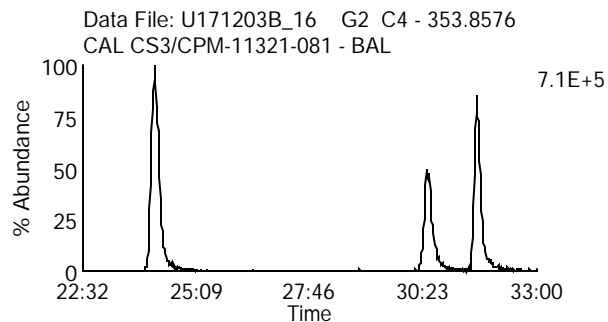
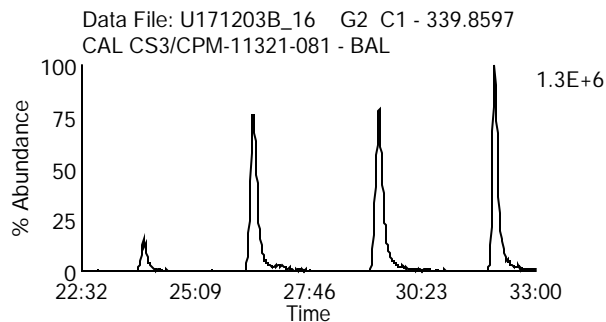
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171203B_16

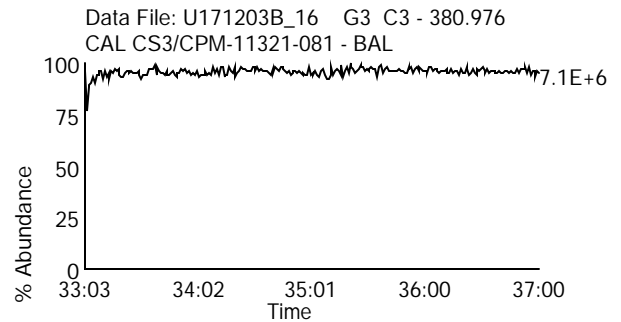
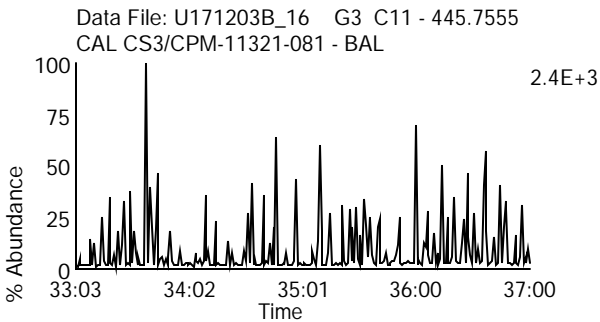
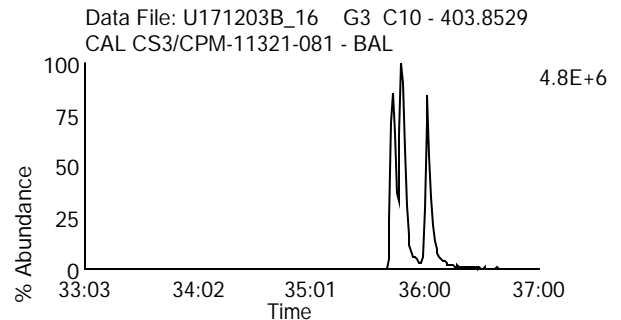
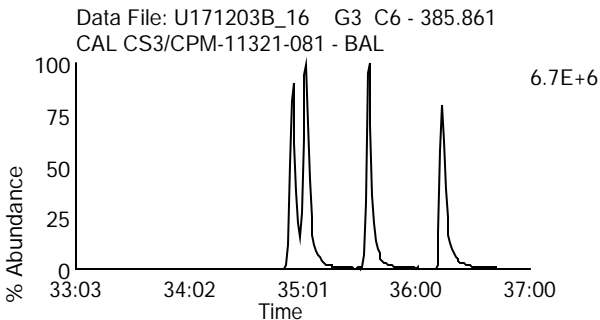
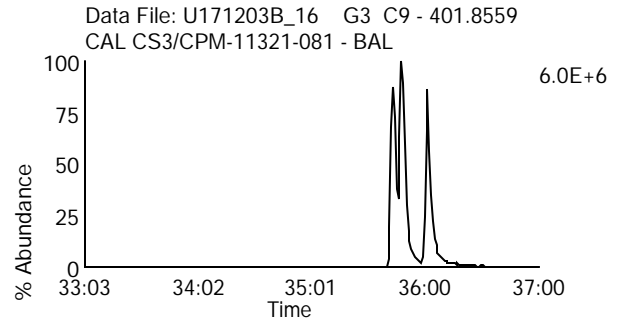
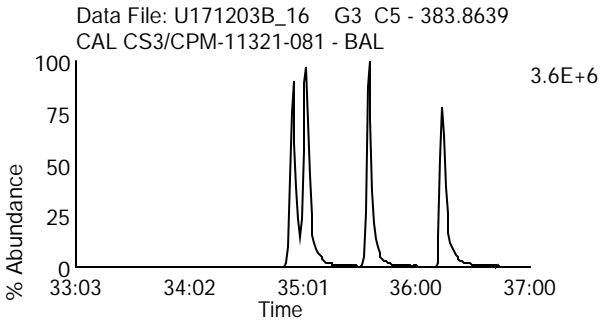
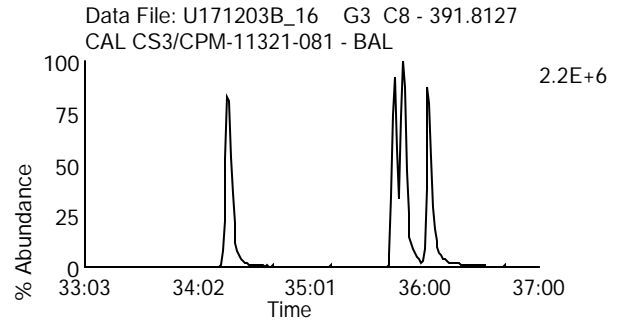
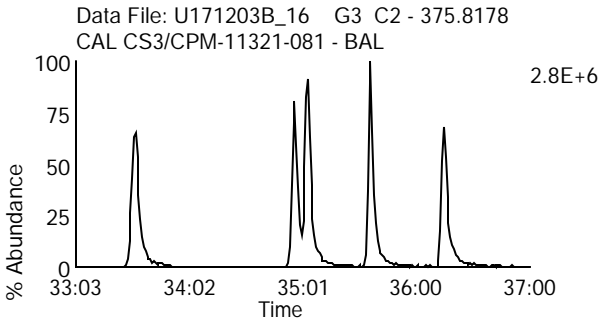
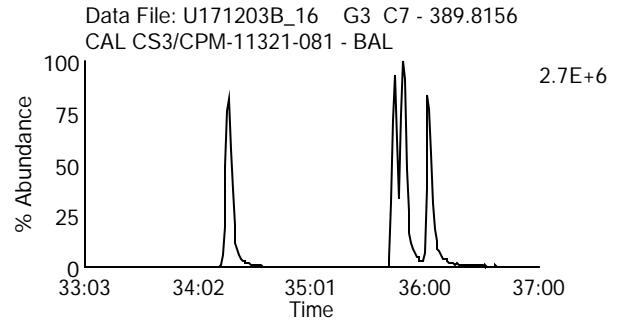
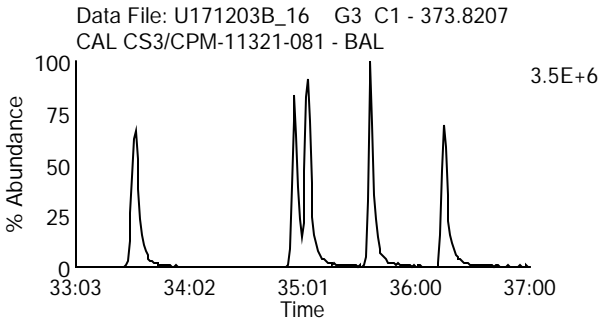
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171203B_16

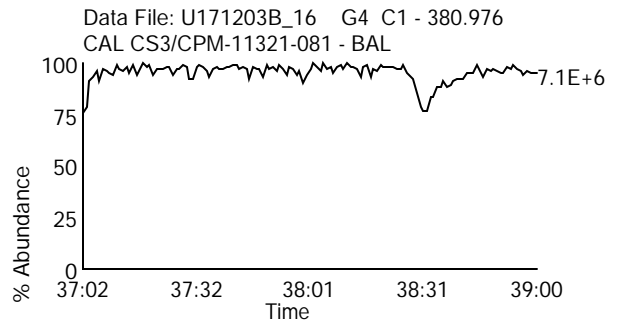
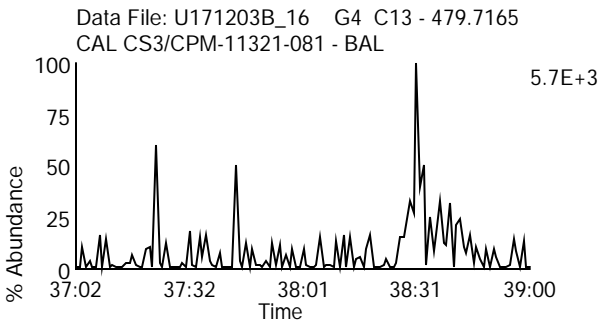
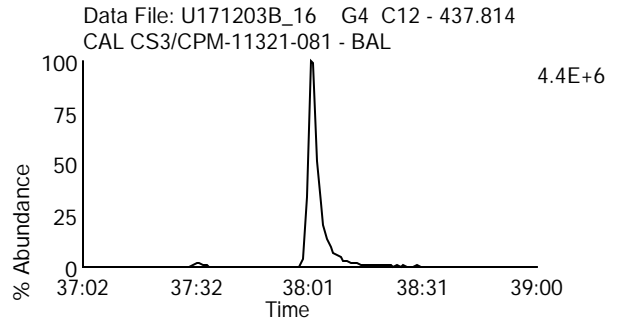
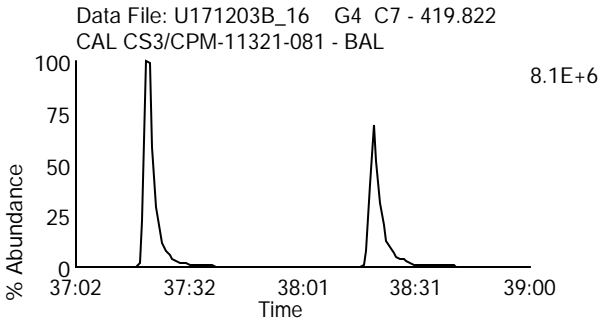
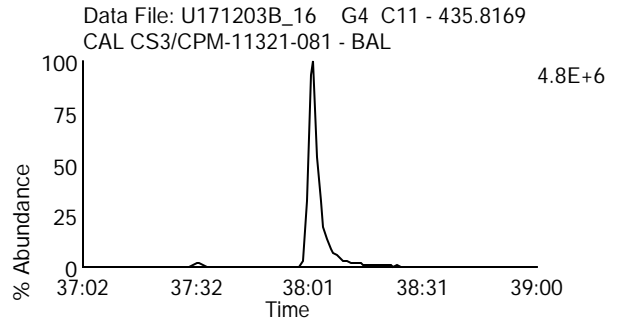
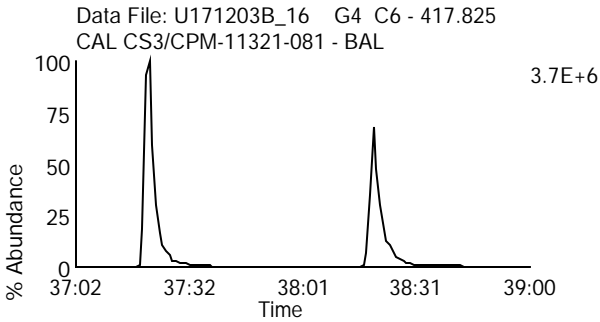
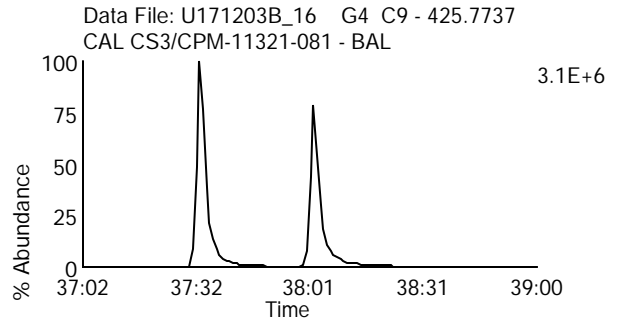
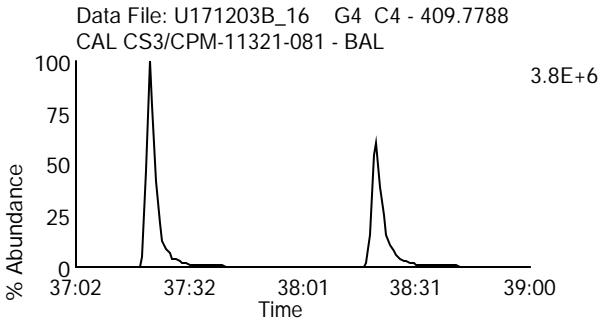
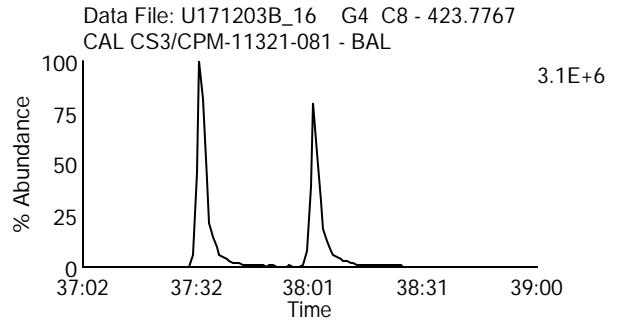
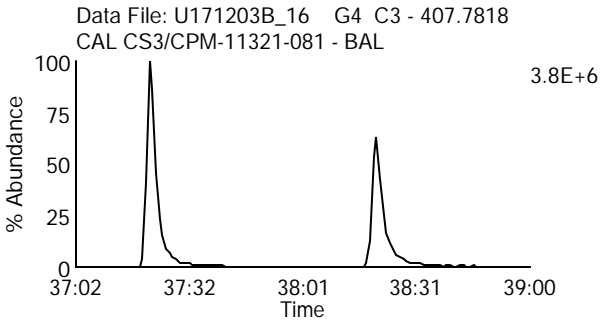
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171203B_16

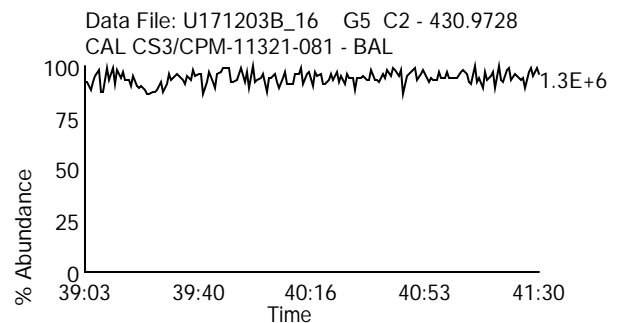
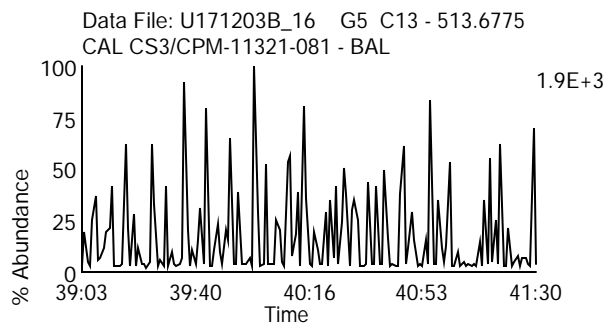
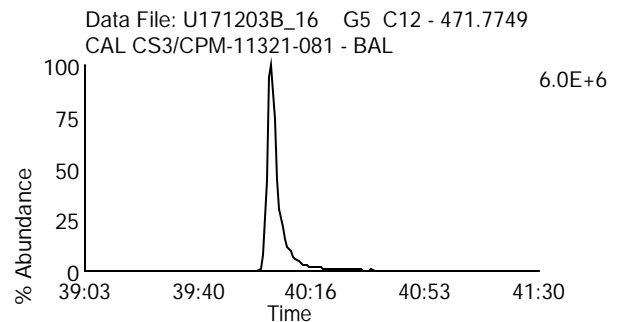
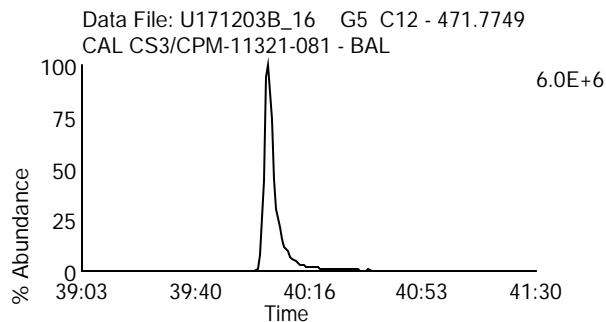
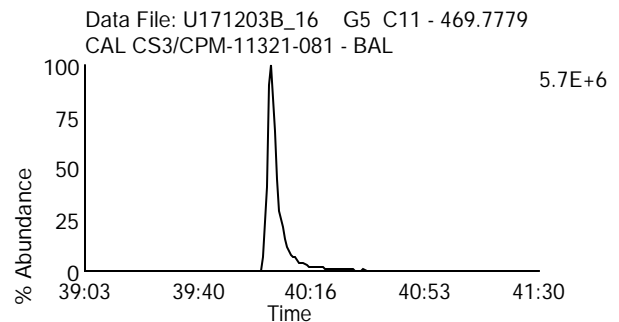
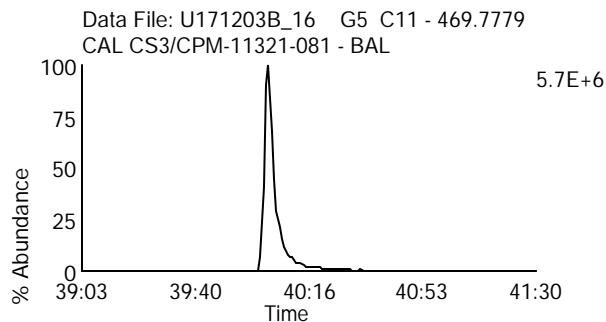
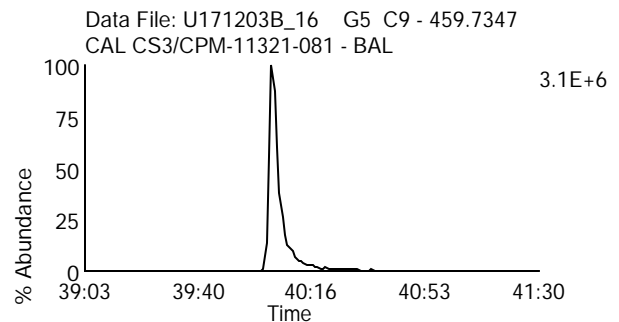
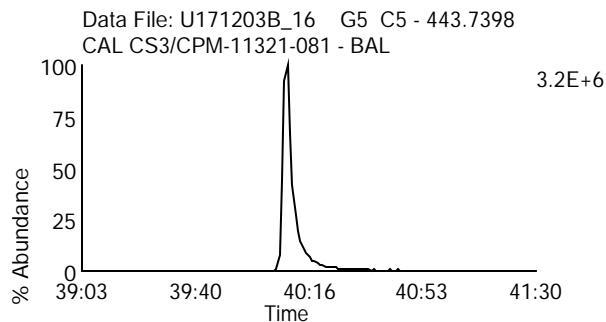
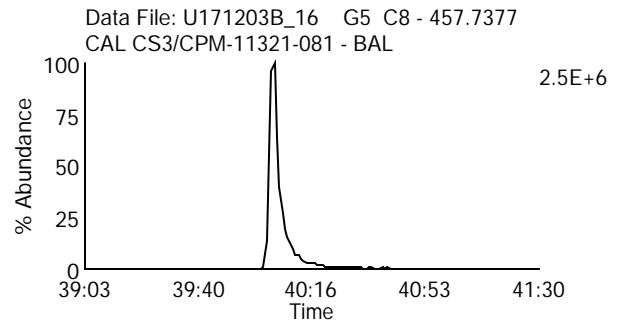
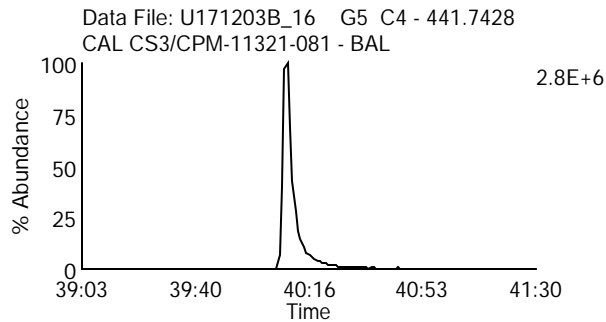
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

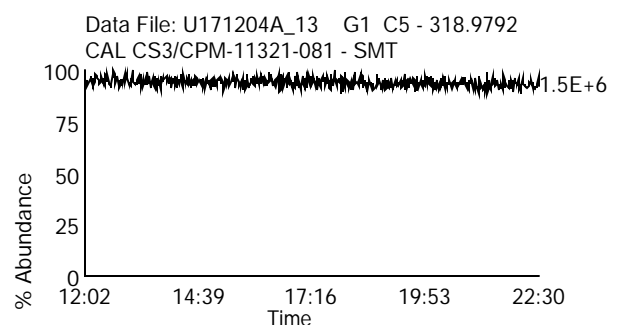
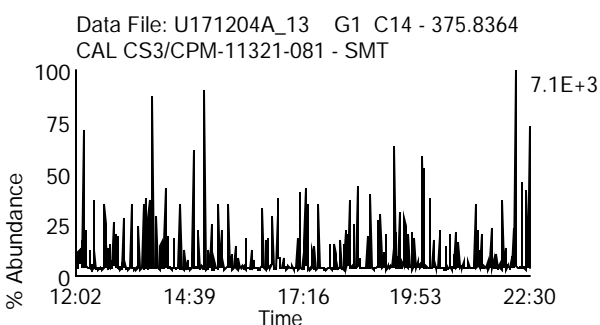
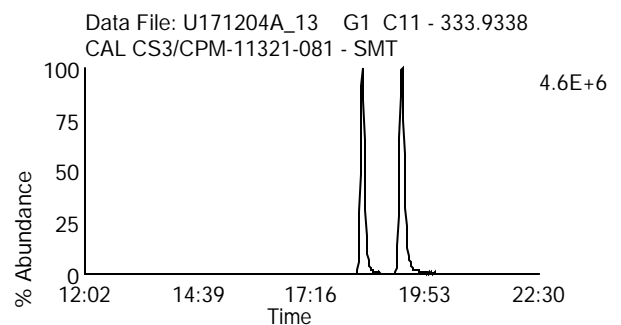
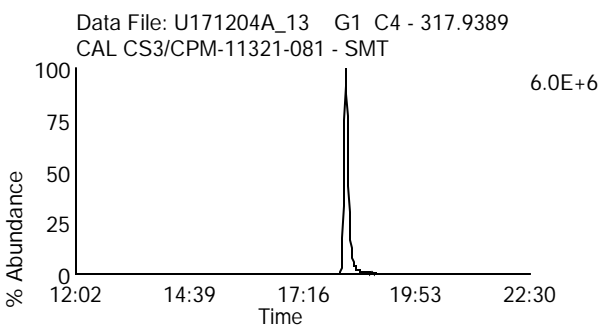
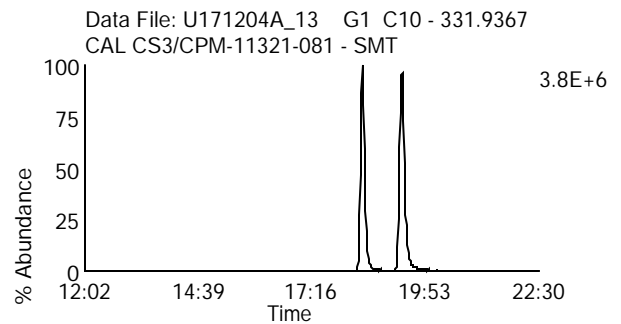
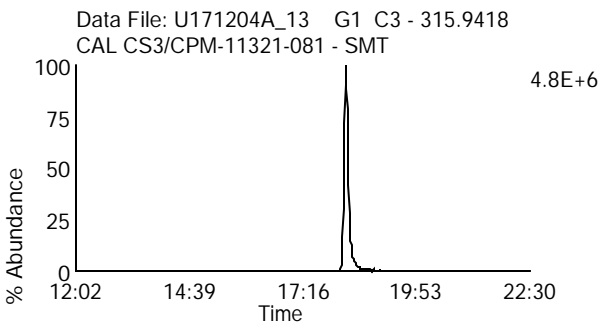
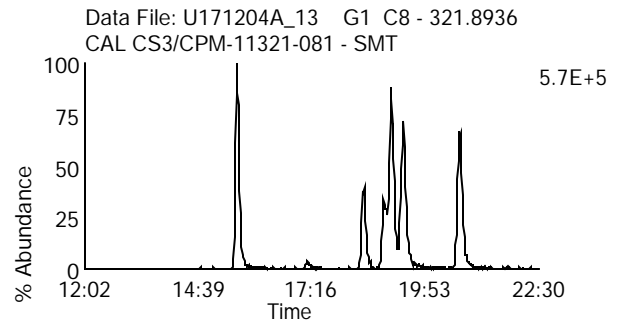
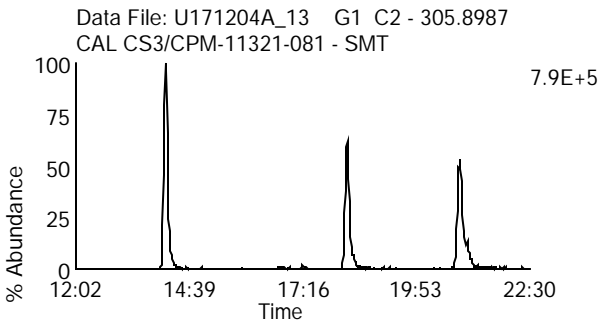
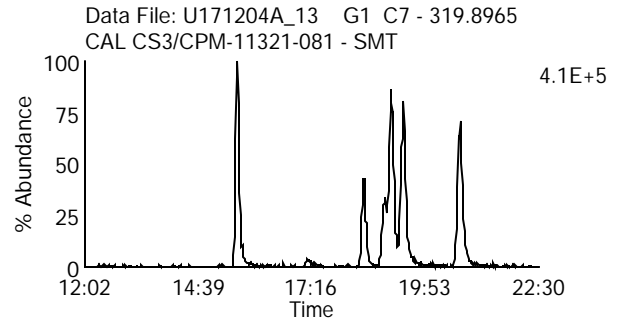
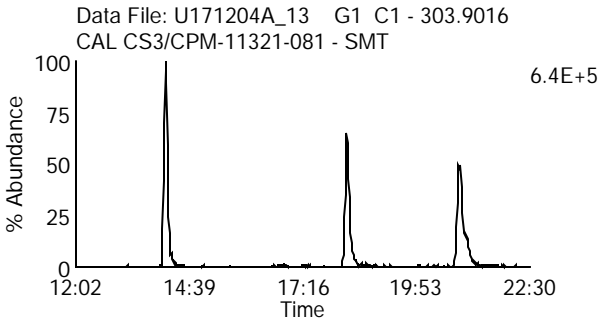
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171204A_13
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

Lab Sample ID: CS3/CPM-11321-081
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171204A_13

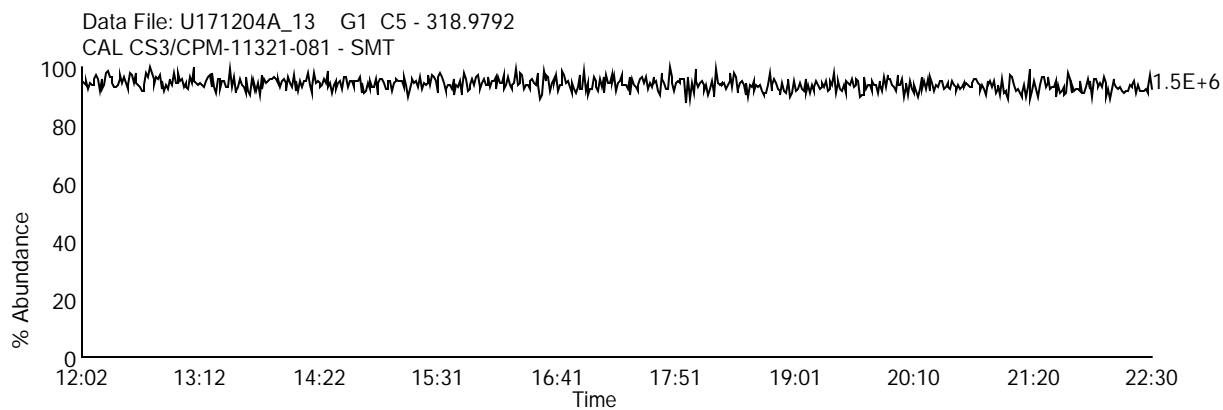
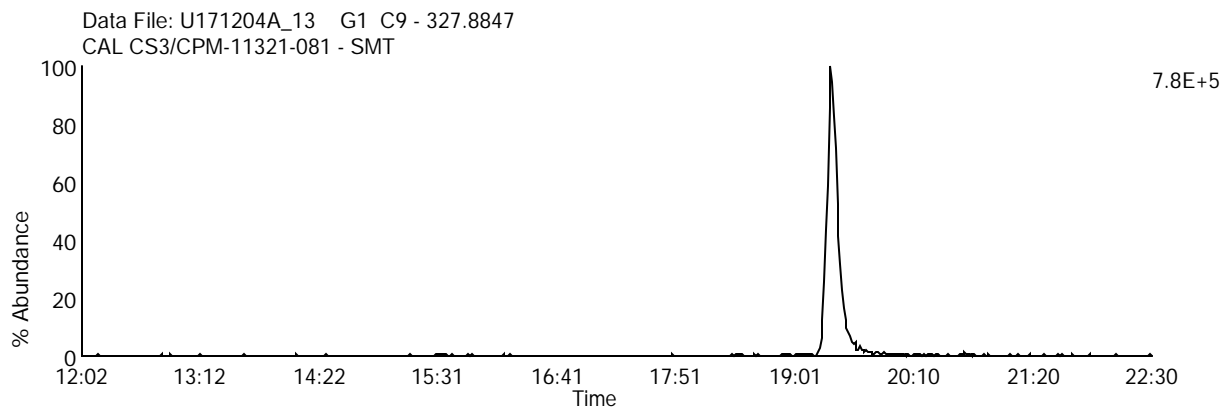
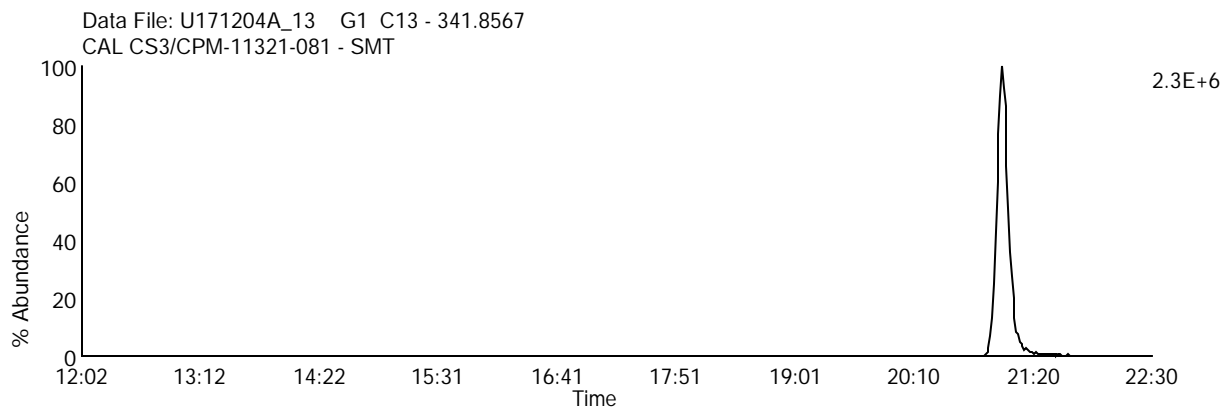
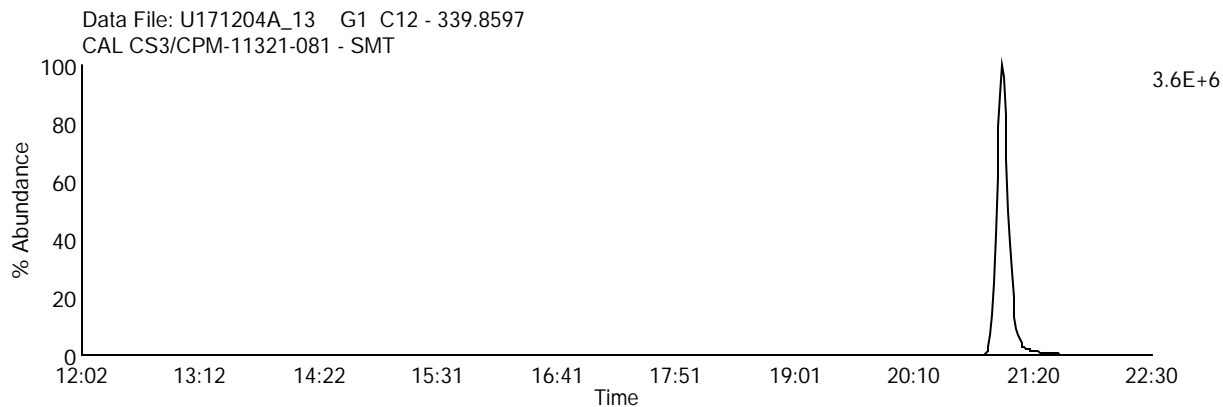
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

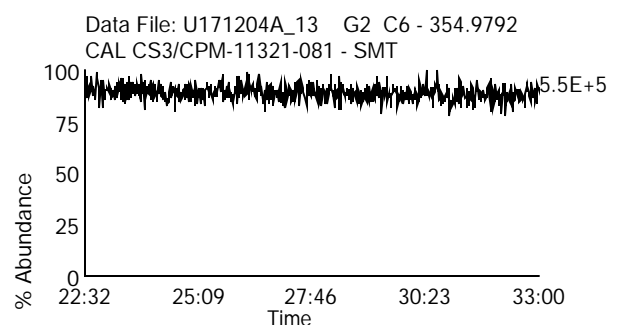
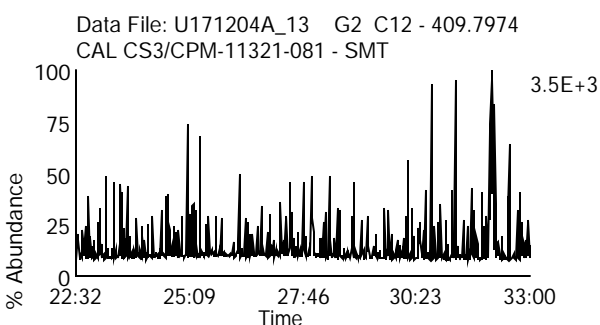
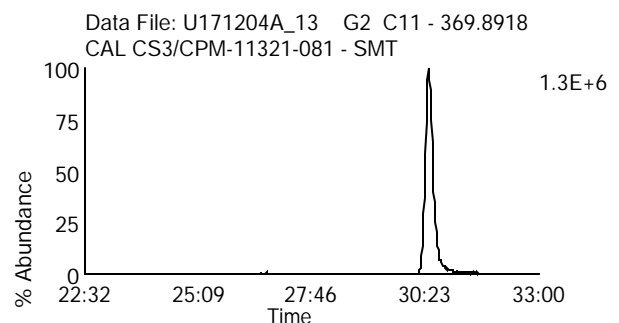
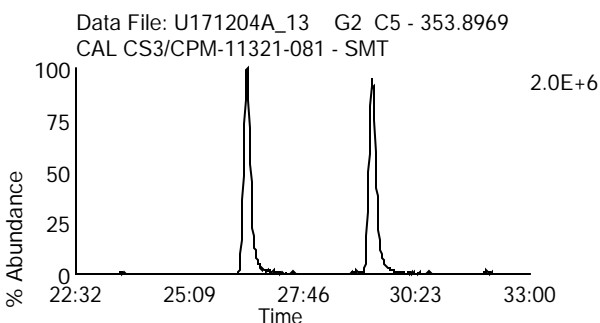
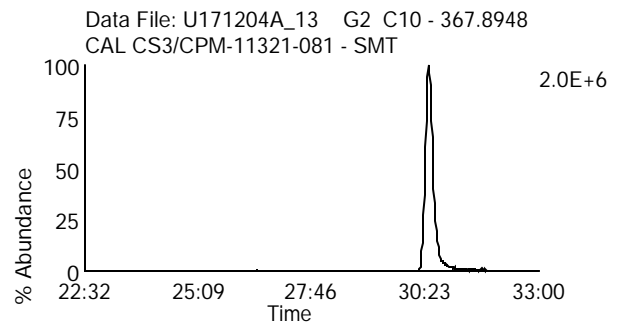
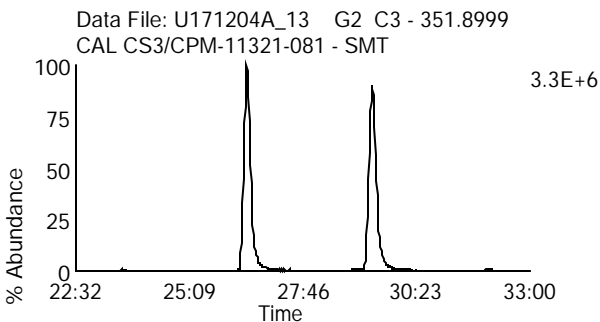
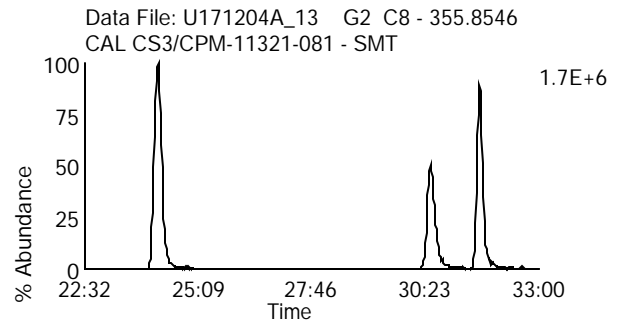
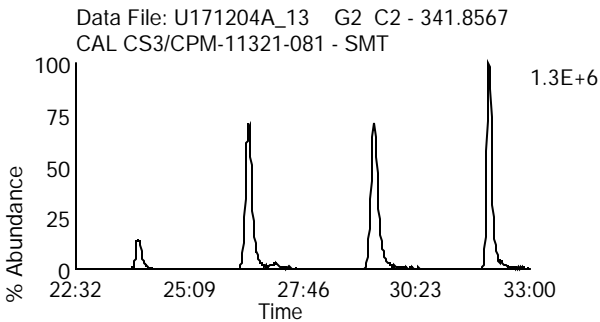
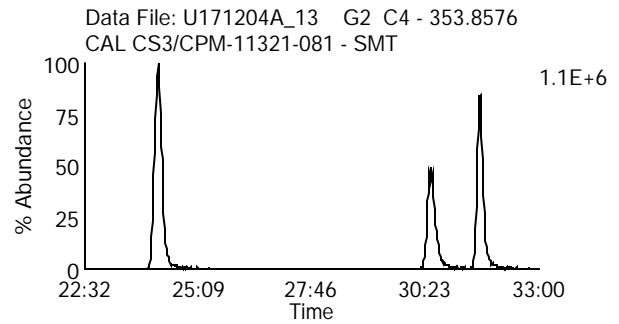
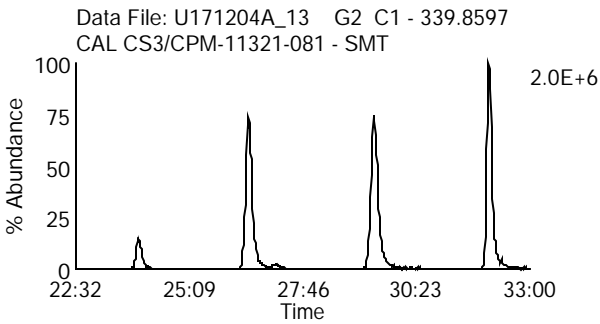
Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171204A_13
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

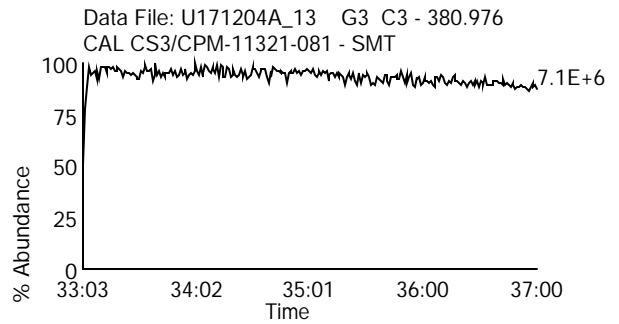
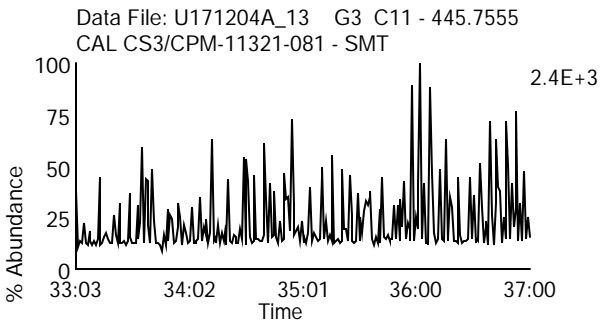
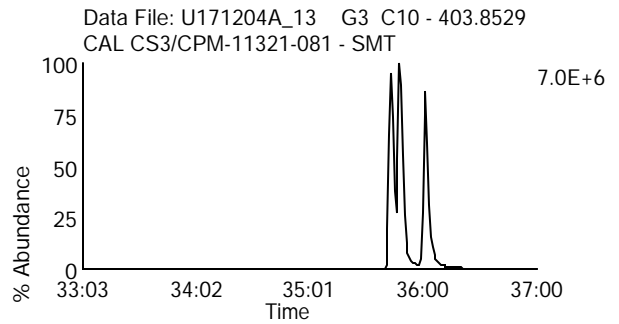
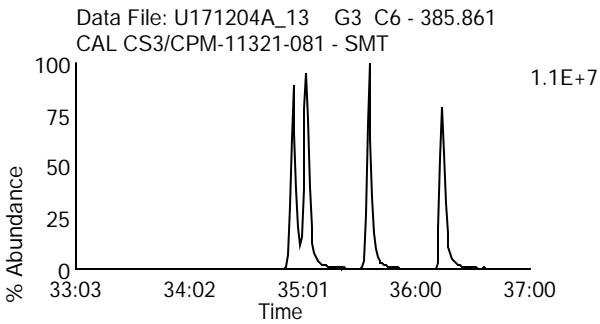
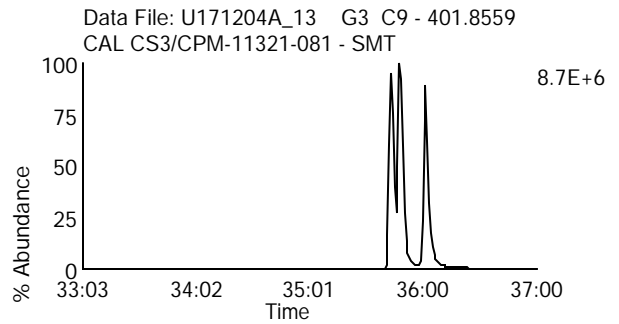
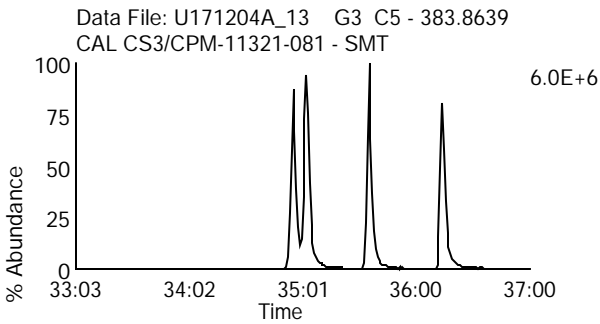
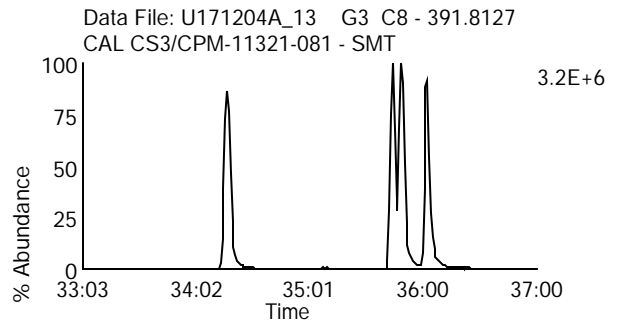
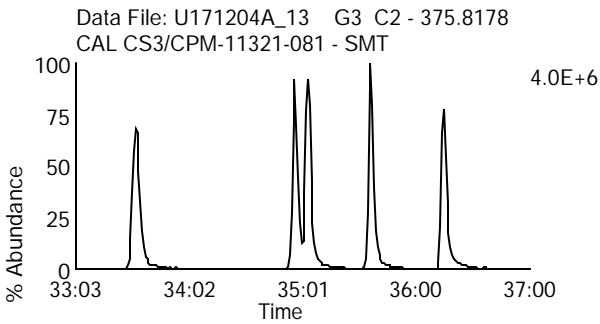
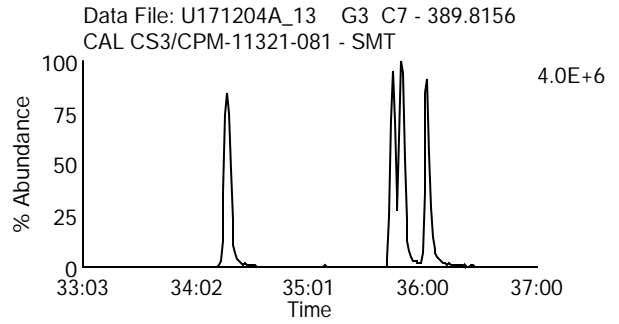
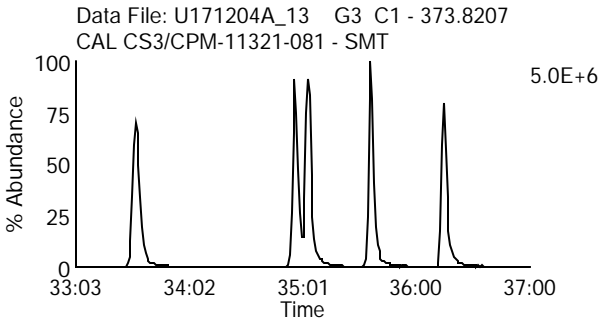
Lab Sample ID: CS3/CPM-11321-081
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171204A_13
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

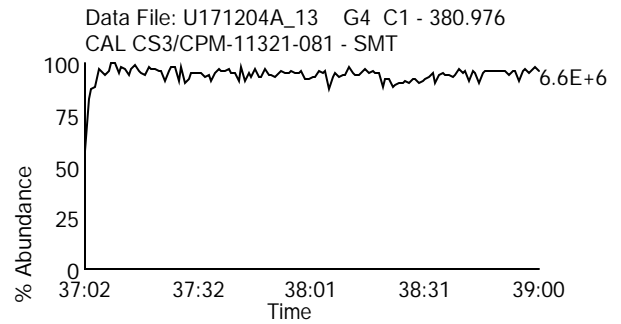
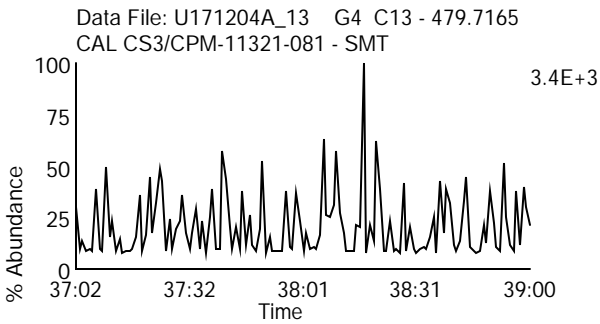
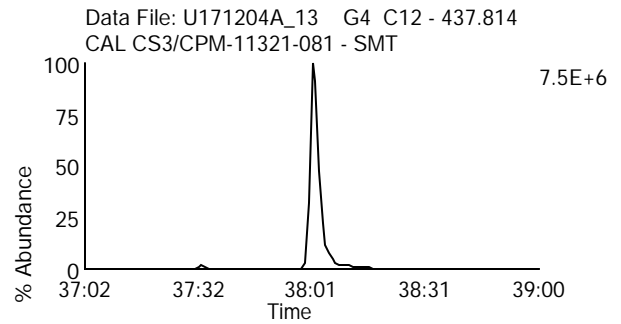
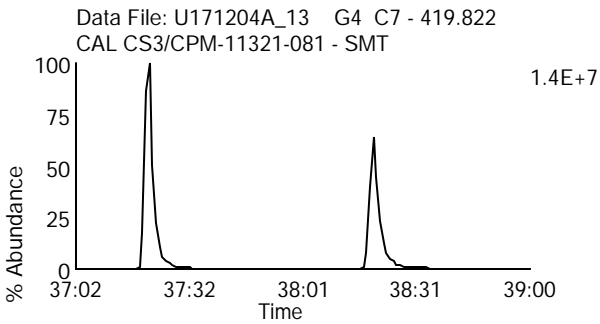
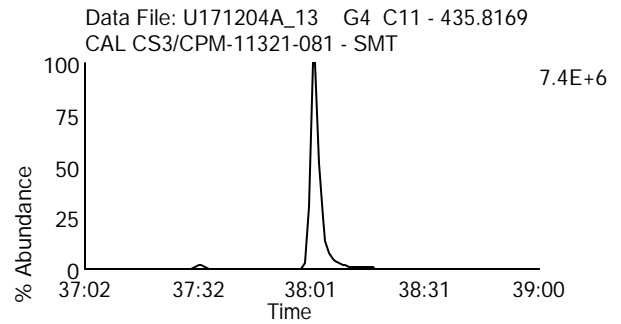
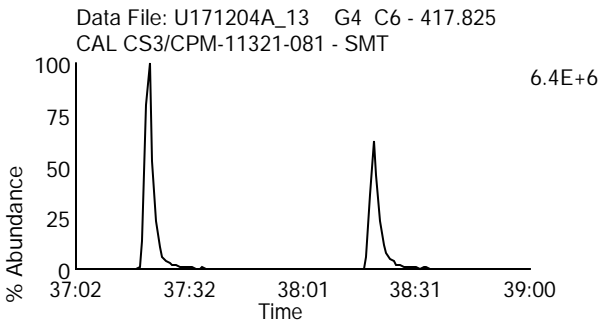
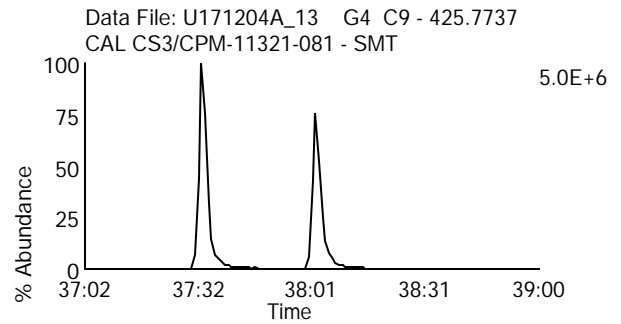
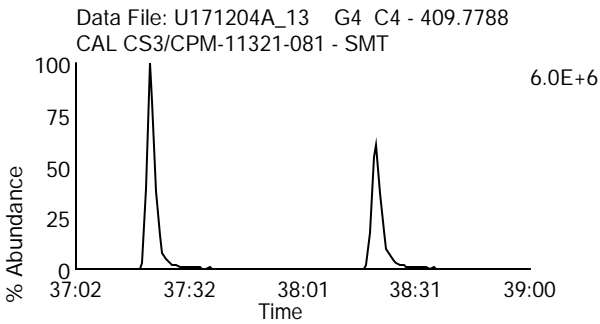
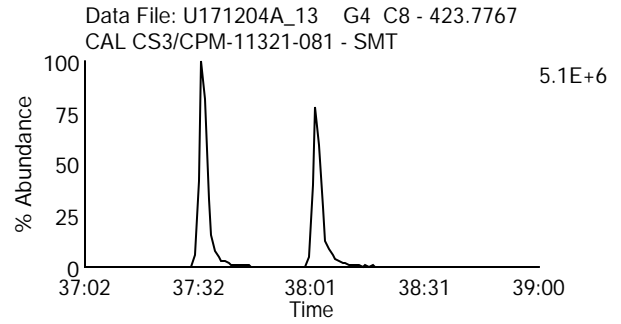
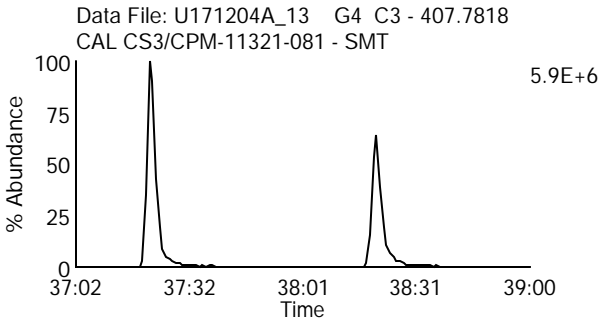
Lab Sample ID: CS3/CPM-11321-081
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171204A_13
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

Lab Sample ID: CS3/CPM-11321-081
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171204A_13

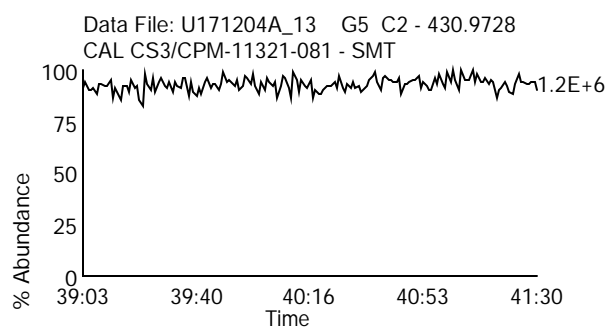
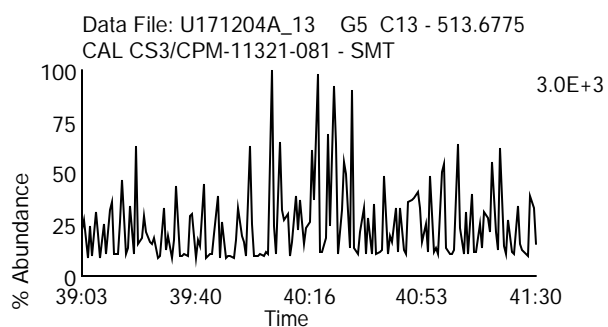
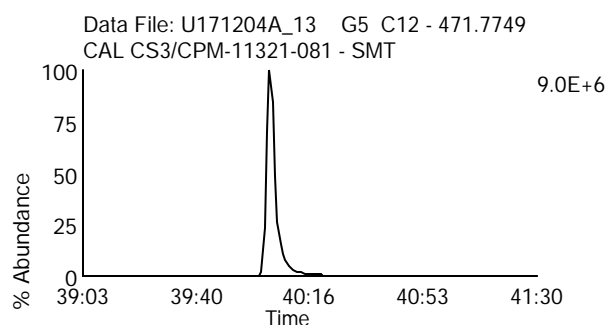
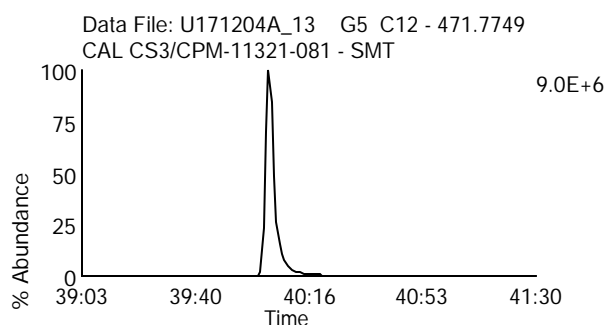
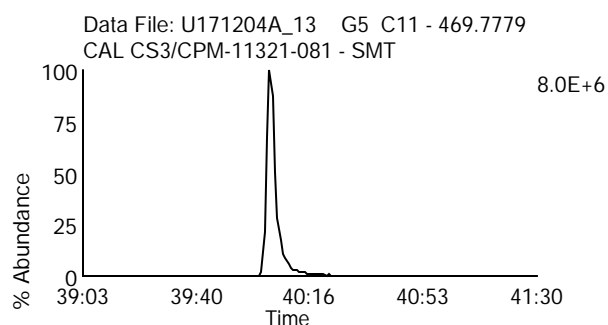
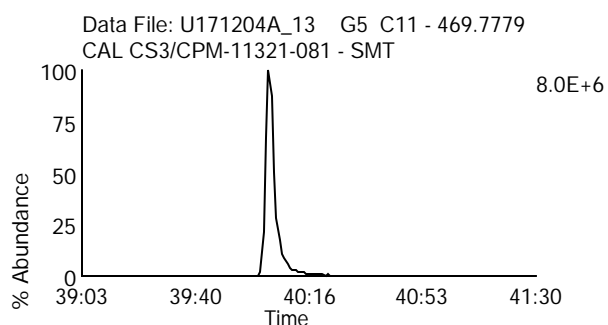
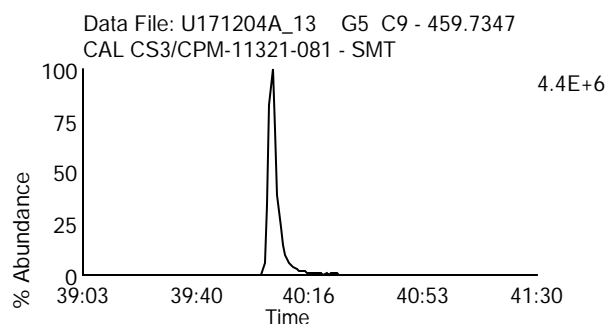
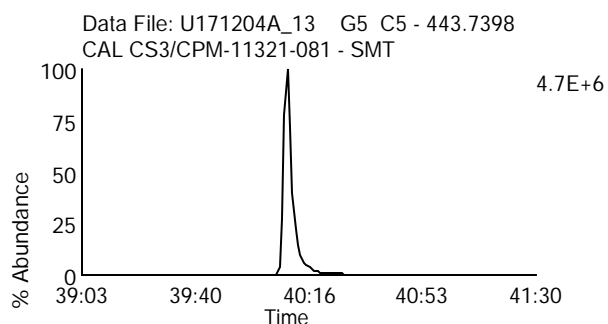
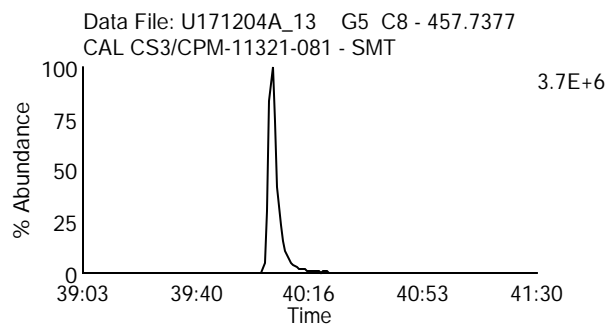
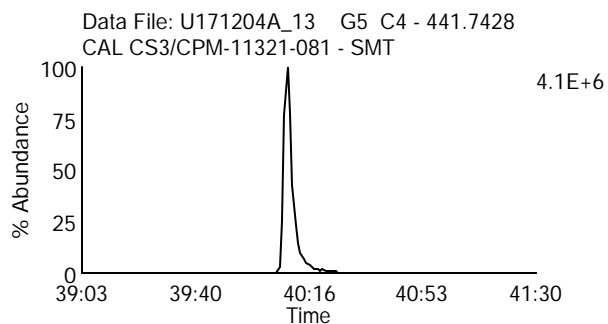
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID:

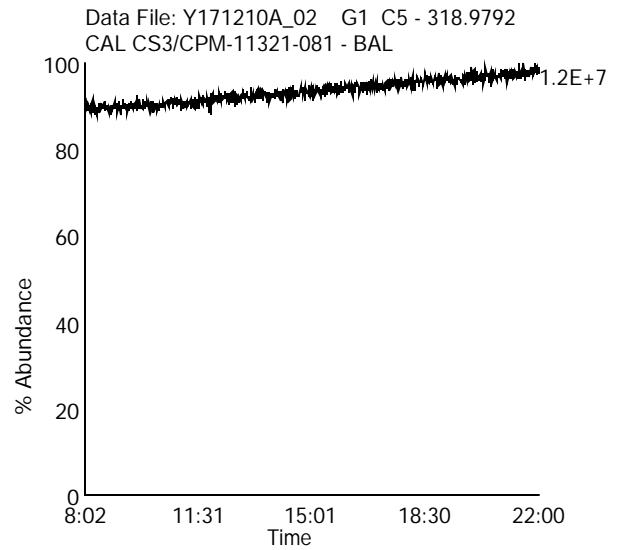
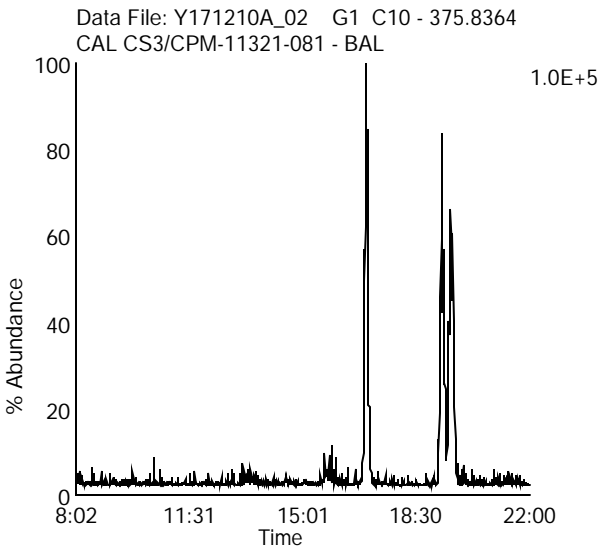
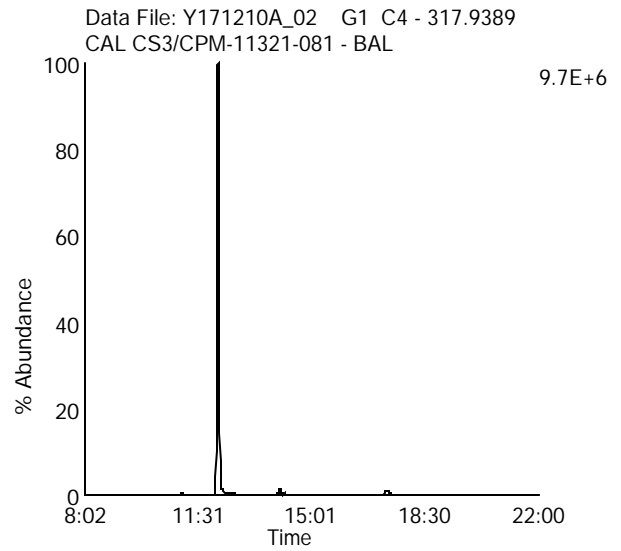
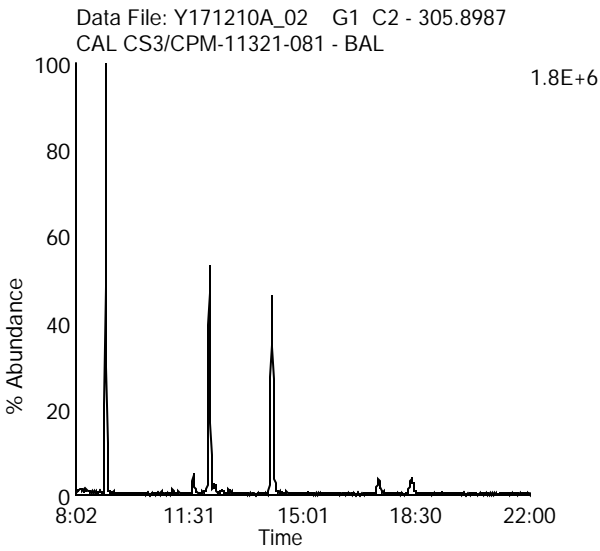
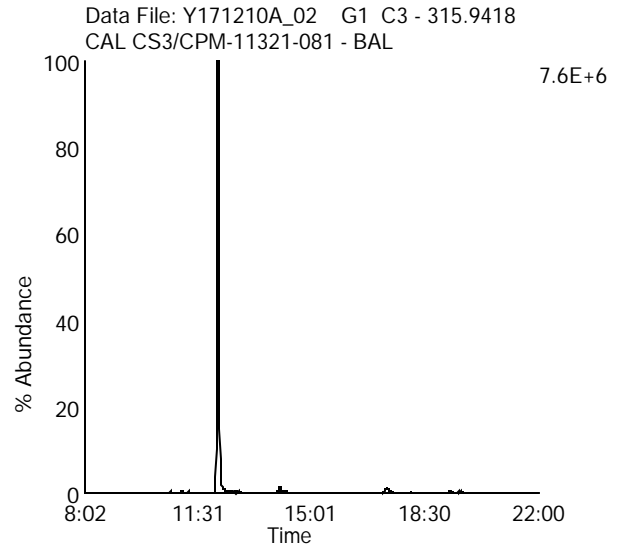
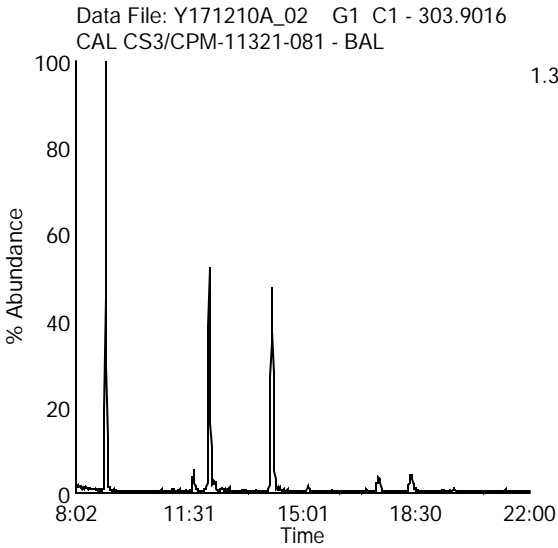
Instrument: 10MSHR06 (U)



TCDF Confirmation Analysis

Data File Name: Y171210A_02
Date Acquired: 12/10/2017
Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081
Client Sample ID:
Instrument: 10MSHR12 (Y)





PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	SMT
Client ID		Instrument ID	10MSHR06 (U)
Lab ID	CS1-11321-059	GC Column ID	USP117525H
Filename	U171107A_05	ICAL ID	U171107
Analyzed	11/07/2017 11:57		

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	20:09	8.50e7	1.08e8	9.25e6	1.23e7	----	----	0.78	
2,3,7,8-TCDF	20:11	3.08e5	(M)4.29e5	3.32e4	4.92e4	2.854e3	2.767e3	0.72	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	20:21	7.24e7	9.08e7	8.98e6	1.15e7	----	----	0.80	
2,3,7,8-TCDD-13C	21:22	5.84e7	7.67e7	6.34e6	8.18e6	----	----	0.76	
2,3,7,8-TCDD-37Cl4	21:24	6.74e5		7.93e4		----	----		
2,3,7,8-TCDD	21:25	2.71e5	(M)3.71e5	2.79e4	4.52e4	1.982e3	2.429e3	0.73	

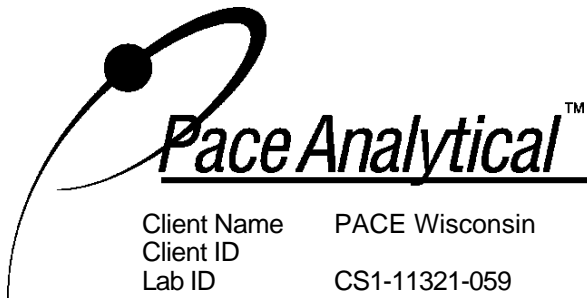
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:19	9.18e7	6.07e7	7.62e6	5.03e6	----	----	1.51	
2,3,4,7,8-PeCDF-13C	32:08	9.79e7	6.22e7	1.30e7	8.55e6	----	----	1.57	
1,2,3,7,8-PeCDF	29:22	1.89e6	1.11e6	1.57e5	9.97e4	2.883e3	2.190e3	1.70	
2,3,4,7,8-PeCDF	32:09	2.07e6	(M)1.34e6	2.68e5	1.76e5	3.467e3	2.011e3	1.54	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:44	7.01e7	4.59e7	1.11e7	7.09e6	----	----	1.53	
1,2,3,7,8-PeCDD	32:46	8.97e5	1.34e6	1.11e5	2.08e5	2.477e3	1.780e3	0.67	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:46	4.10e7	7.59e7	1.40e7	2.67e7	----	----	0.54	
1,2,3,6,7,8-HxCDF-13C	35:52	5.14e7	1.04e8	1.47e7	2.83e7	----	----	0.49	
2,3,4,6,7,8-HxCDF-13C	36:21	4.43e7	8.50e7	1.51e7	2.93e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:56	3.80e7	7.37e7	1.16e7	2.23e7	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:47	1.73e6	(M)1.44e6	5.76e5	4.95e5	2.062e3	6.061e2	1.20	
1,2,3,6,7,8-HxCDF	35:53	2.21e6	(M)1.69e6	6.16e5	5.03e5	2.042e3	2.210e3	1.31	
2,3,4,6,7,8-HxCDF	36:22	1.98e6	1.57e6	6.62e5	5.13e5	1.202e3	2.726e3	1.26	
1,2,3,7,8,9-HxCDF	36:57	1.55e6	1.22e6	4.80e5	3.70e5	7.547e2	1.495e3	1.27	

REPORT OF LABORATORY ANALYSIS

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID		Instrument ID	10MSHR06 (U)
Lab ID	CS1-11321-059	GC Column ID	USP117525H
Filename	U171107A_05	ICAL ID	U171107
Analyzed	11/07/2017 11:57		

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:28	6.13e7	4.91e7	2.53e7	1.99e7	----	----	1.25	
1,2,3,6,7,8-HxCDD-13C	36:32	7.55e7	6.09e7	2.63e7	2.15e7	----	----	1.24	
1,2,3,7,8,9-HxCDD-13C	36:44	6.37e7	5.37e7	2.15e7	1.72e7	----	----	1.19	
1,2,3,4,7,8-HxCDD	36:28	1.19e6	1.01e6	5.21e5	3.93e5	7.359e3	2.027e3	1.18	
1,2,3,6,7,8-HxCDD	36:33	1.70e6	1.31e6	5.35e5	3.97e5	2.300e3	2.013e3	1.30	
1,2,3,7,8,9-HxCDD	36:45	1.46e6	1.16e6	5.15e5	3.80e5	2.300e3	5.782e2	1.26	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:00	(M)4.52e7	(M)1.01e8	1.65e7	3.65e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:03	3.39e7	7.96e7	9.56e6	2.20e7	----	----	0.43	
1,2,3,4,6,7,8-HpCDF	38:01	2.08e6	2.01e6	8.21e5	7.46e5	2.609e3	2.005e3	1.03	
1,2,3,4,7,8,9-HpCDF	39:04	1.63e6	1.54e6	4.24e5	4.57e5	1.249e3	7.667e2	1.06	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:44	6.11e7	5.91e7	2.08e7	1.95e7	----	----	1.03	
1,2,3,4,6,7,8-HpCDD	38:44	1.47e6	1.38e6	4.60e5	4.92e5	1.227e3	2.351e3	1.06	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:01	(M)2.22e6	2.58e6	6.35e5	6.98e5	8.396e2	2.471e2	0.86	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:54	9.69e7	1.14e8	2.65e7	2.99e7	----	----	0.85	
OCDD	40:54	2.23e6	2.46e6	5.75e5	6.37e5	8.625e2	2.516e3	0.91	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name PACE Wisconsin
Client ID
Lab ID CS2-11321-077
Filename U171107A_04
Analyzed 11/07/2017 11:12

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	20:09	4.87e7	6.88e7	5.93e6	7.89e6	----	----	0.71	
2,3,7,8-TCDF	20:11	8.60e5	(M)1.03e6	9.80e4	1.13e5	----	----	0.83	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	20:21	4.29e7	5.61e7	5.38e6	6.82e6	----	----	0.76	
2,3,7,8-TCDD-13C	21:21	(M)4.32e7	5.67e7	4.79e6	6.14e6	----	----	0.76	
2,3,7,8-TCDD-37Cl4	21:23	(M)1.90e6		2.05e5		----	----		
2,3,7,8-TCDD	21:23	7.03e5	(M)8.90e5	9.29e4	9.40e4	----	----	0.79	

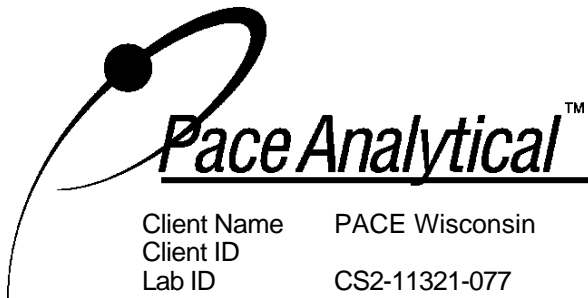
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:20	5.49e7	3.74e7	4.56e6	3.16e6	----	----	1.47	
2,3,4,7,8-PeCDF-13C	32:07	5.84e7	3.77e7	7.40e6	4.91e6	----	----	1.55	
1,2,3,7,8-PeCDF	29:21	4.73e6	2.96e6	4.01e5	2.52e5	----	----	1.60	
2,3,4,7,8-PeCDF	32:09	5.34e6	3.32e6	6.98e5	4.72e5	----	----	1.61	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:44	4.14e7	2.84e7	6.50e6	4.36e6	----	----	1.46	
1,2,3,7,8-PeCDD	32:46	2.16e6	3.59e6	3.37e5	5.37e5	----	----	0.60	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:45	2.48e7	4.83e7	8.44e6	1.64e7	----	----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:51	3.27e7	6.11e7	9.97e6	1.89e7	----	----	0.54	
2,3,4,6,7,8-HxCDF-13C	36:20	2.64e7	5.14e7	8.89e6	1.75e7	----	----	0.51	
1,2,3,7,8,9-HxCDF-13C	36:55	2.37e7	4.61e7	7.45e6	1.48e7	----	----	0.51	
1,2,3,4,7,8-HxCDF	35:46	4.35e6	3.48e6	1.51e6	1.28e6	----	----	1.25	
1,2,3,6,7,8-HxCDF	35:52	5.49e6	4.23e6	1.70e6	1.30e6	----	----	1.30	
2,3,4,6,7,8-HxCDF	36:21	4.81e6	3.78e6	1.63e6	1.31e6	----	----	1.27	
1,2,3,7,8,9-HxCDF	36:56	3.85e6	3.01e6	1.28e6	1.00e6	----	----	1.28	

REPORT OF LABORATORY ANALYSIS

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID		Instrument ID	10MSHR06 (U)
Lab ID	CS2-11321-077	GC Column ID	USP117525H
Filename	U171107A_04	ICAL ID	U171107
Analyzed	11/07/2017 11:12		

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:27	3.64e7	2.95e7	1.40e7	1.17e7	----	----	1.24	
1,2,3,6,7,8-HxCDD-13C	36:31	4.67e7	3.82e7	1.44e7	1.21e7	----	----	1.22	
1,2,3,7,8,9-HxCDD-13C	36:44	4.01e7	3.34e7	1.20e7	9.93e6	----	----	1.20	
1,2,3,4,7,8-HxCDD	36:28	3.31e6	2.64e6	1.27e6	1.00e6	----	----	1.25	
1,2,3,6,7,8-HxCDD	36:32	4.01e6	3.11e6	1.41e6	1.11e6	----	----	1.29	
1,2,3,7,8,9-HxCDD	36:44	3.74e6	2.96e6	1.19e6	9.58e5	----	----	1.27	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:00	2.79e7	6.22e7	9.73e6	2.08e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:03 (M)	2.15e7	4.79e7	6.41e6	1.41e7	----	----	0.45	
1,2,3,4,6,7,8-HpCDF	38:00	5.24e6	5.23e6	2.02e6	1.95e6	----	----	1.00	
1,2,3,4,7,8,9-HpCDF	39:03	4.32e6	4.12e6	1.25e6	1.22e6	----	----	1.05	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:43	3.86e7	3.77e7	1.34e7	1.31e7	----	----	1.02	
1,2,3,4,6,7,8-HpCDD	38:44	3.78e6	3.73e6	1.25e6	1.16e6	----	----	1.01	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:00	5.90e6	6.87e6	1.66e6	1.97e6	----	----	0.86	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:53 (M)	6.18e7	(M)6.99e7	1.69e7	1.94e7	----	----	0.88	
OCDD	40:54	5.46e6	6.69e6	1.49e6	1.83e6	----	----	0.82	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	SMT
Client ID		Instrument ID	10MSHR06 (U)
Lab ID	CS3/CPM-11321-081	GC Column ID	USP117525H
Filename	U171107A_03	ICAL ID	U171107
Analyzed	11/07/2017 10:28		

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	20:10	9.36e7	1.26e8	1.14e7	1.50e7	----	----	0.74	
2,3,7,8-TCDF	20:11	8.16e6	1.07e7	9.87e5	1.28e6	----	----	0.76	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	20:22	7.98e7	1.01e8	1.03e7	1.31e7	----	----	0.79	
2,3,7,8-TCDD-13C	21:23	8.37e7	1.04e8	9.67e6	1.22e7	----	----	0.80	
2,3,7,8-TCDD-37Cl4	21:23 (M)	1.82e7		2.04e6		----	----		
2,3,7,8-TCDD	21:23	7.50e6	9.43e6	7.99e5	1.04e6	----	----	0.79	

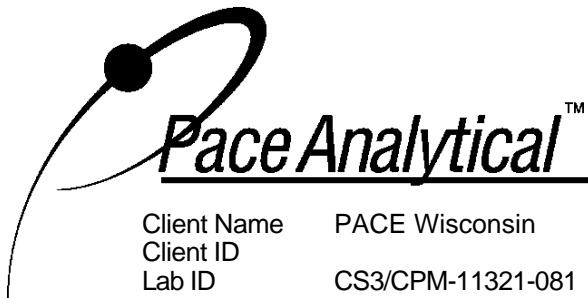
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:19	1.12e8	7.14e7	9.74e6	6.31e6	----	----	1.56	
2,3,4,7,8-PeCDF-13C	32:07	1.07e8	7.03e7	1.53e7	9.66e6	----	----	1.53	
1,2,3,7,8-PeCDF	29:23	4.79e7	3.06e7	4.11e6	2.60e6	----	----	1.57	
2,3,4,7,8-PeCDF	32:10	5.46e7	3.45e7	7.10e6	4.79e6	----	----	1.58	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:43	7.94e7	5.40e7	1.27e7	8.64e6	----	----	1.47	
1,2,3,7,8-PeCDD	32:46	2.19e7	3.57e7	3.53e6	5.85e6	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:46	4.55e7	9.00e7	1.59e7	3.02e7	----	----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:52	6.03e7	1.17e8	1.81e7	3.36e7	----	----	0.51	
2,3,4,6,7,8-HxCDF-13C	36:21	5.08e7	9.48e7	1.82e7	3.39e7	----	----	0.54	
1,2,3,7,8,9-HxCDF-13C	36:56	4.52e7	8.65e7	1.48e7	2.78e7	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:47 (M)	4.25e7	3.52e7	1.46e7	1.19e7	----	----	1.21	
1,2,3,6,7,8-HxCDF	35:53	5.25e7	4.19e7	1.50e7	1.23e7	----	----	1.25	
2,3,4,6,7,8-HxCDF	36:22	4.74e7	3.76e7	1.69e7	1.32e7	----	----	1.26	
1,2,3,7,8,9-HxCDF	36:57	3.95e7	3.25e7	1.25e7	9.93e6	----	----	1.21	

REPORT OF LABORATORY ANALYSIS

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID		Instrument ID	10MSHR06 (U)
Lab ID	CS3/CPM-11321-081	GC Column ID	USP117525H
Filename	U171107A_03	ICAL ID	U171107
Analyzed	11/07/2017 10:28		

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:28	7.35e7	5.23e7	2.94e7	2.34e7	----	----	1.40	
1,2,3,6,7,8-HxCDD-13C	36:32	8.39e7	7.48e7	3.09e7	2.52e7	----	----	1.12	
1,2,3,7,8,9-HxCDD-13C	36:44	7.42e7	6.40e7	2.57e7	2.11e7	----	----	1.16	
1,2,3,4,7,8-HxCDD	36:28	(M)3.17e7	(M)2.53e7	1.30e7	9.83e6	----	----	1.25	
1,2,3,6,7,8-HxCDD	36:33	(M)4.01e7	3.24e7	1.32e7	1.06e7	----	----	1.24	
1,2,3,7,8,9-HxCDD	36:45	(M)3.65e7	2.86e7	1.26e7	1.01e7	----	----	1.28	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	38:00	5.09e7	1.15e8	1.98e7	4.38e7	----	----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	39:03	4.20e7	9.19e7	1.35e7	2.93e7	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	38:01	4.92e7	4.92e7	1.74e7	1.66e7	----	----	1.00	
1,2,3,4,7,8,9-HpCDF	39:04	4.18e7	4.11e7	1.32e7	1.28e7	----	----	1.02	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:44	7.39e7	6.94e7	2.29e7	2.20e7	----	----	1.07	
1,2,3,4,6,7,8-HpCDD	38:44	3.67e7	3.57e7	1.21e7	1.16e7	----	----	1.03	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:00	6.13e7	7.18e7	1.76e7	2.01e7	----	----	0.85	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:53	1.21e8	1.44e8	3.18e7	3.72e7	----	----	0.84	
OCDD	40:54	5.78e7	6.55e7	1.59e7	1.78e7	----	----	0.88	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name PACE Wisconsin
Client ID
Lab ID CS4-11321-078
Filename U171107A_07
Analyzed 11/07/2017 13:57

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	20:08	(M)4.37e7	5.78e7	4.80e6	6.42e6	----	----	0.76	
2,3,7,8-TCDF	20:10	1.54e7	1.96e7	1.74e6	2.19e6	----	----	0.78	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	20:21	3.93e7	4.95e7	4.81e6	6.02e6	----	----	0.79	
2,3,7,8-TCDD-13C	21:21	3.91e7	5.10e7	4.25e6	5.48e6	----	----	0.77	
2,3,7,8-TCDD-37Cl4	21:23	(M)3.41e7		3.54e6		----	----		
2,3,7,8-TCDD	21:23	1.26e7	1.69e7	1.37e6	1.72e6	----	----	0.75	

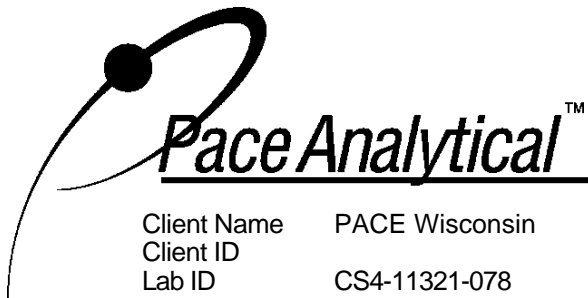
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:18	4.84e7	3.23e7	4.31e6	2.80e6	----	----	1.50	
2,3,4,7,8-PeCDF-13C	32:06	4.91e7	3.11e7	6.56e6	4.23e6	----	----	1.58	
1,2,3,7,8-PeCDF	29:21	8.65e7	5.58e7	7.39e6	4.75e6	----	----	1.55	
2,3,4,7,8-PeCDF	32:08	9.95e7	6.28e7	1.28e7	8.41e6	----	----	1.58	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:43	3.57e7	2.36e7	6.11e6	3.91e6	----	----	1.51	
1,2,3,7,8-PeCDD	32:45	4.03e7	6.59e7	6.26e6	1.00e7	----	----	0.61	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:45	2.14e7	4.12e7	7.67e6	1.43e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:51	2.62e7	5.04e7	8.55e6	1.61e7	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	36:20	2.26e7	4.27e7	7.76e6	1.53e7	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:55	1.91e7	3.73e7	6.35e6	1.25e7	----	----	0.51	
1,2,3,4,7,8-HxCDF	35:46	7.96e7	6.50e7	2.77e7	2.27e7	----	----	1.23	
1,2,3,6,7,8-HxCDF	35:52	9.47e7	7.60e7	2.97e7	2.36e7	----	----	1.25	
2,3,4,6,7,8-HxCDF	36:21	8.66e7	6.89e7	3.01e7	2.40e7	----	----	1.26	
1,2,3,7,8,9-HxCDF	36:56	7.01e7	5.61e7	2.27e7	1.77e7	----	----	1.25	

REPORT OF LABORATORY ANALYSIS

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Client Name PACE Wisconsin
Client ID
Lab ID CS4-11321-078
Filename U171107A_07
Analyzed 11/07/2017 13:57

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:27	3.11e7	2.49e7	1.24e7	1.00e7	----	----	1.25	
1,2,3,6,7,8-HxCDD-13C	36:31	3.85e7	3.12e7	1.36e7	1.11e7	----	----	1.23	
1,2,3,7,8,9-HxCDD-13C	36:43	3.40e7	2.73e7	1.06e7	8.86e6	----	----	1.24	
1,2,3,4,7,8-HxCDD	36:28	5.94e7	4.42e7	2.34e7	1.91e7	----	----	1.34	
1,2,3,6,7,8-HxCDD	36:32	7.08e7	6.18e7	2.45e7	1.95e7	----	----	1.15	
1,2,3,7,8,9-HxCDD	36:44	6.60e7	5.24e7	2.26e7	1.86e7	----	----	1.26	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:60	2.37e7	(M)5.16e7	7.97e6	1.81e7	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	39:02	1.85e7	4.04e7	5.39e6	1.23e7	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	38:00	9.37e7	8.98e7	3.37e7	3.28e7	----	----	1.04	
1,2,3,4,7,8,9-HpCDF	39:03	7.32e7	7.18e7	2.30e7	2.22e7	----	----	1.02	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:43	3.22e7	3.20e7	1.08e7	1.03e7	----	----	1.01	
1,2,3,4,6,7,8-HpCDD	38:43	6.76e7	6.33e7	2.10e7	1.98e7	----	----	1.07	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	41:00	1.07e8	1.20e8	2.84e7	3.11e7	----	----	0.90	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:53	5.10e7	5.98e7	1.35e7	1.50e7	----	----	0.85	
OCDD	40:53	1.03e8	1.15e8	2.60e7	3.00e7	----	----	0.90	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	SMT
Client ID		Instrument ID	10MSHR06 (U)
Lab ID	CS5-11321-079	GC Column ID	USP117525H
Filename	U171107A_06	ICAL ID	U171107
Analyzed	11/07/2017 13:14		

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	20:09	5.05e7	6.64e7	6.06e6	8.16e6	----	----	0.76	
2,3,7,8-TCDF	20:11	9.15e7	1.15e8	1.12e7	1.42e7	----	----	0.80	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	20:22	4.28e7	5.47e7	5.43e6	7.25e6	----	----	0.78	
2,3,7,8-TCDD-13C	21:22	4.37e7	5.84e7	5.41e6	6.91e6	----	----	0.75	
2,3,7,8-TCDD-37Cl4	21:23	2.01e8		2.37e7		----	----		
2,3,7,8-TCDD	21:23	7.42e7	9.89e7	9.06e6	1.19e7	----	----	0.75	

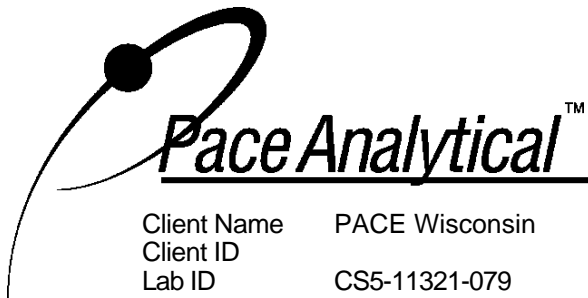
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	29:18	5.97e7	3.73e7	5.38e6	3.37e6	----	----	1.60	
2,3,4,7,8-PeCDF-13C	32:07	6.06e7	3.92e7	8.63e6	5.61e6	----	----	1.55	
1,2,3,7,8-PeCDF	29:21	5.25e8	3.40e8	4.82e7	3.09e7	----	----	1.55	
2,3,4,7,8-PeCDF	32:09	6.06e8	3.85e8	8.73e7	5.67e7	----	----	1.58	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	32:43	4.44e7	2.89e7	8.03e6	5.25e6	----	----	1.54	
1,2,3,7,8-PeCDD	32:45	2.44e8	3.94e8	4.22e7	6.89e7	----	----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:45	(M)2.64e7	(M)5.17e7	9.44e6	1.83e7	----	----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:51	3.30e7	6.24e7	1.04e7	1.99e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	36:20	2.78e7	5.39e7	1.01e7	1.99e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:55	2.50e7	4.70e7	8.78e6	1.64e7	----	----	0.53	
1,2,3,4,7,8-HxCDF	35:46	5.04e8	4.08e8	1.81e8	1.46e8	----	----	1.23	
1,2,3,6,7,8-HxCDF	35:52	5.93e8	4.72e8	1.91e8	1.52e8	----	----	1.26	
2,3,4,6,7,8-HxCDF	36:21	5.31e8	4.29e8	1.95e8	1.61e8	----	----	1.24	
1,2,3,7,8,9-HxCDF	36:56	4.49e8	3.58e8	1.49e8	1.18e8	----	----	1.25	

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID		Instrument ID	10MSHR06 (U)
Lab ID	CS5-11321-079	GC Column ID	USP117525H
Filename	U171107A_06	ICAL ID	U171107
Analyzed	11/07/2017 13:14		

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	36:27	(M)3.97e7	(M)3.17e7	1.64e7	1.34e7	----	----	1.25	
1,2,3,6,7,8-HxCDD-13C	36:31	4.85e7	(M)3.91e7	1.77e7	1.44e7	----	----	1.24	
1,2,3,7,8,9-HxCDD-13C	36:43	4.11e7	(M)3.40e7	1.45e7	1.23e7	----	----	1.21	
1,2,3,4,7,8-HxCDD	36:28	3.73e8	2.81e8	1.49e8	1.22e8	----	----	1.33	
1,2,3,6,7,8-HxCDD	36:32	4.35e8	3.89e8	1.59e8	1.28e8	----	----	1.12	
1,2,3,7,8,9-HxCDD	36:44	3.99e8	3.39e8	1.42e8	1.15e8	----	----	1.18	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:60	2.94e7	(M)6.47e7	1.08e7	2.41e7	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	39:02	2.29e7	5.24e7	7.29e6	1.64e7	----	----	0.44	
1,2,3,4,6,7,8-HpCDF	38:00	5.83e8	5.55e8	2.16e8	2.04e8	----	----	1.05	
1,2,3,4,7,8,9-HpCDF	39:03	4.69e8	4.54e8	1.59e8	1.53e8	----	----	1.03	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:43	4.00e7	3.92e7	1.35e7	1.30e7	----	----	1.02	
1,2,3,4,6,7,8-HpCDD	38:43	(M)4.14e8	(M)4.02e8	1.35e8	1.33e8	----	----	1.03	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:59	7.17e8	8.09e8	1.98e8	2.24e8	----	----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:52	6.81e7	8.02e7	1.71e7	1.97e7	----	----	0.85	
OCDD	40:53	6.74e8	7.40e8	1.74e8	1.98e8	----	----	0.91	

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TCDF Confirmation Detected Peak List

Prepared By _____ Date _____
 Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	
Client ID		Instrument ID	10MSHR12 (Y)
Lab ID	CS1-11321-059	GC Column ID	USE571612H
Filename	Y171009A_09	ICAL ID	Y171009-DB225
Analyzed	10/09/2017 16:20		

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	12:10	8.78e7	1.14e8	2.23e7	2.92e7	----	----	0.77	
2,3,7,8-TCDF	12:10	3.38e5	4.42e5	9.20e4	1.09e5	2.756e3	3.455e3	0.76	

Cleanup & Recovery:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	11:13	6.58e7	8.18e7	1.82e7	2.31e7	----	----	0.80	
2,3,7,8-TCDD-37Cl4	11:04	7.79e5		2.23e5		----	----		

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TCDF Confirmation Detected Peak List

Prepared By _____ Date _____
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Client Name	PACE Wisconsin	Injected By	
Client ID		Instrument ID	10MSHR12 (Y)
Lab ID	CS2-11321-077	GC Column ID	USE571612H
Filename	Y171009A_08	ICAL ID	Y171009-DB225
Analyzed	10/09/2017 15:53		

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	12:09	5.88e7	7.64e7	1.44e7	1.87e7	----	----	0.77	
2,3,7,8-TCDF	12:11	8.36e5	1.17e6	2.12e5	2.71e5	----	----	0.72	

Cleanup & Recovery:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	11:13	4.32e7	5.41e7	1.19e7	1.50e7	----	----	0.80	
2,3,7,8-TCDD-37Cl4	11:04	2.07e6		5.84e5		----	----		

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TCDF Confirmation Detected Peak List

Prepared By _____ Date _____
 Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	
Client ID		Instrument ID	10MSHR12 (Y)
Lab ID	CS3/CPM-11321-081	GC Column ID	USE571612H
Filename	Y171009A_07	ICAL ID	Y171009-DB225
Analyzed	10/09/2017 15:27		

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	12:10	5.23e7	6.87e7	1.31e7	1.68e7	----	----	0.76	
2,3,7,8-TCDF	12:11	3.97e6	5.68e6	9.75e5	1.45e6	----	----	0.70	

Cleanup & Recovery:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	11:13	3.88e7	4.83e7	1.08e7	1.34e7	----	----	0.80	
2,3,7,8-TCDD-37Cl4	11:05	9.31e6		2.60e6		----	----		

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TCDF Confirmation Detected Peak List

Prepared By _____ Date _____
 Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	
Client ID		Instrument ID	10MSHR12 (Y)
Lab ID	CS4-11321-078	GC Column ID	USE571612H
Filename	Y171009A_11	ICAL ID	Y171009-DB225
Analyzed	10/09/2017 17:22		

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	12:10	4.68e7	6.09e7	1.16e7	1.48e7	----	----	0.77	
2,3,7,8-TCDF	12:11	1.47e7	2.03e7	3.57e6	4.94e6	----	----	0.73	

Cleanup & Recovery:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	11:13	3.51e7	4.32e7	9.53e6	1.20e7	----	----	0.81	
2,3,7,8-TCDD-37Cl4	11:05	3.34e7		9.30e6		----	----		

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TCDF Confirmation Detected Peak List

Prepared By _____ Date _____
 Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	
Client ID		Instrument ID	10MSHR12 (Y)
Lab ID	CS5-11321-079	GC Column ID	USE571612H
Filename	Y171009A_10	ICAL ID	Y171009-DB225
Analyzed	10/09/2017 16:56		

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	12:09	5.00e7	6.57e7	1.25e7	1.60e7	----	----	0.76	
2,3,7,8-TCDF	12:10	8.04e7	1.09e8	1.95e7	2.65e7	----	----	0.74	

Cleanup & Recovery:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	11:13	3.63e7	4.54e7	1.00e7	1.23e7	----	----	0.80	
2,3,7,8-TCDD-37Cl4	11:04	1.76e8		4.88e7		----	----		

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client ID		Injected By	SMT
Lab ID	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171130A_06	GC Column ID	USP117525H
Analyzed	11/30/2017 16:15	ICAL ID	U171107

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:15	4.89e7	6.24e7	6.34e6	8.28e6	----	----	0.78	
2,3,7,8-TCDF	18:16	4.14e6	5.13e6	5.25e5	6.67e5	----	----	0.81	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:26	4.29e7	5.49e7	5.82e6	7.41e6	----	----	0.78	
2,3,7,8-TCDD-13C	19:20	4.08e7	5.34e7	5.06e6	6.67e6	----	----	0.76	
2,3,7,8-TCDD-37Cl4	19:22	8.56e6		1.05e6		----	----		
2,3,7,8-TCDD	19:22	3.48e6	4.44e6	4.06e5	5.16e5	----	----	0.78	

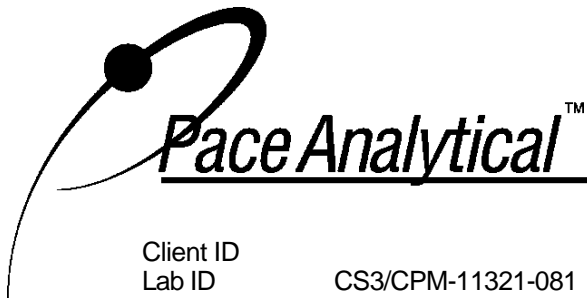
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:28	5.08e7	3.25e7	4.84e6	3.13e6	----	----	1.56	
2,3,4,7,8-PeCDF-13C	29:22	4.71e7	2.97e7	4.07e6	2.63e6	----	----	1.59	
1,2,3,7,8-PeCDF	26:31 (M)	2.17e7	1.40e7	2.12e6	1.32e6	----	----	1.55	
2,3,4,7,8-PeCDF	29:25	2.24e7	1.42e7	1.86e6	1.18e6	----	----	1.58	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:29	3.31e7	2.18e7	2.83e6	1.80e6	----	----	1.52	
1,2,3,7,8-PeCDD	30:31	8.37e6	1.43e7	7.23e5	1.23e6	----	----	0.58	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:57	2.23e7	4.27e7	6.87e6	1.25e7	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:04	2.58e7	4.97e7	7.31e6	1.40e7	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	35:36	2.31e7	4.43e7	7.54e6	1.53e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:14 (M)	1.75e7	3.46e7	5.46e6	1.06e7	----	----	0.51	
1,2,3,4,7,8-HxCDF	34:58	2.04e7	1.63e7	6.18e6	5.09e6	----	----	1.25	
1,2,3,6,7,8-HxCDF	35:05	2.31e7	1.78e7	6.47e6	5.07e6	----	----	1.30	
2,3,4,6,7,8-HxCDF	35:38	2.15e7	1.71e7	7.14e6	5.58e6	----	----	1.26	
1,2,3,7,8,9-HxCDF	36:15	1.51e7	1.22e7	4.47e6	3.68e6	----	----	1.24	

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171130A_06	GC Column ID	USP117525H
Analyzed	11/30/2017 16:15	ICAL ID	U171107

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:45	3.39e7	2.45e7	1.21e7	9.33e6	----	----	1.38	
1,2,3,6,7,8-HxCDD-13C	35:49	3.78e7	3.20e7	1.31e7	1.05e7	----	----	1.18	
1,2,3,7,8,9-HxCDD-13C	36:03	3.39e7	2.81e7	1.13e7	9.59e6	----	----	1.21	
1,2,3,4,7,8-HxCDD	35:45	1.44e7	1.17e7	5.45e6	4.48e6	----	----	1.24	
1,2,3,6,7,8-HxCDD	35:50	1.79e7	1.45e7	6.44e6	5.31e6	----	----	1.24	
1,2,3,7,8,9-HxCDD	36:03	1.67e7	1.28e7	5.60e6	4.52e6	----	----	1.30	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:22	(M)2.20e7	4.98e7	8.96e6	2.04e7	----	----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	38:21	1.67e7	3.82e7	6.38e6	1.40e7	----	----	0.44	
1,2,3,4,6,7,8-HpCDF	37:22	2.19e7	(M)2.11e7	9.73e6	9.39e6	----	----	1.04	
1,2,3,4,7,8,9-HpCDF	38:21	(M)1.71e7	1.68e7	6.40e6	6.16e6	----	----	1.02	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:02	3.28e7	3.04e7	1.28e7	1.20e7	----	----	1.08	
1,2,3,4,6,7,8-HpCDD	38:03	1.56e7	1.49e7	6.26e6	5.80e6	----	----	1.05	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:10	2.29e7	2.54e7	6.92e6	7.81e6	----	----	0.90	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:04	4.47e7	(M)4.94e7	1.39e7	1.53e7	----	----	0.90	
OCDD	40:04	2.13e7	2.43e7	6.33e6	7.35e6	----	----	0.88	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client ID		Injected By	BAL
Lab ID	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171203B_16	GC Column ID	USP117525H
Analyzed	12/04/2017 04:54	ICAL ID	U171107

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:15	2.38e7	3.07e7	3.06e6	4.09e6	----	----	0.78	
2,3,7,8-TCDF	18:17	2.03e6	(M)2.60e6	2.57e5	3.24e5	----	----	0.78	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:25	1.83e7	2.37e7	2.64e6	3.24e6	----	----	0.77	
2,3,7,8-TCDD-13C	19:20	1.93e7	2.56e7	2.43e6	3.11e6	----	----	0.76	
2,3,7,8-TCDD-37Cl4	19:23	(M)4.18e6		4.89e5		----	----		
2,3,7,8-TCDD	19:22	1.82e6	(M)2.30e6	1.99e5	2.52e5	----	----	0.79	

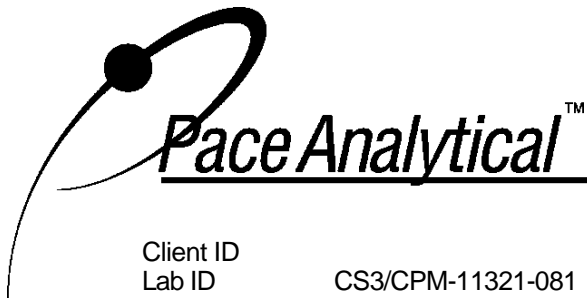
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:27	2.55e7	1.57e7	2.16e6	1.39e6	----	----	1.62	
2,3,4,7,8-PeCDF-13C	29:22	2.45e7	1.53e7	1.91e6	1.20e6	----	----	1.60	
1,2,3,7,8-PeCDF	26:29	1.10e7	7.04e6	9.69e5	6.03e5	----	----	1.57	
2,3,4,7,8-PeCDF	29:24	1.24e7	7.46e6	1.01e6	6.44e5	----	----	1.67	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:27	1.74e7	1.09e7	1.31e6	8.10e5	----	----	1.60	
1,2,3,7,8-PeCDD	30:29	4.45e6	7.04e6	3.49e5	5.46e5	----	----	0.63	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:57	1.07e7	2.10e7	3.24e6	6.06e6	----	----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:03	1.49e7	2.81e7	3.49e6	6.64e6	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:36	1.24e7	2.35e7	3.58e6	6.68e6	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:14	1.06e7	2.04e7	2.76e6	5.34e6	----	----	0.52	
1,2,3,4,7,8-HxCDF	34:57	9.98e6	7.99e6	2.87e6	2.26e6	----	----	1.25	
1,2,3,6,7,8-HxCDF	35:04	1.30e7	1.06e7	3.15e6	2.55e6	----	----	1.22	
2,3,4,6,7,8-HxCDF	35:37	1.19e7	9.86e6	3.45e6	2.81e6	----	----	1.21	
1,2,3,7,8,9-HxCDF	36:15	9.39e6	7.54e6	2.38e6	1.91e6	----	----	1.24	

REPORT OF LABORATORY ANALYSIS

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Client ID		Injected By	BAL
Lab ID	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171203B_16	GC Column ID	USP117525H
Analyzed	12/04/2017 04:54	ICAL ID	U171107

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:44	1.57e7	1.25e7	5.20e6	4.08e6	----	----	1.26	
1,2,3,6,7,8-HxCDD-13C	35:48	2.15e7	1.72e7	5.98e6	4.77e6	----	----	1.25	
1,2,3,7,8,9-HxCDD-13C	36:02	1.80e7	1.50e7	5.14e6	4.04e6	----	----	1.20	
1,2,3,4,7,8-HxCDD	35:44	6.46e6	5.30e6	2.53e6	2.03e6	----	----	1.22	
1,2,3,6,7,8-HxCDD	35:49	1.03e7	8.18e6	2.71e6	2.20e6	----	----	1.26	
1,2,3,7,8,9-HxCDD	36:02	8.31e6	6.79e6	2.26e6	1.90e6	----	----	1.22	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:22	1.12e7	2.51e7	3.72e6	8.11e6	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	38:20	8.11e6	1.86e7	2.54e6	5.57e6	----	----	0.44	
1,2,3,4,6,7,8-HpCDF	37:22	1.13e7	1.10e7	3.80e6	3.76e6	----	----	1.02	
1,2,3,4,7,8,9-HpCDF	38:21	(M)8.30e6	8.03e6	2.40e6	2.25e6	----	----	1.03	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:03	1.57e7	1.44e7	4.77e6	4.38e6	----	----	1.09	
1,2,3,4,6,7,8-HpCDD	38:03	7.52e6	7.39e6	2.50e6	2.40e6	----	----	1.02	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:10	1.12e7	1.29e7	2.79e6	3.21e6	----	----	0.87	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:04	(M)2.25e7	2.58e7	5.64e6	6.01e6	----	----	0.87	
OCDD	40:05	1.04e7	1.24e7	2.51e6	3.07e6	----	----	0.84	

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client ID		Injected By	SMT
Lab ID	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171204A_13	GC Column ID	USP117525H
Analyzed	12/04/2017 14:41	ICAL ID	U171107

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:16	3.49e7	4.41e7	4.82e6	6.03e6	----	----	0.79	
2,3,7,8-TCDF	18:17	3.00e6	3.66e6	4.18e5	4.94e5	----	----	0.82	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:26	2.58e7	3.24e7	3.78e6	4.59e6	----	----	0.80	
2,3,7,8-TCDD-13C	19:21	2.78e7	3.71e7	3.61e6	4.60e6	----	----	0.75	
2,3,7,8-TCDD-37Cl4	19:22	5.87e6		7.74e5		----	----		
2,3,7,8-TCDD	19:23	2.44e6	(M)3.15e6	3.25e5	4.01e5	----	----	0.77	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:29	3.62e7	2.27e7	3.30e6	2.02e6	----	----	1.60	
2,3,4,7,8-PeCDF-13C	29:23	3.59e7	2.25e7	2.97e6	1.91e6	----	----	1.59	
1,2,3,7,8-PeCDF	26:32	1.60e7	1.02e7	1.50e6	9.30e5	----	----	1.57	
2,3,4,7,8-PeCDF	29:25	1.72e7	1.09e7	1.52e6	9.30e5	----	----	1.58	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:28	2.51e7	(M)1.63e7	2.00e6	1.28e6	----	----	1.54	
1,2,3,7,8-PeCDD	30:31	6.59e6	(M)1.07e7	5.29e5	8.59e5	----	----	0.62	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:57	1.59e7	3.09e7	5.19e6	9.93e6	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:03	2.05e7	3.87e7	5.63e6	1.06e7	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:36	1.69e7	3.22e7	5.96e6	1.12e7	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:14	1.45e7	2.83e7	4.77e6	8.75e6	----	----	0.51	
1,2,3,4,7,8-HxCDF	34:57	1.46e7	1.17e7	4.55e6	3.70e6	----	----	1.25	
1,2,3,6,7,8-HxCDF	35:04	1.76e7	1.41e7	4.51e6	3.69e6	----	----	1.25	
2,3,4,6,7,8-HxCDF	35:37	(M)1.63e7	1.33e7	4.98e6	4.01e6	----	----	1.23	
1,2,3,7,8,9-HxCDF	36:15	1.28e7	1.07e7	3.94e6	3.11e6	----	----	1.19	

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Client ID		Injected By	SMT
Lab ID	CS3/CPM-11321-081	Instrument ID	10MSHR06 (U)
Filename	U171204A_13	GC Column ID	USP117525H
Analyzed	12/04/2017 14:41	ICAL ID	U171107

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Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:44	2.25e7	1.86e7	8.19e6	6.65e6	----	----	1.21	
1,2,3,6,7,8-HxCDD-13C	35:48	2.79e7	2.27e7	8.62e6	7.00e6	----	----	1.23	
1,2,3,7,8,9-HxCDD-13C	36:02	2.44e7	1.99e7	7.69e6	6.03e6	----	----	1.23	
1,2,3,4,7,8-HxCDD	35:45	1.05e7	8.61e6	3.75e6	3.14e6	----	----	1.22	
1,2,3,6,7,8-HxCDD	35:49	1.29e7	1.03e7	3.93e6	3.13e6	----	----	1.26	
1,2,3,7,8,9-HxCDD	36:03	1.16e7	9.41e6	3.58e6	2.85e6	----	----	1.24	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:22	1.69e7	3.67e7	6.44e6	1.38e7	----	----	0.46	
1,2,3,4,7,8,9-HpCDF-13C	38:20	1.16e7	2.55e7	4.00e6	8.85e6	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	37:22	1.62e7	1.58e7	5.94e6	5.98e6	----	----	1.03	
1,2,3,4,7,8,9-HpCDF	38:21	1.12e7	1.15e7	3.79e6	3.60e6	----	----	0.98	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:02	2.17e7	2.16e7	7.31e6	7.48e6	----	----	1.00	
1,2,3,4,6,7,8-HpCDD	38:03	1.09e7	1.02e7	3.99e6	3.78e6	----	----	1.07	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:10	1.44e7	1.64e7	4.12e6	4.74e6	----	----	0.88	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:04	2.88e7	3.17e7	7.96e6	8.95e6	----	----	0.91	
OCDD	40:05	1.31e7	1.56e7	3.72e6	4.36e6	----	----	0.84	

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TCDF Confirmation Detected Peak List

Prepared By _____ Date _____
 Reviewed By _____ Date _____

Client ID		Injected By	BAL
Lab ID	CS3/CPM-11321-081	Instrument ID	10MSHR12 (Y)
Filename	Y171210A_02	GC Column ID	USE571612H
Analyzed	12/10/2017 14:16	ICAL ID	Y171009-DB225

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	12:08	(M)3.26e7	(M)4.10e7	7.60e6	9.72e6	----	----	0.79	
2,3,7,8-TCDF	12:09	2.95e6	3.77e6	6.85e5	9.28e5	----	----	0.78	

Cleanup & Recovery:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	11:11	2.38e7	2.92e7	6.37e6	8.06e6	----	----	0.82	
2,3,7,8-TCDD-37Cl4	11:03	5.43e6		1.42e6		----	----		

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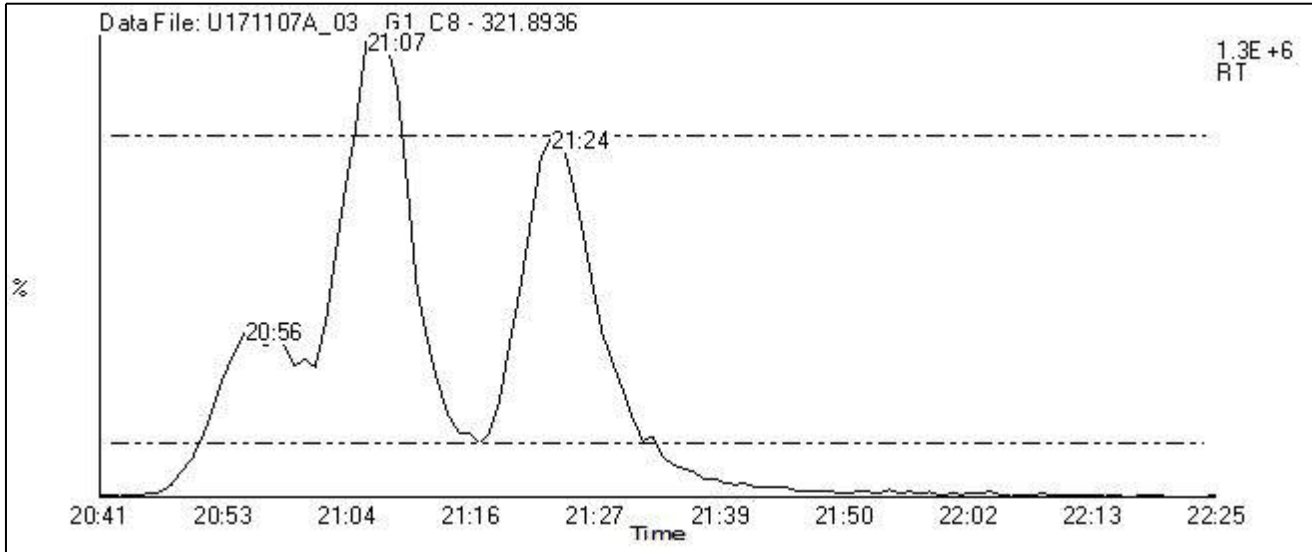


Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID: CS3/CPM-11321-081
 Raw Data File: U171107A_03
 Date Analyzed: 11/7/2017
 Time Analyzed: 10:28

Injected By: SMT
 Instrument ID: 10MSHR06 (U)
 GC Column: DB-5MS
 GC Column S/N: USP117525H

Resolution: 15.0%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	15:30	23:07
PeCDF	341.8567	23:15	33:35
HxCDF	373.8207	34:38	36:57
HpCDF	407.7818	38:01	39:04
OCDF	441.7428	41:00	41:00
TCDD	321.8936	17:08	22:52
PeCDD	357.8517	26:49	33:20
HxCDD	391.8127	35:13	36:45
HpCDD	425.7737	38:13	38:44
OCDD	459.7347	40:54	40:54
1234-TCDD-13	331.9367	20:22	20:22
123789-HxCDD	401.8559	36:44	36:44

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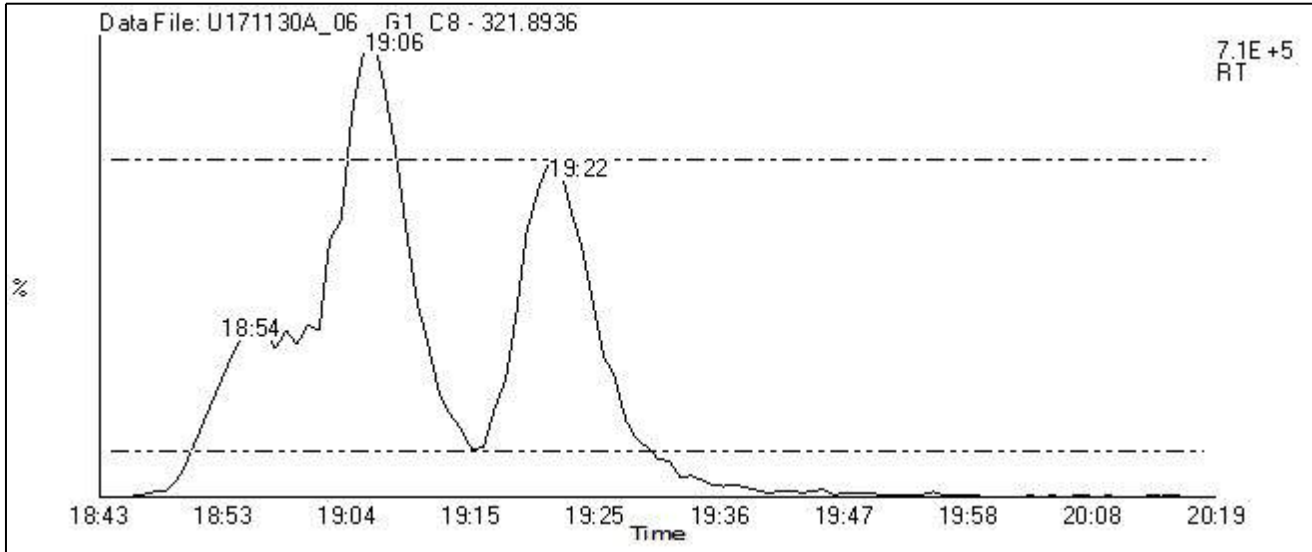


Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID: CS3/CPM-11321-081
 Raw Data File: U171130A_06
 Date Analyzed: 11/30/2017
 Time Analyzed: 16:15

Injected By: SMT
 Instrument ID: 10MSHR06 (U)
 GC Column: DB-5MS
 GC Column S/N: USP117525H

Resolution: 13.3%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	14:07	20:52
PeCDF	341.8567	21:01	32:04
HxCDF	373.8207	33:35	36:15
HpCDF	407.7818	37:22	38:21
OCDF	441.7428	40:10	
TCDD	321.8936	15:32	20:39
PeCDD	357.8517	24:13	31:38
HxCDD	391.8127	34:19	36:03
HpCDD	425.7737	37:34	38:03
OCDD	459.7347	40:04	
1234-TCDD-13	331.9367	18:26	
123789-HxCDD	401.8559	36:03	

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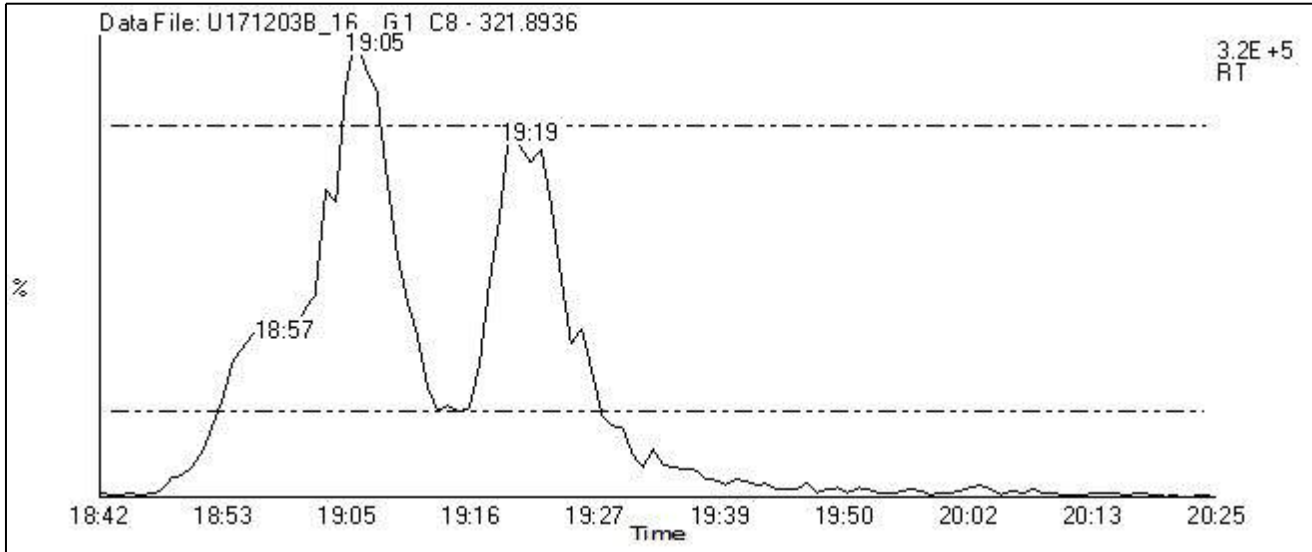


Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID: CS3/CPM-11321-081
 Raw Data File: U171203B_16
 Date Analyzed: 12/4/2017
 Time Analyzed: 04:54

Injected By: BAL
 Instrument ID: 10MSHR06 (U)
 GC Column: DB-5MS
 GC Column S/N: USP117525H

Resolution: 23.5%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	14:06	20:55
PeCDF	341.8567	21:00	32:03
HxCDF	373.8207	33:34	36:15
HpCDF	407.7818	37:22	38:21
OCDF	441.7428	40:10	
TCDD	321.8936	15:34	20:41
PeCDD	357.8517	24:12	31:37
HxCDD	391.8127	34:18	36:02
HpCDD	425.7737	37:33	38:03
OCDD	459.7347	40:04	
1234-TCDD-13	331.9367	18:25	
123789-HxCDD	401.8559	36:02	

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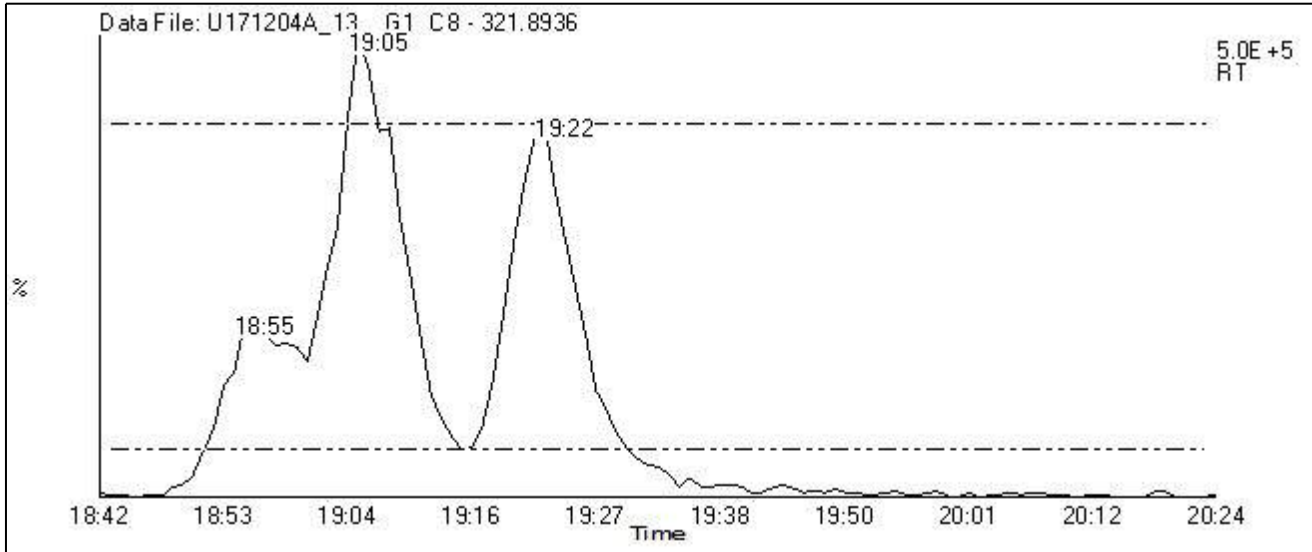


Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID: CS3/CPM-11321-081
 Raw Data File: U171204A_13
 Date Analyzed: 12/4/2017
 Time Analyzed: 14:41

Injected By: SMT
 Instrument ID: 10MSHR06 (U)
 GC Column: DB-5MS
 GC Column S/N: USP117525H

Resolution: 12.8%



Group	Msss	First Eluter	Last Eluter
TCDF	305.8987	14:06	20:54
PeCDF	341.8567	21:02	32:04
HxCDF	373.8207	33:34	36:15
HpCDF	407.7818	37:22	38:21
OCDF	441.7428	40:10	
TCDD	321.8936	15:33	20:40
PeCDD	357.8517	24:14	31:38
HxCDD	391.8127	34:18	36:03
HpCDD	425.7737	37:33	38:03
OCDD	459.7347	40:05	
1234-TCDD-13	331.9367	18:26	
123789-HxCDD	401.8559	36:02	

REPORT OF LABORATORY ANALYSIS

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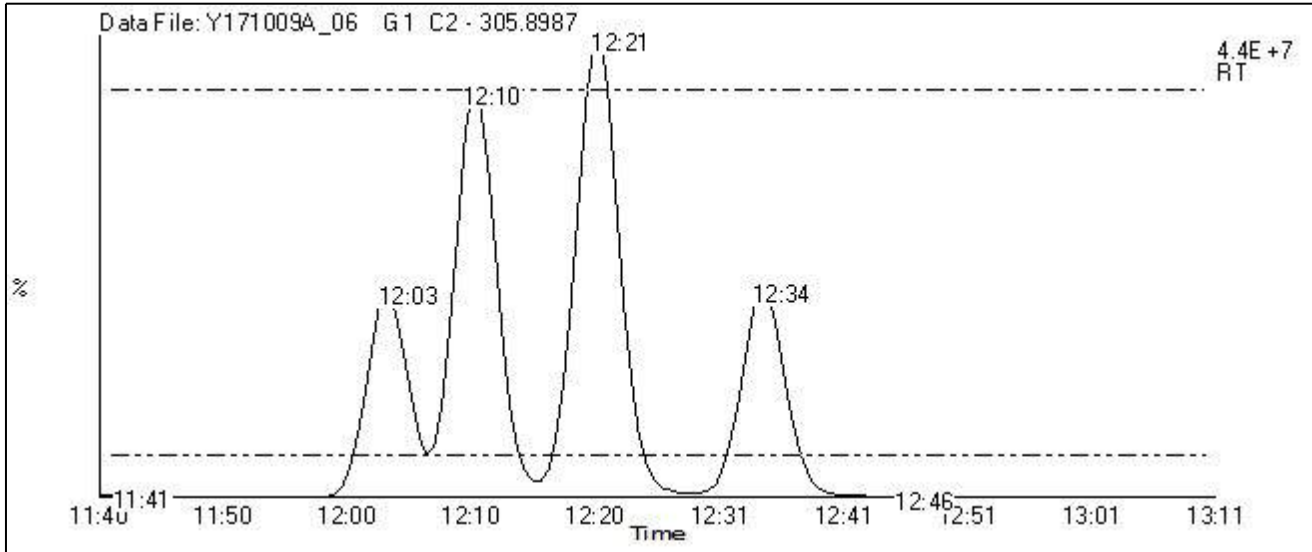


Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID: CPM-7604-125
 Raw Data File: Y171009A_06
 Date Analyzed: 10/9/2017
 Time Analyzed: 15:00

Injected By: SMT
 Instrument ID: 10MSHR12 (Y)
 GC Column: DB-225
 GC Column S/N: USE571612H

Resolution: 10.4%



Group	Msss	First Eluter	Last Eluter
2,3,7,8-TCDF	305.8987	12:11	12:11

REPORT OF LABORATORY ANALYSIS

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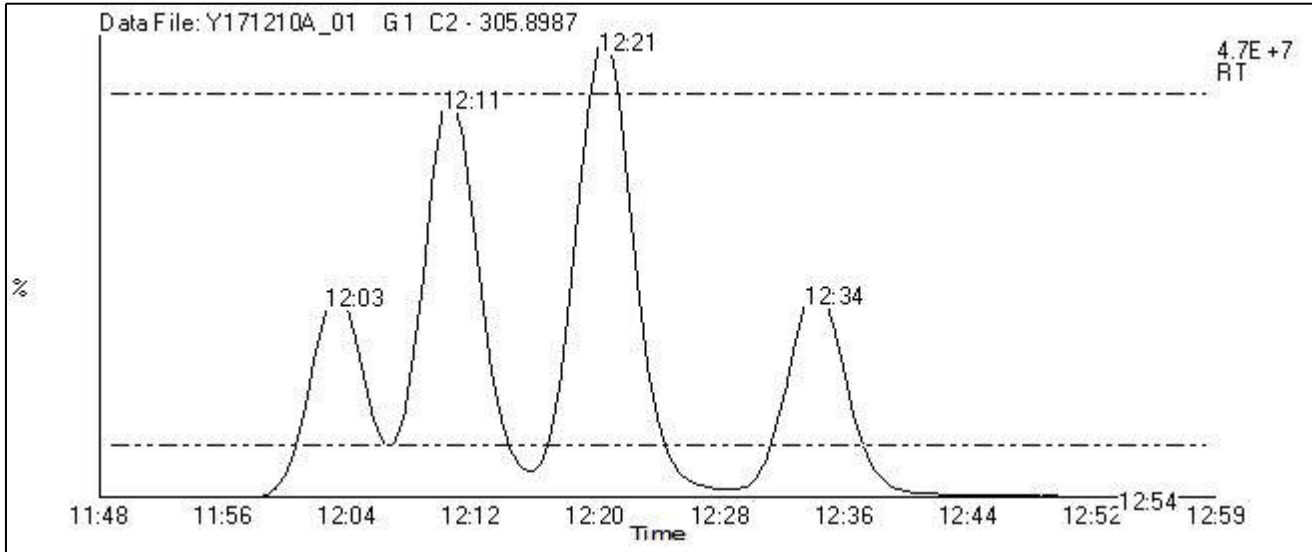


Column Performance Mix (CPM) / Window Defining Mix (WDM)

Lab Sample ID: CPM-7604-125
 Raw Data File: Y171210A_01
 Date Analyzed: 12/10/2017
 Time Analyzed: 13:51

Injected By: BAL
 Instrument ID: 10MSHR12 (Y)
 GC Column: DB-225
 GC Column S/N: USE571612H

Resolution: 13.0%



Group	Msss	First Eluter	Last Eluter
2,3,7,8-TCDF	305.8987		

REPORT OF LABORATORY ANALYSIS

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Homologue Group: Tetras

Data File Name: U171107A_03

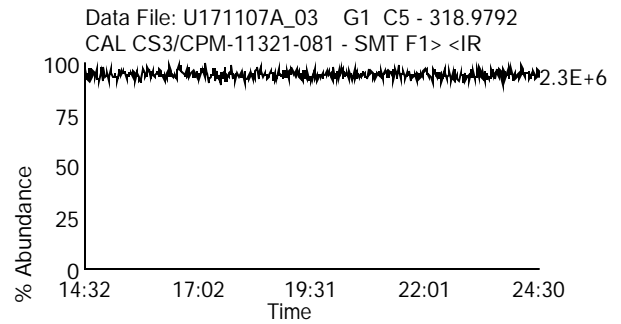
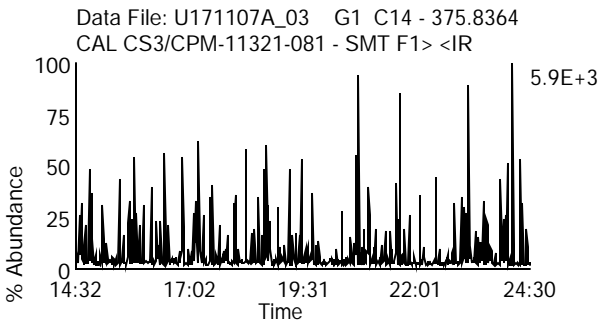
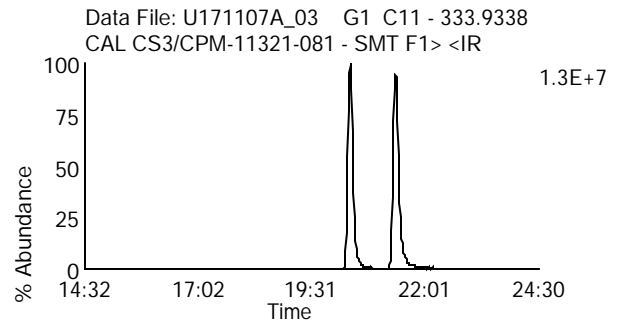
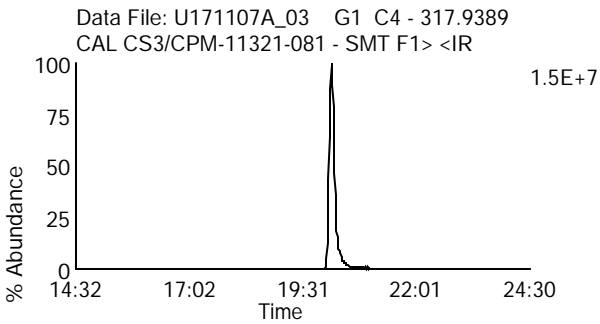
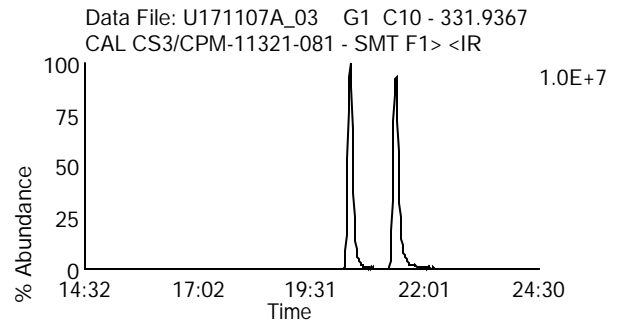
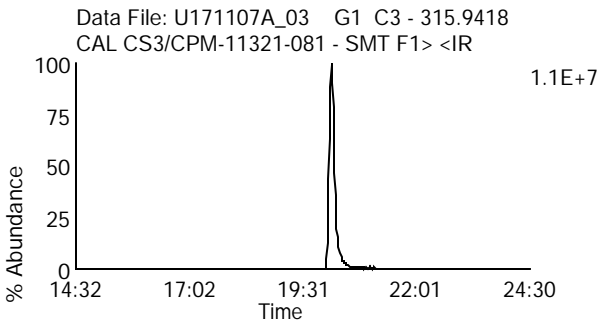
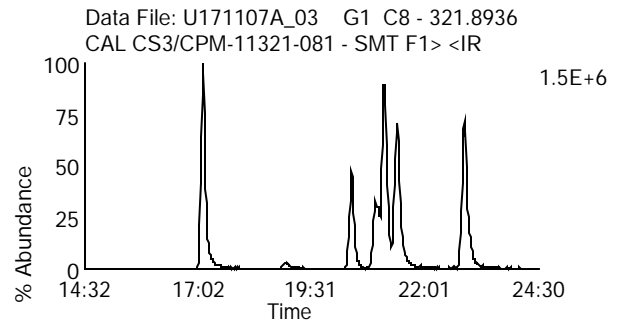
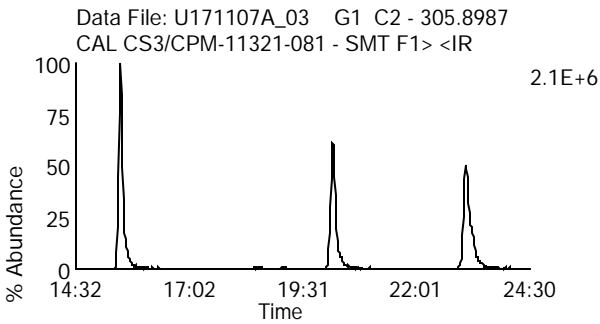
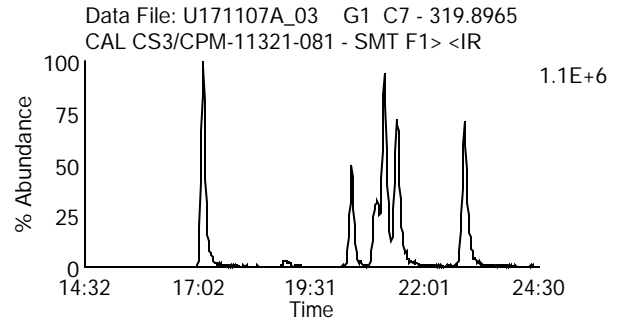
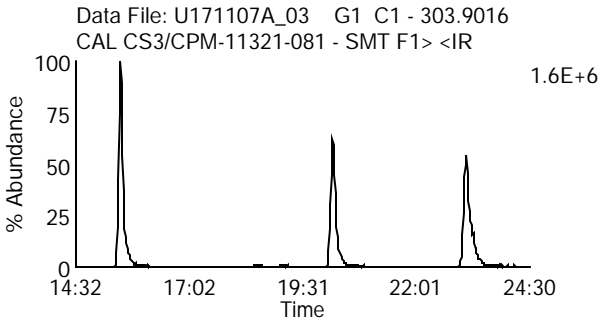
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171107A_03

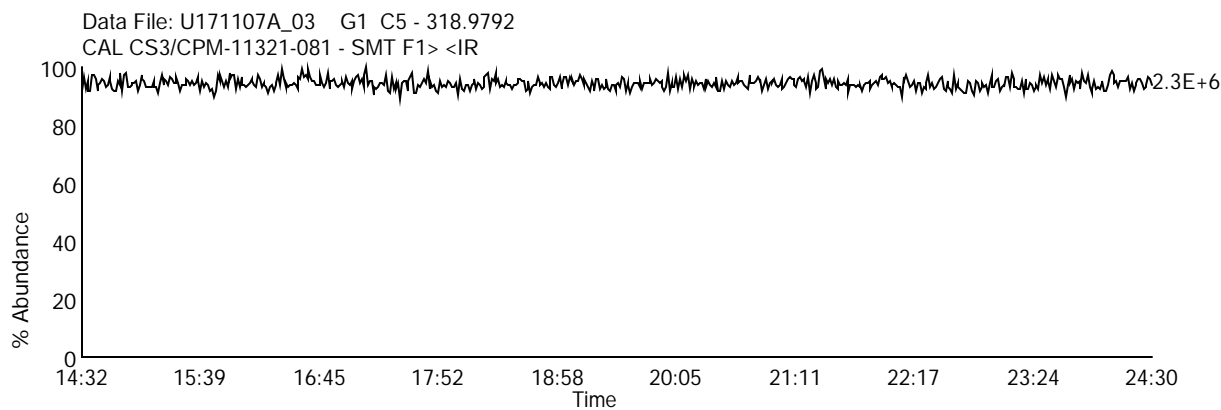
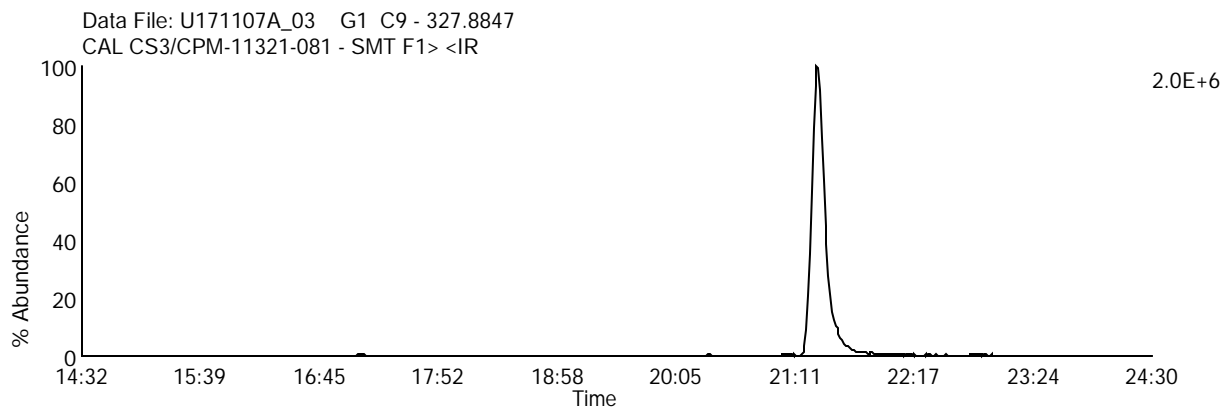
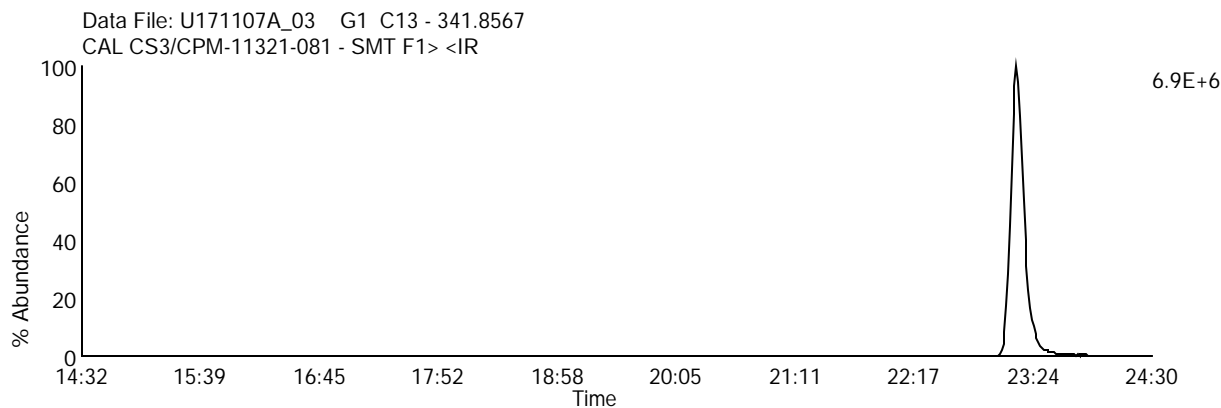
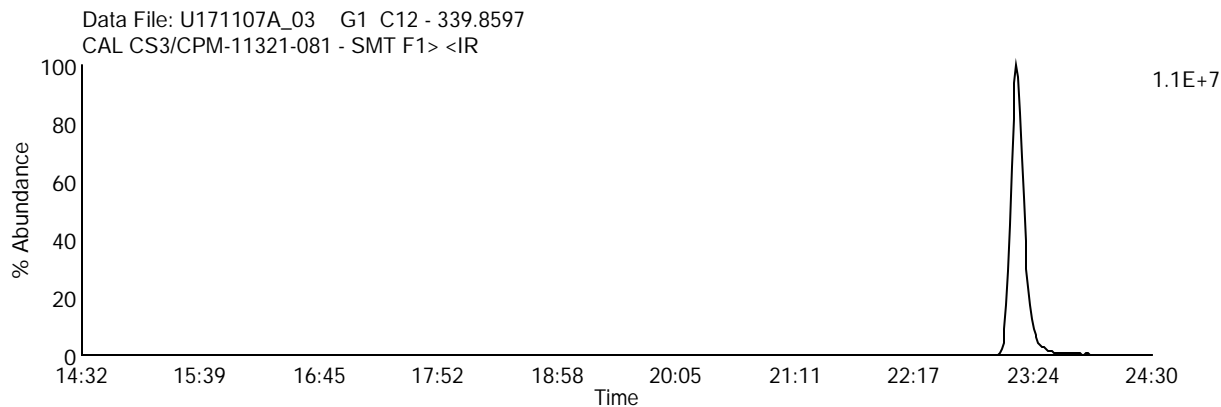
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171107A_03

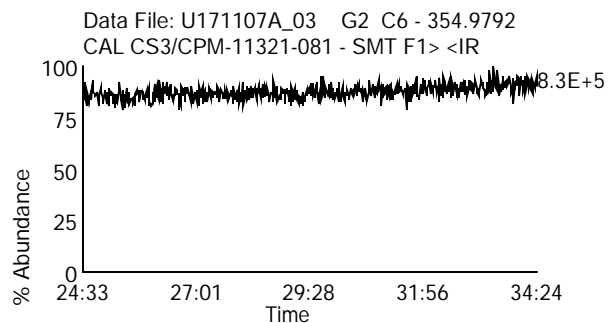
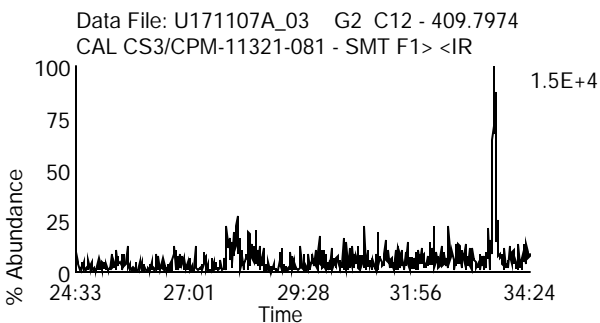
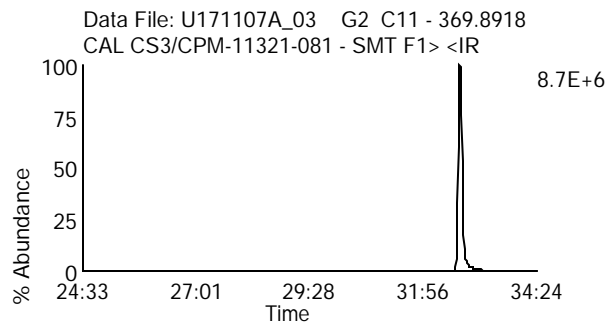
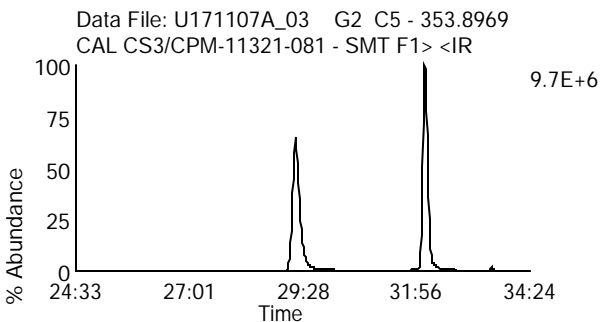
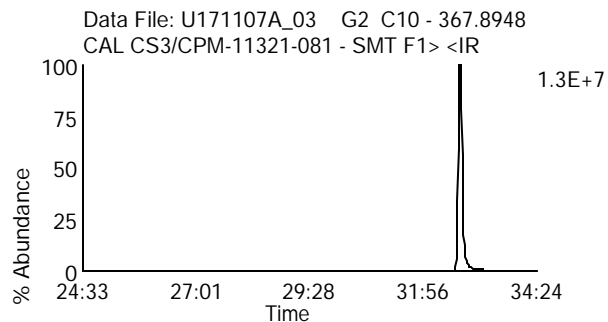
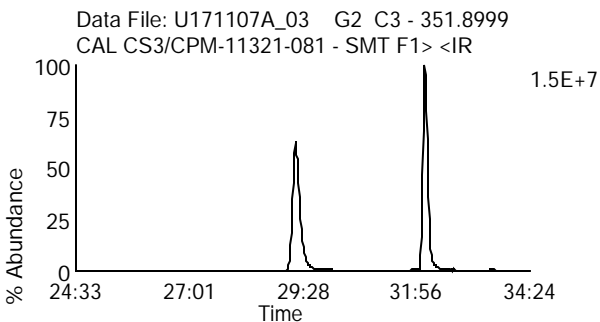
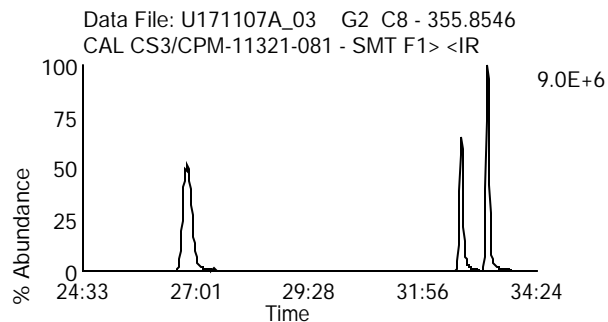
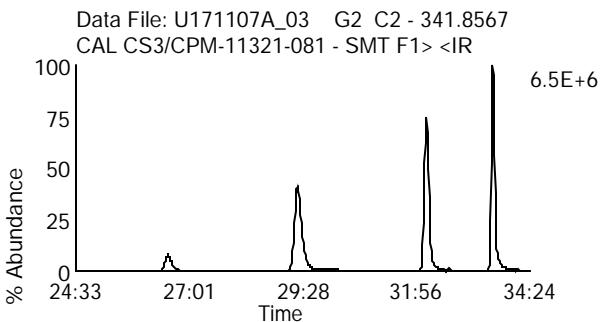
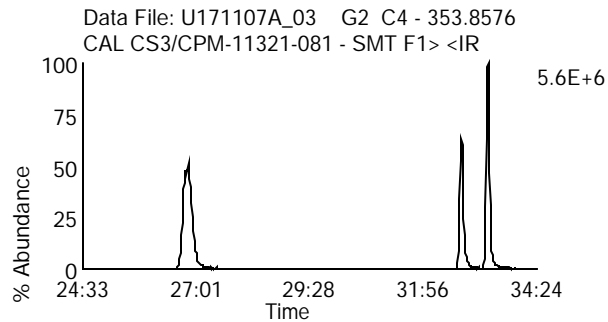
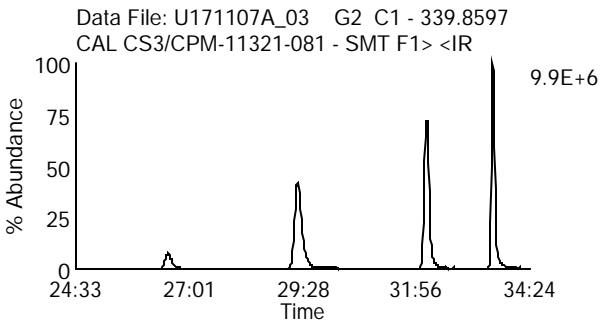
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171107A_03

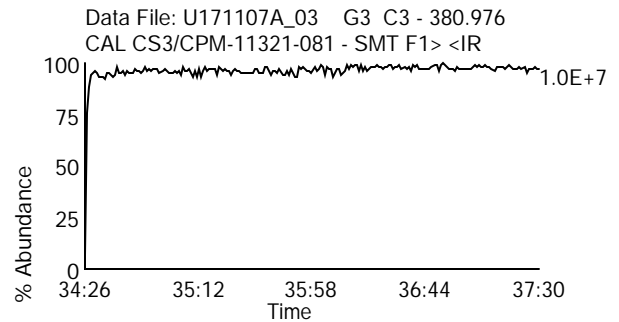
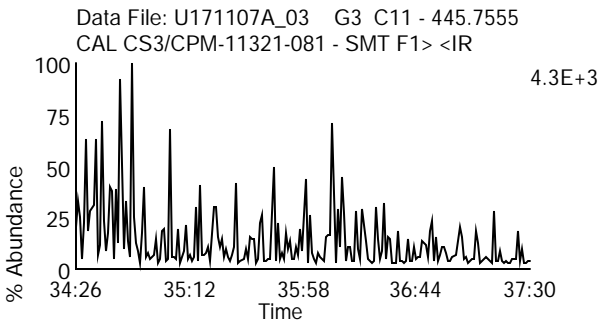
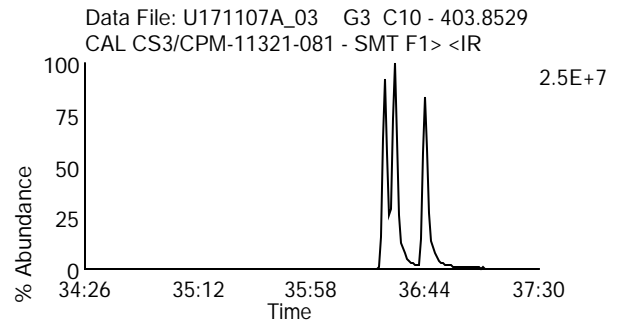
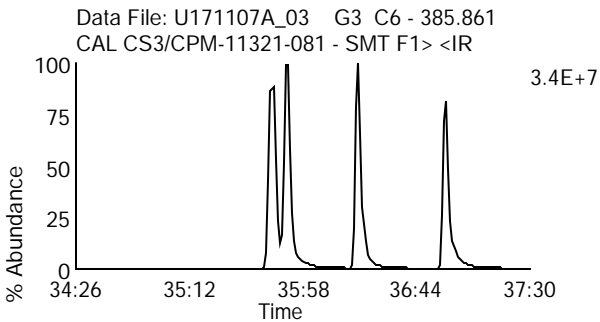
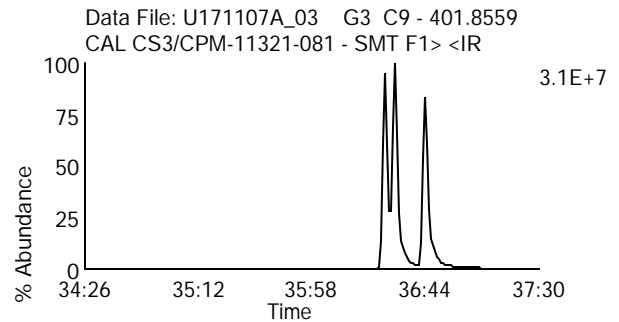
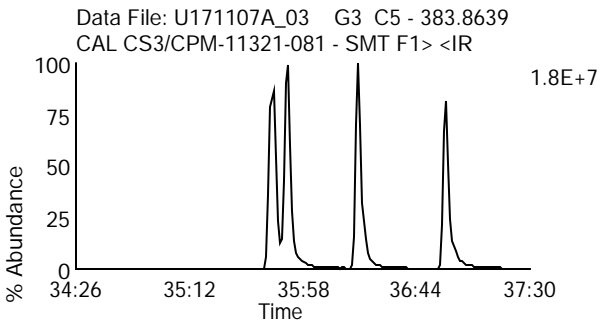
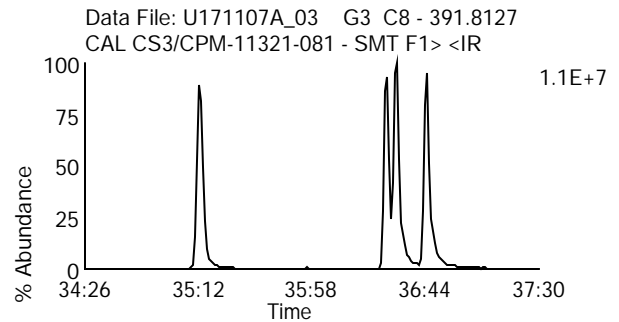
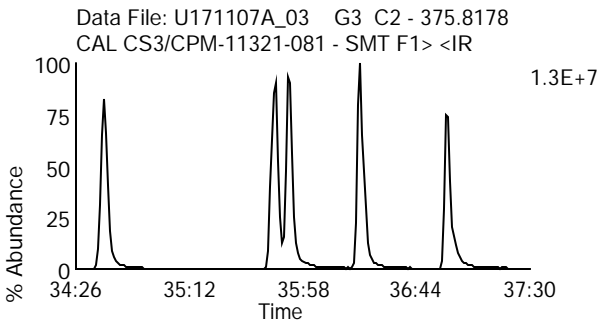
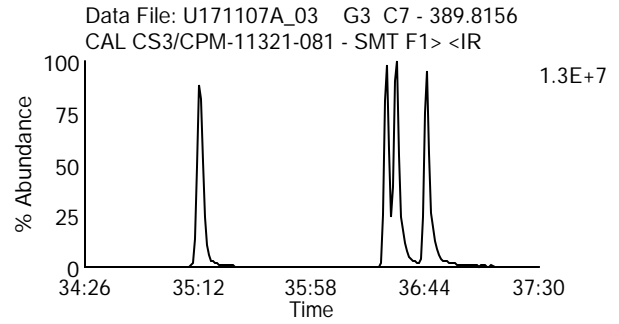
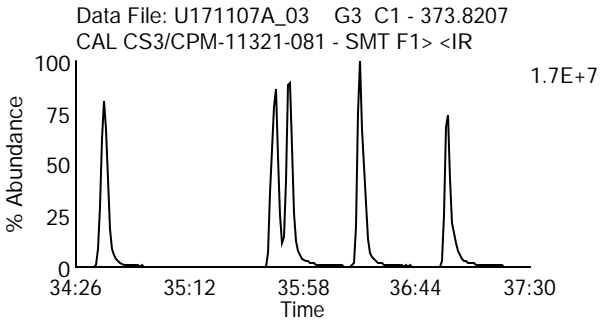
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171107A_03

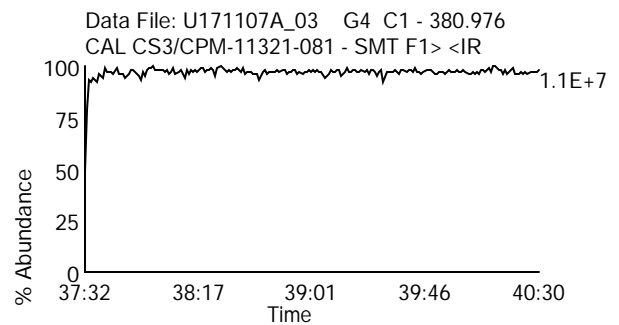
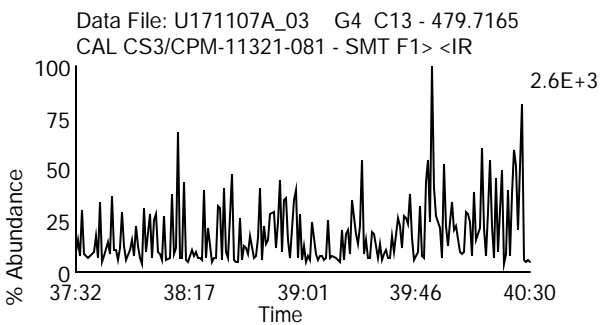
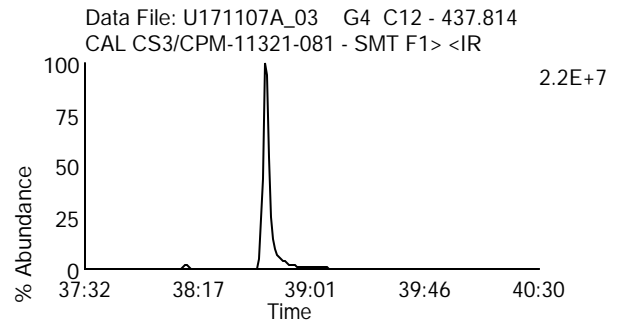
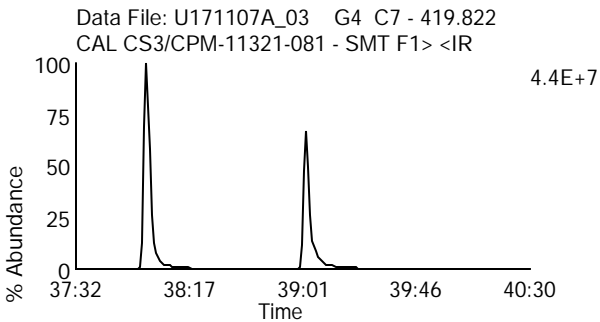
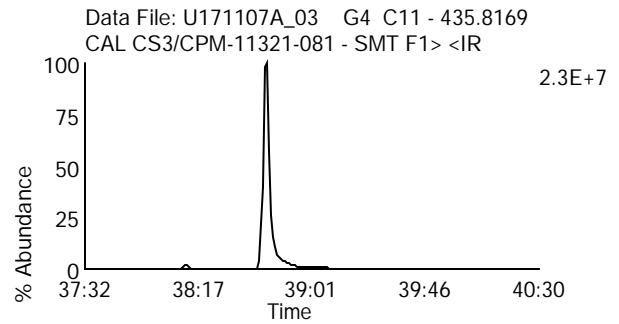
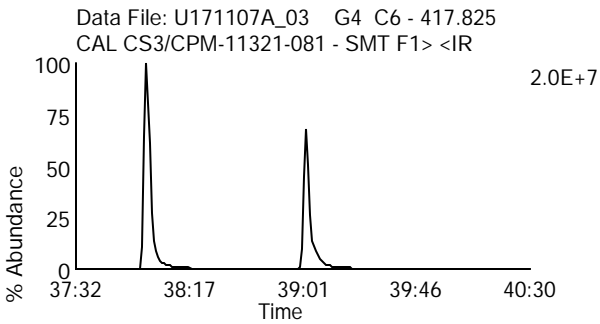
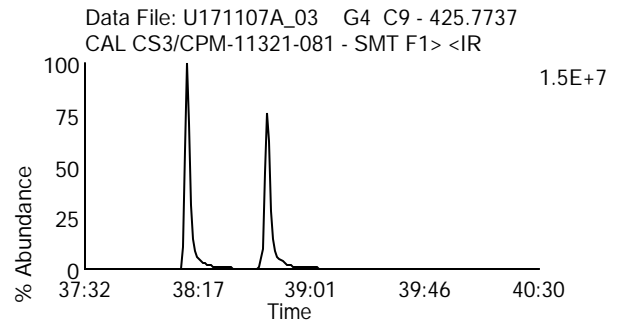
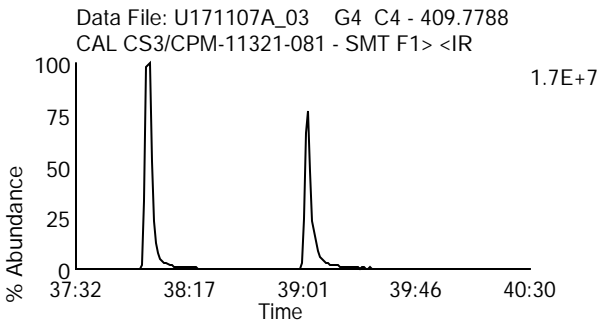
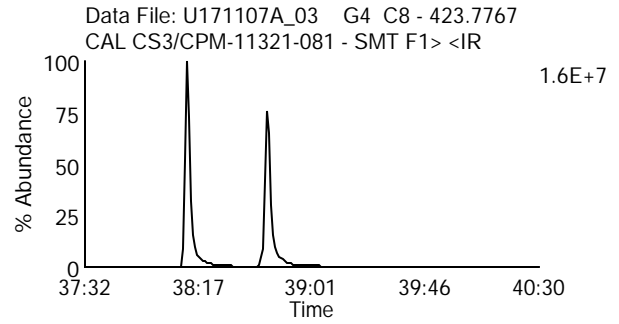
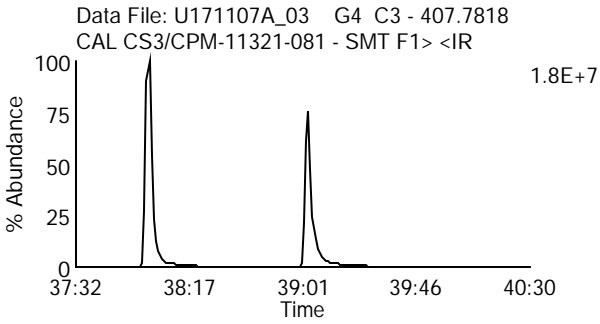
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171107A_03

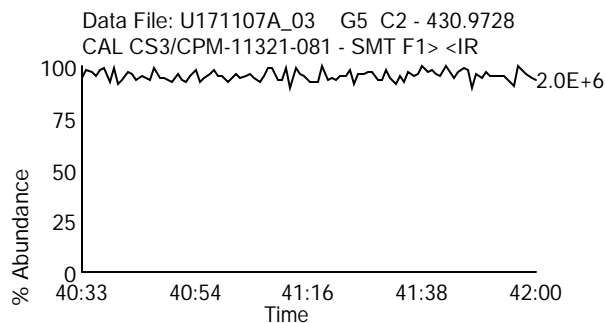
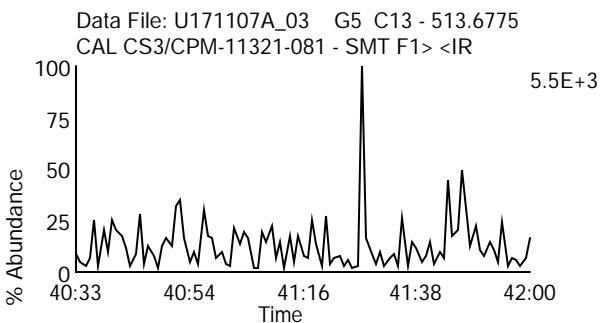
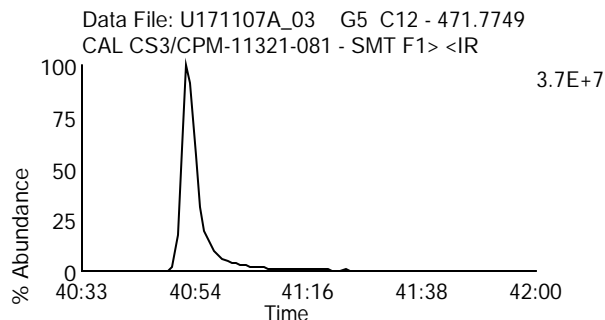
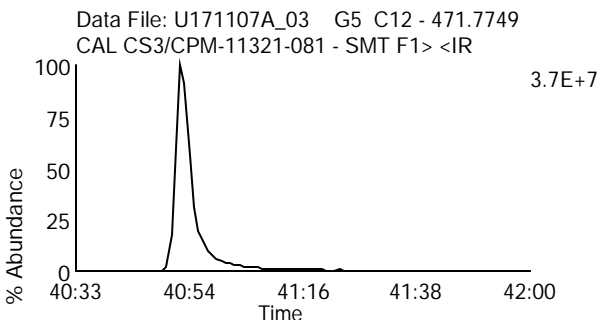
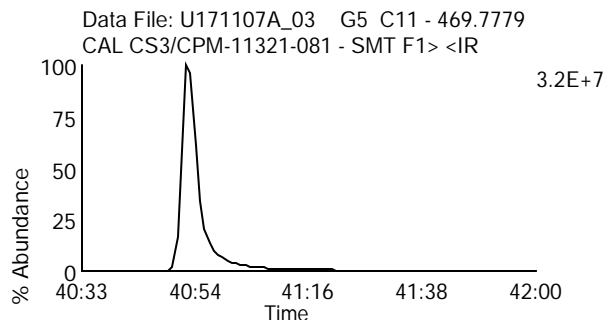
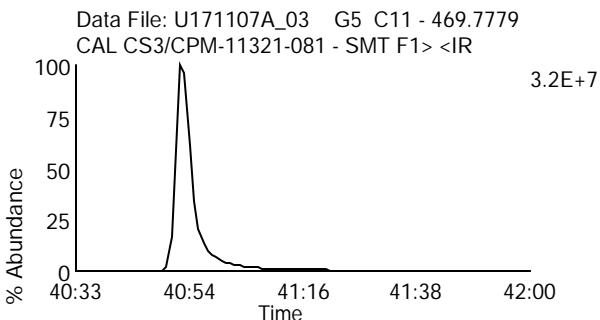
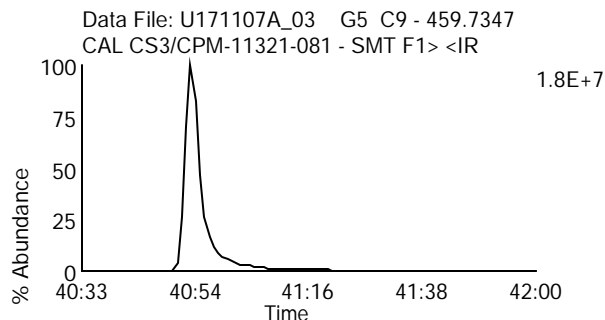
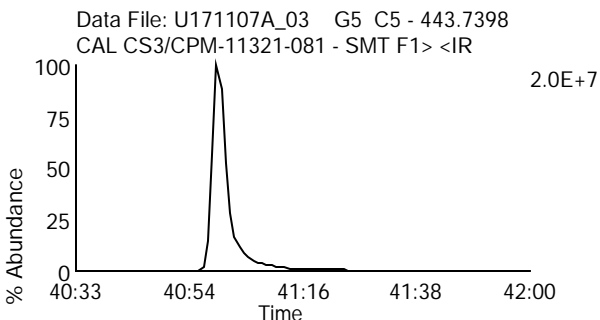
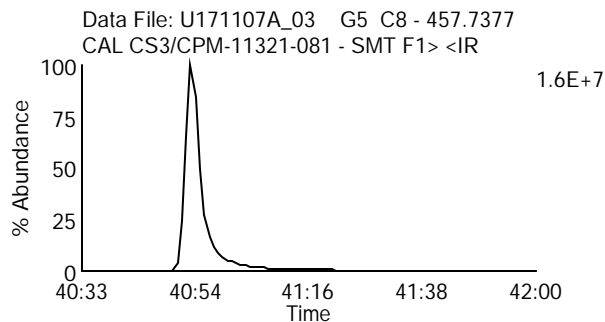
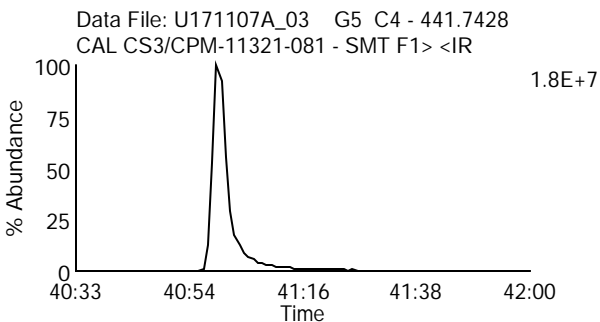
Date Acquired: 11/7/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT F1> <IR

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171130A_06

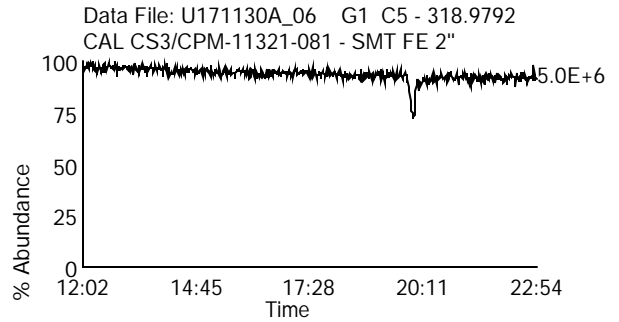
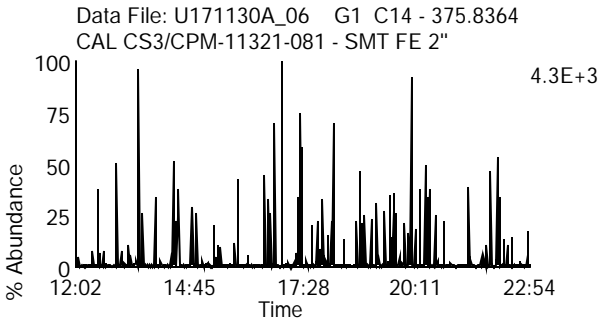
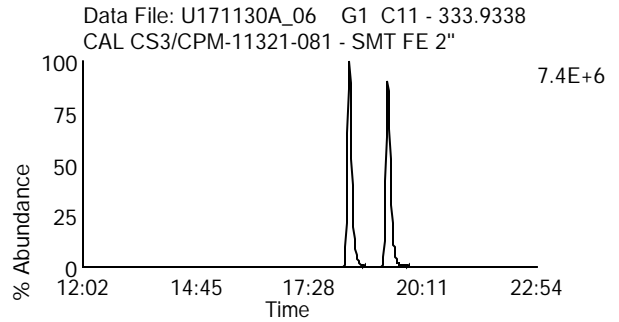
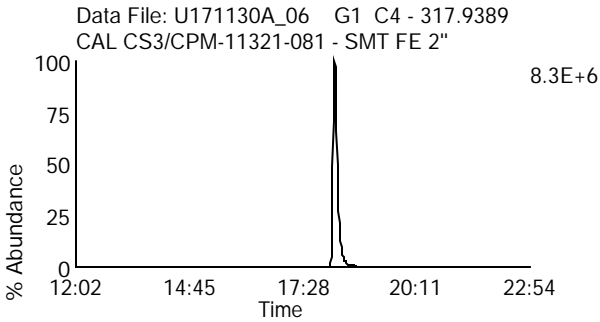
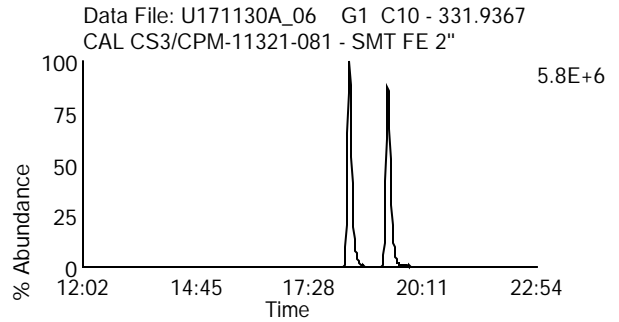
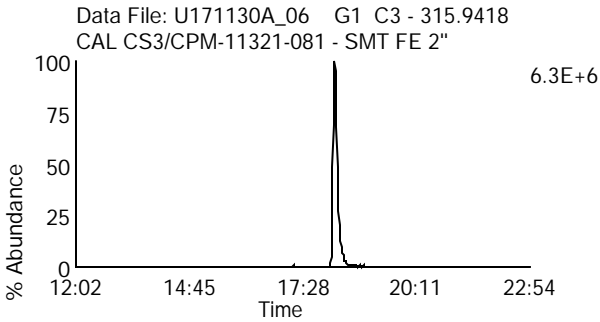
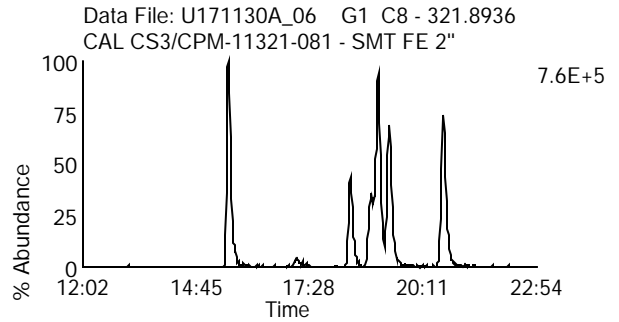
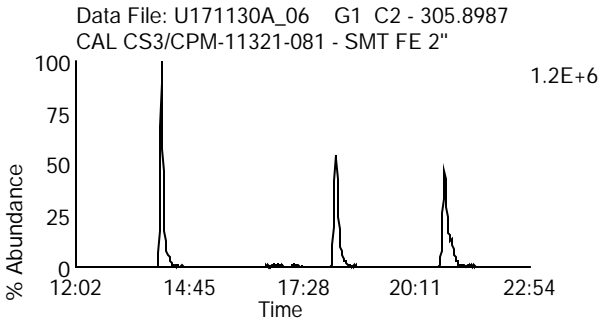
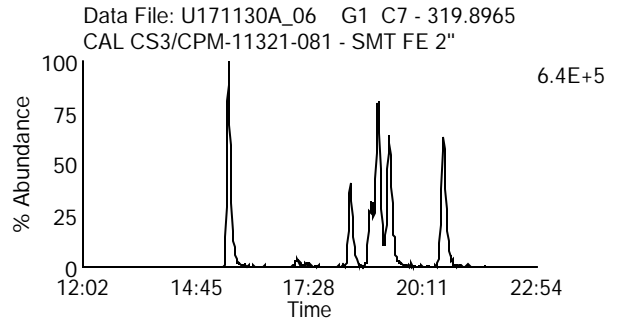
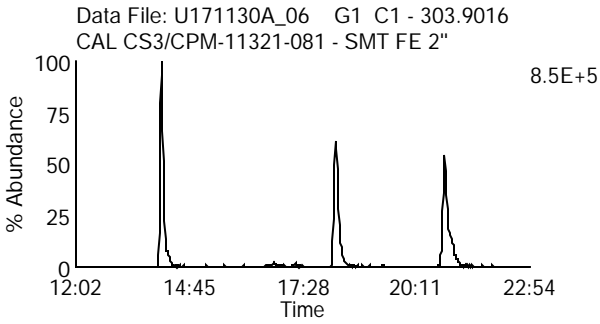
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171130A_06

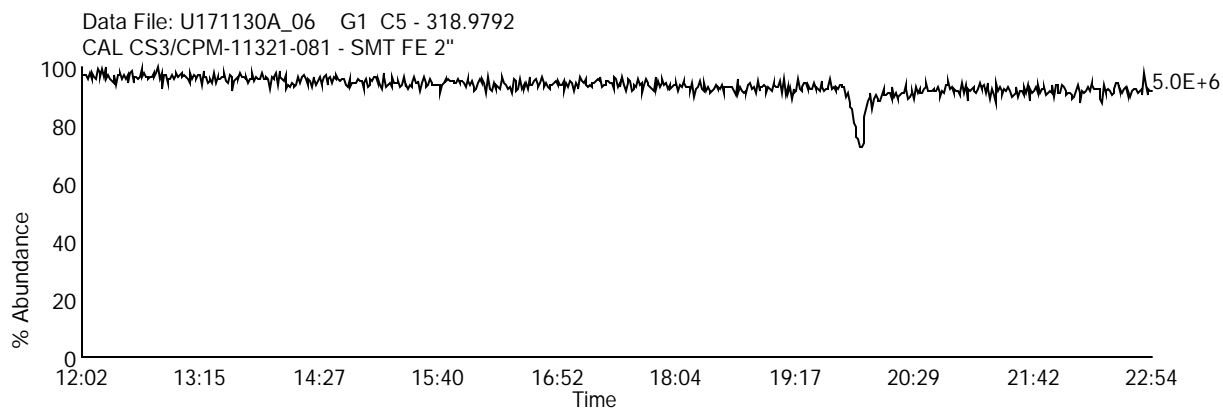
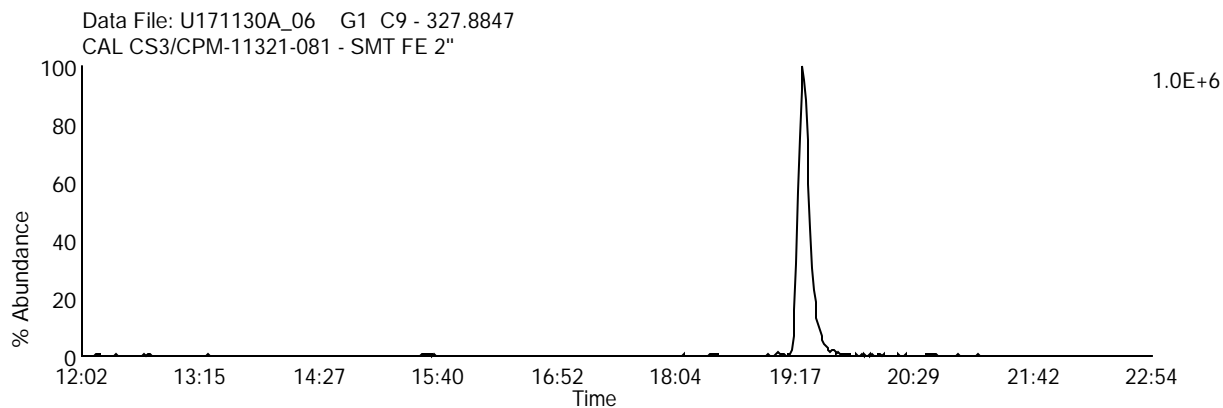
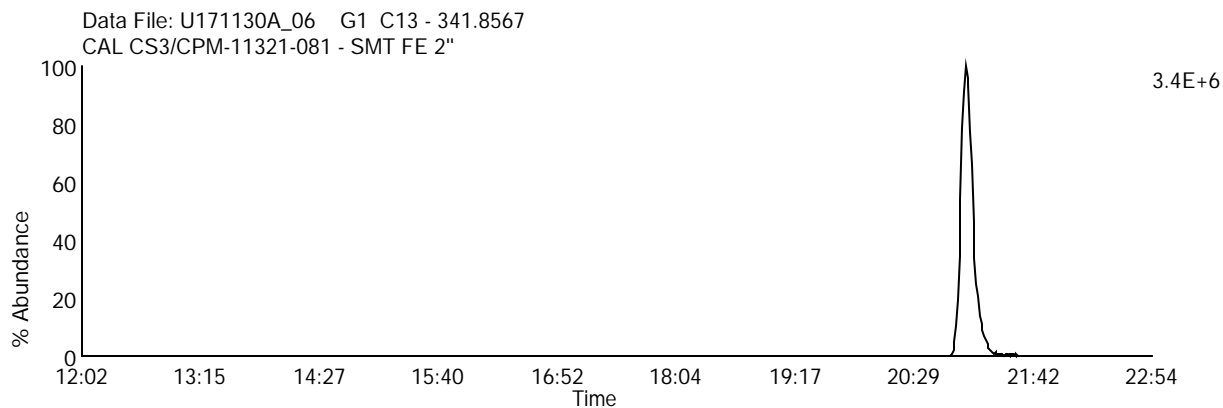
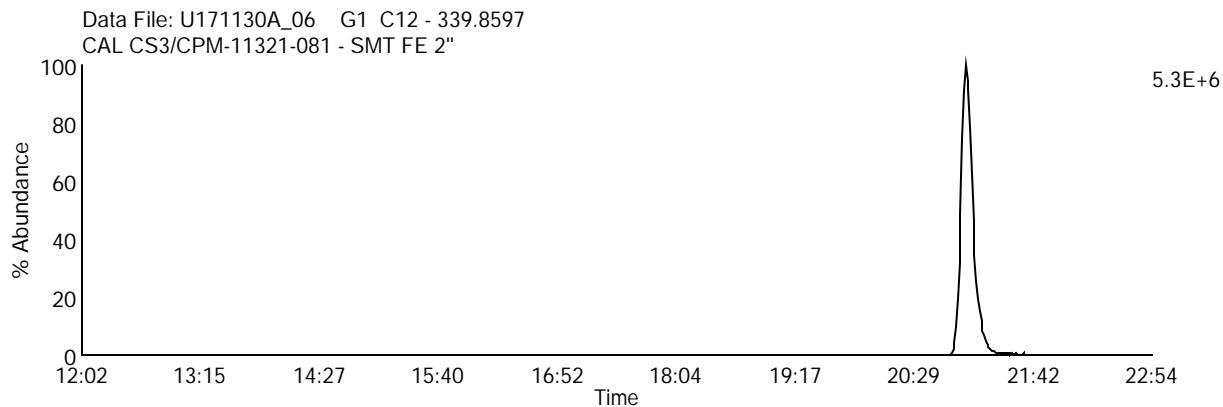
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171130A_06

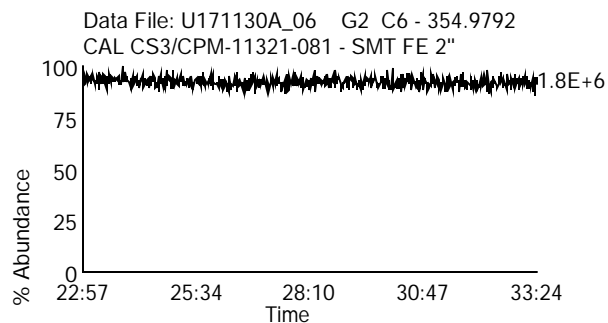
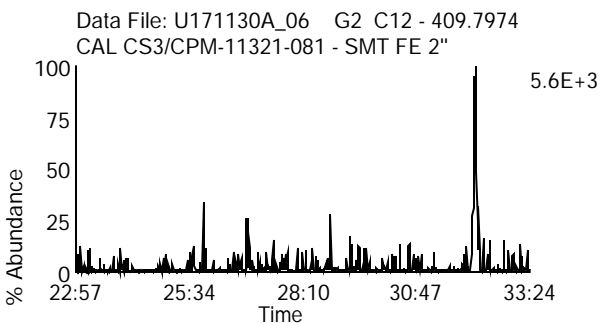
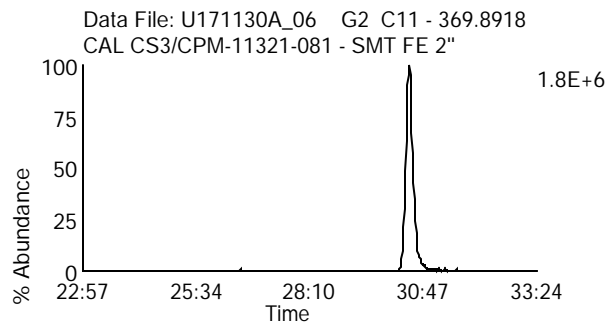
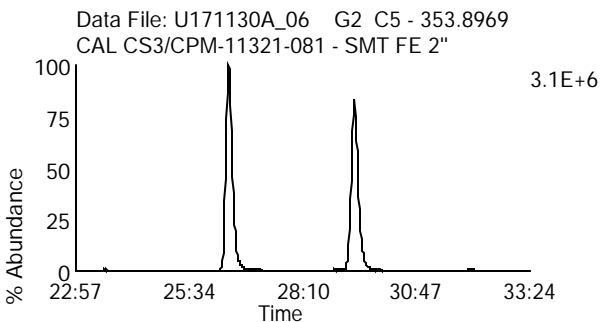
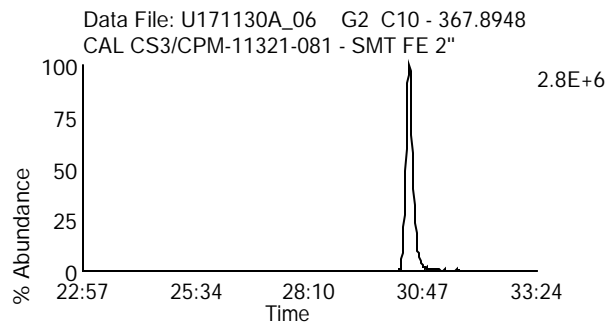
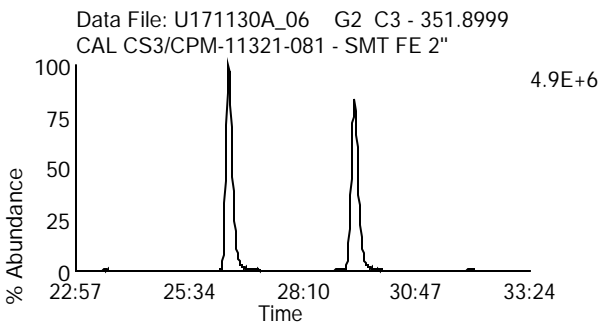
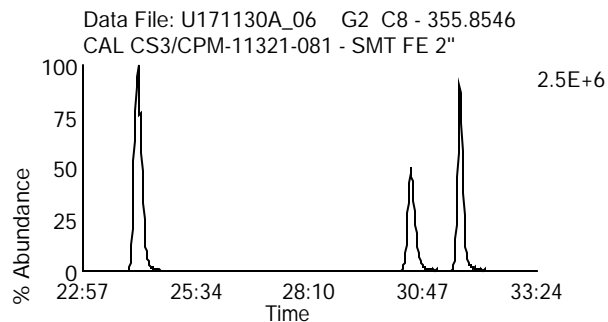
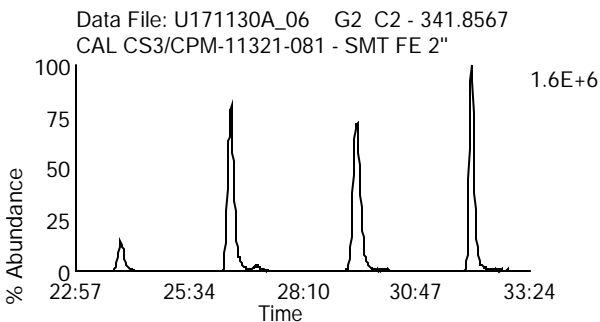
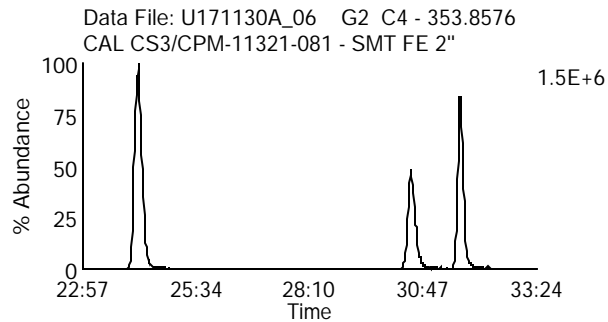
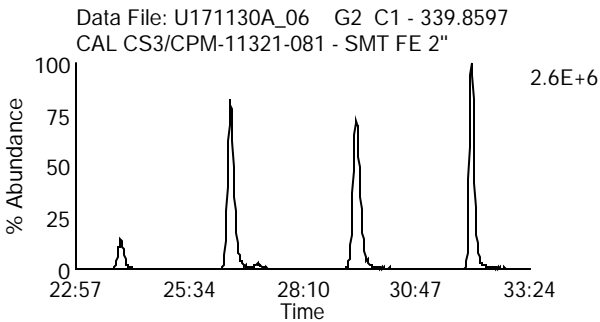
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171130A_06

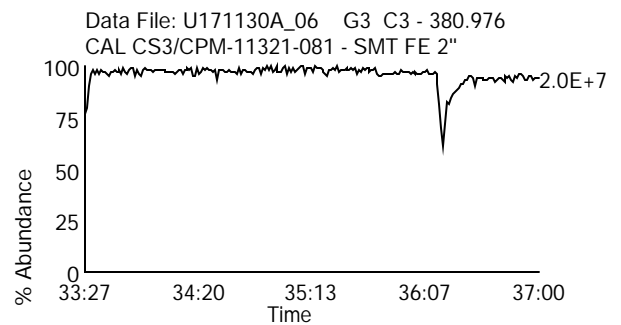
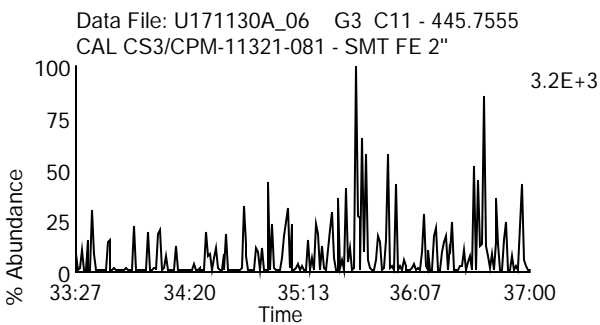
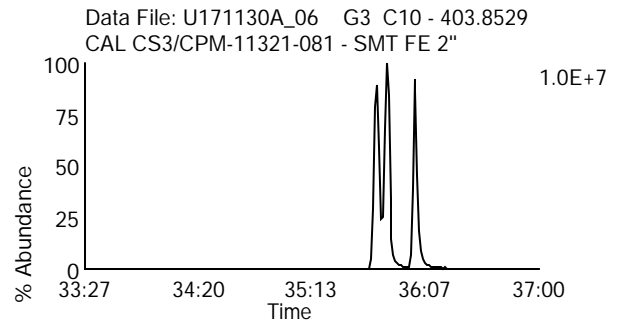
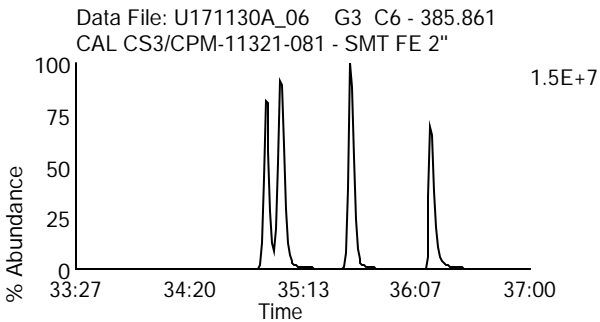
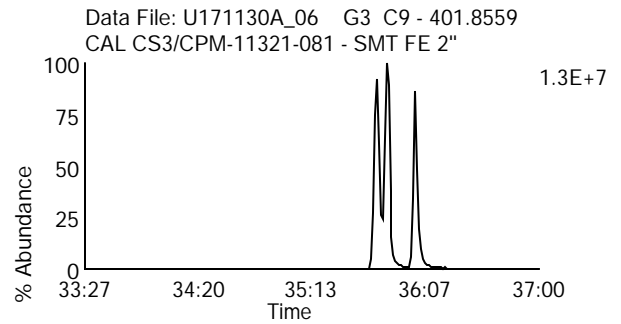
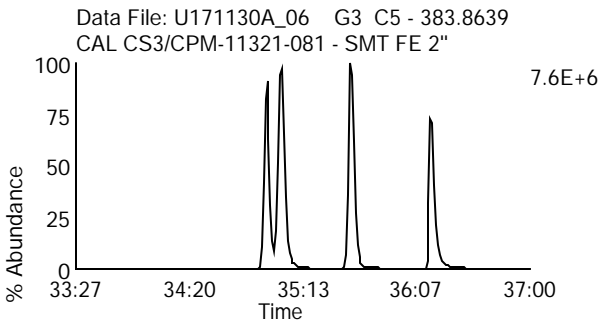
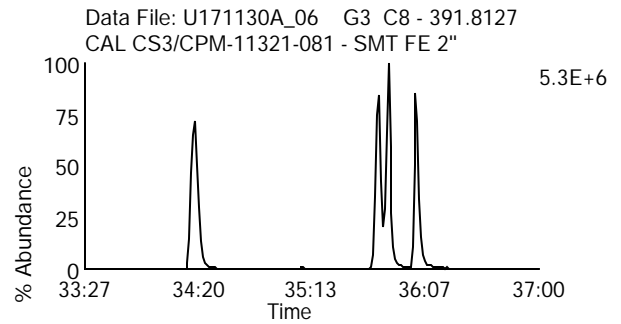
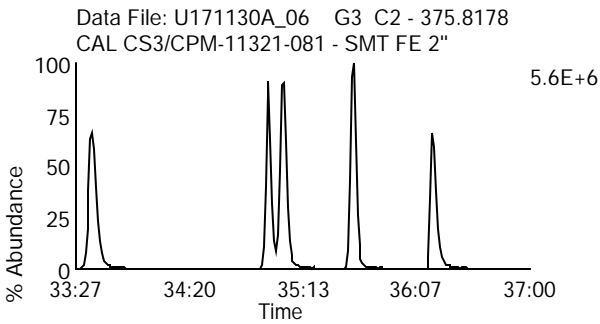
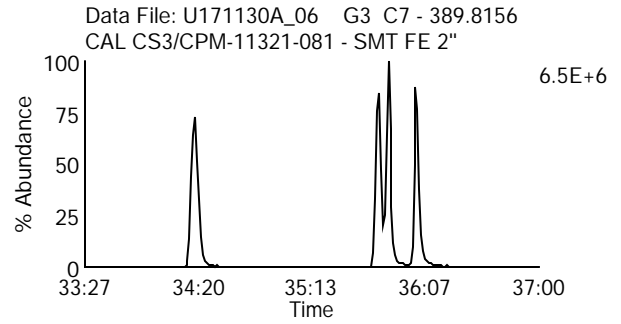
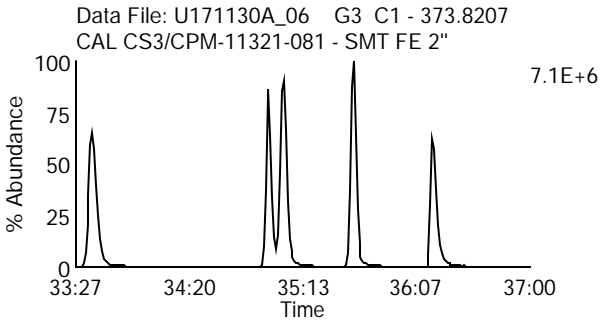
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171130A_06

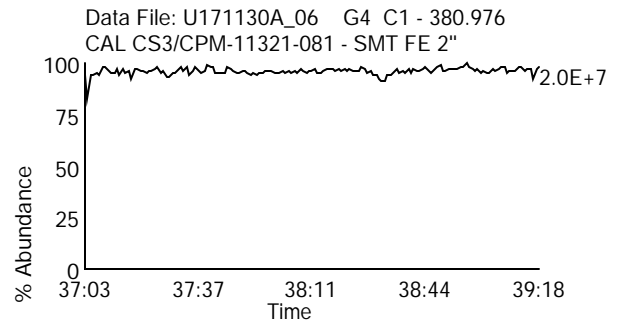
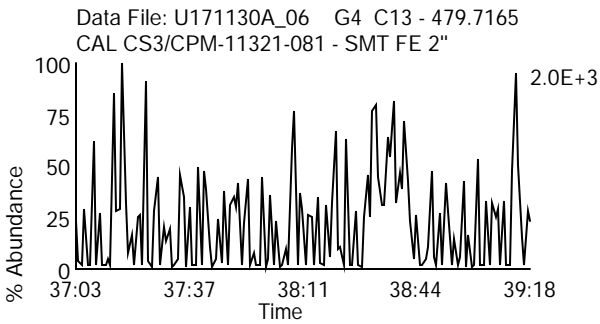
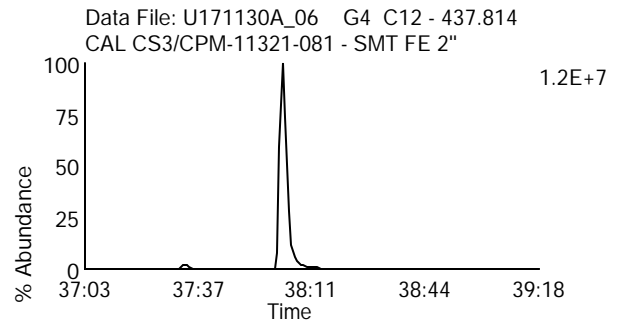
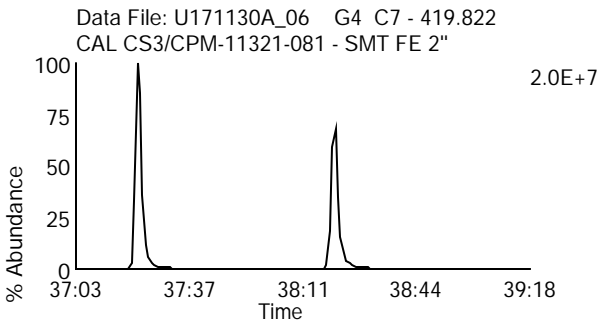
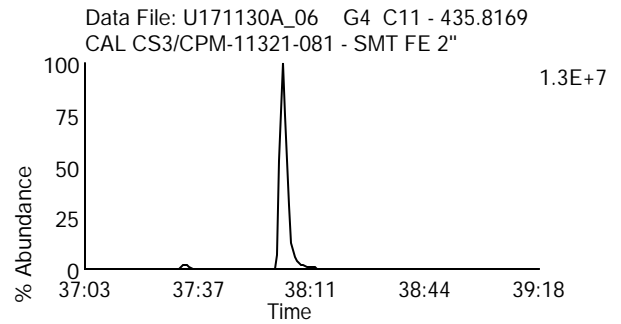
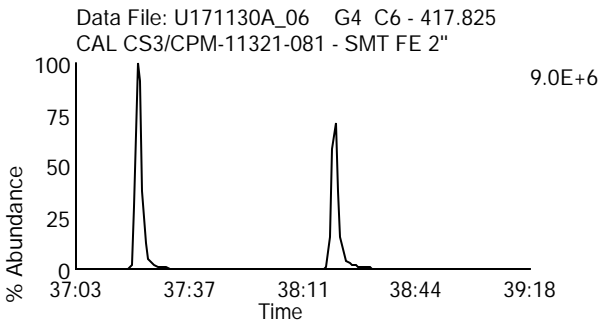
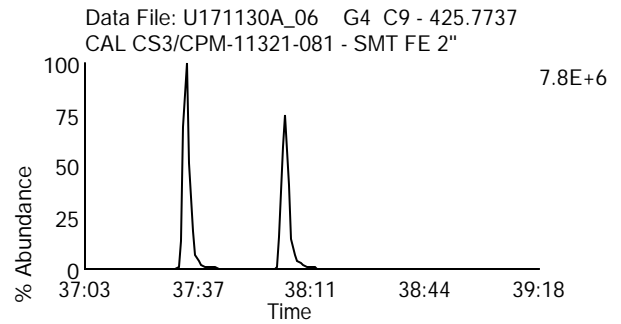
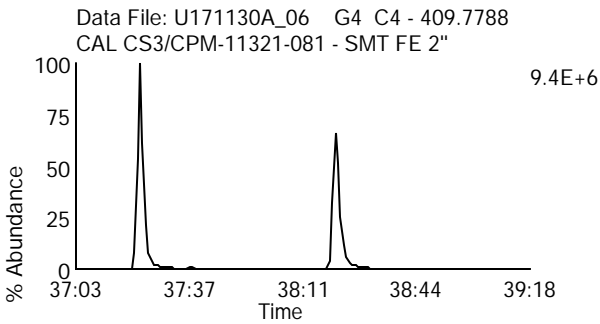
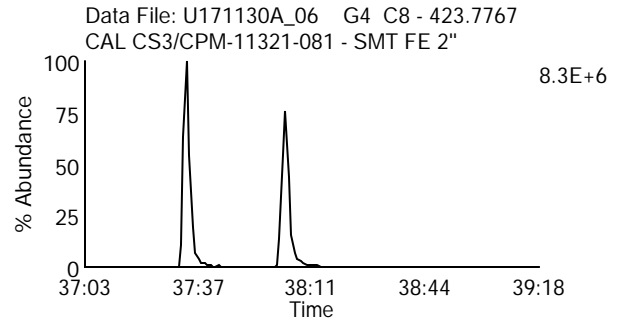
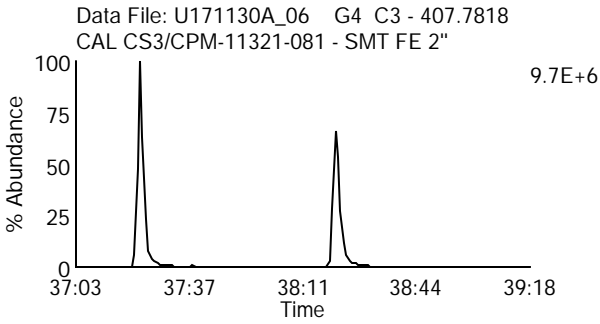
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171130A_06

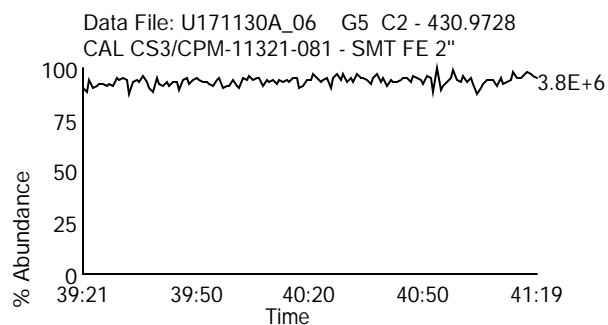
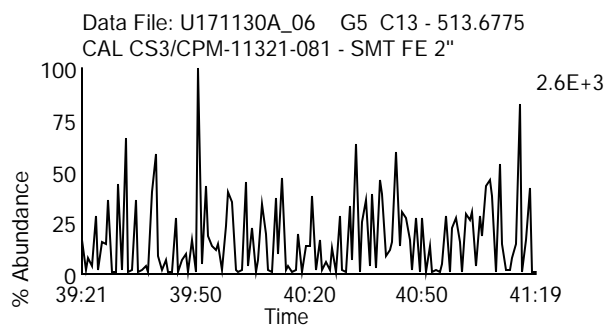
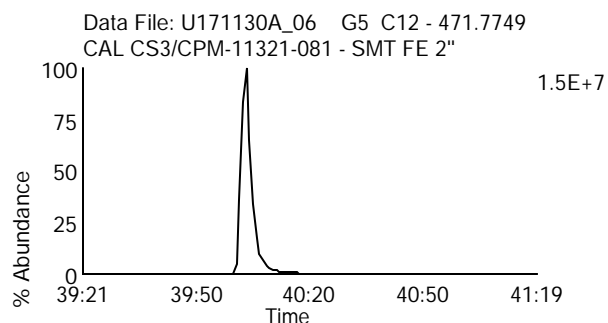
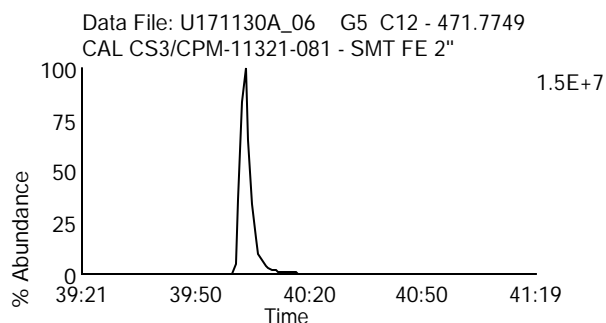
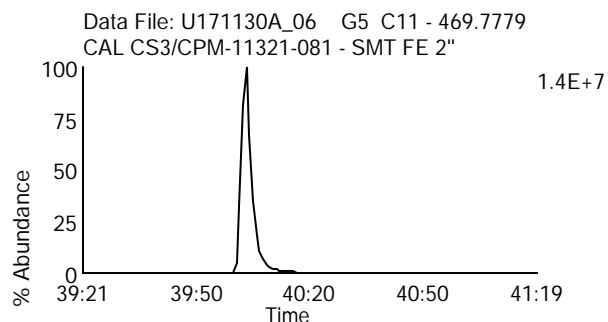
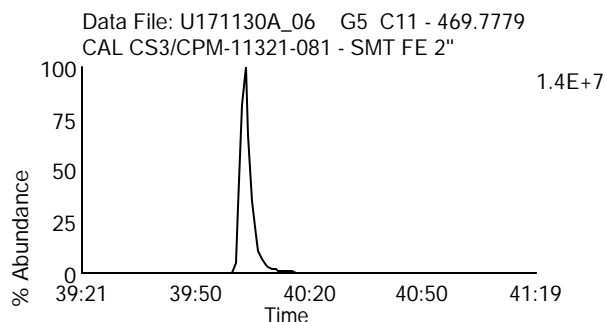
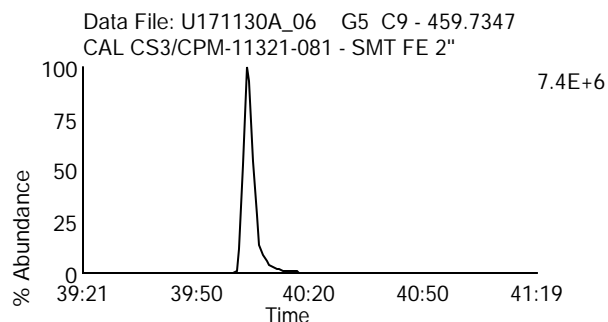
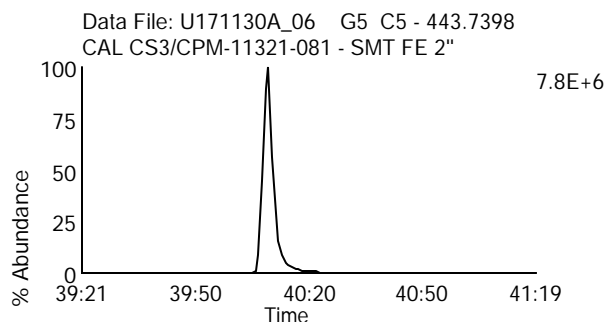
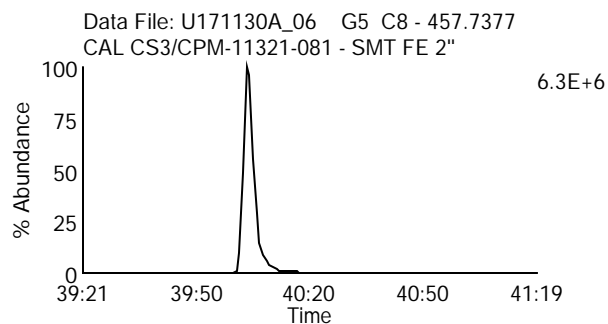
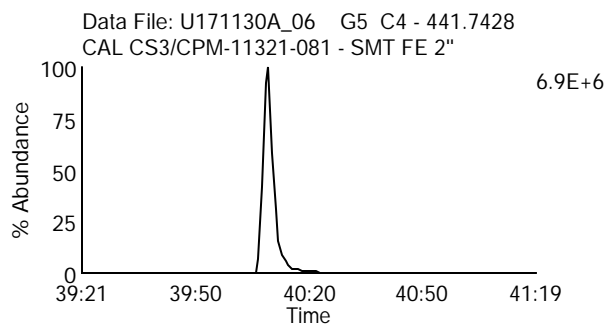
Date Acquired: 11/30/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT FE 2"

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

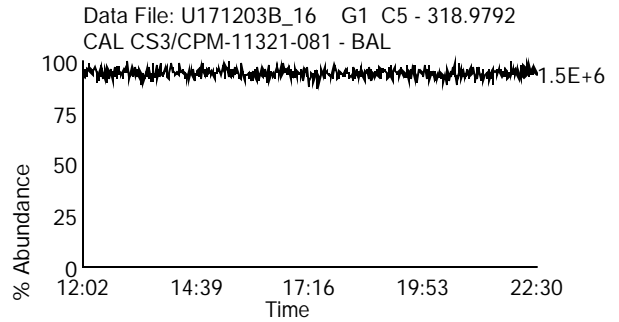
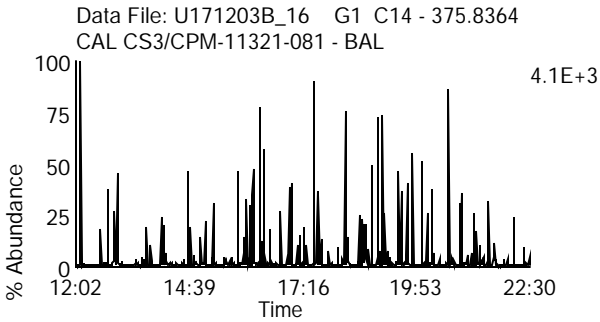
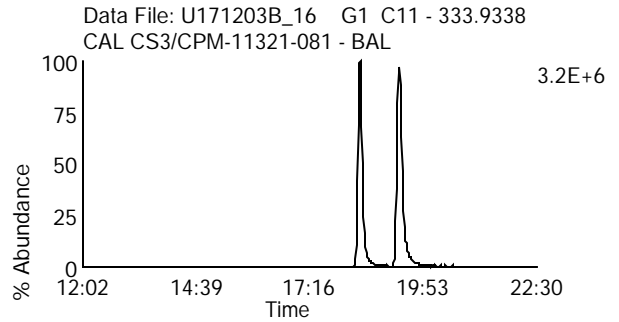
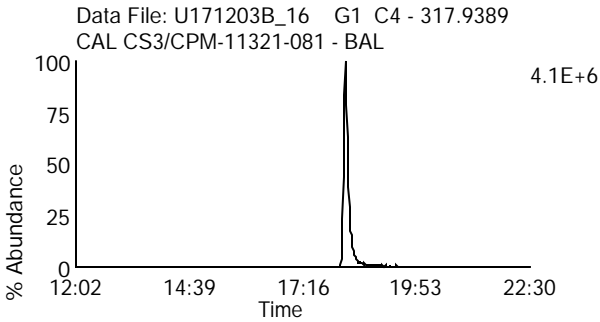
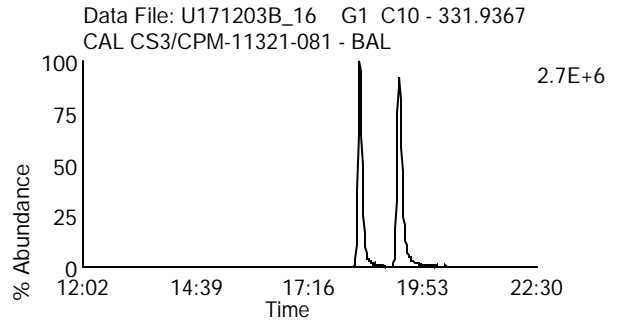
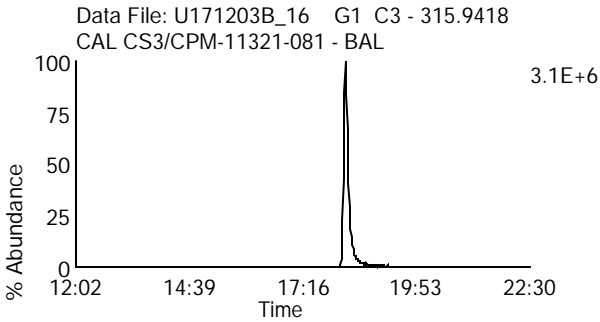
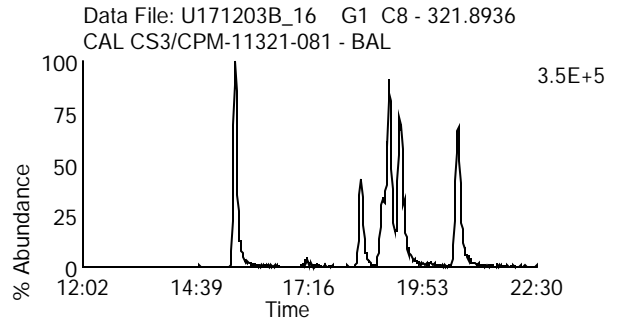
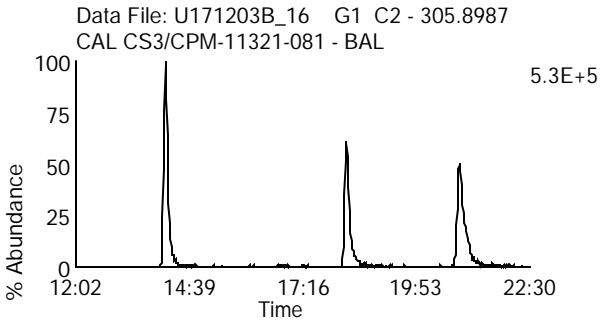
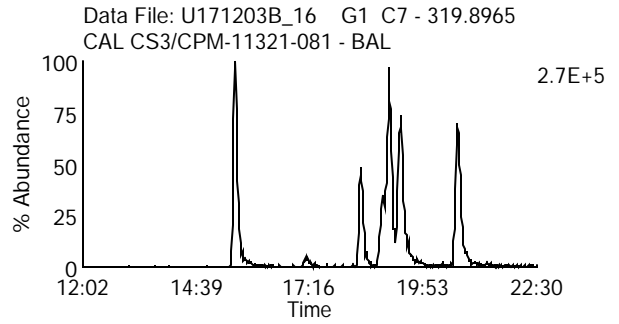
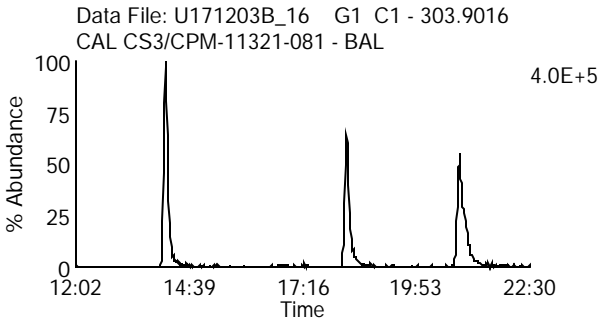
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171203B_16
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171203B_16

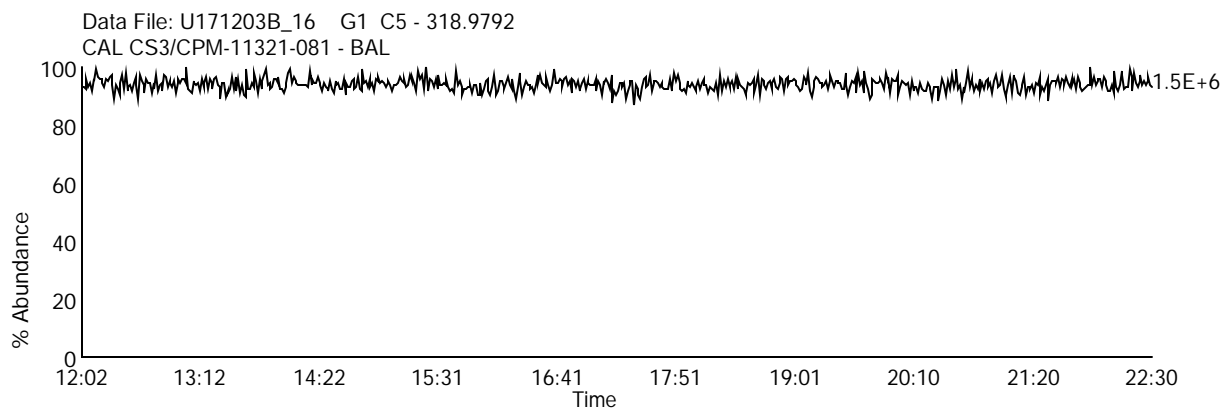
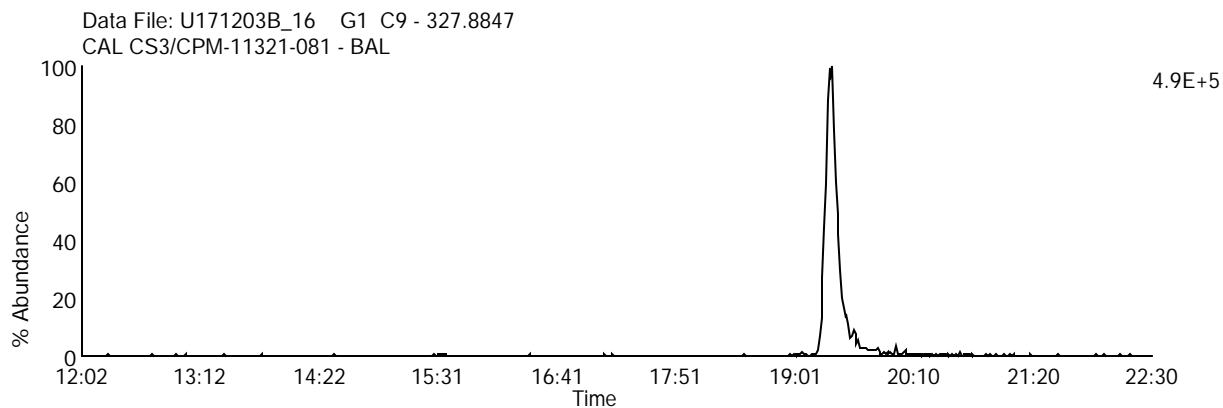
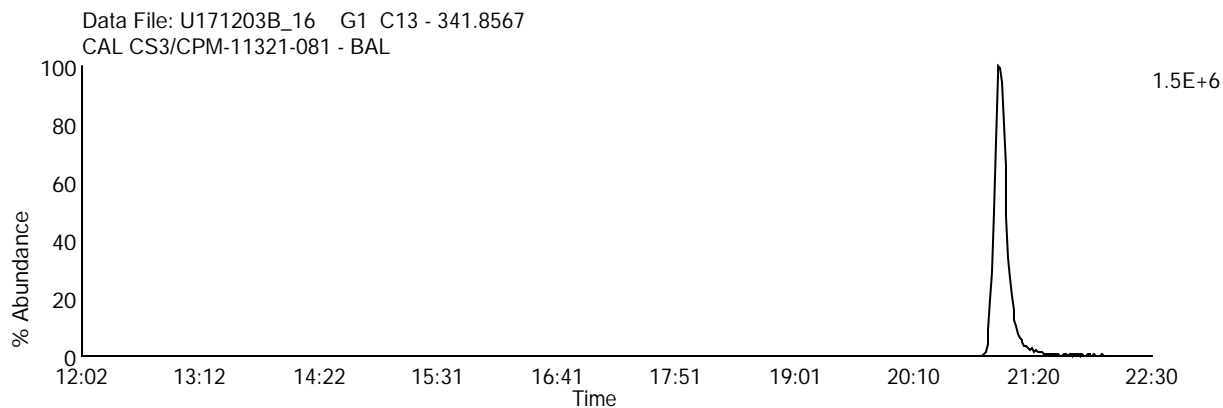
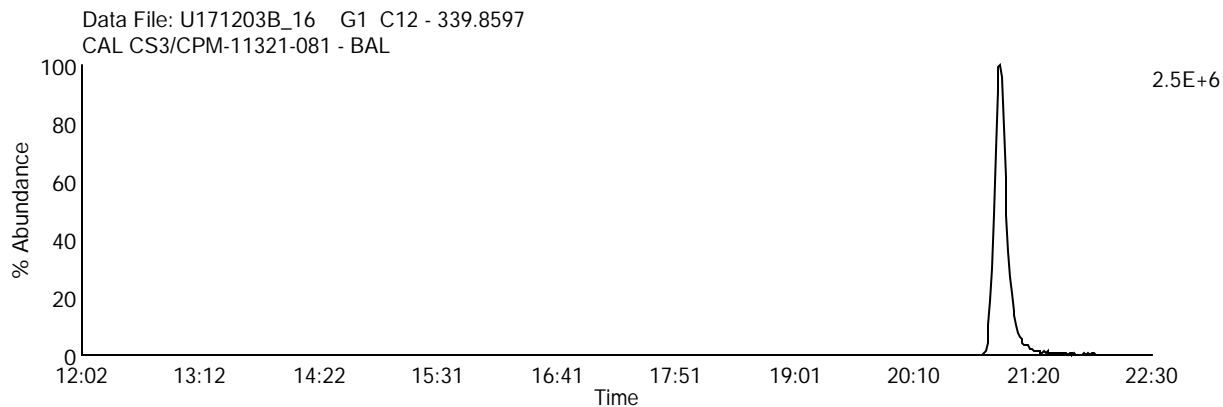
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171203B_16

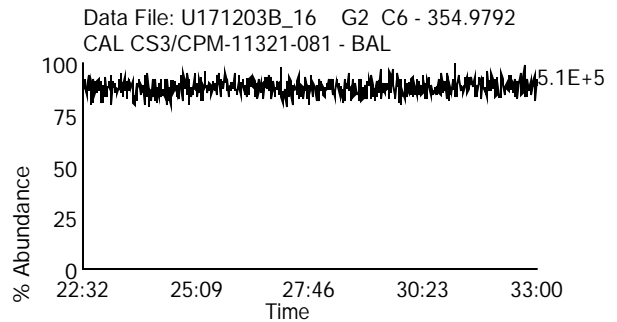
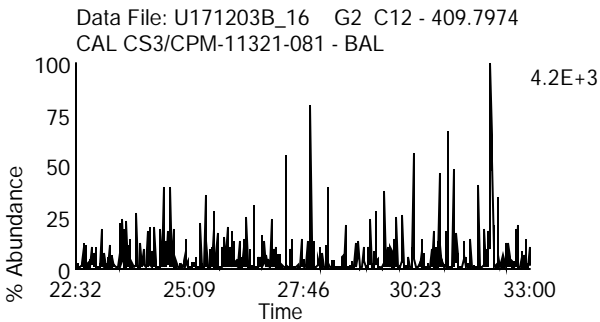
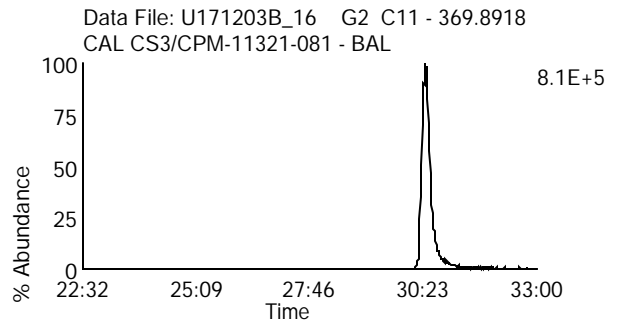
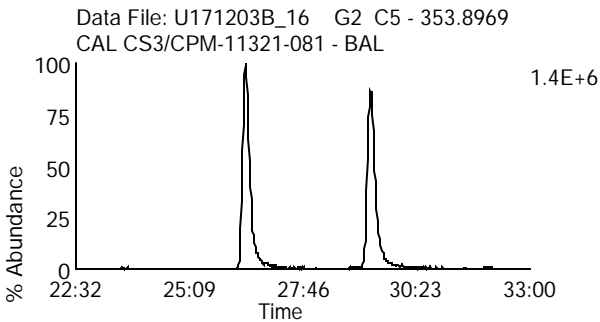
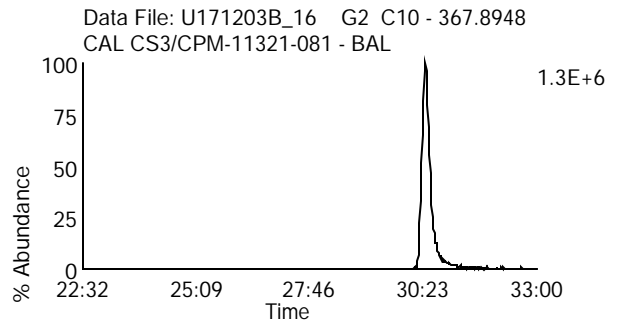
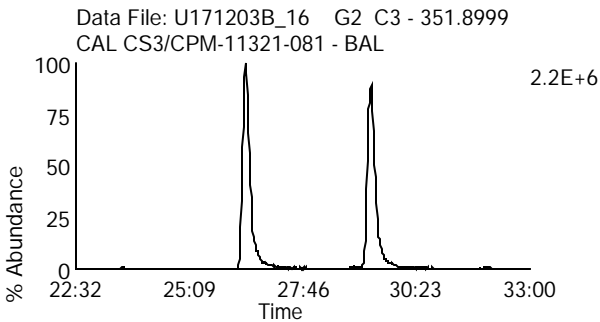
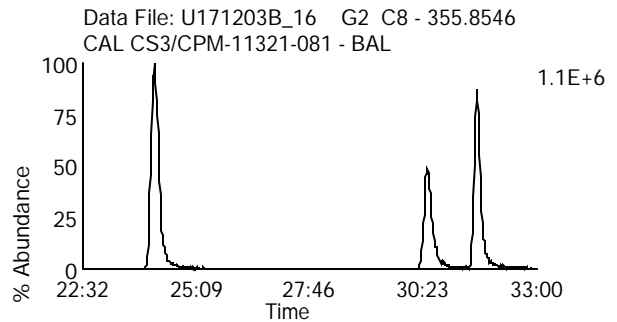
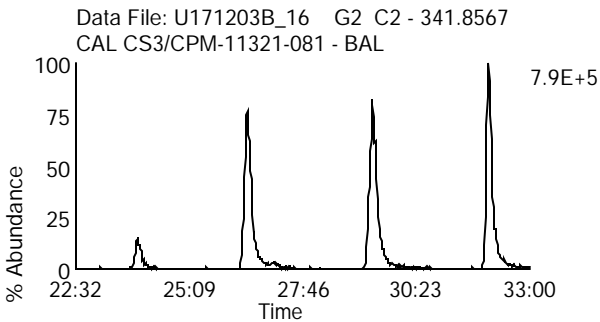
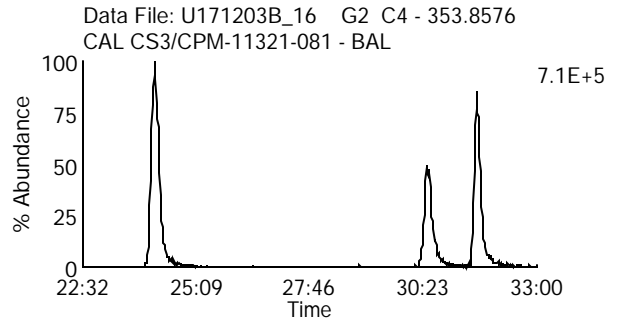
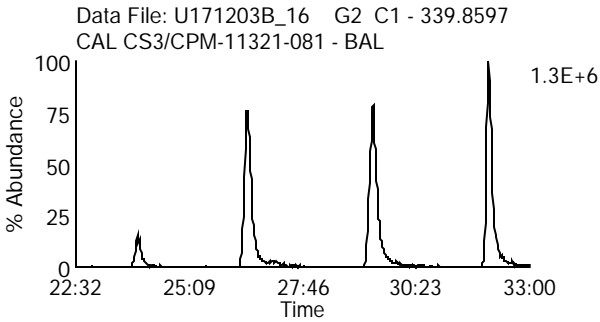
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171203B_16

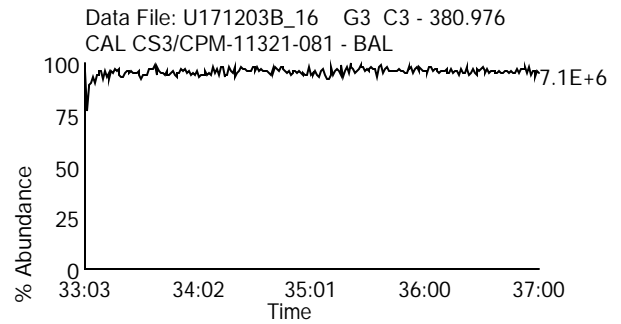
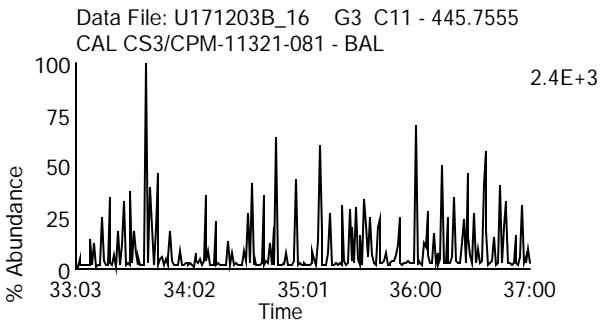
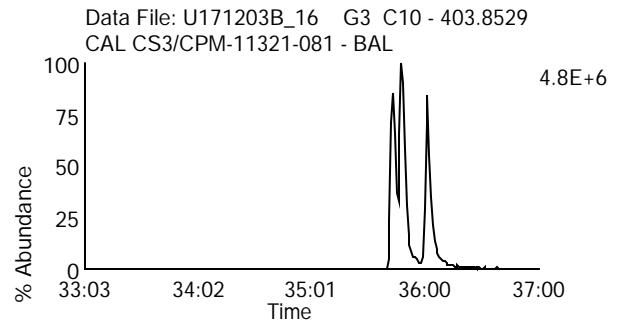
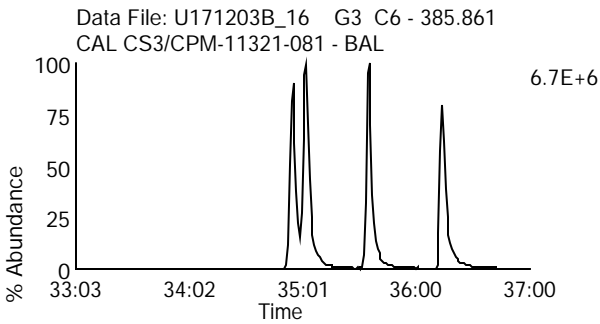
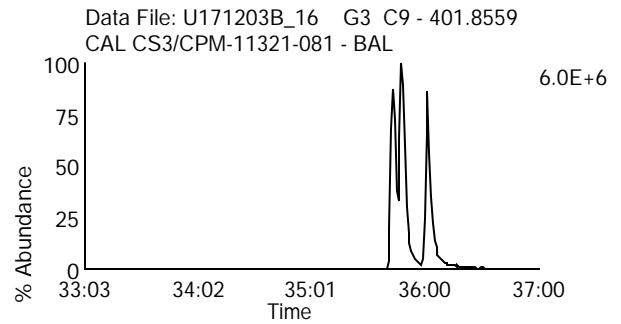
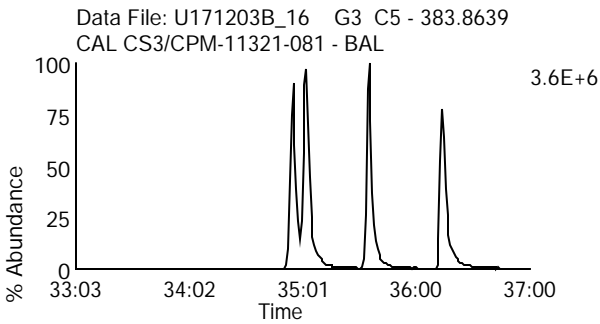
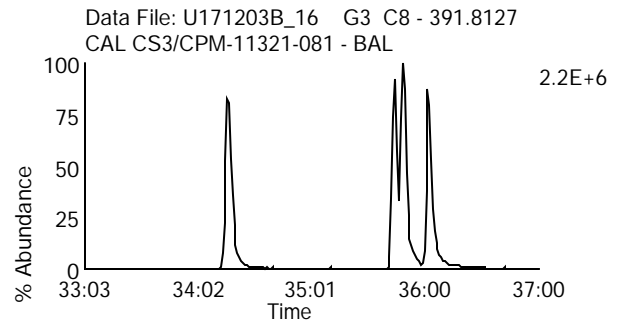
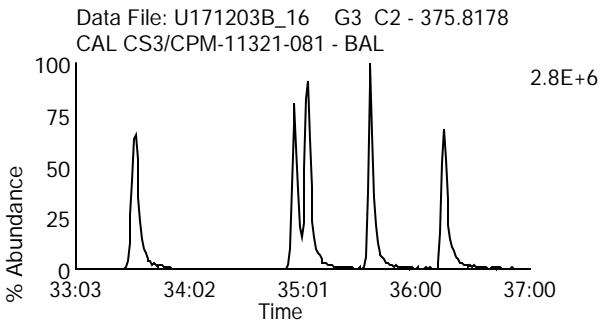
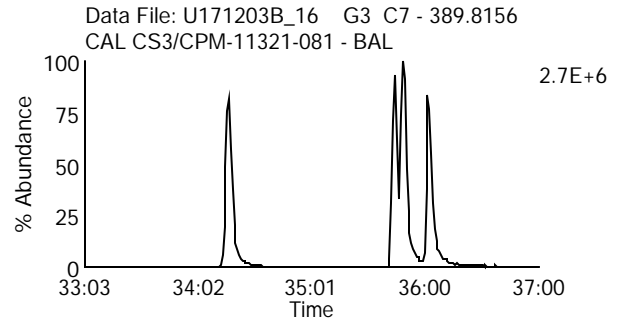
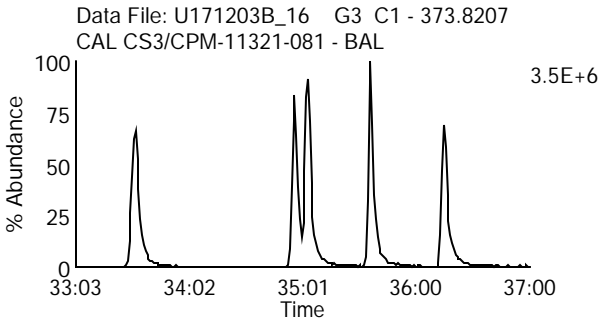
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171203B_16

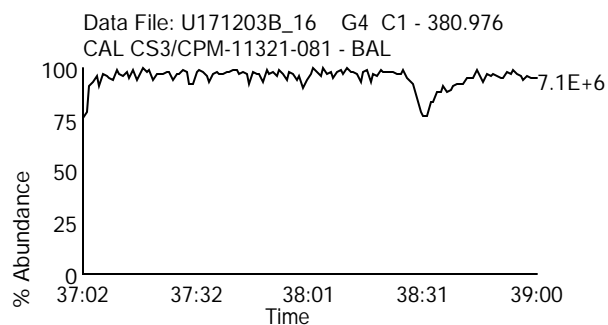
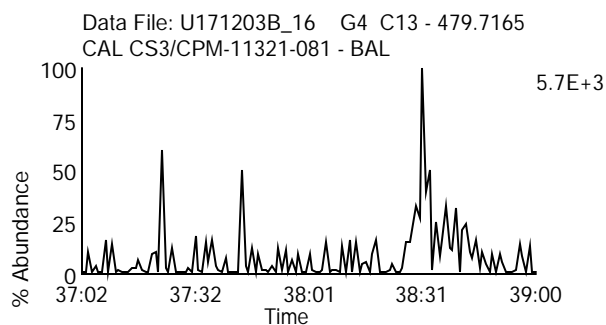
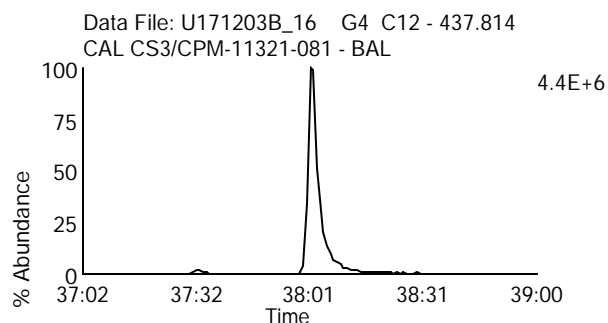
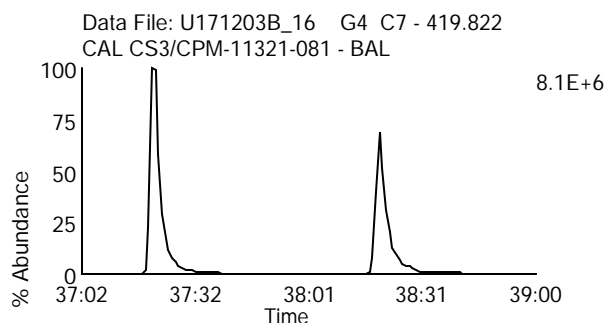
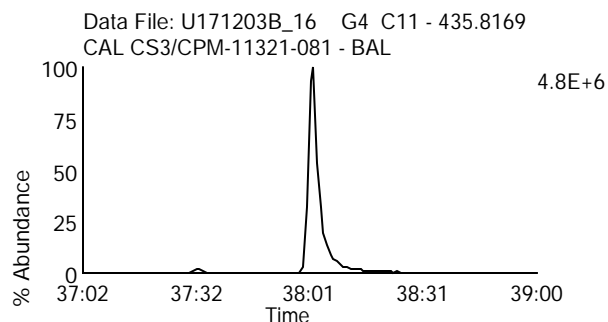
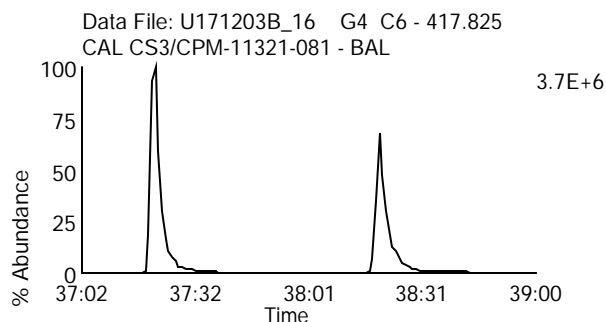
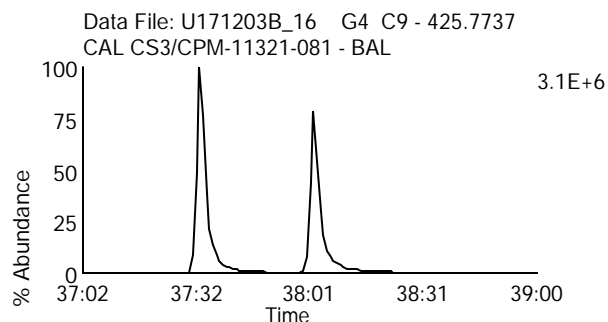
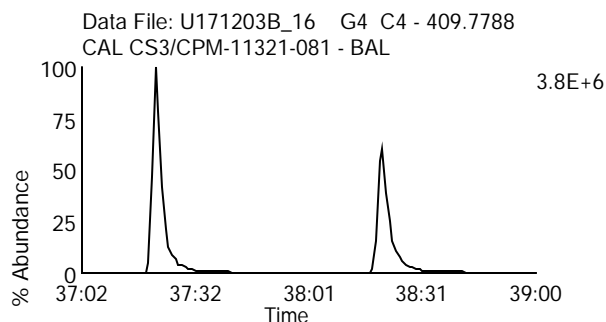
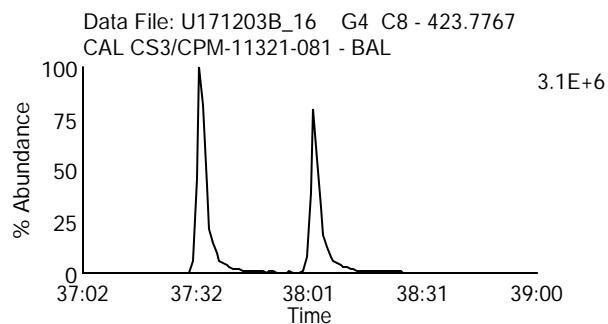
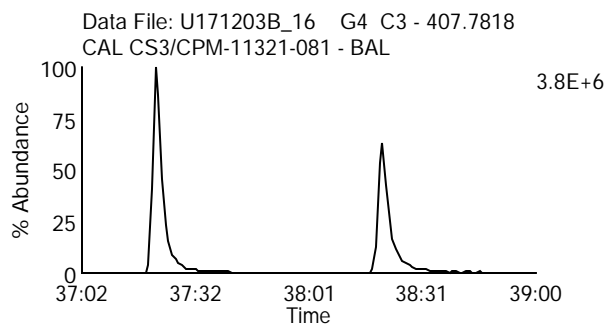
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171203B_16

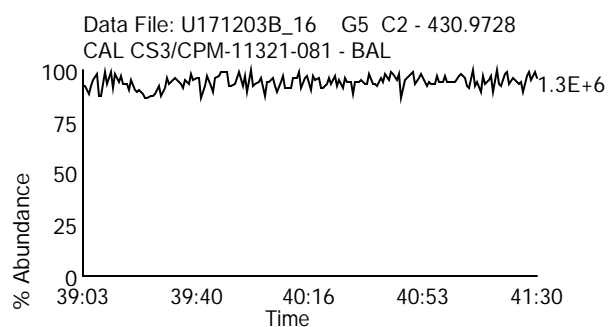
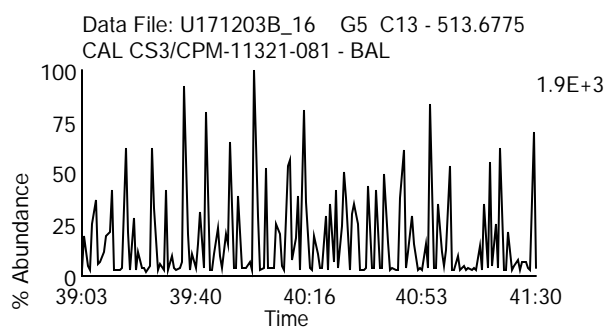
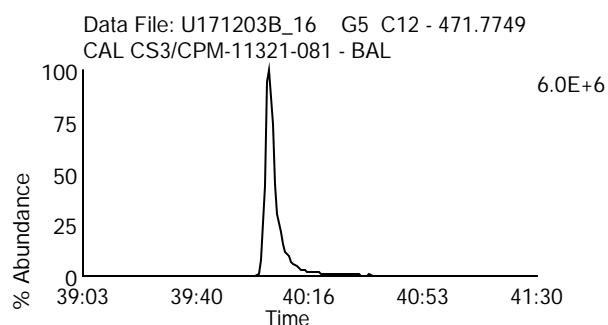
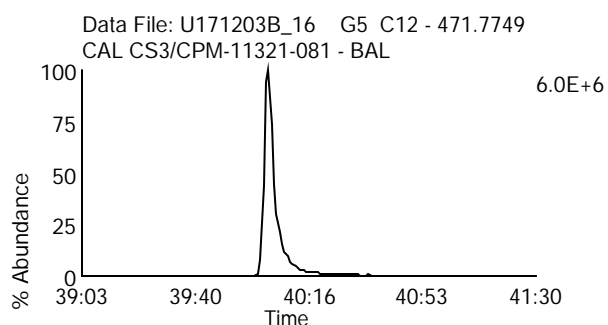
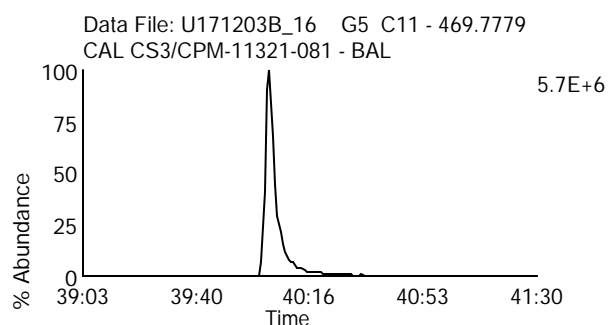
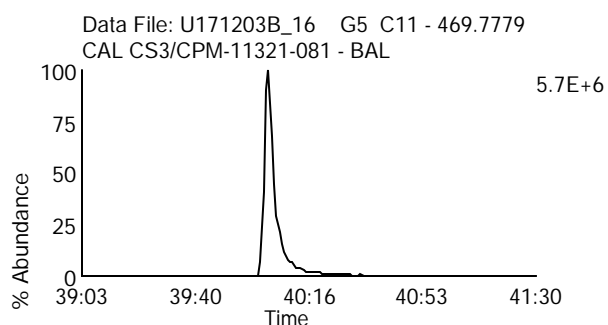
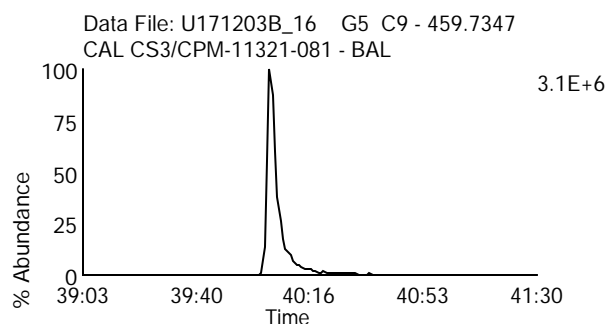
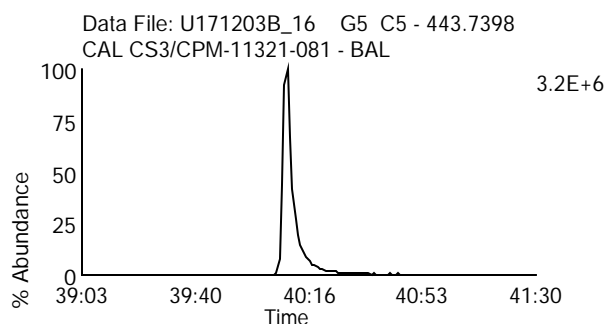
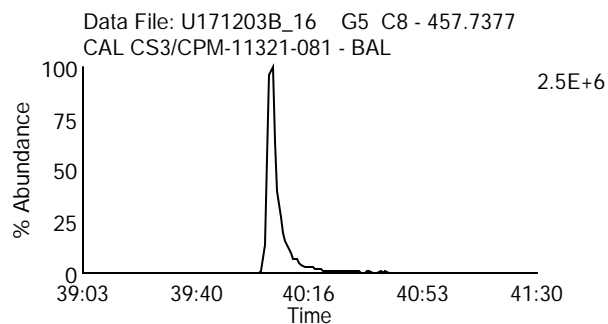
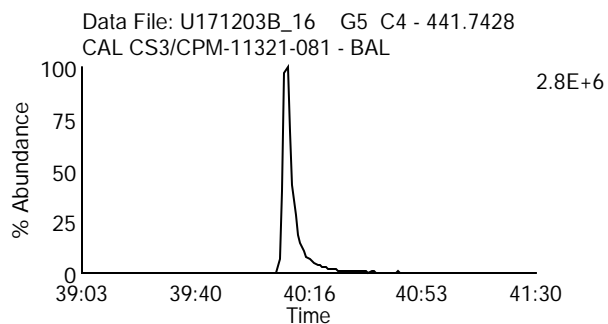
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - BAL

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

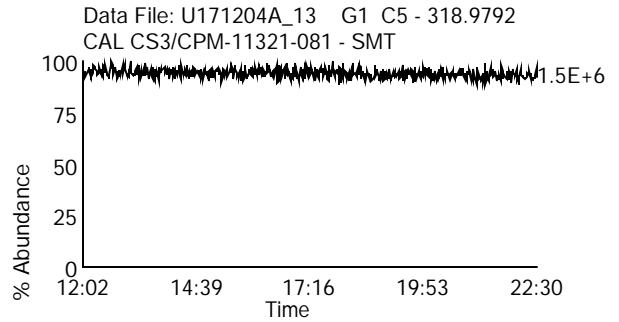
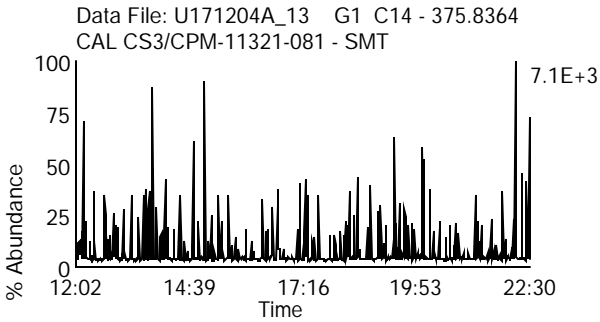
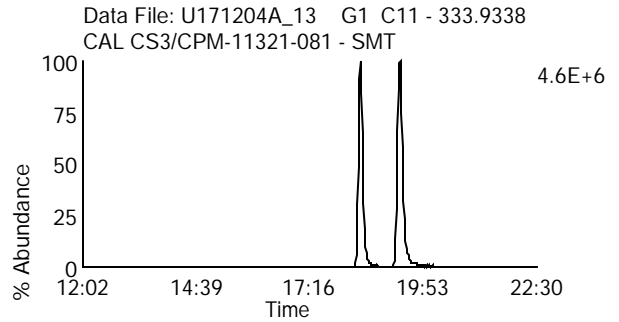
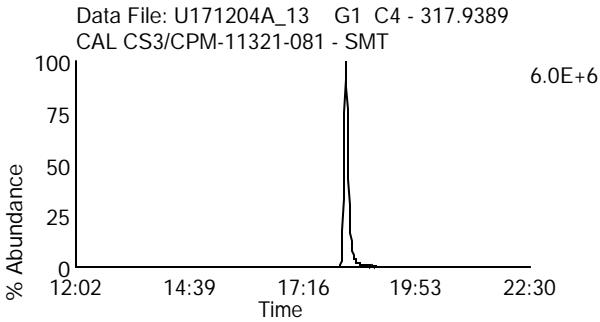
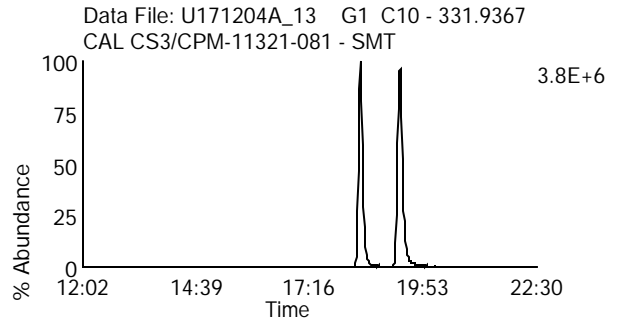
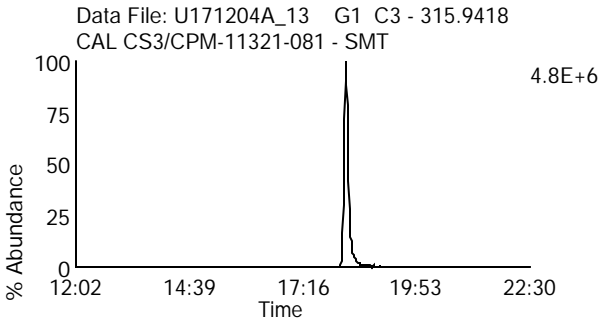
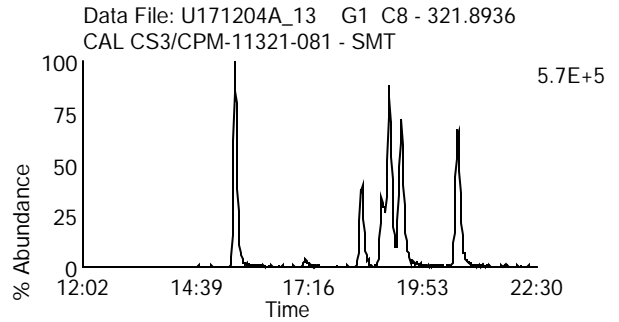
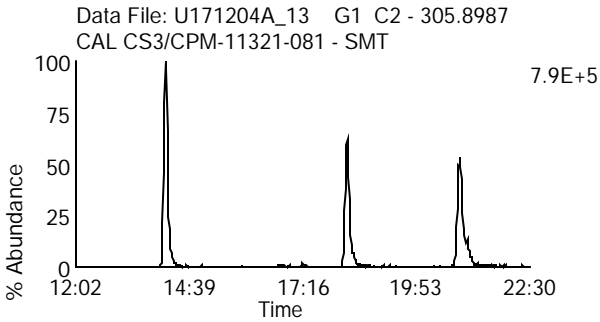
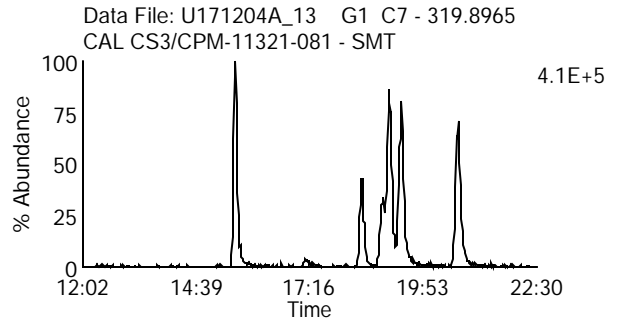
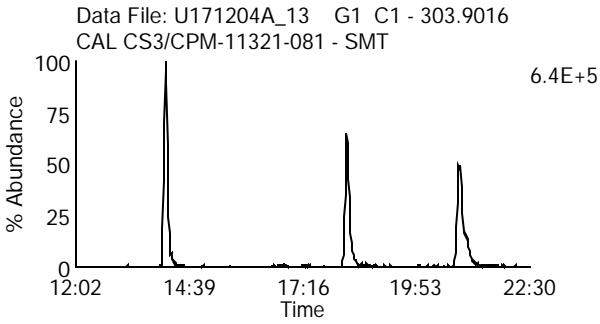
Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171204A_13
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

Lab Sample ID: CS3/CPM-11321-081
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171204A_13

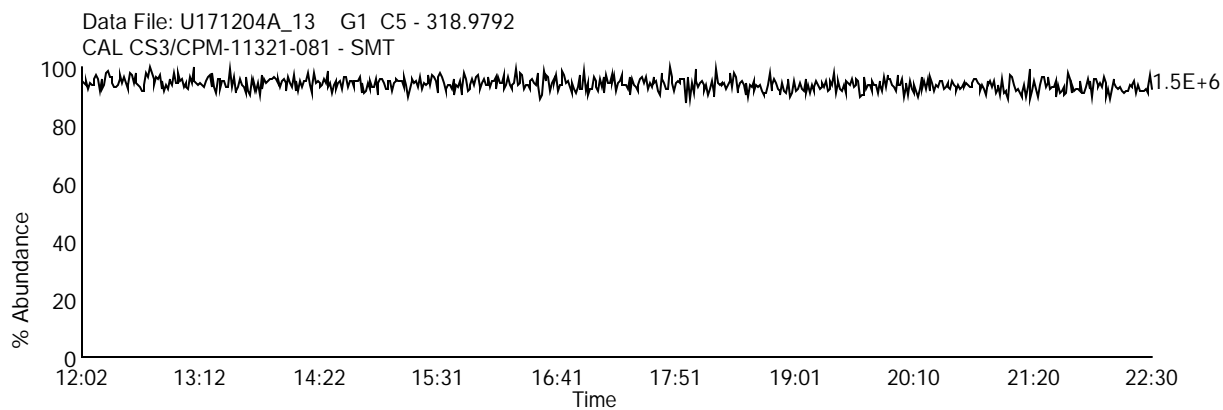
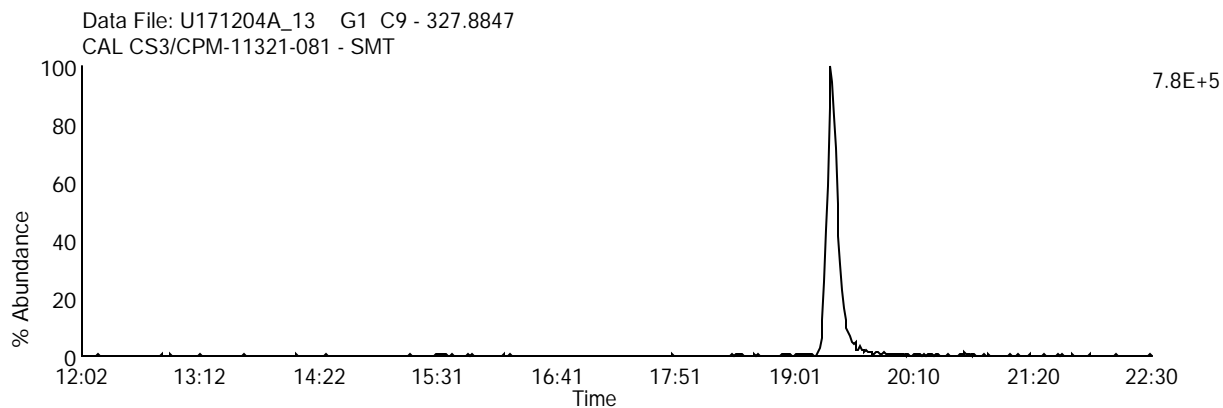
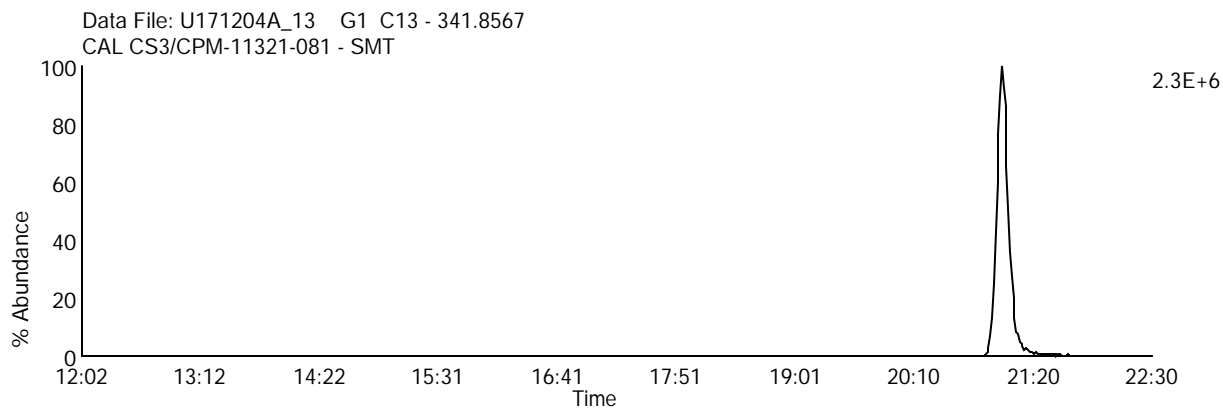
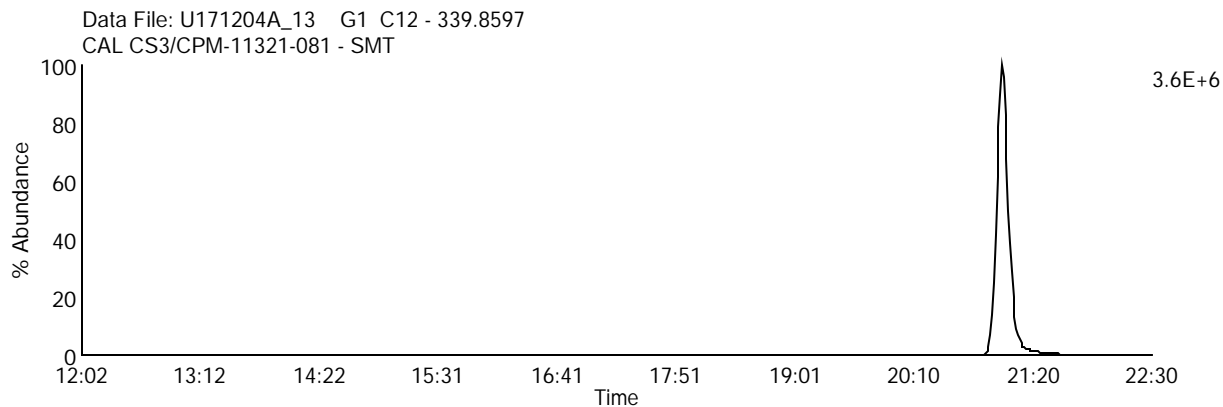
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

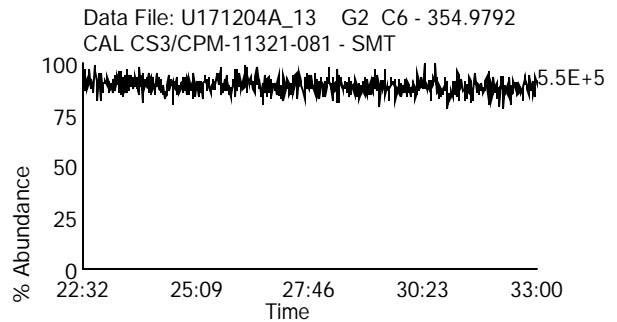
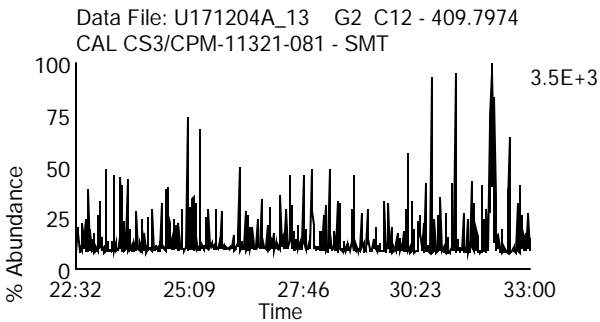
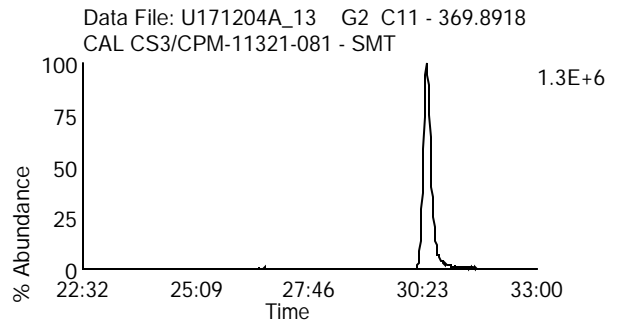
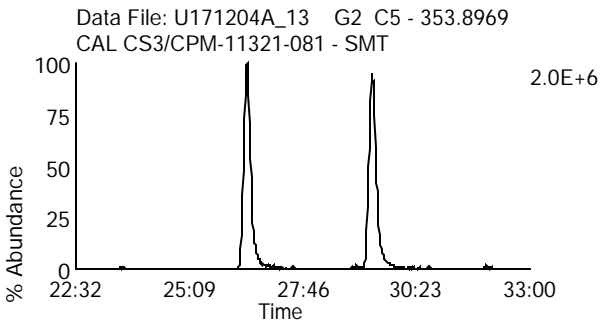
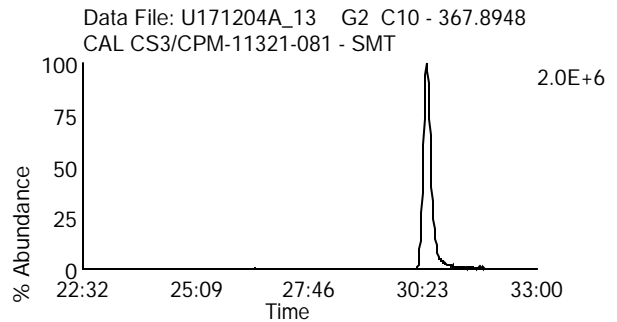
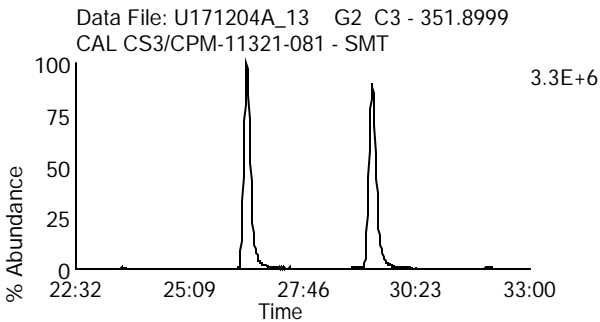
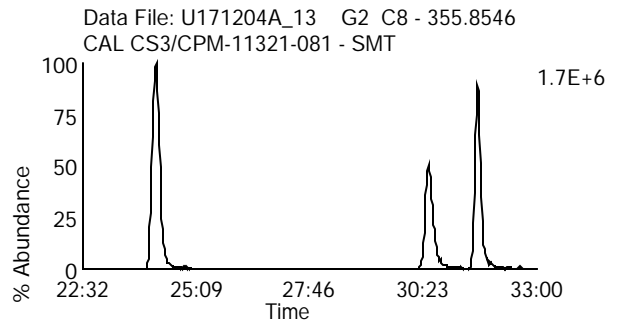
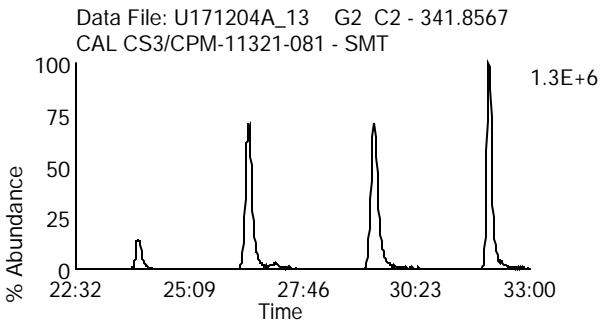
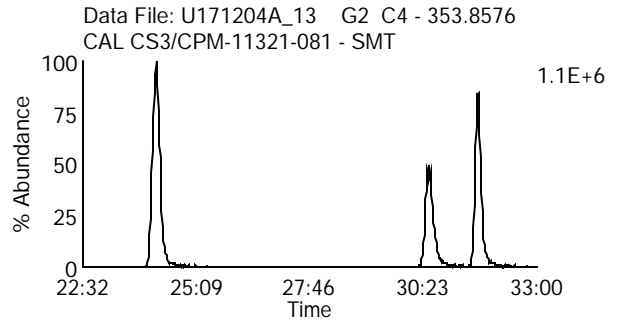
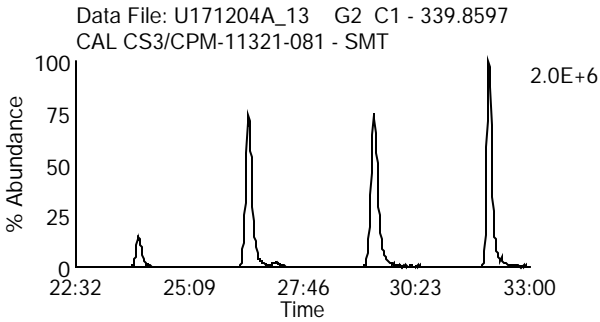
Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171204A_13
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

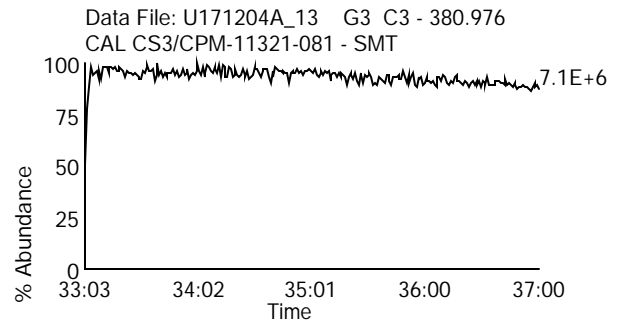
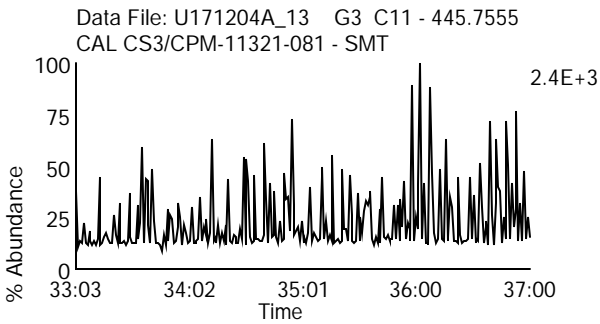
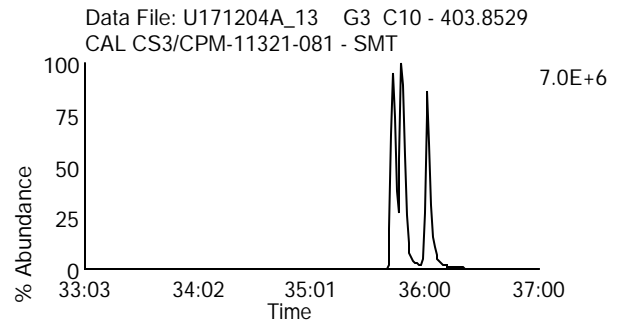
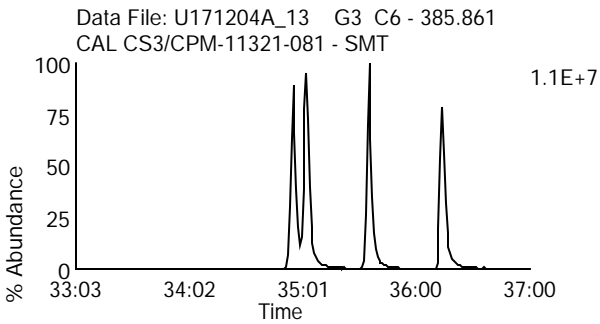
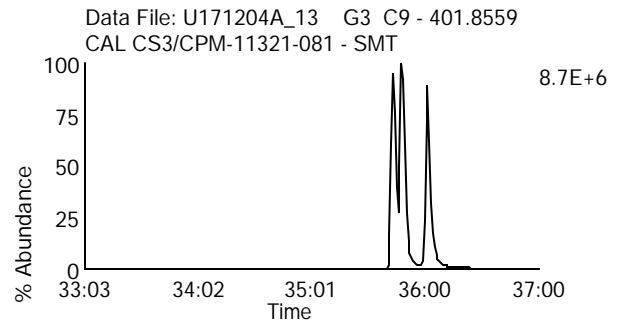
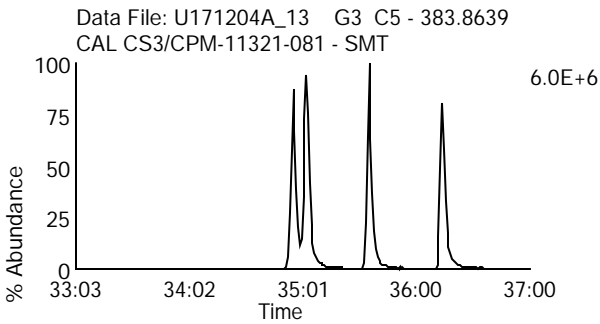
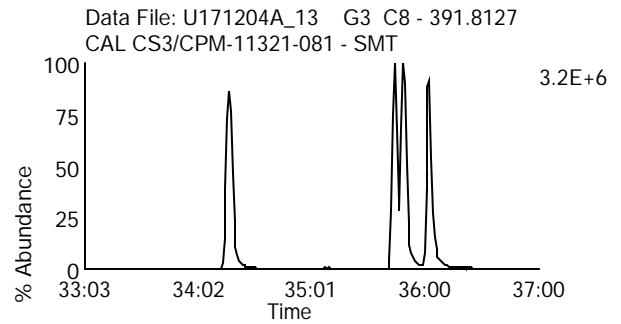
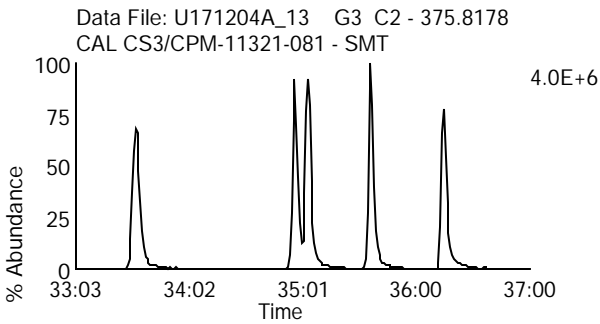
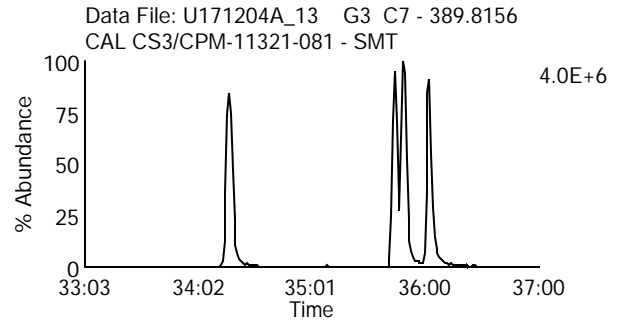
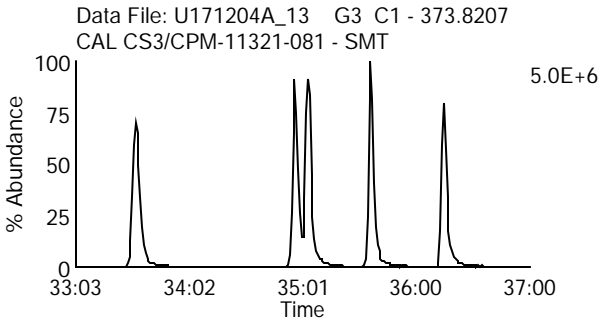
Lab Sample ID: CS3/CPM-11321-081
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171204A_13
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

Lab Sample ID: CS3/CPM-11321-081
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171204A_13

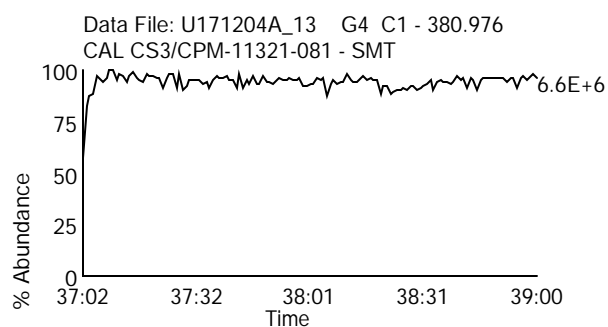
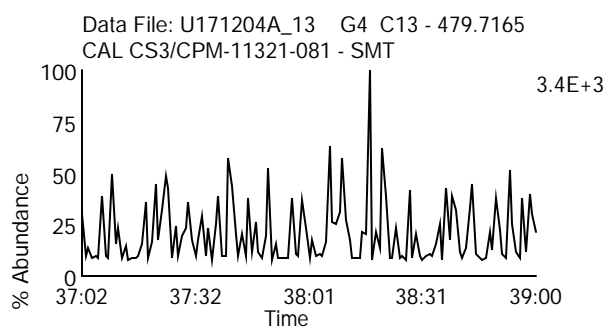
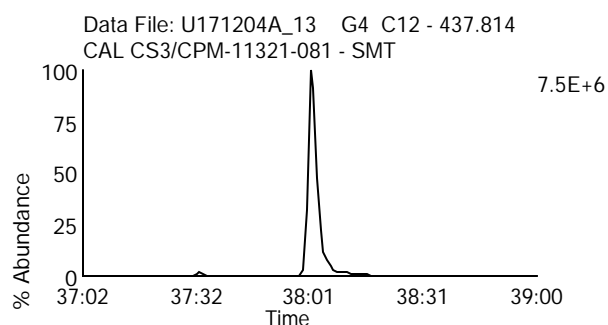
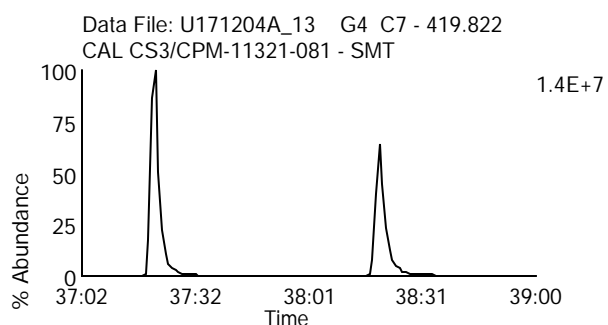
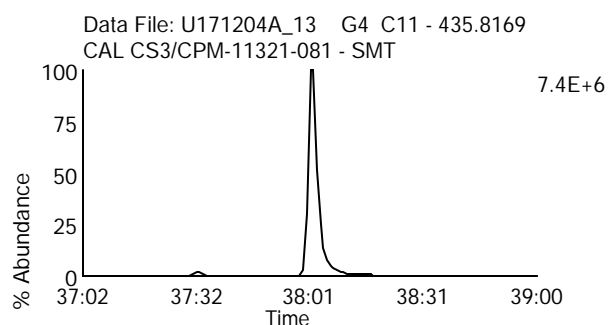
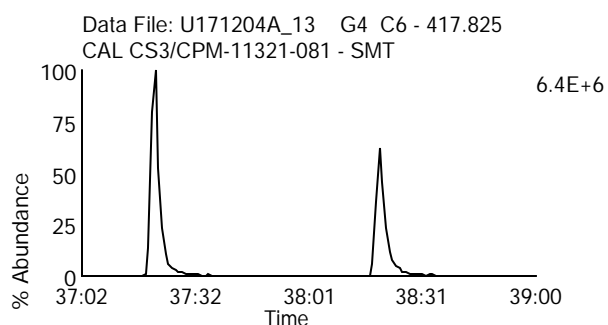
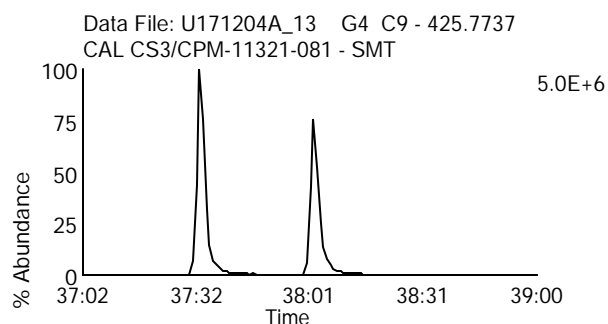
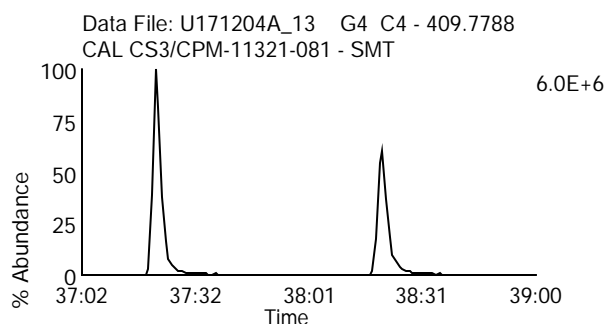
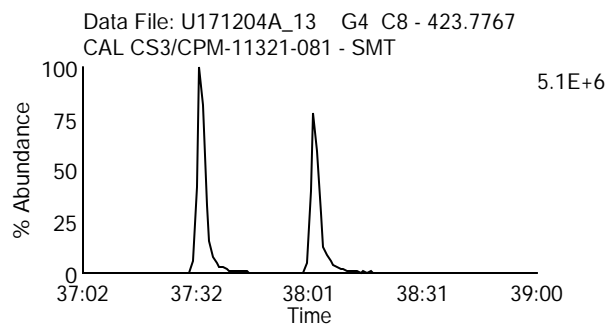
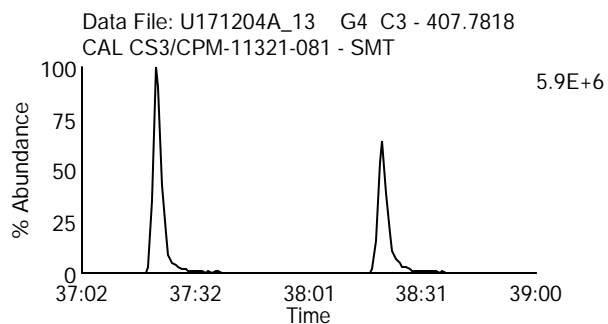
Date Acquired: 12/4/2017

Sample Description: CAL CS3/CPM-11321-081 - SMT

Lab Sample ID: CS3/CPM-11321-081

Client Sample ID: CPM/WDM

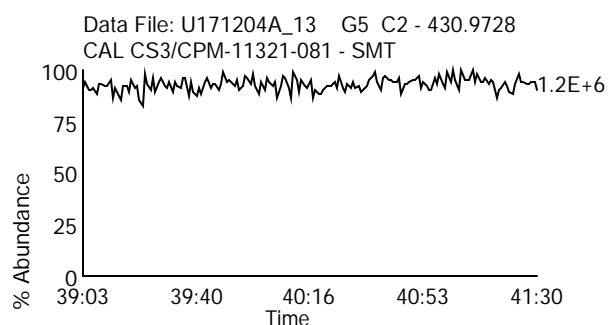
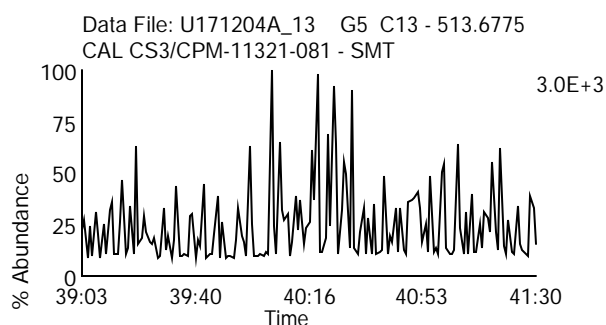
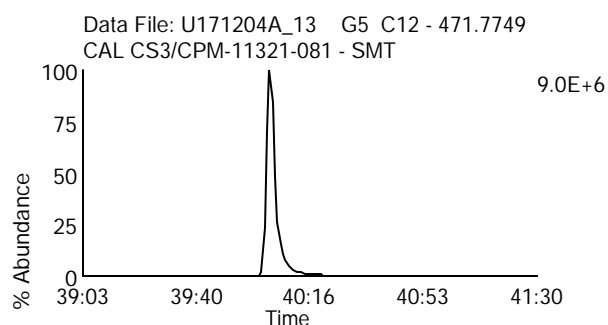
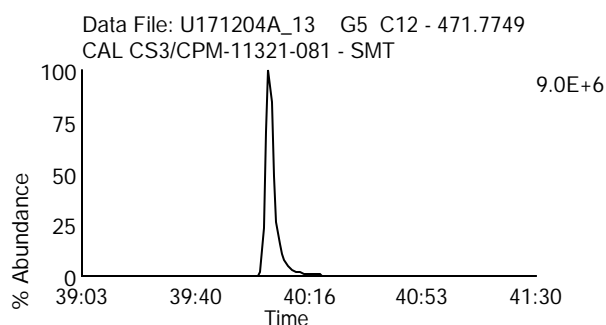
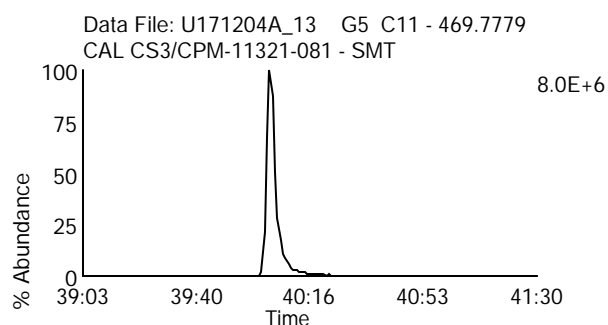
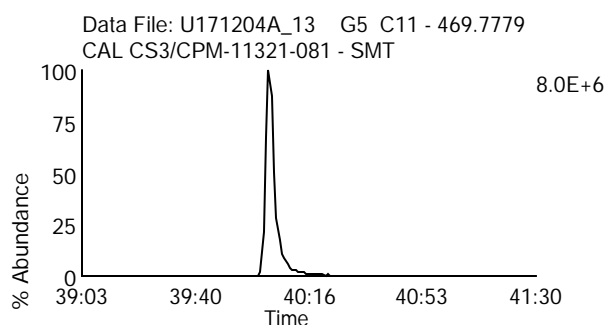
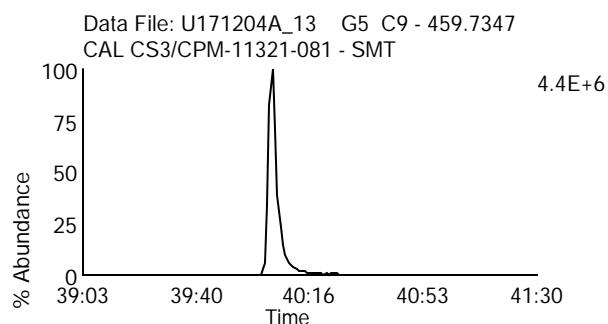
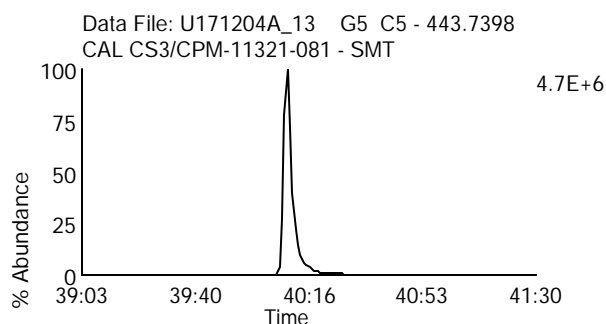
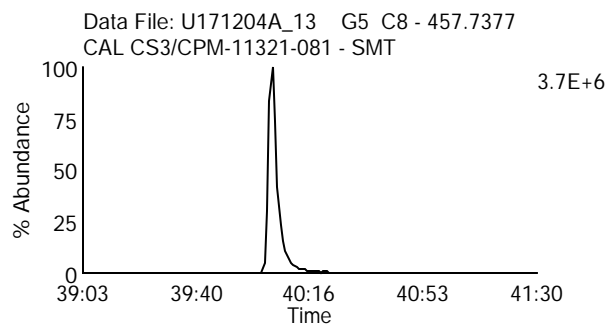
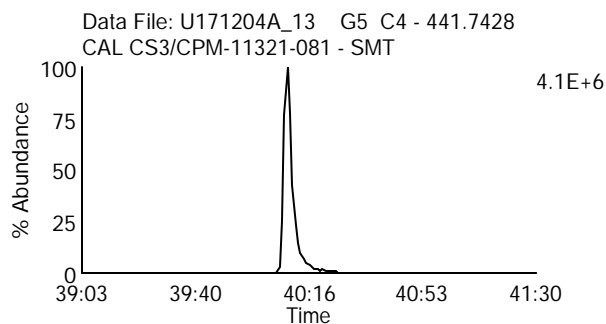
Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171204A_13
Date Acquired: 12/4/2017
Sample Description: CAL CS3/CPM-11321-081 - SMT

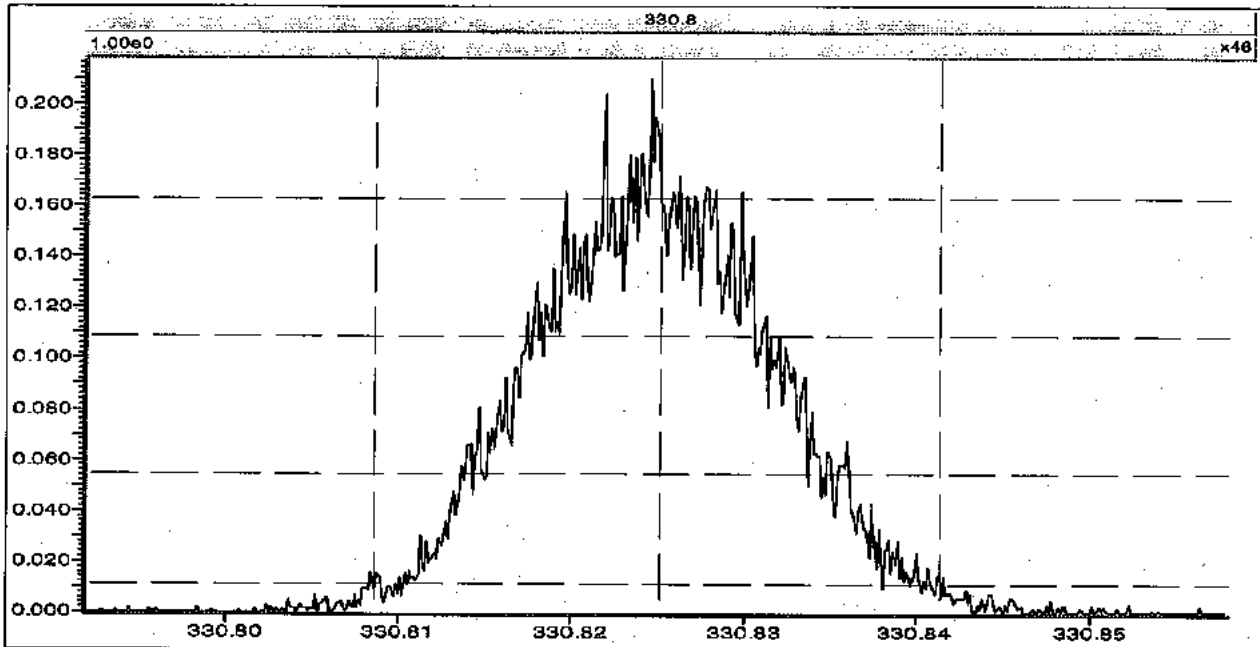
Lab Sample ID: CS3/CPM-11321-081
Client Sample ID: CPM/WDM
Instrument: 10MSHR06 (U)



File: C:\MassLynx\Default.PRO\ACQUDB\U10MSHR06.IPR

Printed: Tuesday, November 07, 2017 10:25:38 Central Standard Time

Signature
11/7/17



Signature
11/7/17

Source (EI+)

Ion Repeller (V)	-6.86
Focus 1	505
Beam Centre	-29.2
Focus 2	4186
Temperature (C)	280
Elec Energy (eV)	36.3
Trap Current (uA)	500.0
Y Deflect 1	-93.9
Z Deflect 1	-17.1
Z Deflect 2	12.0
Z Focus 2	2167
Z Focus 3	0
Z Deflect 3	4.9
Y Focus	3570
Rotate 2	-11.3
Curve 2	-1.3
Curve 3	4.5
Rotate 3	3.0
Rotate 4	-0.0
V Acc (V)	7000.33
Magnet Mass	330.8
Source Slit	38.18
Collector Slit	26.02
MIKES Slit	100.00
Alpha	40.00
Detector Voltage	350
Ion Energy	0.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser

No information

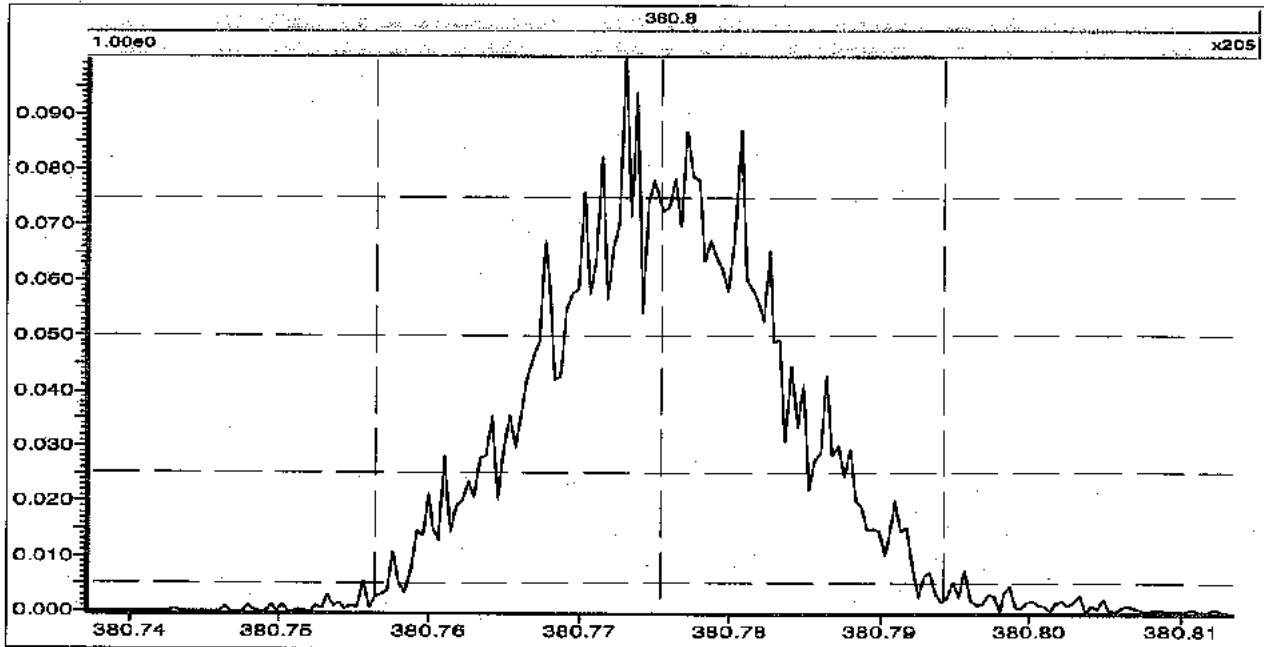
Engineer

No information

File: C:\MassLynx\Default.PROVACQ\U10MSHR06.IPR

Printed: Wednesday, November 08, 2017 10:15:18 Central Standard Time

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11/8/17



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Peak
11/8/17

Source (EI+)	
Ion Repeller (V)	-6.86
Focus 1	505
Beam Centre	-29.2
Focus 2	4186
Temperature (C)	280
Elec Energy (eV)	36.3
Trap Current (uA)	500.0
Y Deflect 1	-93.9
Z Deflect 1	-17.1
Z Deflect 2	12.0
Z Focus 2	2167
Z Focus 3	0
Z Deflect 3	4.9
Y Focus	3570
Rotate 2	-11.3
Curve 2	-1.3
Curve 3	4.5
Rotate 3	3.0
Rotate 4	-0.0
V Acc (V)	7000.06
Magnet Mass	330.8
Source Slit	38.18
Collector Slit	26.02
MIKES Slit	100.00
Alpha	40.00
Detector Voltage	350
Ion Energy	0.00
Z4 Restrictor	Off
Vacc Limit	8000

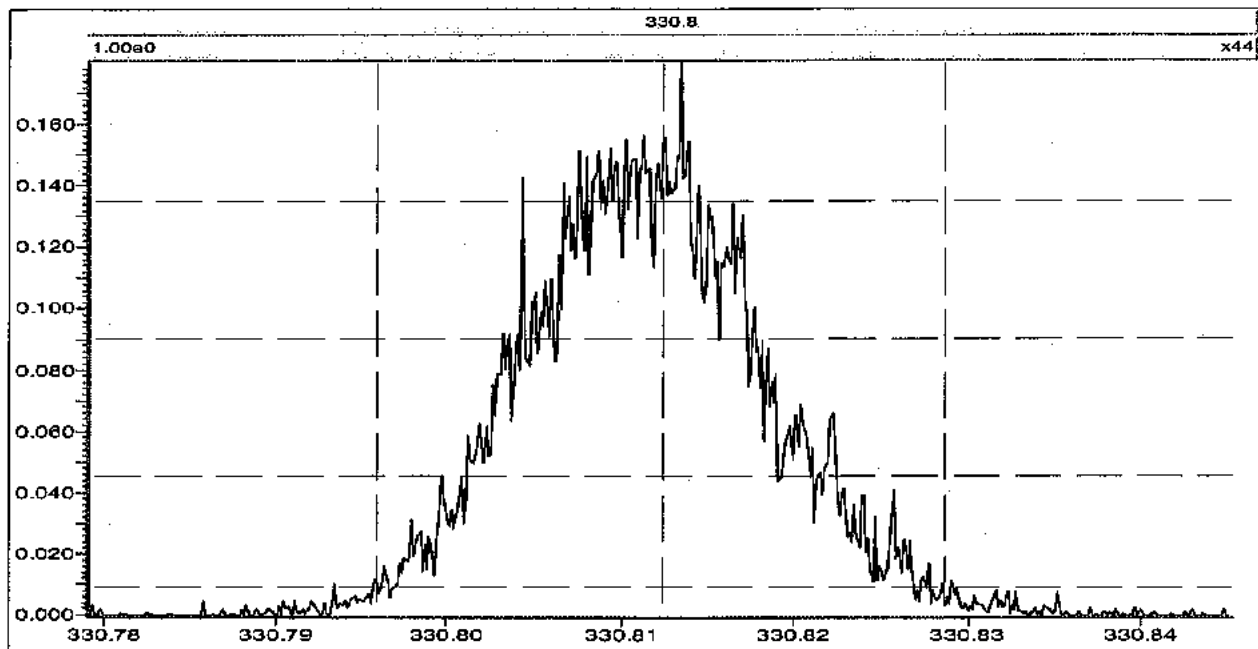
Analyser
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Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\U10MSHR06.IPR

Printed: Thursday, November 30, 2017 16:02:40 Central Standard Time

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11/30/17



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JWA
11/30/17

Source (EI+)

Ion Repeller (V)	-6.94
Focus 1	529
Beam Centre	-28.2
Focus 2	4191
Temperature (C)	280
Elec Energy (eV)	36.3
Trap Current (uA)	500.0
Y Deflect 1	-95.0
Z Deflect 1	-5.2
Z Deflect 2	8.9
Z Focus 2	2091
Z Focus 3	0
Z Deflect 3	5.1
Y Focus	3669
Rotate 2	-10.6
Curve 2	2.6
Curve 3	5.4
Rotate 3	2.0
Rotate 4	-2.3
V Acc (V)	7012.05
Magnet Mass	330.8
Source Slit	38.58
Collector Slit	25.54
MIKES Slit	100.00
Alpha	40.00
Detector Voltage	350
Ion Energy	0.00
Z4 Restrictor	Off
Vacc Limit	8000

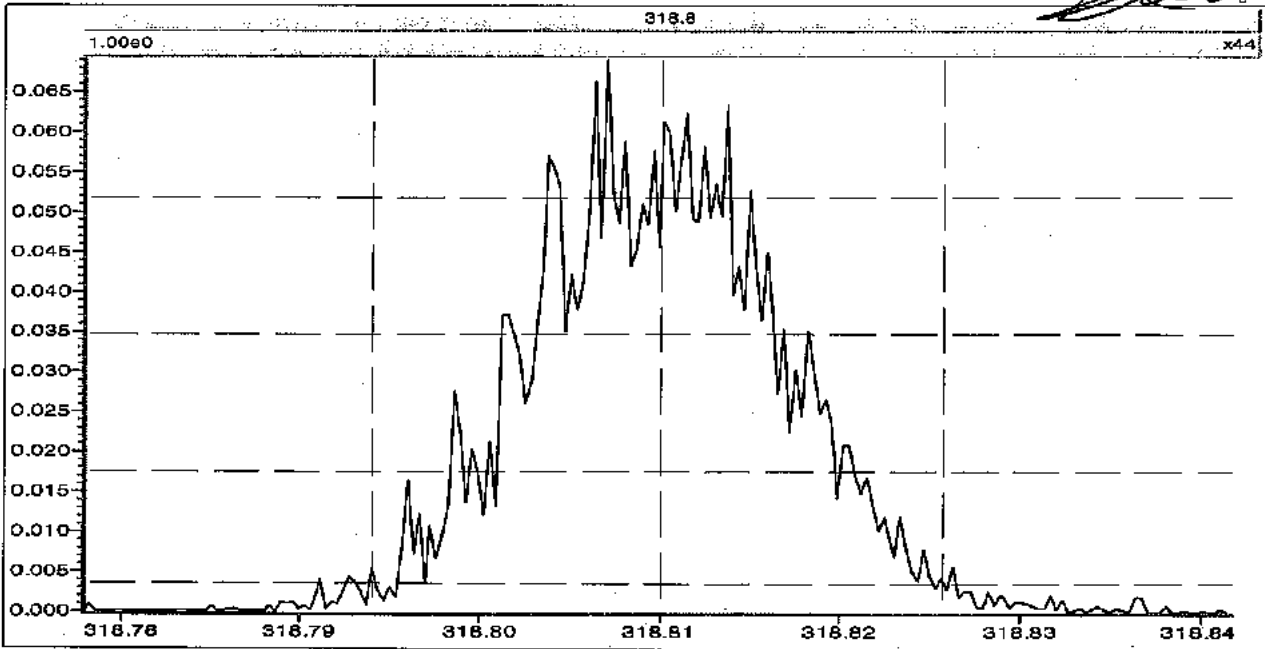
Analyser
No information

Engineer
No information

File: C:\MassLynx\Default.PROVACQUDBIU10MSHR06.IPR

Printed: Friday, December 01, 2017 17:14:00 Central Standard Time

BAL 12/1/17
[Signature]



Source (EI+)

Ion Repeller (V)	-6.94
Focus 1	529
Beam Centre	-28.2
Focus 2	4191
Temperature (C)	280
Elec Energy (eV)	36.3
Trap Current (uA)	500.0
Y Deflect 1	-95.0
Z Deflect 1	-5.2
Z Deflect 2	8.9
Z Focus 2	2091
Z Focus 3	0
Z Deflect 3	5.1
Y Focus	3669
Rotate 2	-10.6
Curve 2	2.6
Curve 3	5.4
Rotate 3	2.0
Rotate 4	-2.3
V. Acc (V)	7011.56
Magnet Mass	330.8
Source Slit	38.58
Collector Slit	25.54
MIKES Slit	100.00
Alpha	40.00
Detector Voltage	350
Ion Energy	0.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser

No information

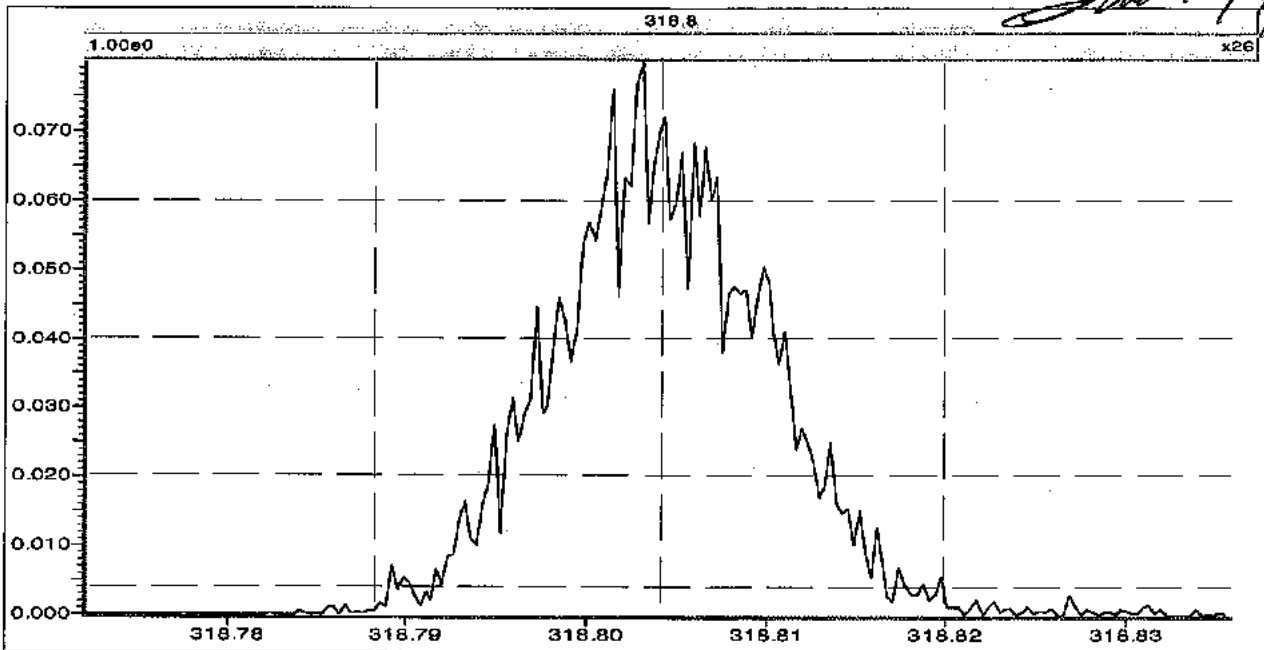
Engineer

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File: C:\MassLynx\Default.PROVACQUDBU10MSHR06.IPR

Printed: Sunday, December 03, 2017 17:20:42 Central Standard Time

BAZ 12/3/17
D 12/4/17



Source (EI+)

Ion Repeller (V)	-6.89
Focus 1	469
Beam Centre	-31.9
Focus 2	4191
Temperature (C)	280
Elec Energy (eV)	36.3
Trap Current (uA)	500.0
Y Deflect 1	-77.0
Z Deflect 1	-10.9
Z Deflect 2	-5.5
Z Focus 2	2237
Z Focus 3	0
Z Deflect 3	-1.1
Y Focus	3672
Rotate 2	-10.1
Curve 2	0.2
Curve 3	4.0
Rotate 3	3.1
Rotate 4	-0.9
V Acc (V)	7011.53
Magnet Mass	330.8
Source Slit	41.02
Collector Slit	25.16
MIKES Slit	100.00
Alpha	40.00
Detector Voltage	350
Ion Energy	0.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser

No information

Engineer

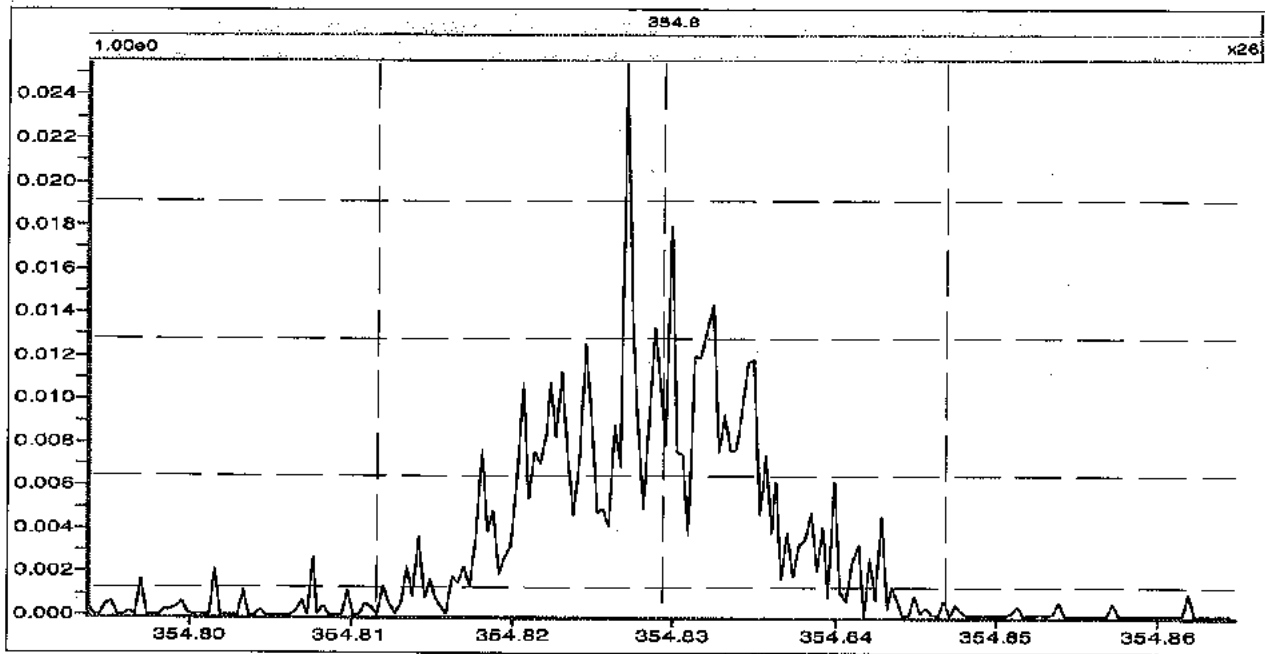
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File: C:\MassLynx\Default.PRO\ACQUDBU10MSHR06.IPR

Printed: Monday, December 04, 2017 06:54:26 Central Standard Time

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*BAL
12/4/17*



Source (EI+)
 Ion Repeller (V) -6.89
 Focus 1 469
 Beam Centre -31.9
 Focus 2 4191
 Temperature (C) 280
 Elec Energy (eV) 36.3
 Trap Current (uA) 500.0
 Y Deflect 1 -77.0
 Z Deflect 1 -10.9
 Z Deflect 2 -5.5
 Z Focus 2 2237
 Z Focus 3 0
 Z Deflect 3 -1.1
 Y Focus 3672
 Rotate 2 -10.1
 Curve 2 0.2
 Curve 3 4.0
 Rotate 3 3.1
 Rotate 4 -0.9
 V Acc (V) 7011.53
 Magnet Mass 330.8
 Source Slit 41.02
 Collector Slit 25.16
 MIKES Slit 100.00
 Alpha 40.00
 Detector Voltage 350
 Ion Energy 0.00
 Z4 Restrictor Off
 Vacc Limit 8000

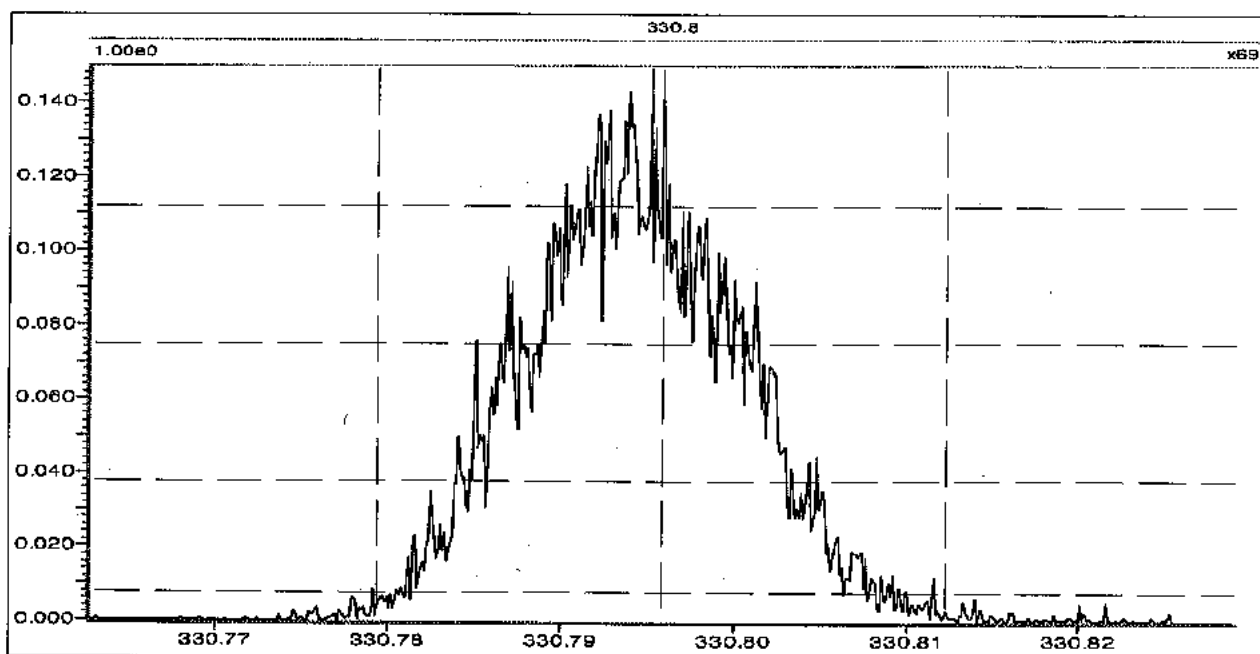
Analyser
No information

Engineer
No information

File: C:\MassLynx\Default.PROVACQ\UDBIU10MSHR06.IPR

Printed: Monday, December 04, 2017 14:41:28 Central Standard Time

[Handwritten Signature]
12/04/17



[Handwritten] BAL
12/4/17

Source (EI+)
 Ion Repeller (V) -6.89
 Focus 1 469
 Beam Centre -31.9
 Focus 2 4191
 Temperature (C) 280
 Elec Energy (eV) 36.3
 Trap Current (uA) 500.0
 Y Deflect 1 -77.0
 Z Deflect 1 -10.9
 Z Deflect 2 -5.5
 Z Focus 2 2237
 Z Focus 3 0
 Z Deflect 3 -1.1
 Y Focus 3672
 Rotate 2 -10.1
 Curve 2 0.2
 Curve 3 4.0
 Rotate 3 3.1
 Rotate 4 -0.9
 V Acc (V) 7012.38
 Magnet Mass 330.8
 Source Slit 41.02
 Collector Slit 25.16
 MIKES Slit 100.00
 Alpha 40.00
 Detector Voltage 350
 Ion Energy 0.00
 Z4 Restrictor Off
 Vacc Limit 8000

Analyser
 No information

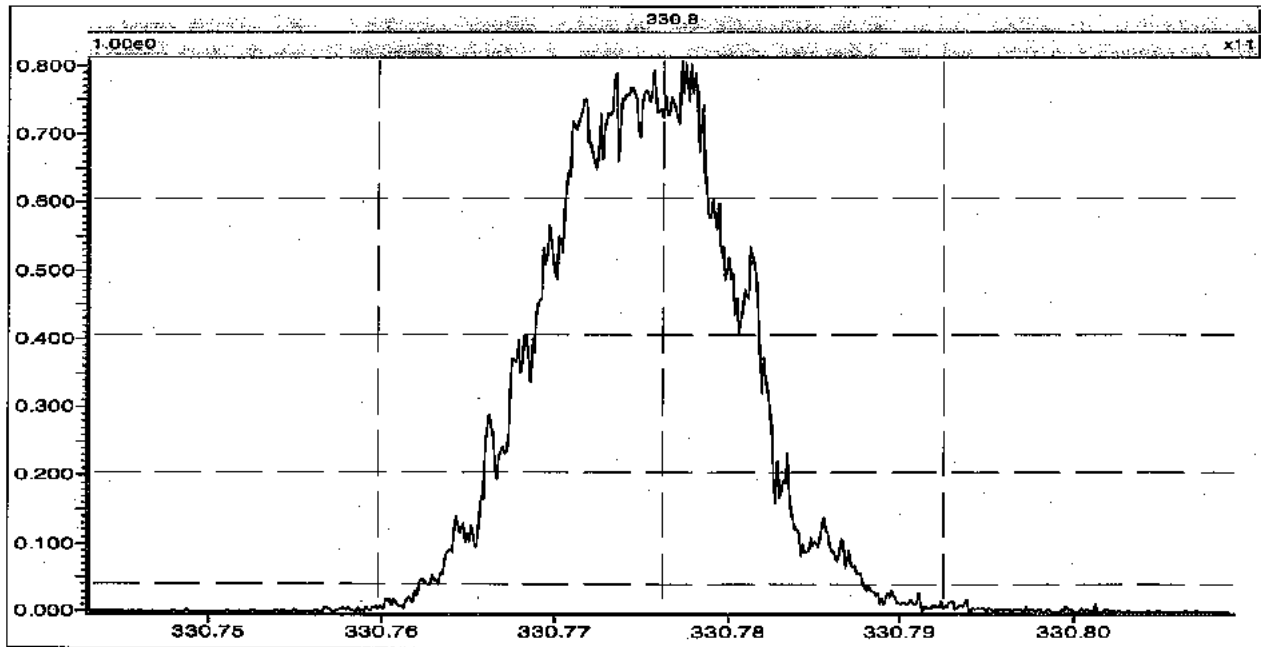
Engineer
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File: C:\MassLynx\Default.PROVACQ\U10MSHR06.IPR

Printed: Tuesday, December 05, 2017 09:08:55 Central Standard Time

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12/05/17

[Handwritten note]
Sine
12/5/17



Source (EI+)	
Ion Repeller (V)	-6.89
Focus 1	469
Beam Centre	-31.9
Focus 2	4191
Temperature (C)	280
Elec Energy (eV)	36.3
Trap Current (uA)	500.0
Y Deflect 1	-77.0
Z Deflect 1	-10.9
Z Deflect 2	-5.5
Z Focus 2	2237
Z Focus 3	0
Z Deflect 3	-1.1
Y Focus	3672
Rotate 2	-10.1
Curve 2	0.2
Curve 3	4.0
Rotate 3	3.1
Rotate 4	-0.9
V Acc (V)	7012.81
Magnet Mass	330.8
Source Slit	41.02
Collector Slit	25.16
MIKES Slit	100.00
Alpha	40.00
Detector Voltage	350
Ion Energy	0.00
Z4 Restrictor	Off
Vacc Limit	8000

Analyser
No information

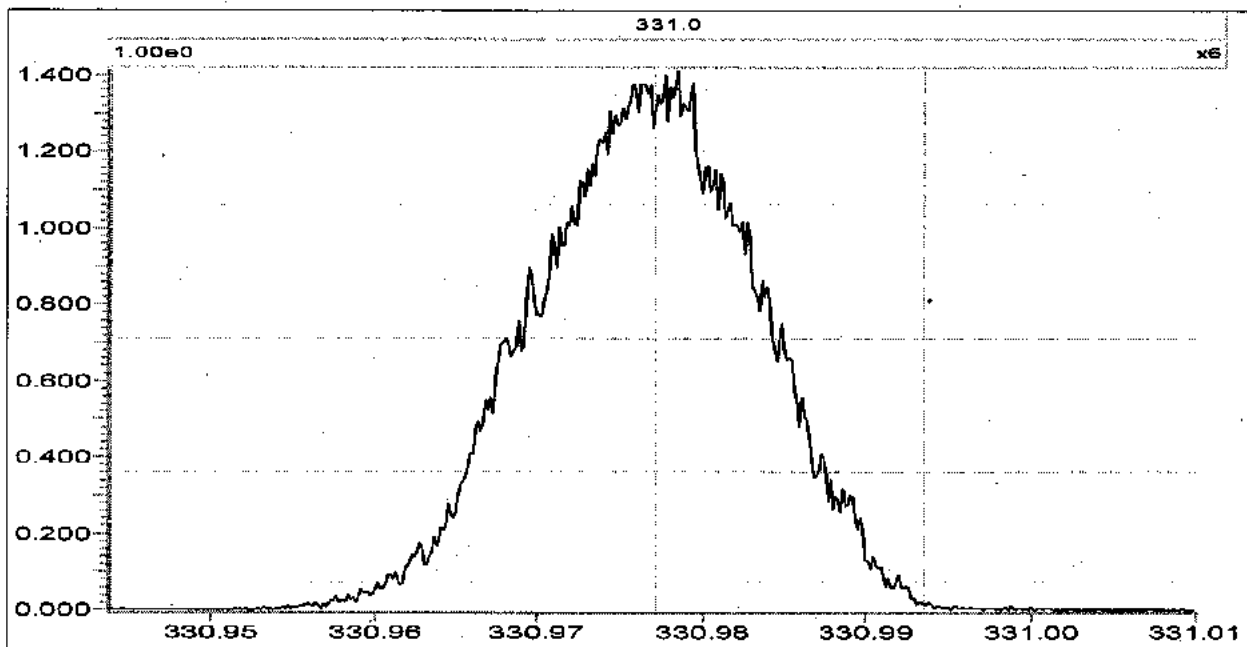
Engineer
No information

File: C:\MassLynx\Default.pro\Acqudb\Y-10MSHR12.ipr

Printed: Monday, October 09, 2017 14:32:35 Central Daylight Time

Signature
10/09/17

Sum
10/9/17



Source (EI+)

Ion Repeller (V)	-12.29
Focus 1	1106
Beam Centre	8.1
Focus 2	4205
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	68.6
Z Deflect 1	-29.2
Z Deflect 2	-19.9
Z Focus 2	2347
Z Focus 3	0
Z Deflect 3	29.1
Y Focus	3662
Rotate 2	-3.7
Curve 2	-11.9
Curve 3	-0.1
Rotate 3	-37.9
Rotate 4	-3.2
V Acc (V)	7264.80
Magnet Mass	331.0
Source Slit	17.52
Collector Slit	12.60
MIKES Slit	100.00
Alpha	50.00
Detector Voltage	375
Ion Energy	-3.50
Z4 Restrictor	Off
Vacc Limit	8000

Analyser

No information

Engineer

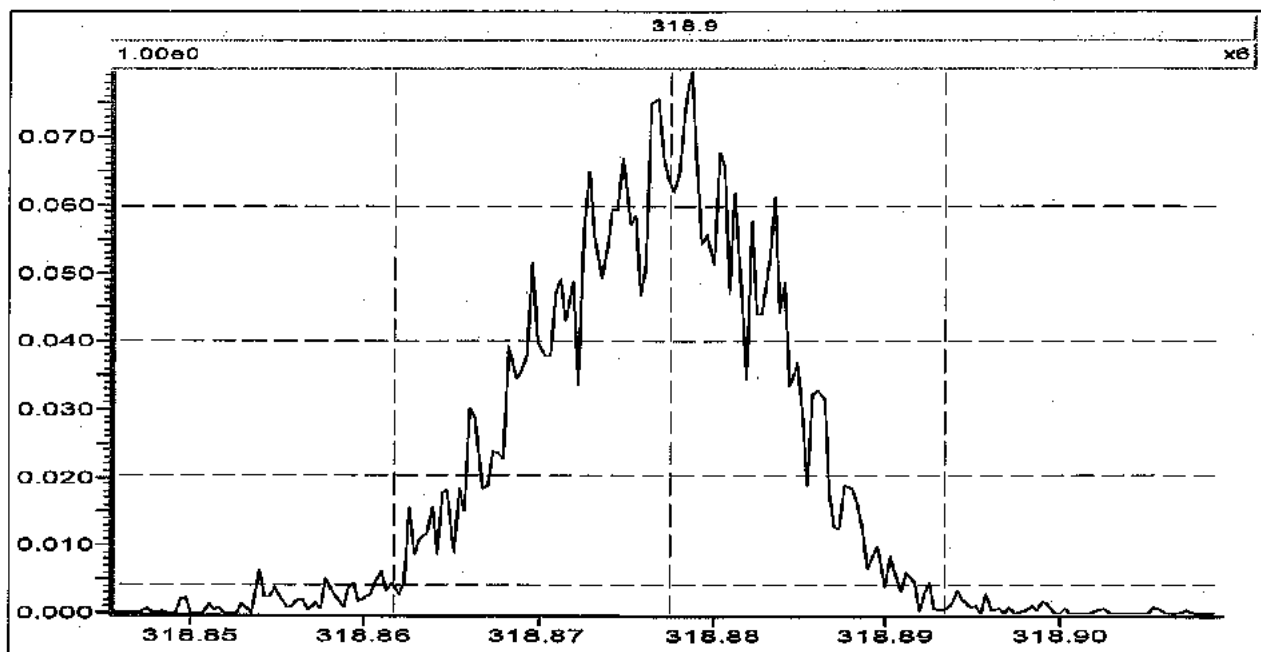
No information

File: C:\MassLynx\DEFAULT.PROVACQ\UBY-10MSHR12.ipr

Printed: Tuesday, October 10, 2017 06:46:55 Central Daylight Time

Paul D. / 2

*Sum
10/10/17*



Source (EI+)	
Ion Repeller (V)	-12.29
Focus 1	1106
Beam Centre	8.1
Focus 2	4205
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	68.6
Z Deflect 1	-29.2
Z Deflect 2	-19.9
Z Focus 2	2347
Z Focus 3	0
Z Deflect 3	29.1
Y Focus	3662
Rotate 2	-3.7
Curve 2	-11.9
Curve 3	-0.1
Rotate 3	-37.9
Rotate 4	-3.2
V Acc (V)	7264.80
Magnet Mass	331.0
Source Slit	17.52
Collector Slit	12.60
MIKES Slit	100.00
Alpha	50.00
Detector Voltage	375
Ion Energy	-3.50
Z4 Restrictor	Off
Vacc Limit	8000

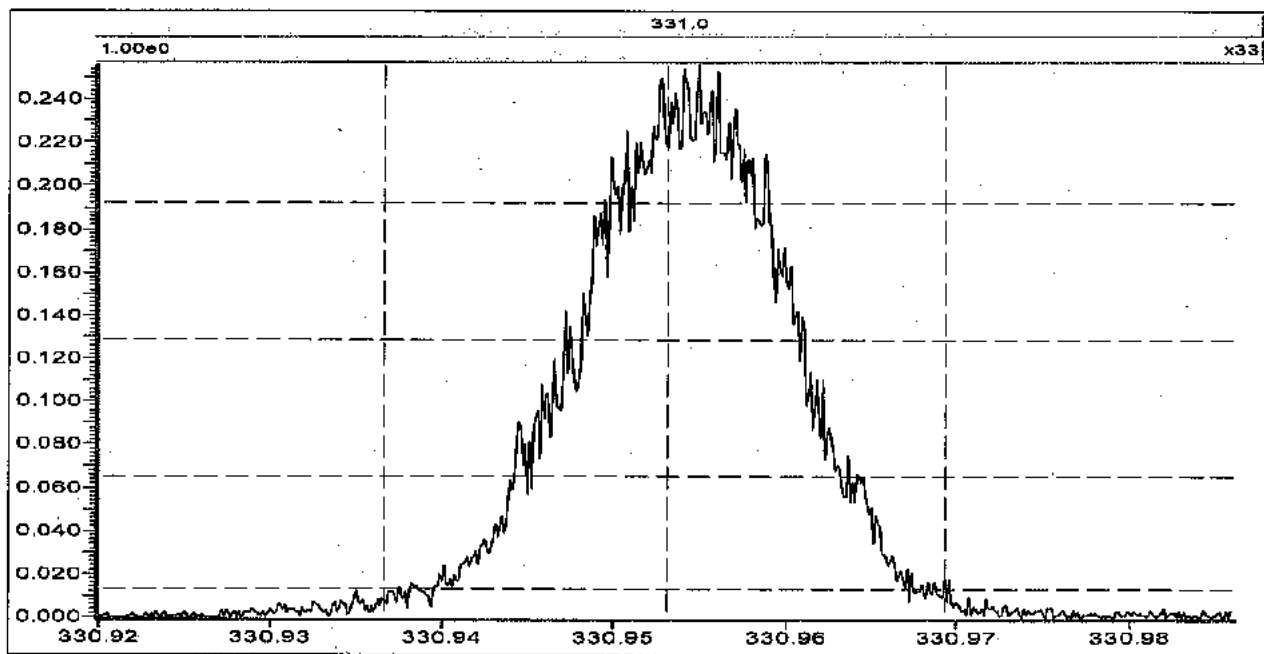
Analyser
No information

Engineer
No information

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Printed: Sunday, December 10, 2017 13:50:26 Central Standard Time

BAL 12/10/17
for DB225 shift



Source (EI+)

Ion Repeller (V)	-5.27
Focus 1	499
Beam Centre	-20.2
Focus 2	4164
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	61.7
Z Deflect 1	19.4
Z Deflect 2	-14.6
Z Focus 2	2310
Z Focus 3	0
Z Deflect 3	54.8
Y Focus	3890
Rotate 2	-3.7
Curve 2	-4.3
Curve 3	3.6
Rotate 3	-45.0
Rotate 4	-12.7
V Acc (V)	7000.31
Magnet Mass	331.0
Source Slit	17.92
Collector Slit	11.50
MIKES Slit	100.00
Alpha	80.00
Detector Voltage	375
Ion Energy	-3.50
Z4 Restrictor	Off
Vacc Limit	8000

Analyser

No information

Engineer

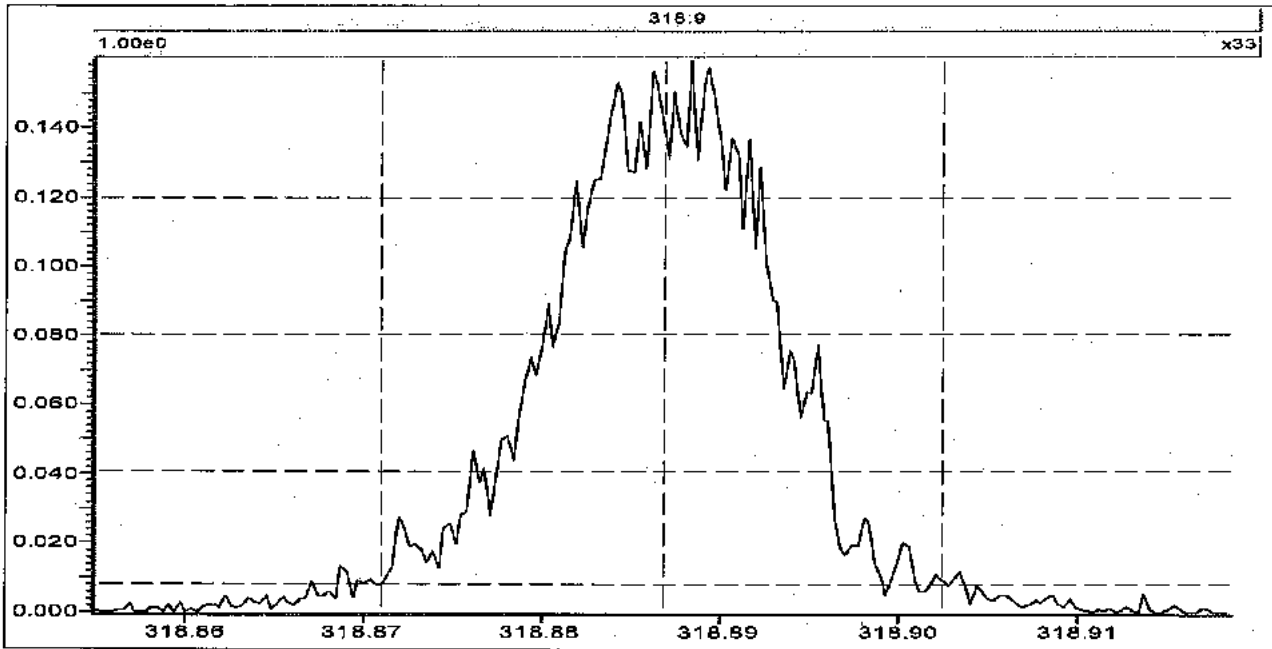
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Printed: Sunday, December 10, 2017 18:05:50 Central Standard Time

BAZ 12/10/17

sent
12/11/17



Source (EI+)

Ion Repeller (V)	-5.27
Focus 1	499
Beam Centre	-20.2
Focus 2	4164
Temperature (C)	280
Elec Energy (eV)	35.0
Trap Current (uA)	500.0
Y Deflect 1	61.7
Z Deflect 1	19.4
Z Deflect 2	-14.6
Z Focus 2	2310
Z Focus 3	0
Z Deflect 3	54.8
Y Focus	3890
Rotate 2	-3.7
Curve 2	-4.3
Curve 3	3.6
Rotate 3	-45.0
Rotate 4	-12.7
V Acc (V)	7000.31
Magnet Mass	331.0
Source Slit	17.92
Collector Slit	11.50
MIKES Slit	100.00
Alpha	80.00
Detector Voltage	375
Ion Energy	-3.50
Z4 Restrictor	Off
Vacc Limit	8000

Analyser

No information

Engineer

No information

Appendix F

QC Raw Data

Homologue Group: Tetras

Data File Name: U171130A_11

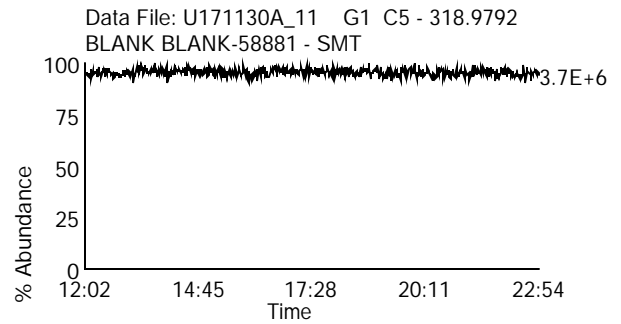
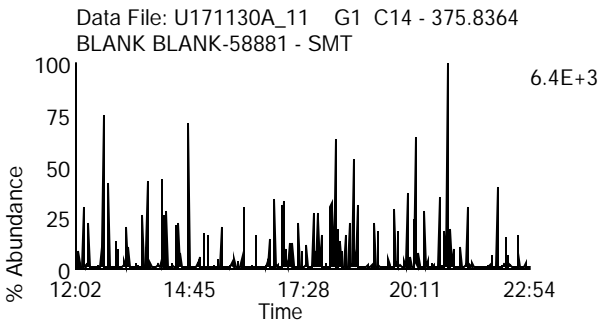
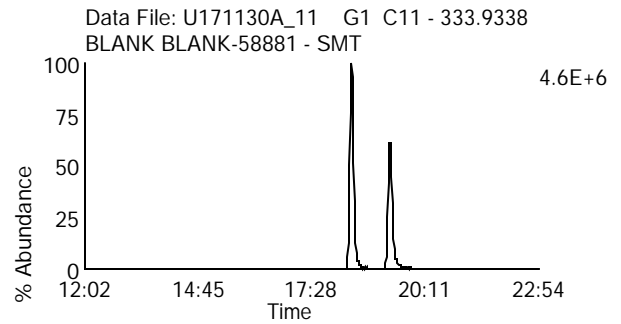
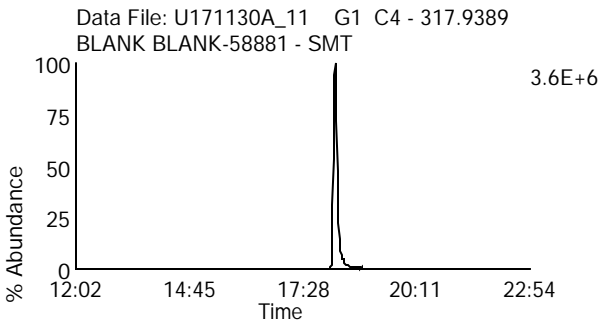
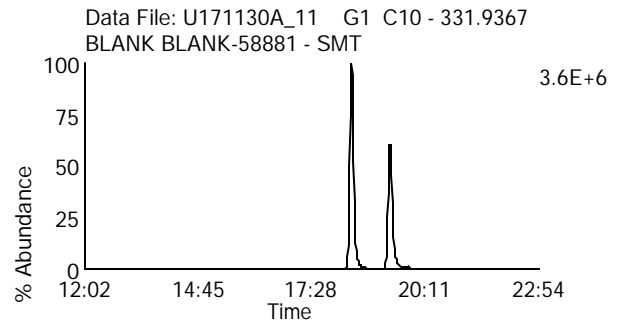
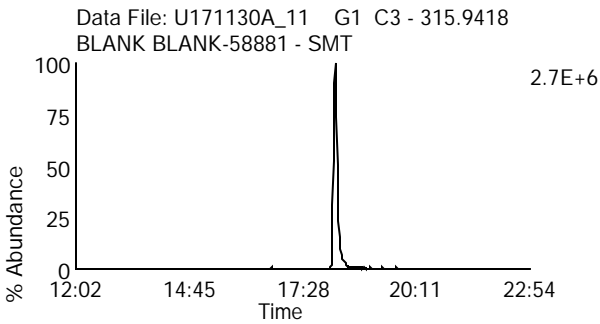
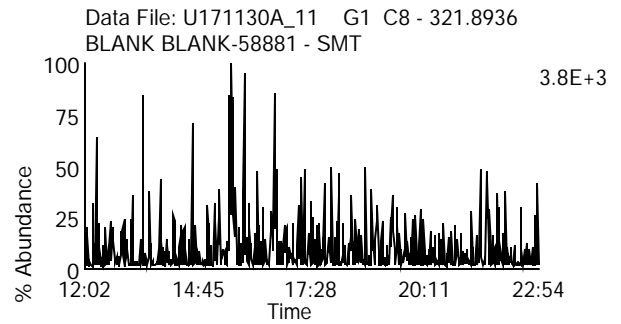
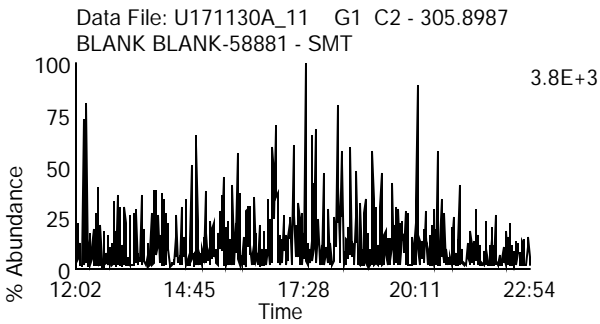
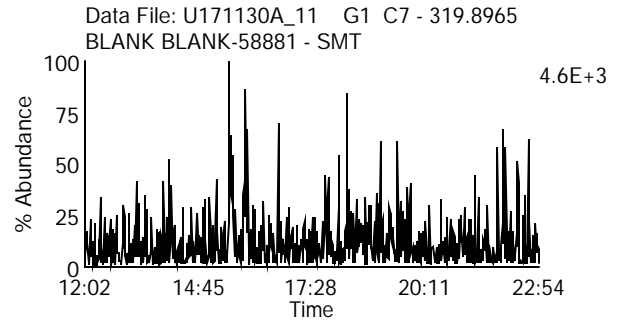
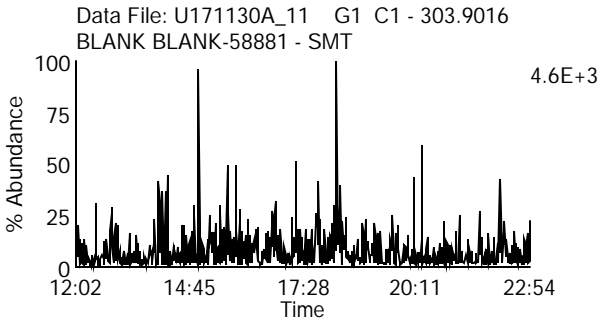
Date Acquired: 11/30/2017

Sample Description: BLANK BLANK-58881 - SMT

Lab Sample ID: BLANK-58881

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171130A_11

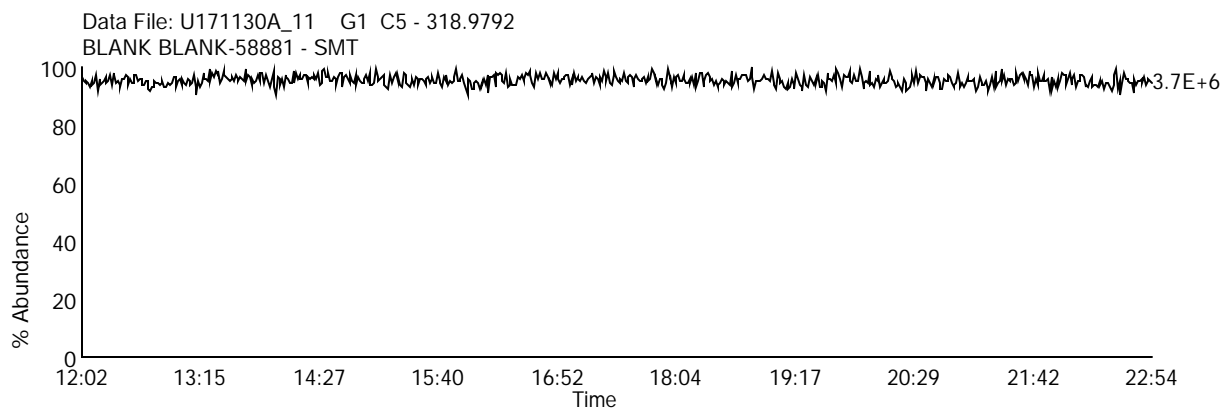
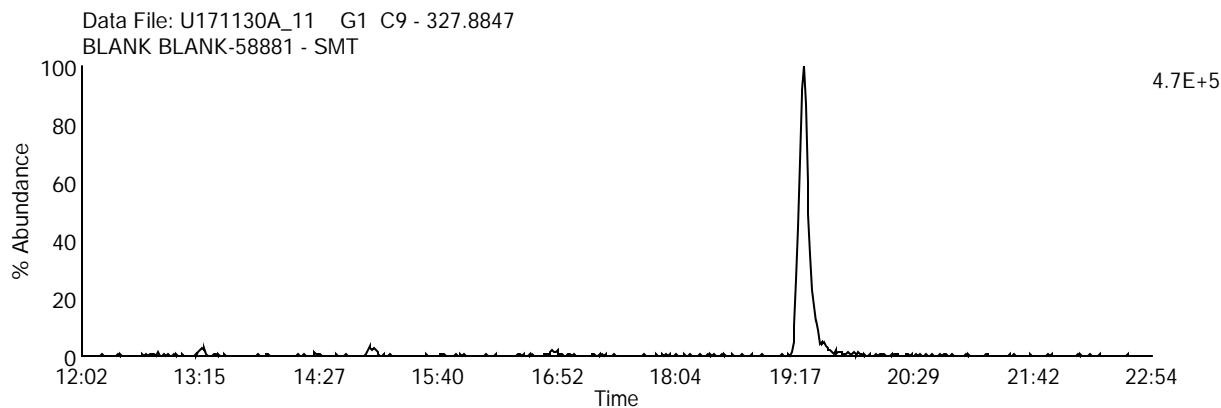
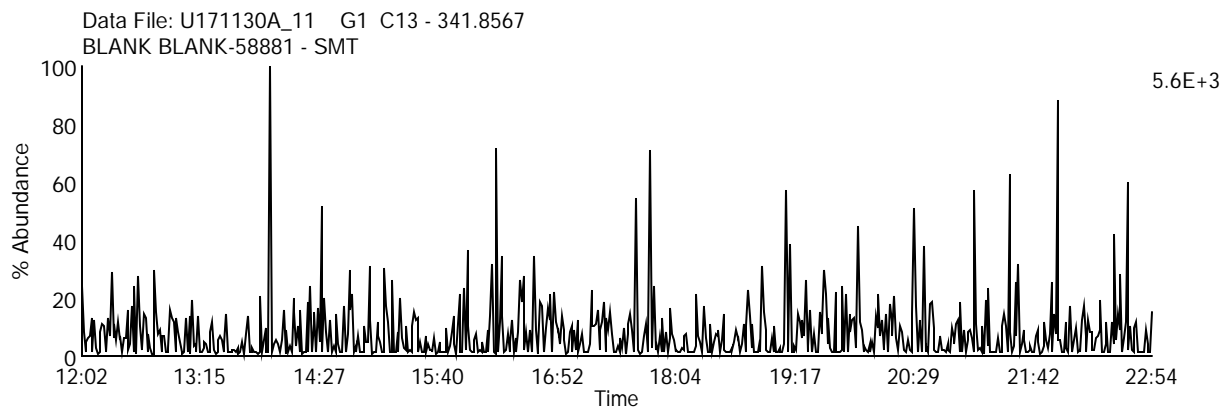
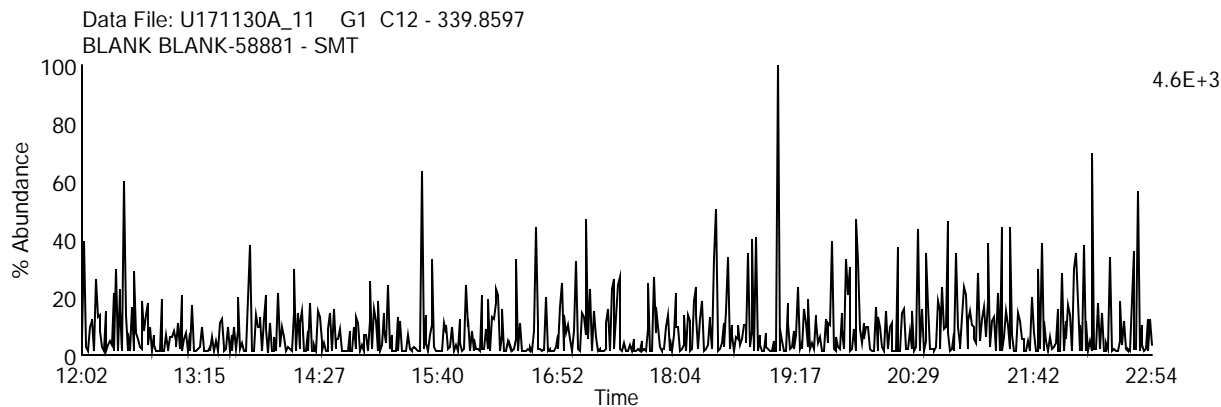
Lab Sample ID: BLANK-58881

Date Acquired: 11/30/2017

Client Sample ID:

Sample Description: BLANK BLANK-58881 - SMT

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171130A_11

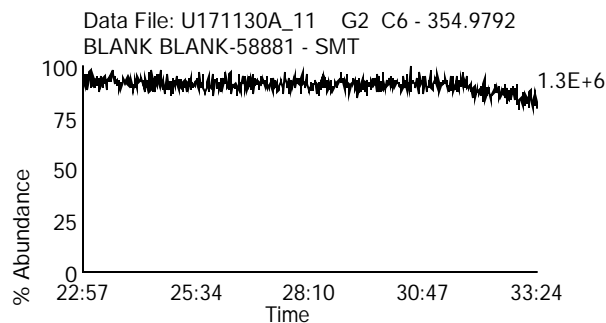
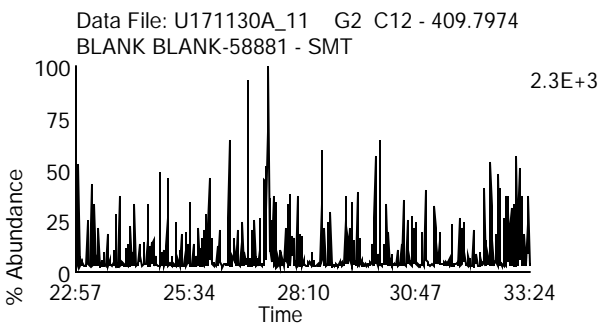
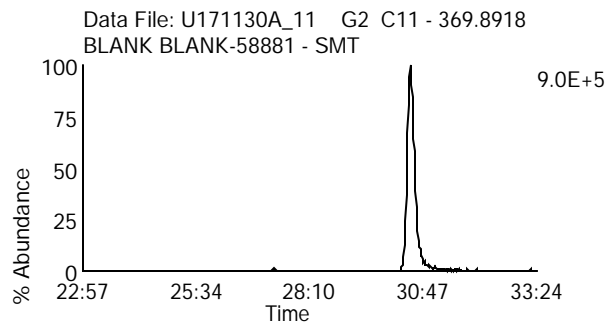
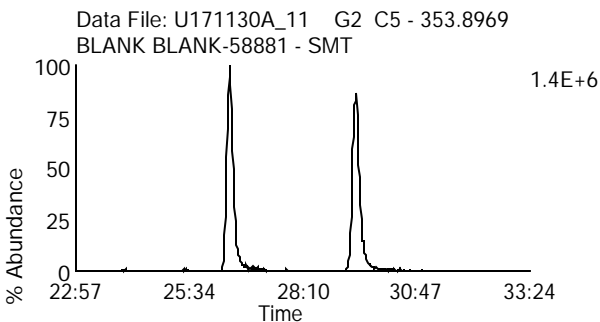
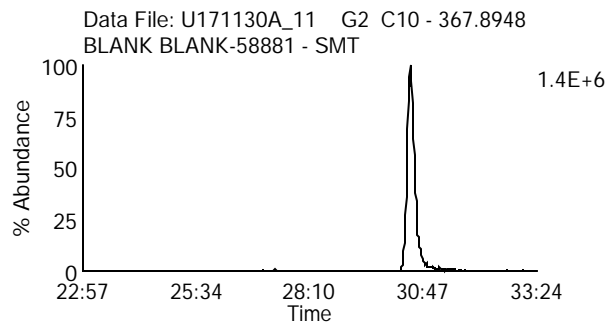
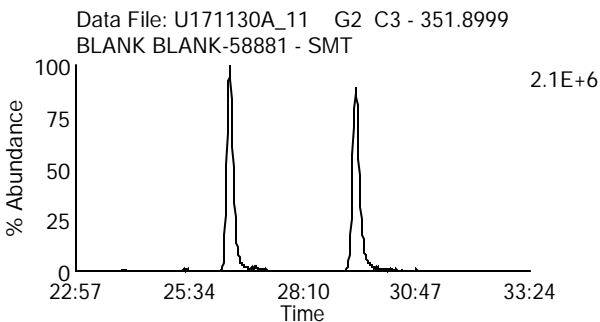
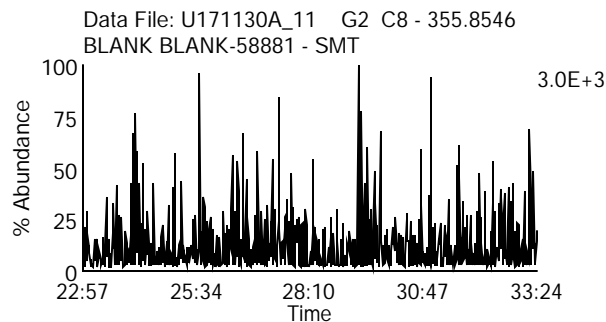
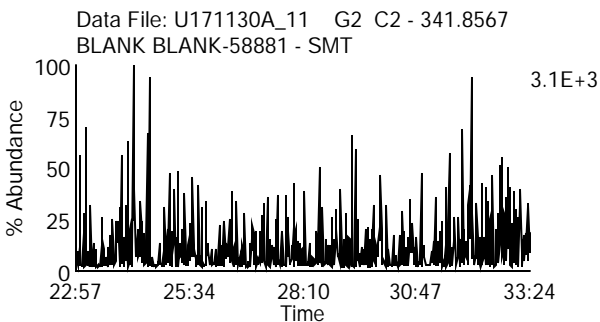
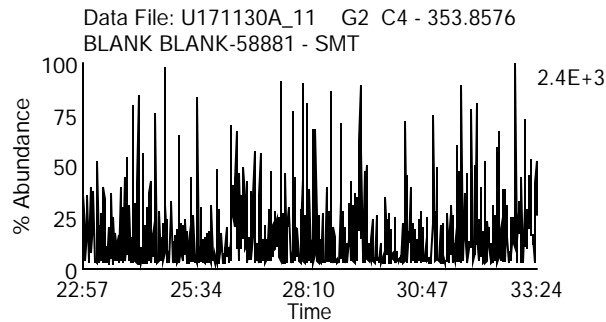
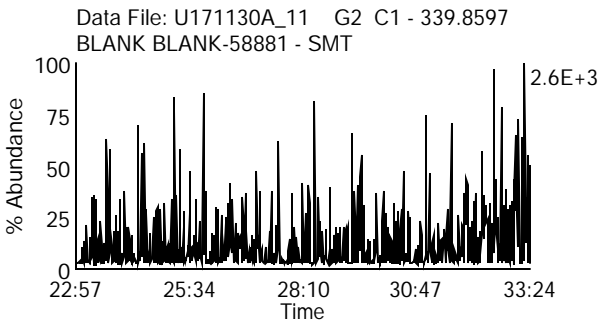
Date Acquired: 11/30/2017

Sample Description: BLANK BLANK-58881 - SMT

Lab Sample ID: BLANK-58881

Client Sample ID:

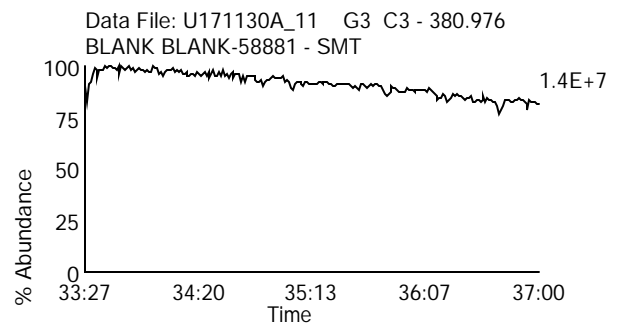
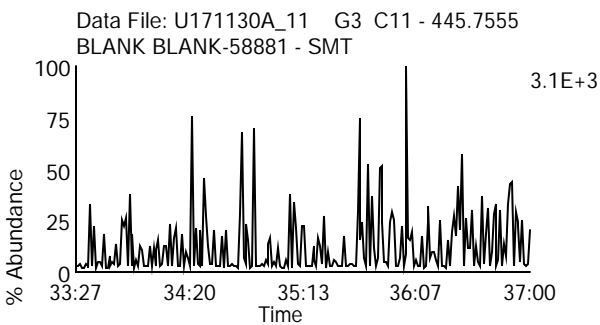
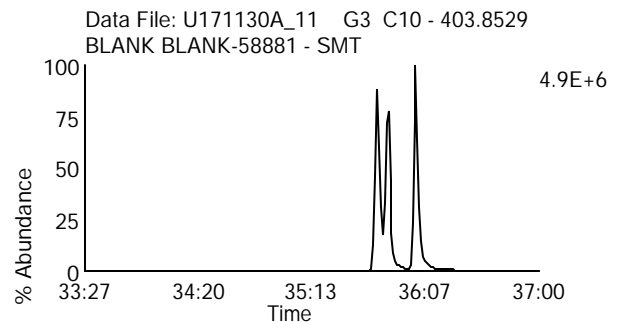
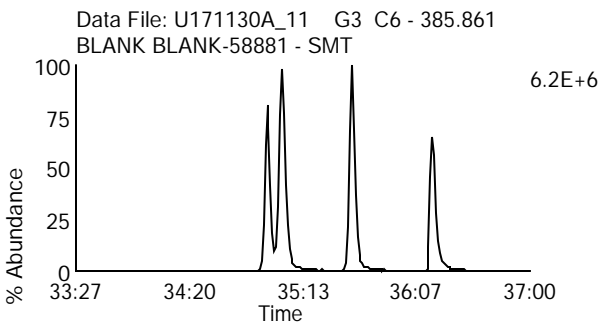
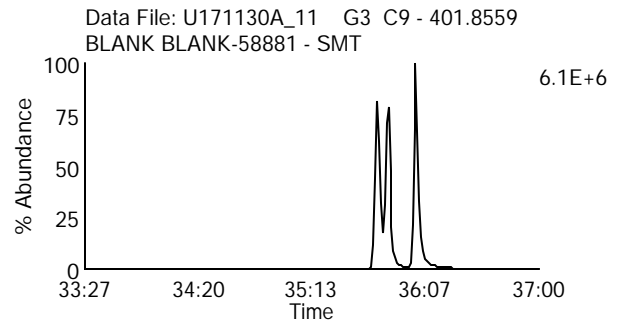
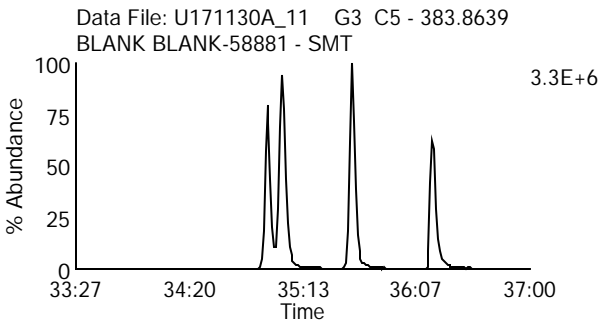
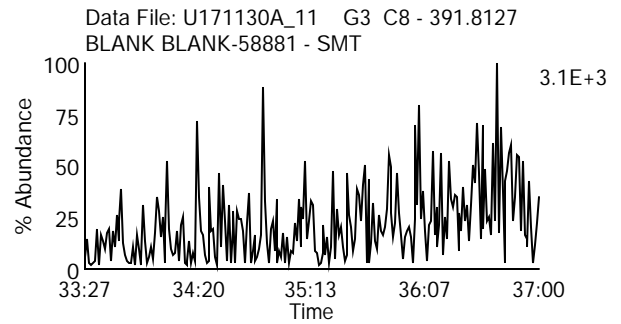
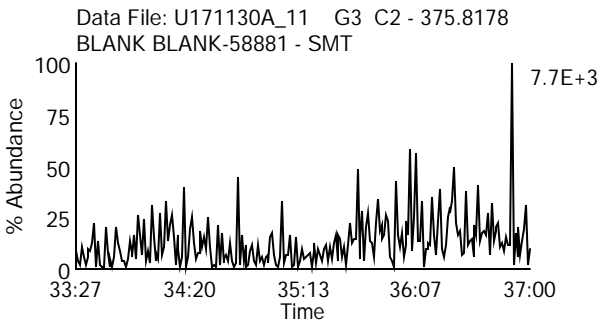
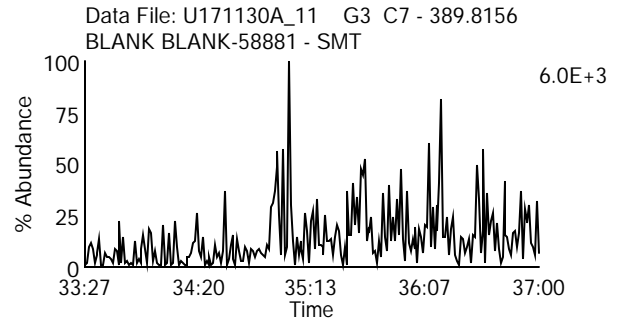
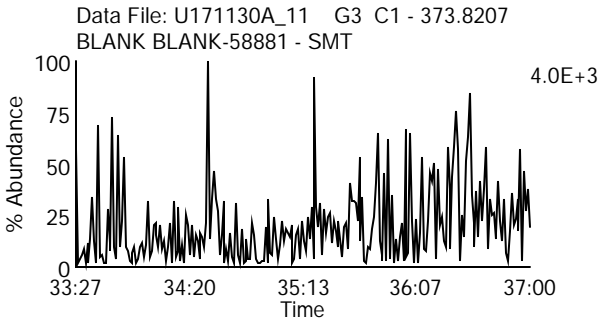
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171130A_11
Date Acquired: 11/30/2017
Sample Description: BLANK BLANK-58881 - SMT

Lab Sample ID: BLANK-58881
Client Sample ID:
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171130A_11

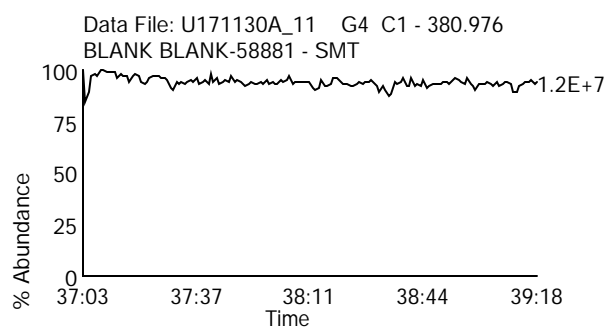
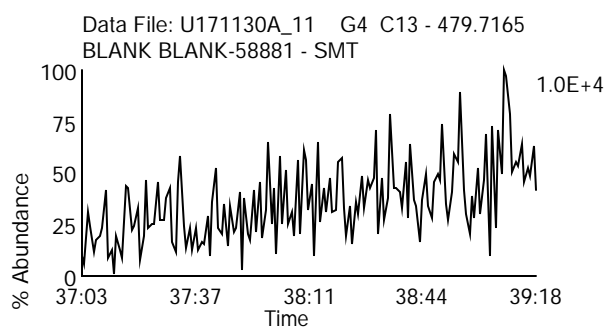
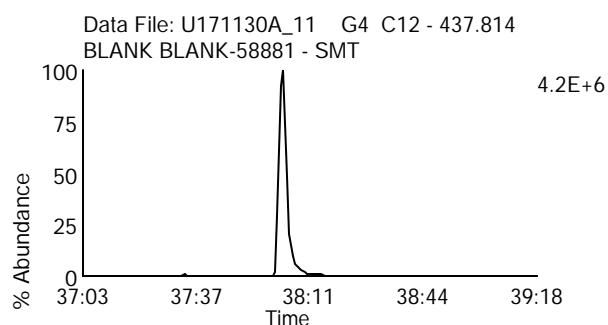
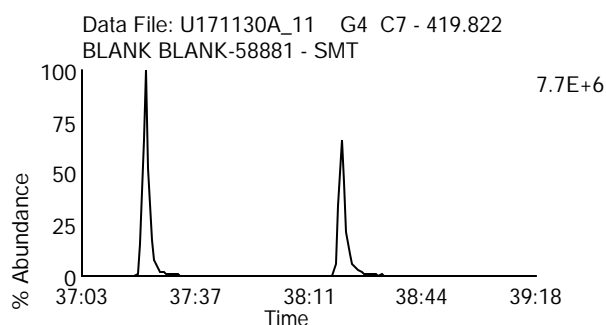
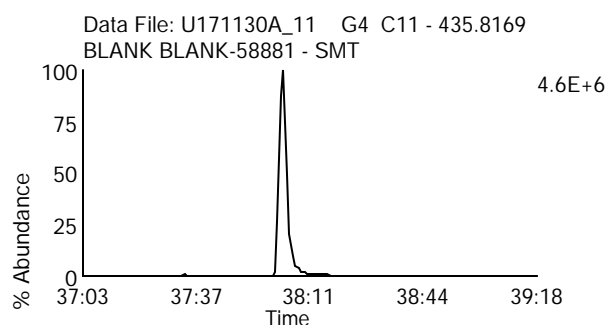
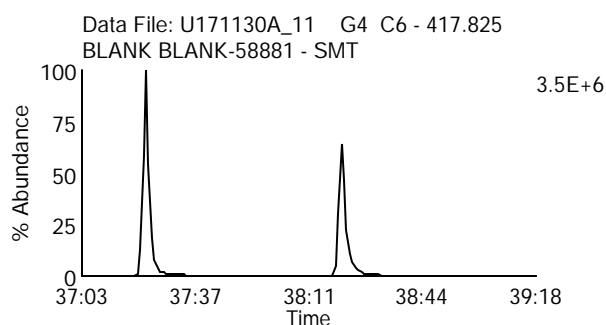
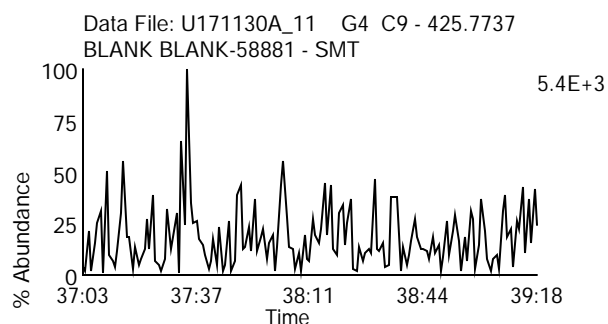
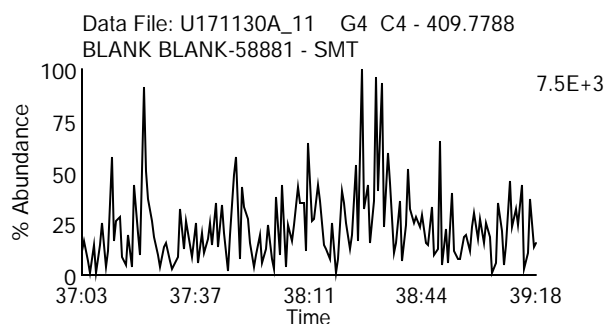
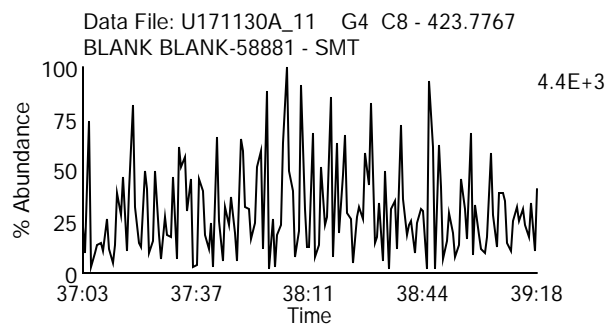
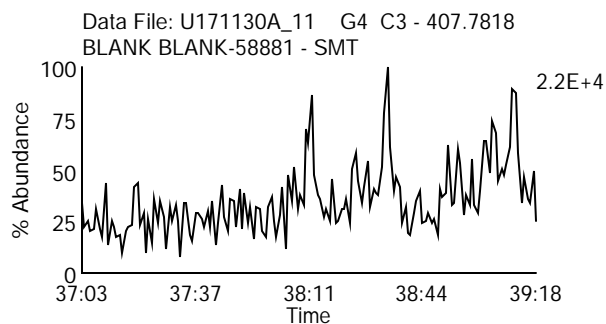
Date Acquired: 11/30/2017

Sample Description: BLANK BLANK-58881 - SMT

Lab Sample ID: BLANK-58881

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171130A_11

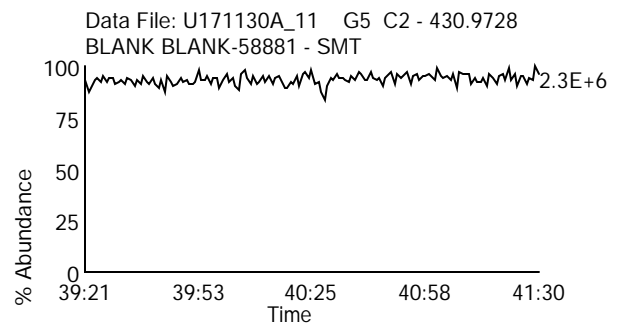
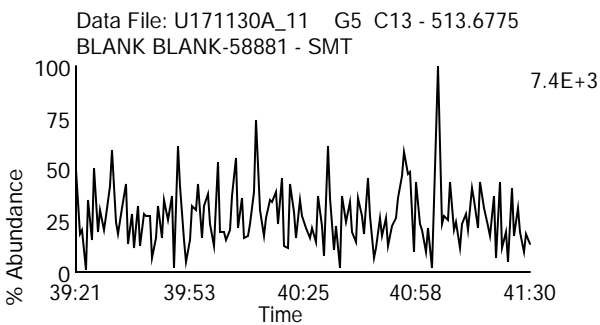
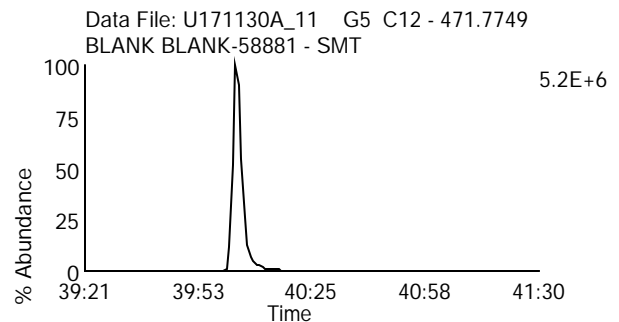
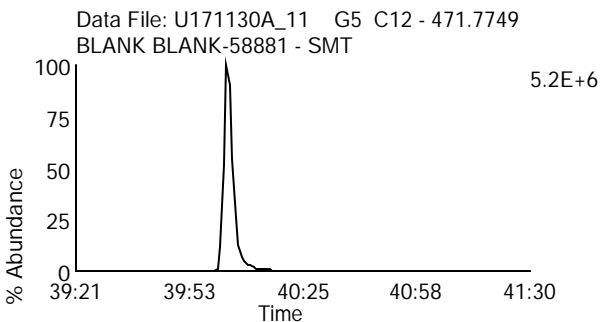
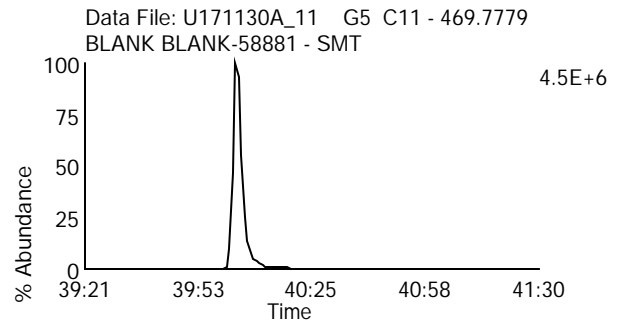
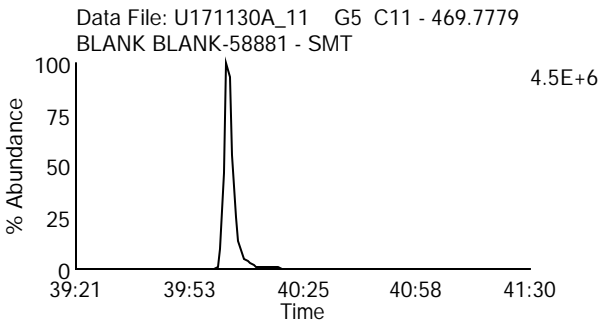
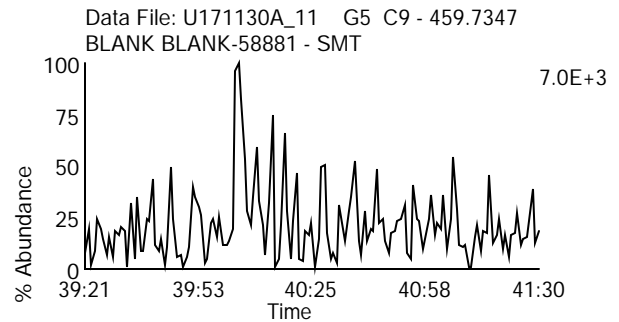
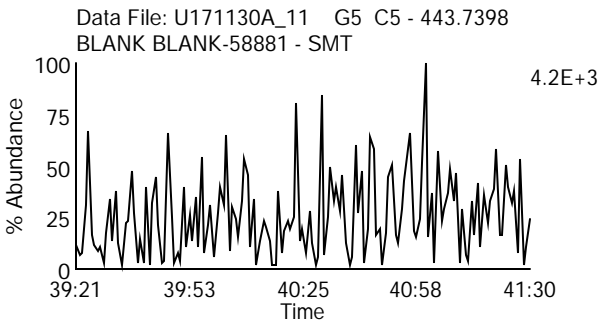
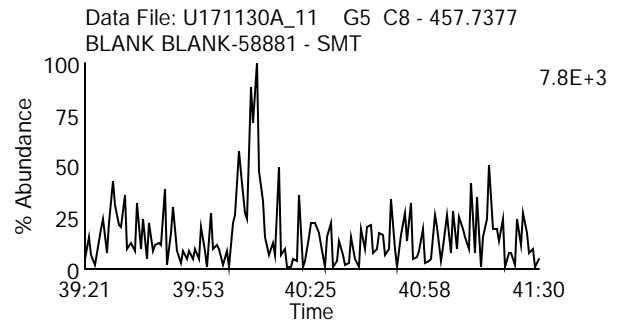
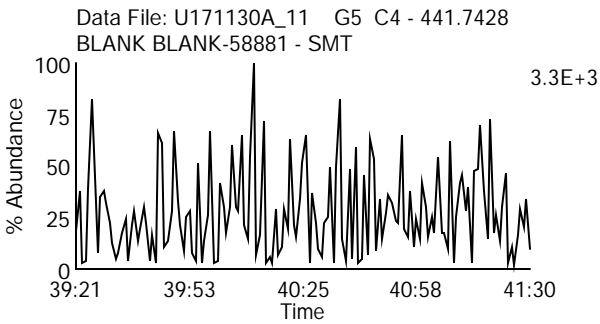
Date Acquired: 11/30/2017

Sample Description: BLANK BLANK-58881 - SMT

Lab Sample ID: BLANK-58881

Client Sample ID:

Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171130A_07

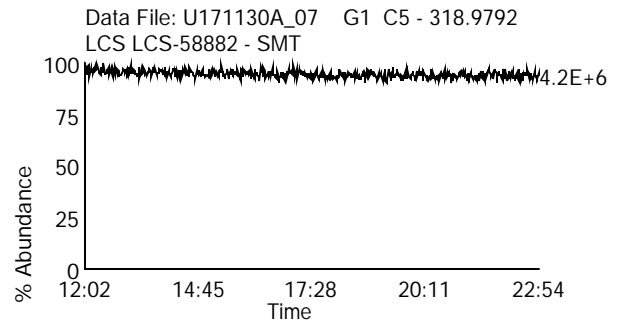
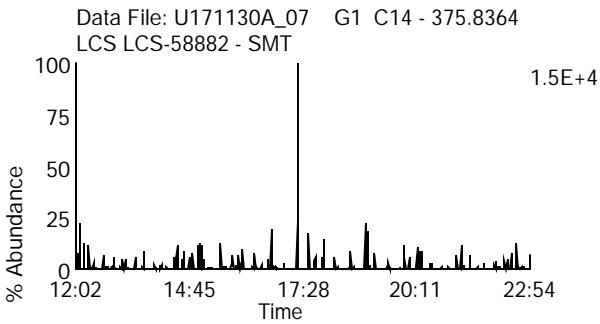
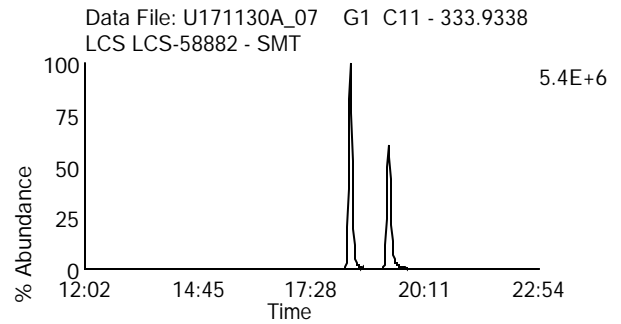
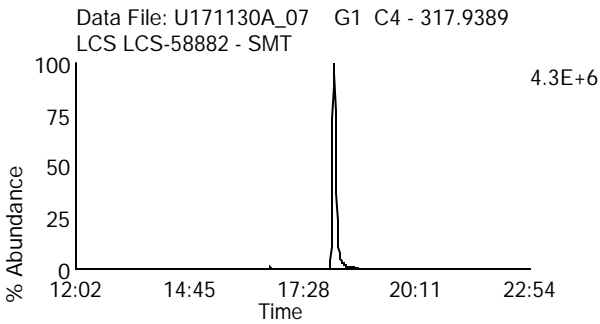
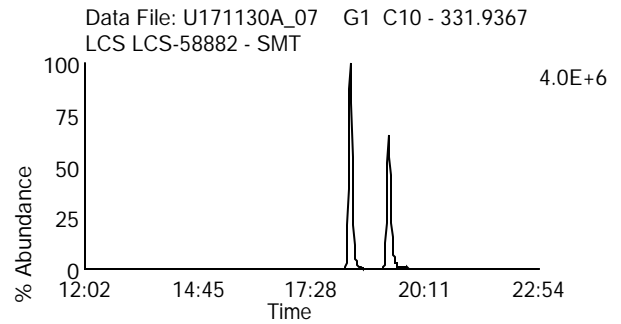
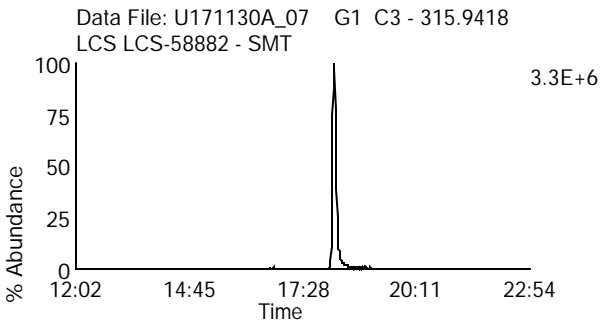
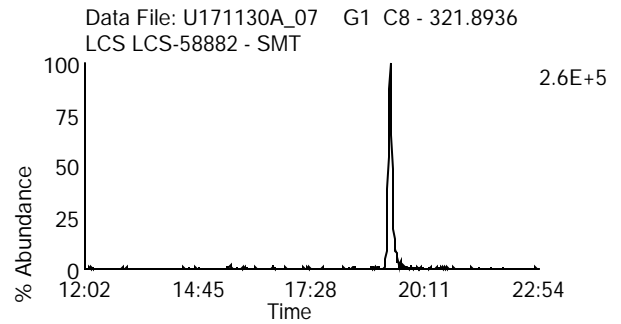
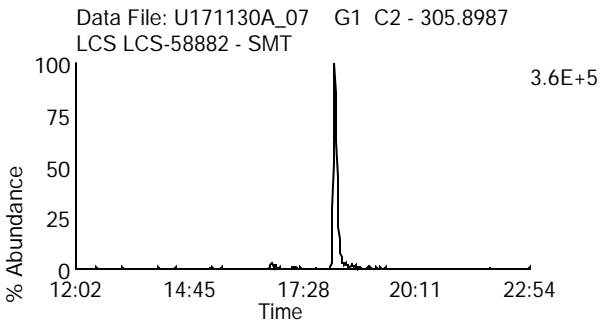
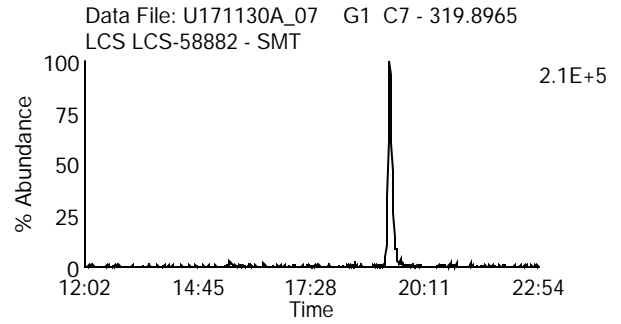
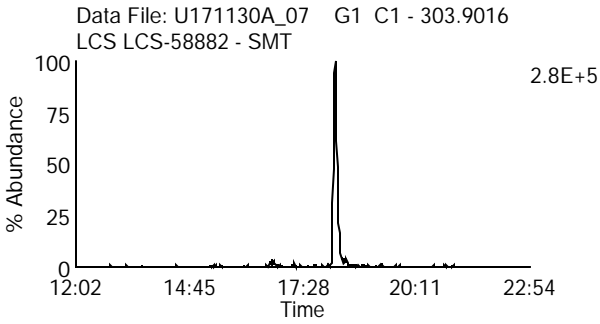
Date Acquired: 11/30/2017

Sample Description: LCS LCS-58882 - SMT

Lab Sample ID: LCS-58882

Client Sample ID: DLCSMR

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171130A_07

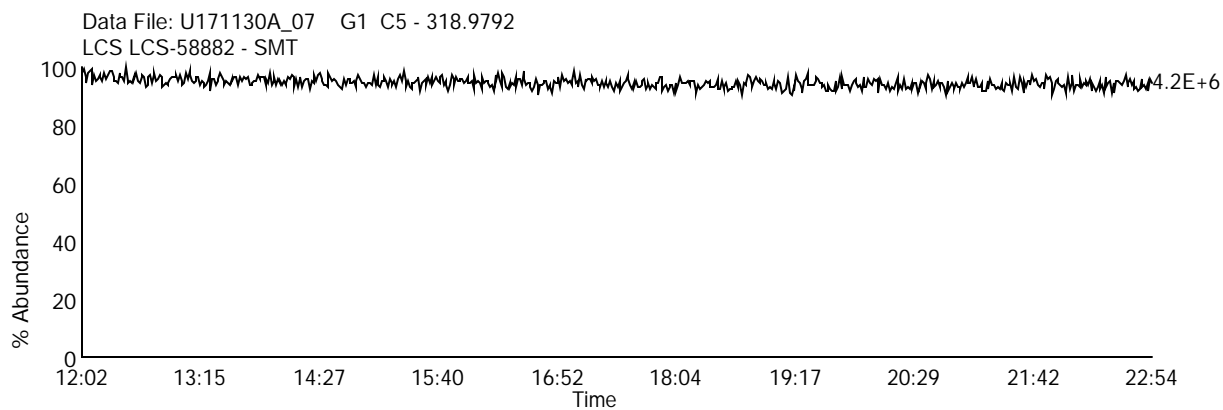
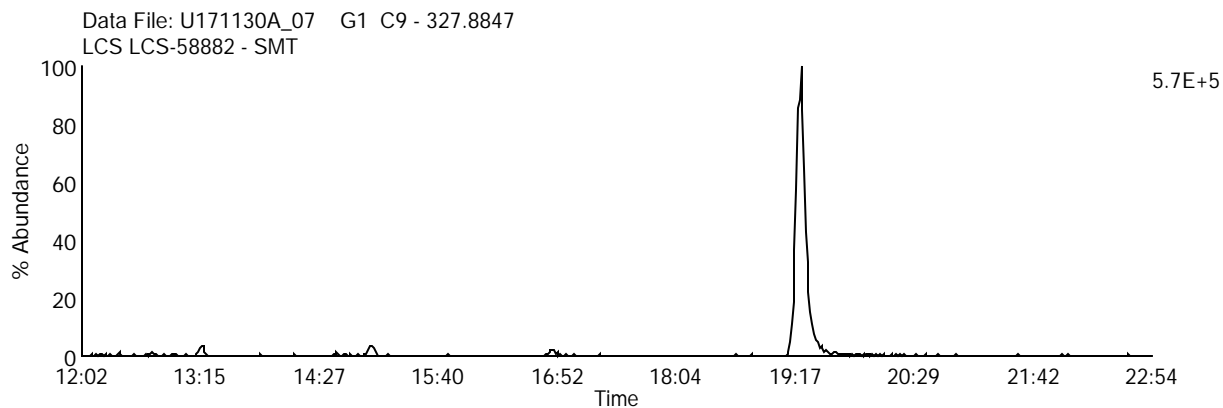
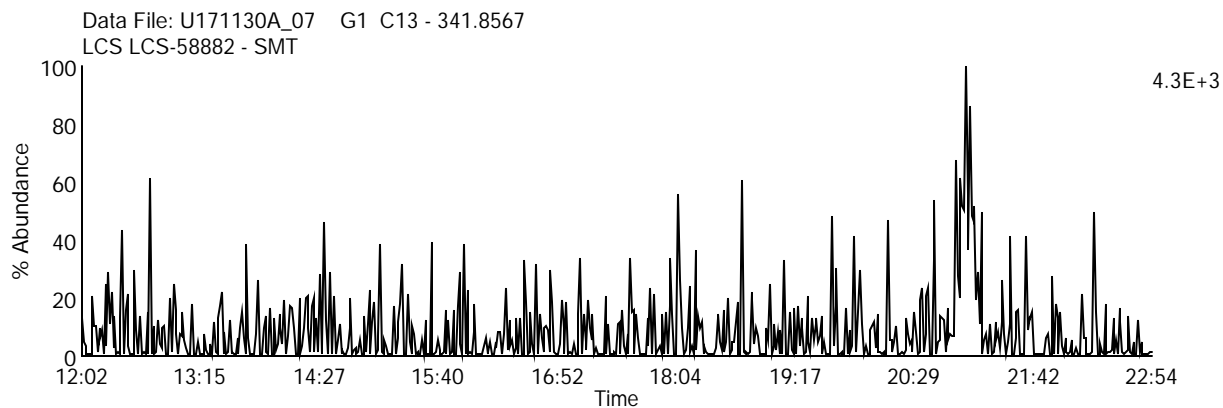
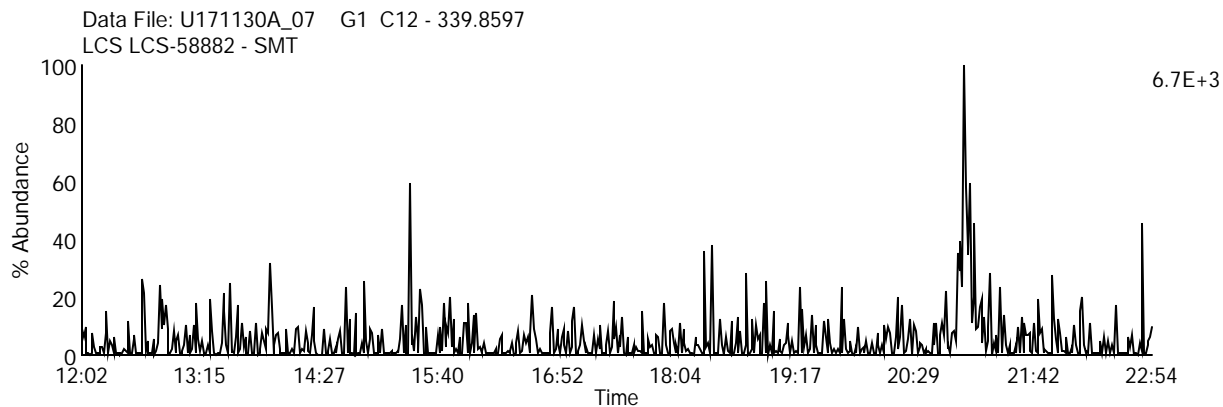
Date Acquired: 11/30/2017

Sample Description: LCS LCS-58882 - SMT

Lab Sample ID: LCS-58882

Client Sample ID: DLCSMR

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171130A_07

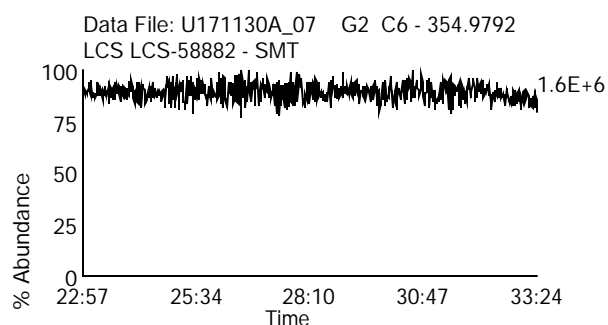
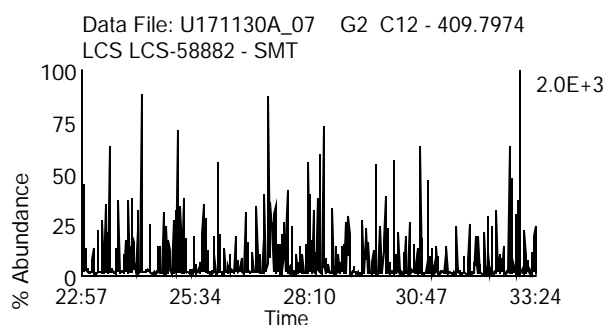
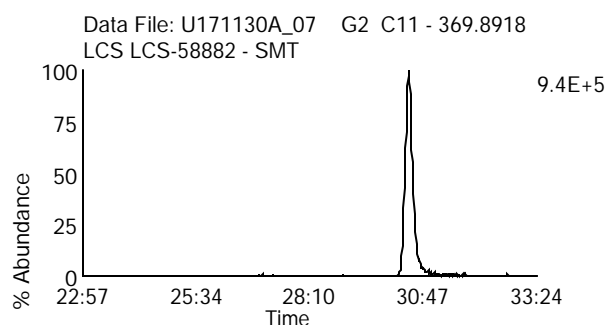
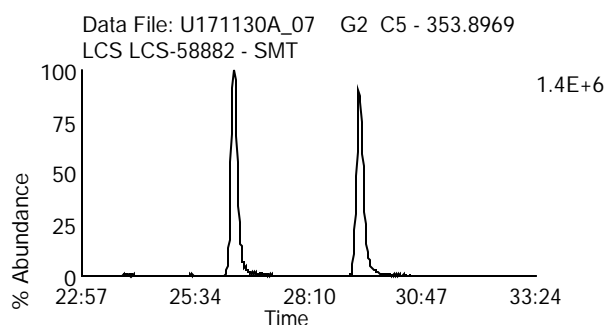
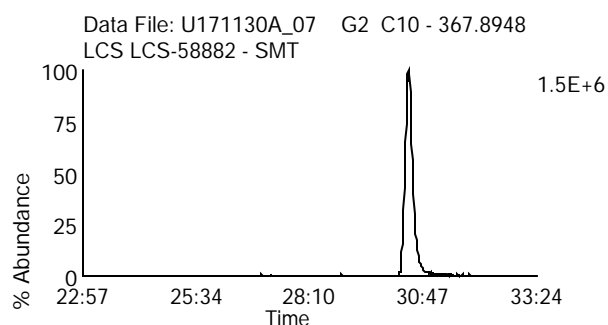
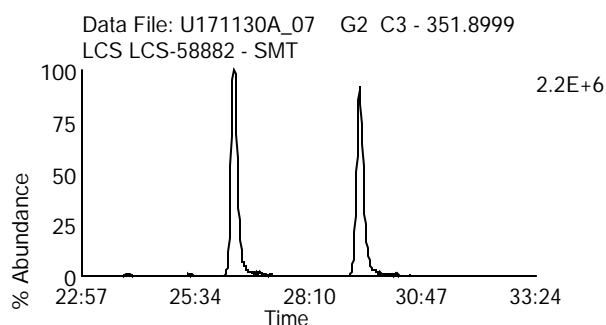
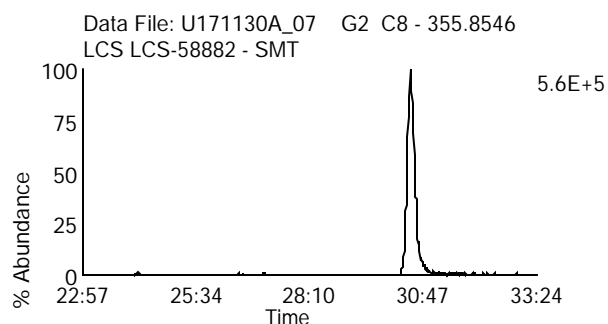
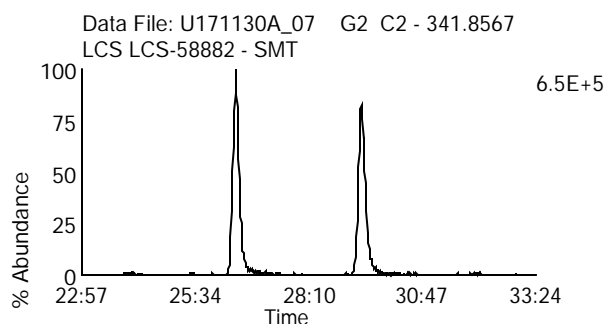
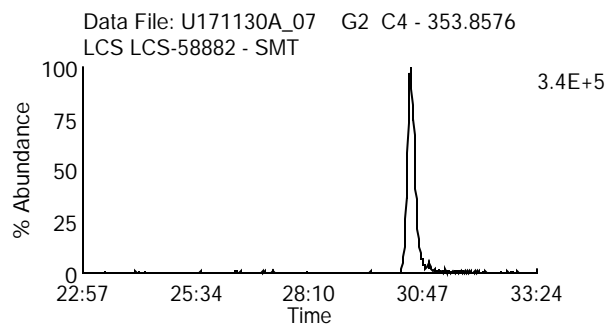
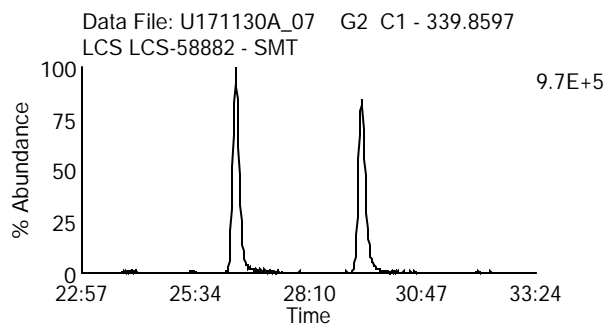
Date Acquired: 11/30/2017

Sample Description: LCS LCS-58882 - SMT

Lab Sample ID: LCS-58882

Client Sample ID: DLCSMR

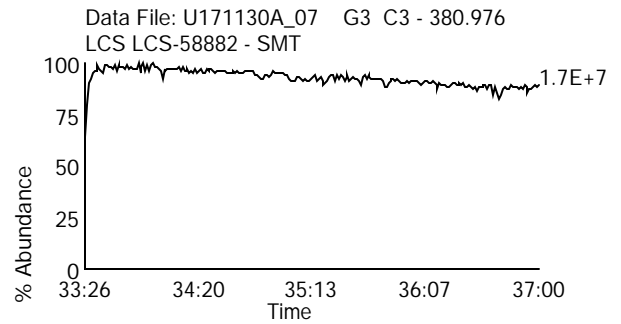
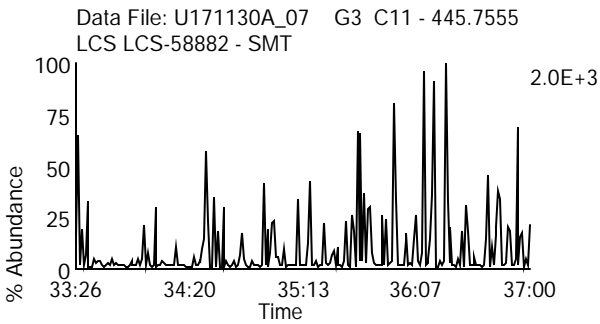
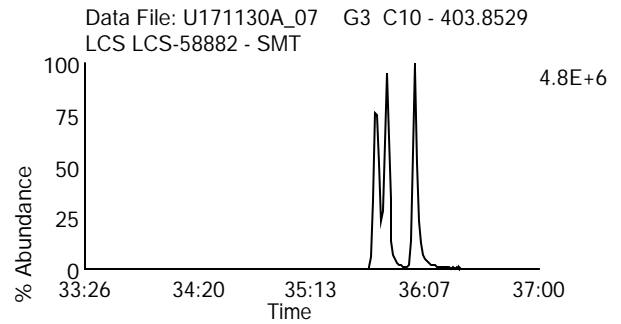
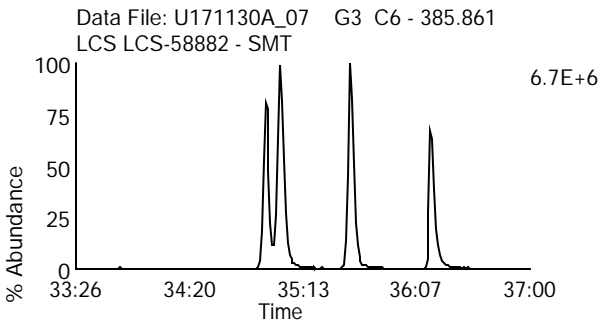
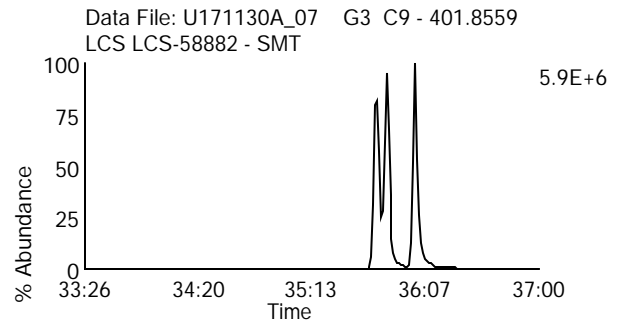
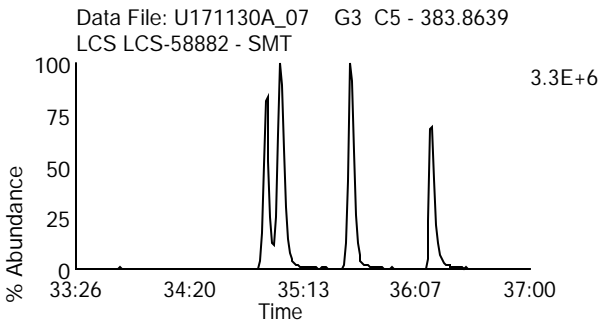
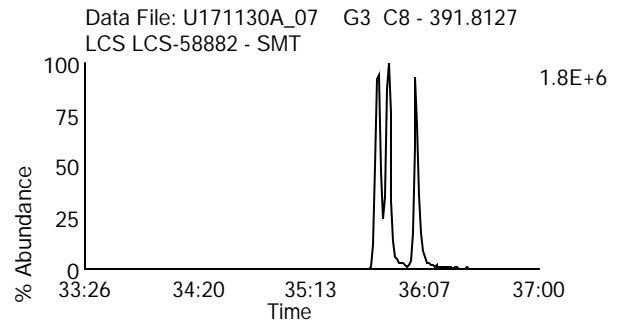
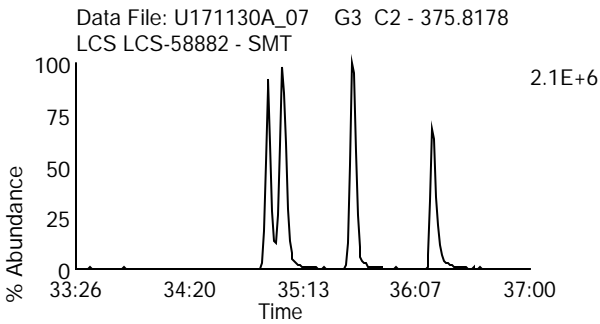
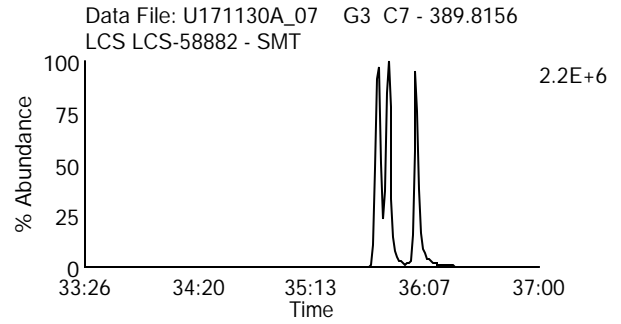
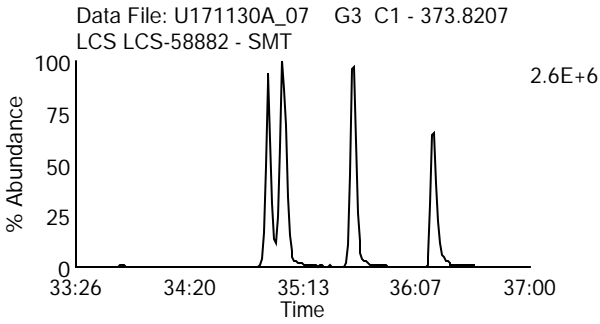
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171130A_07
Date Acquired: 11/30/2017
Sample Description: LCS LCS-58882 - SMT

Lab Sample ID: LCS-58882
Client Sample ID: DLCSMR
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171130A_07

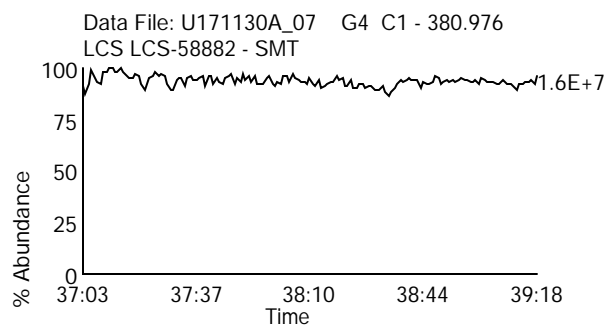
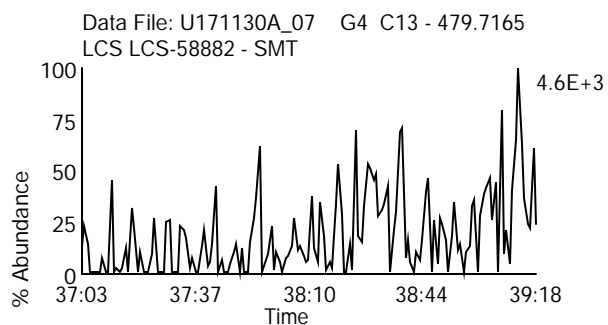
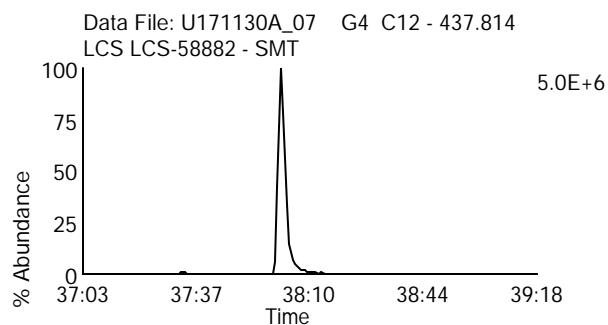
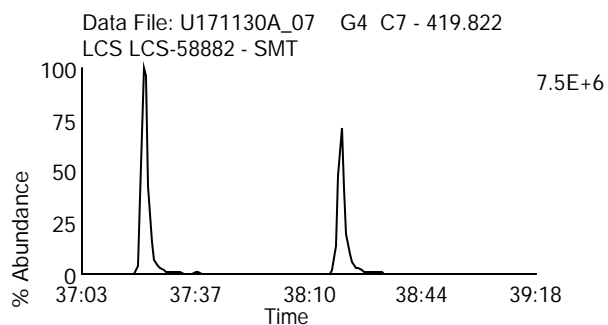
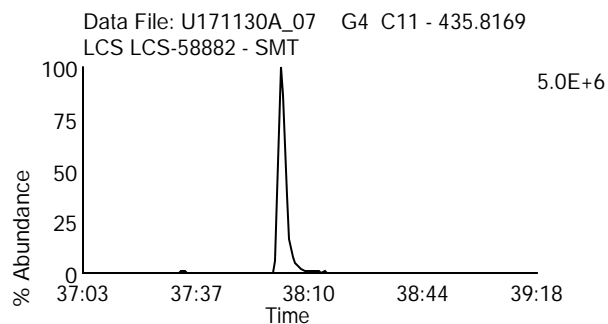
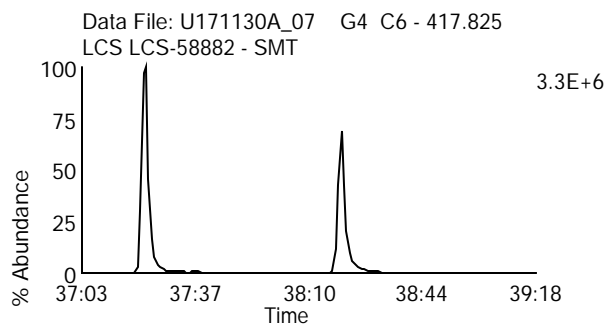
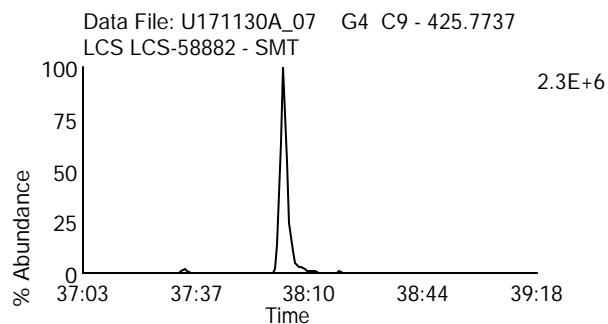
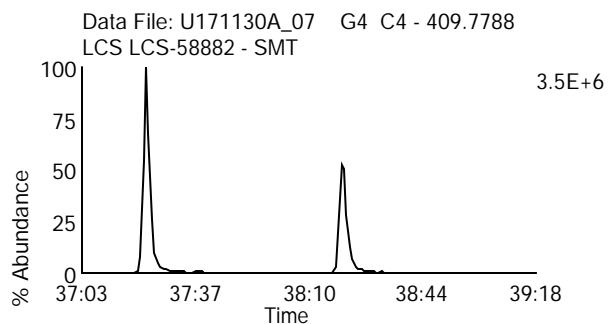
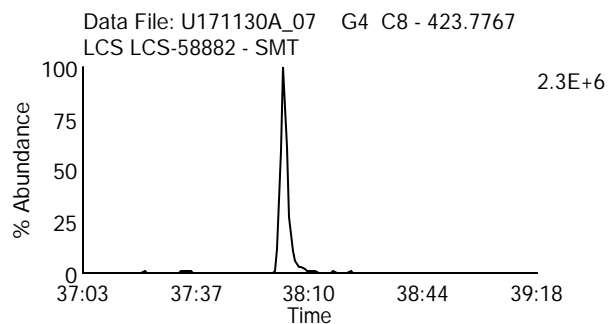
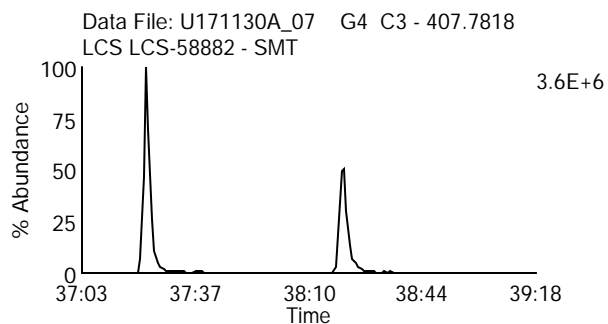
Date Acquired: 11/30/2017

Sample Description: LCS LCS-58882 - SMT

Lab Sample ID: LCS-58882

Client Sample ID: DLCSMR

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171130A_07

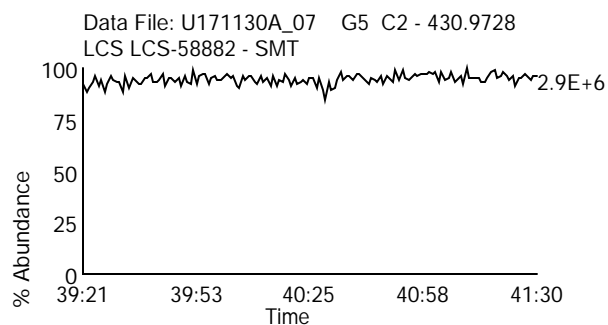
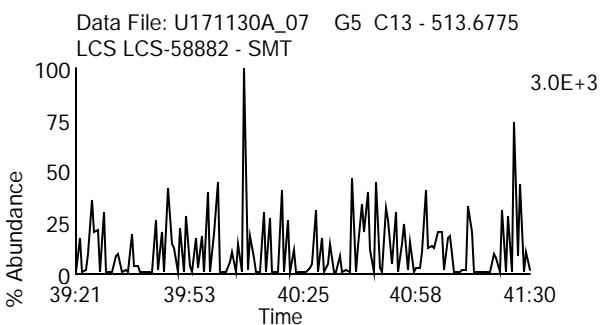
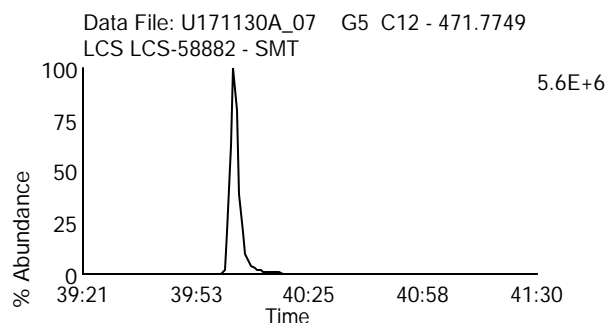
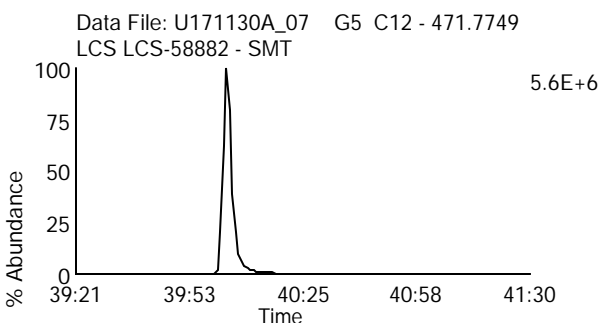
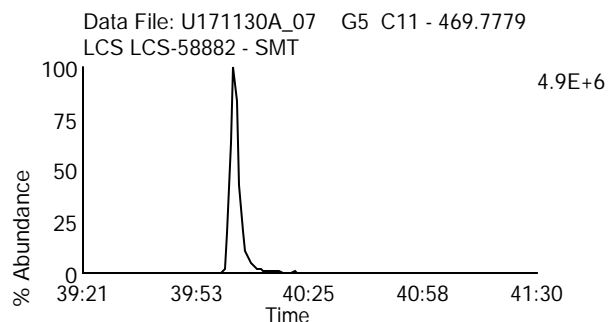
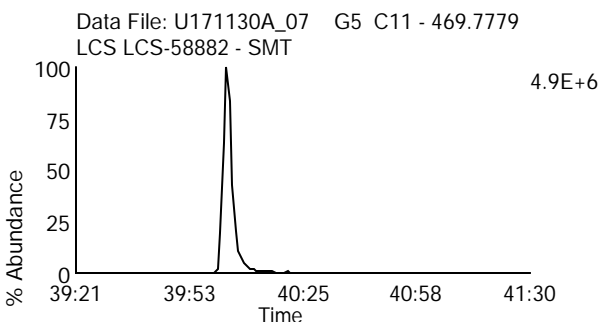
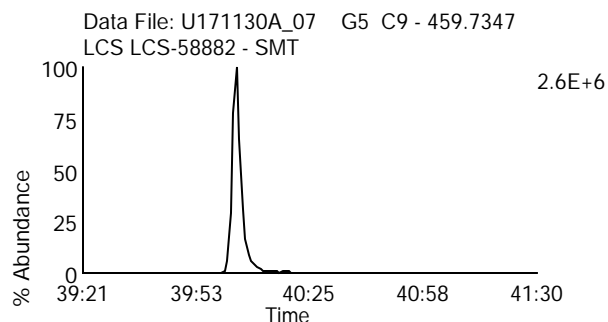
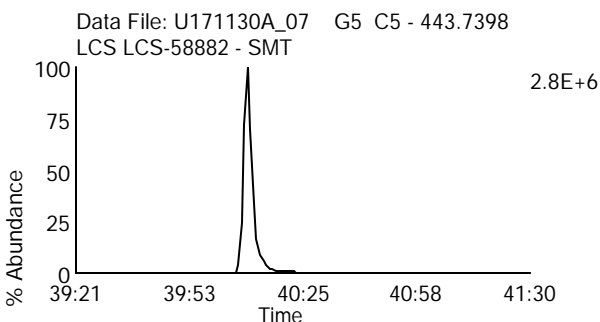
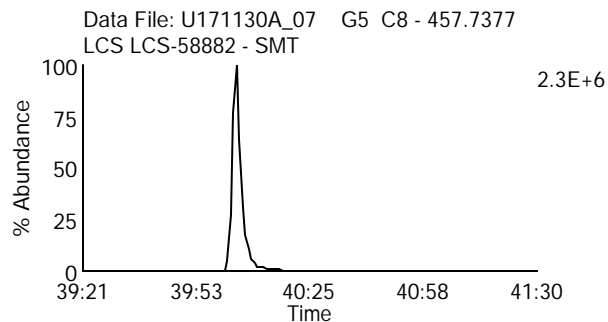
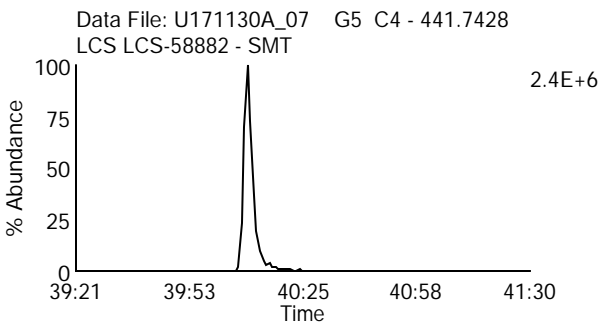
Date Acquired: 11/30/2017

Sample Description: LCS LCS-58882 - SMT

Lab Sample ID: LCS-58882

Client Sample ID: DLCSMR

Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171204A_04

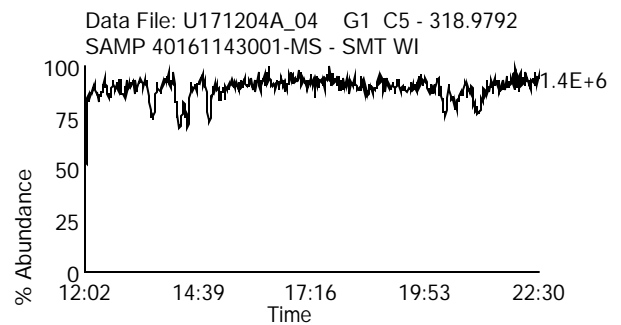
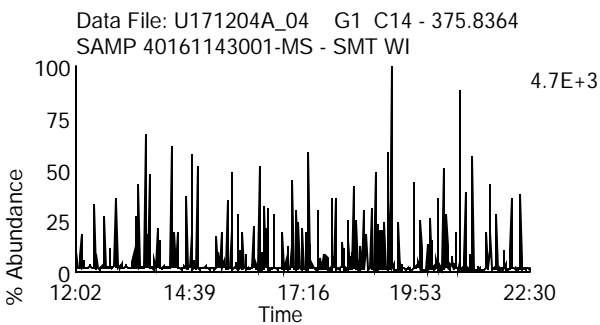
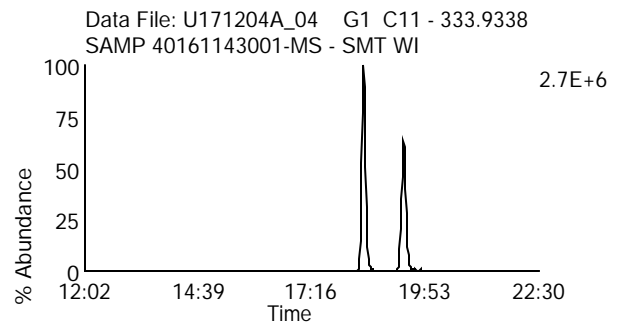
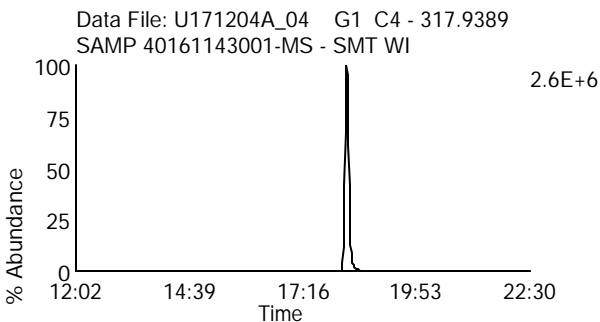
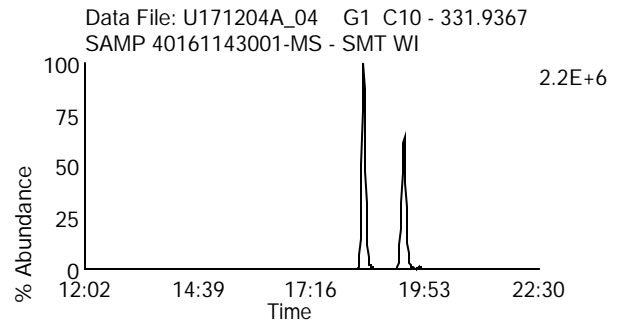
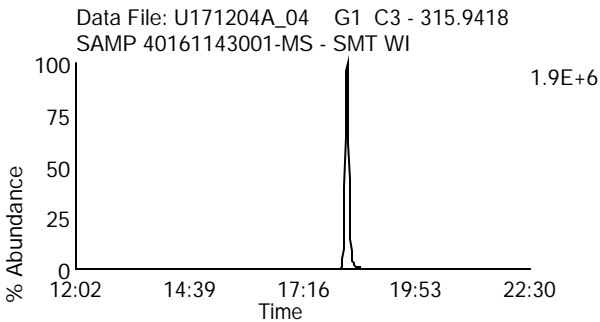
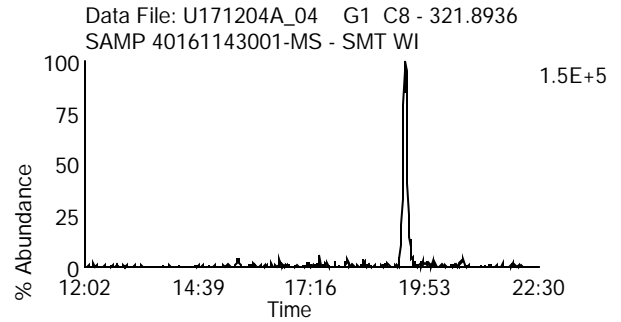
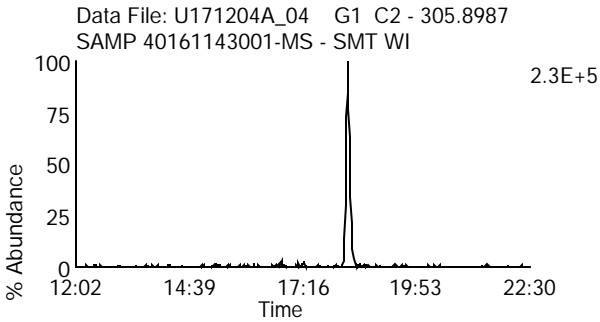
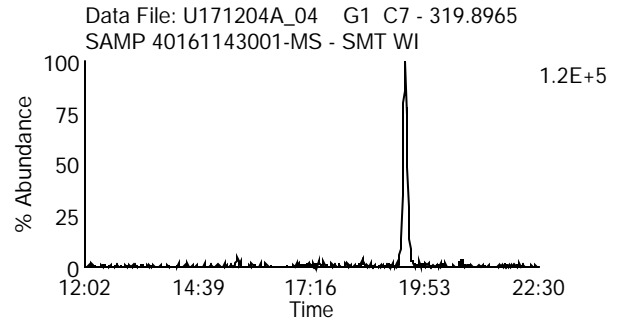
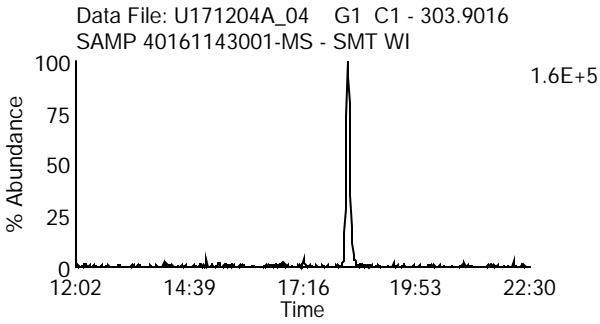
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MS - SMT WI

Lab Sample ID: 40161143001-MS

Client Sample ID: 111717022-MS

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171204A_04

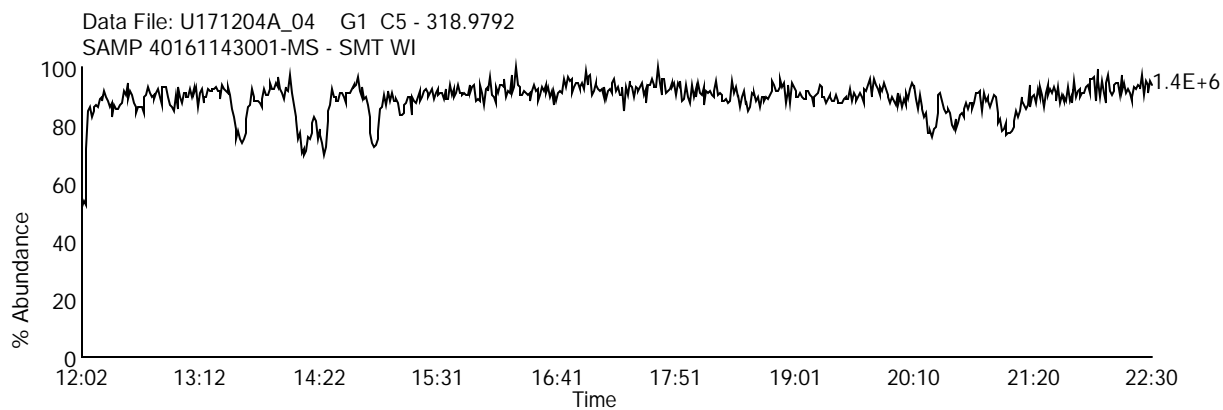
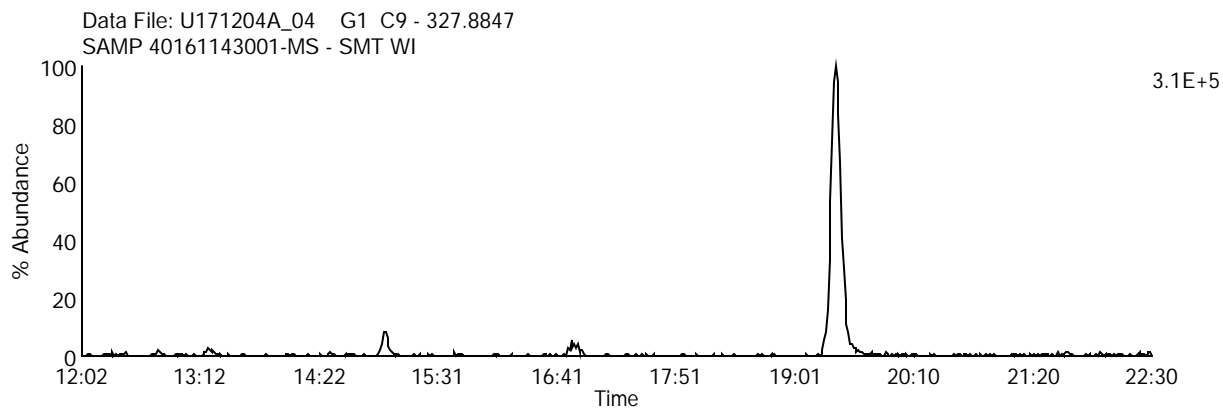
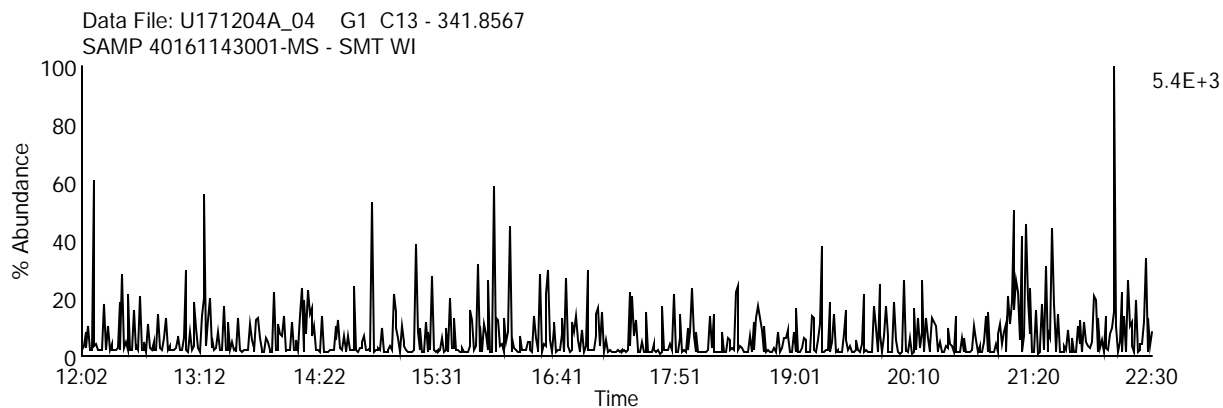
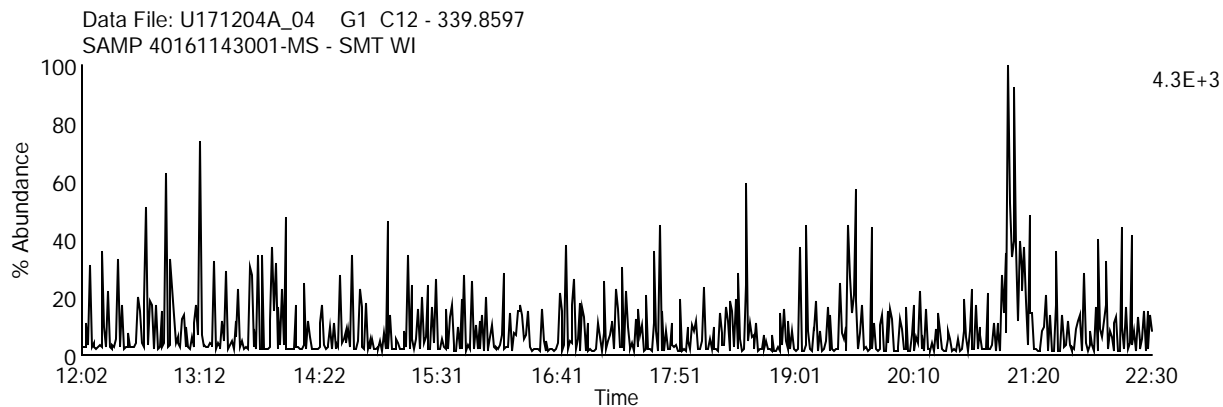
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MS - SMT WI

Lab Sample ID: 40161143001-MS

Client Sample ID: 111717022-MS

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171204A_04

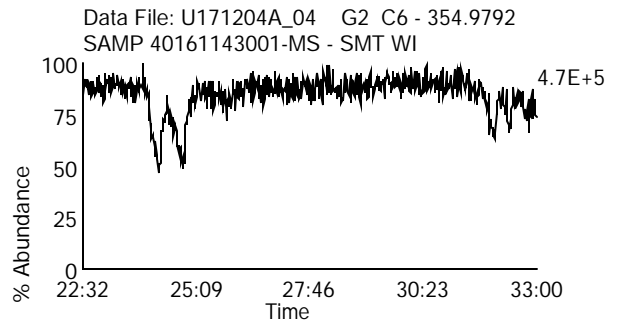
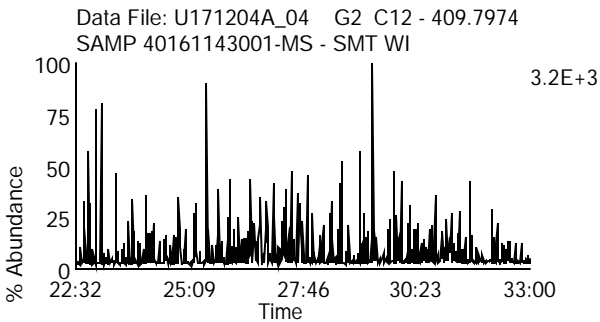
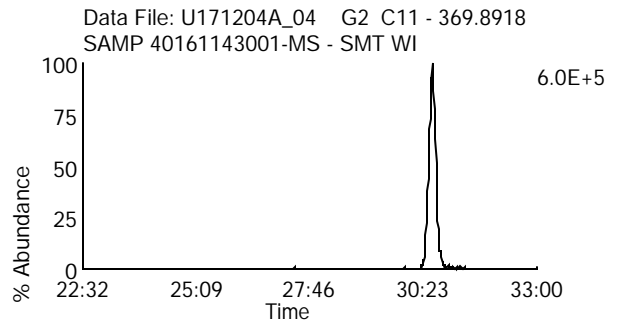
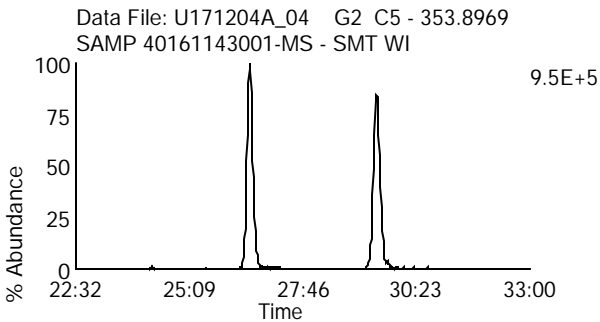
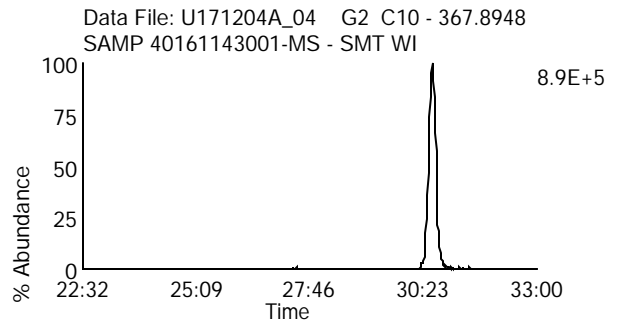
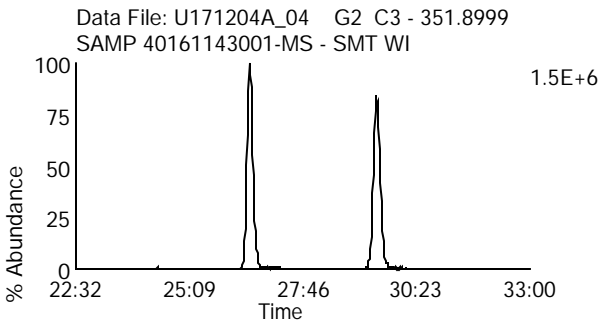
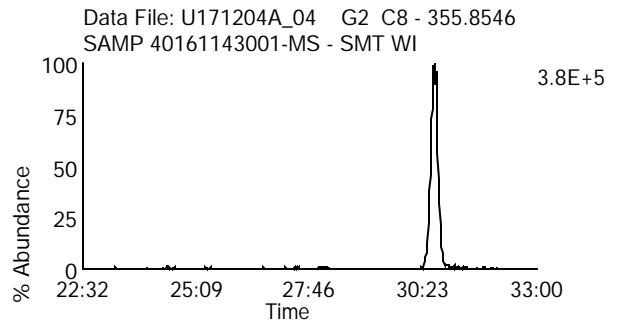
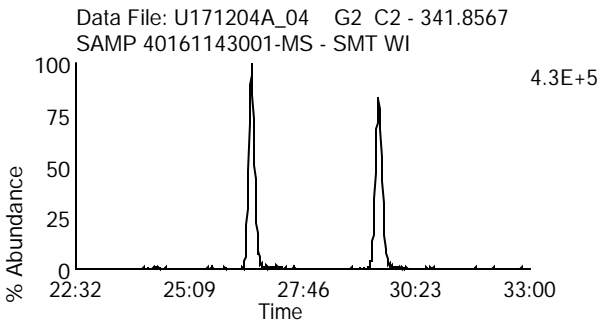
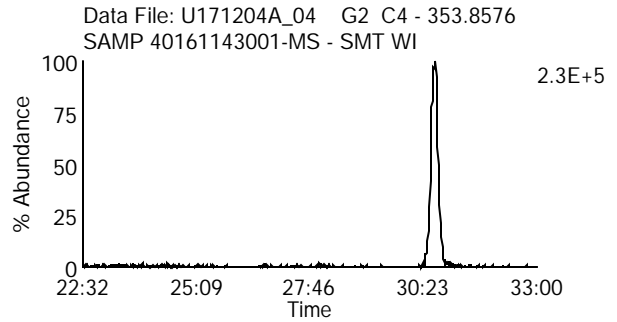
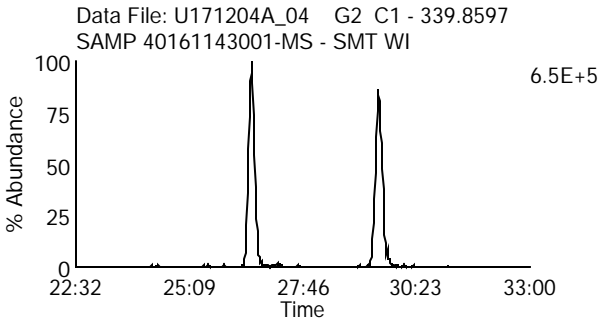
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MS - SMT WI

Lab Sample ID: 40161143001-MS

Client Sample ID: 111717022-MS

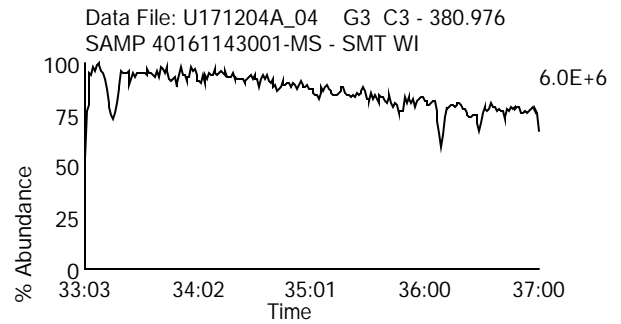
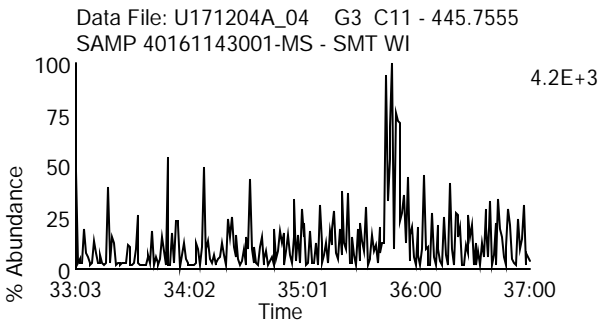
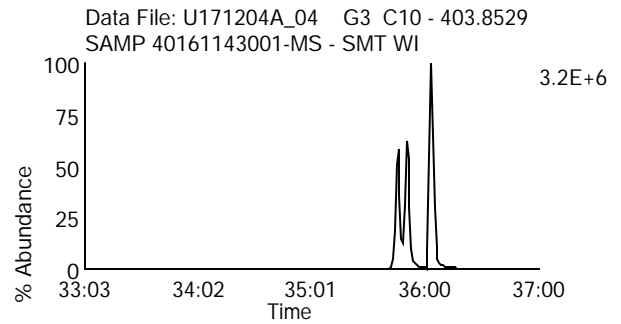
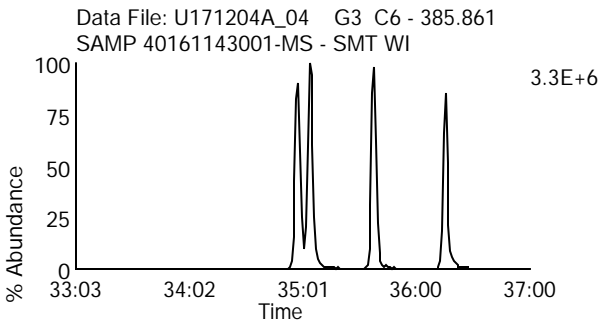
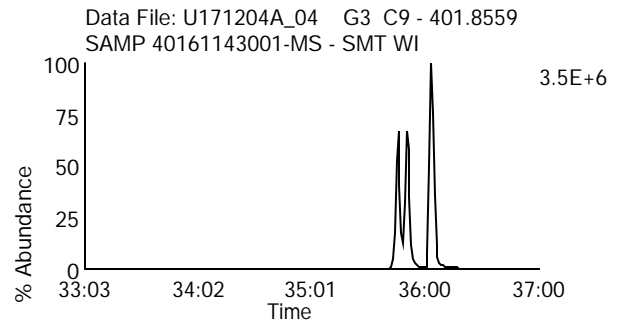
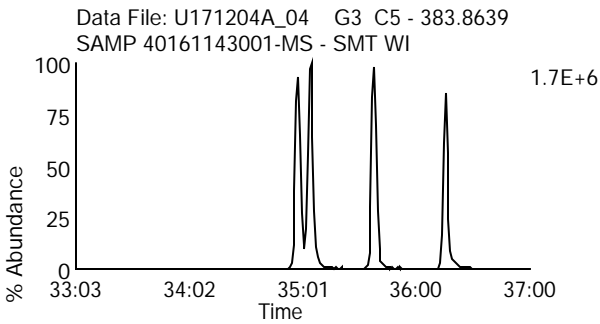
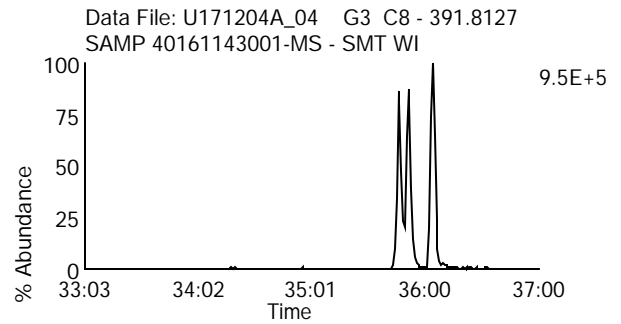
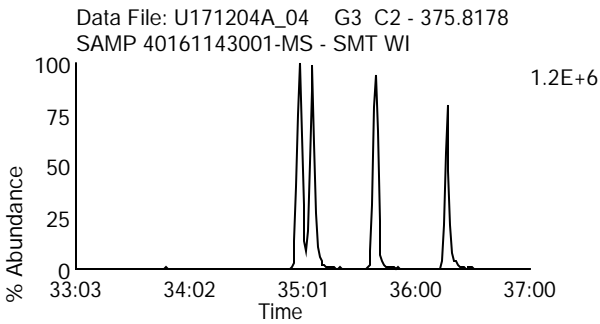
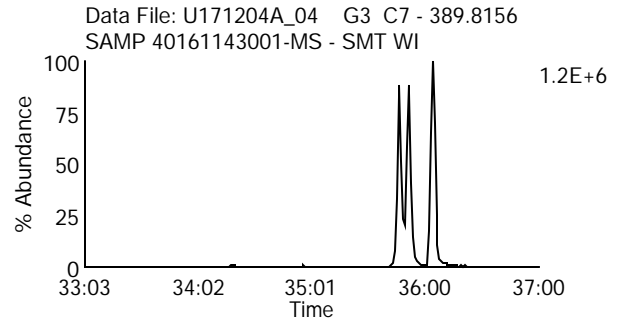
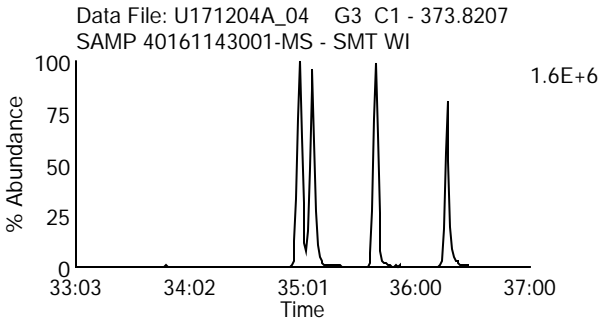
Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171204A_04
Date Acquired: 12/4/2017
Sample Description: SAMP 40161143001-MS - SMT WI

Lab Sample ID: 40161143001-MS
Client Sample ID: 111717022-MS
Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171204A_04

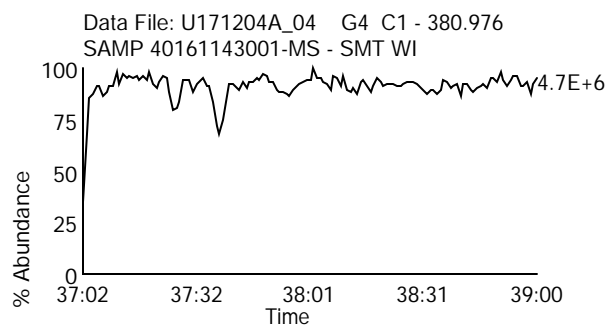
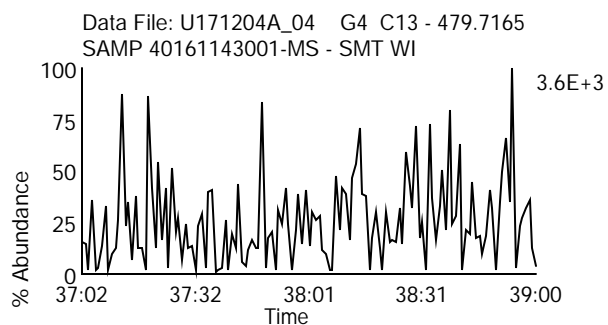
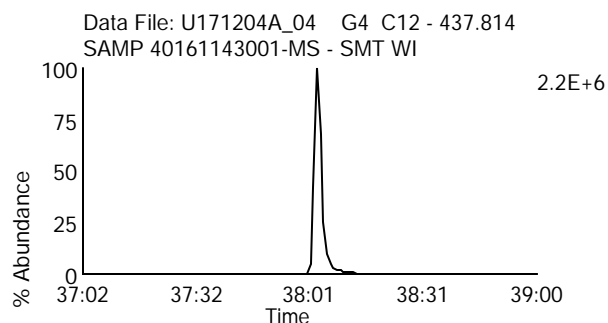
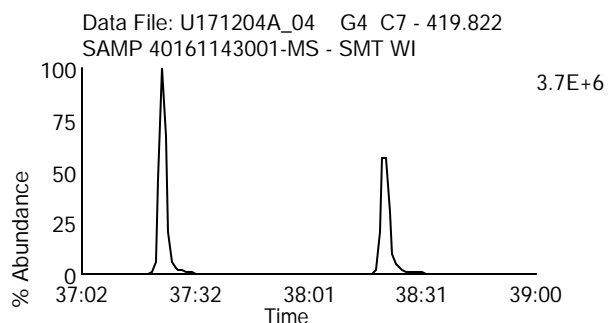
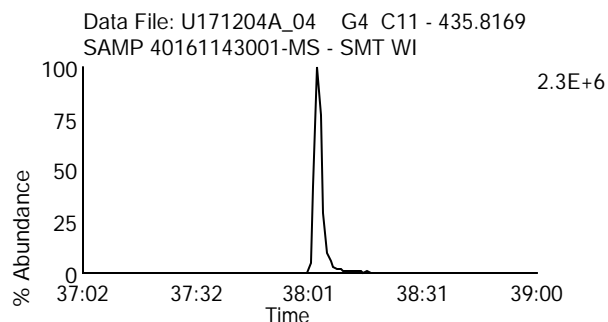
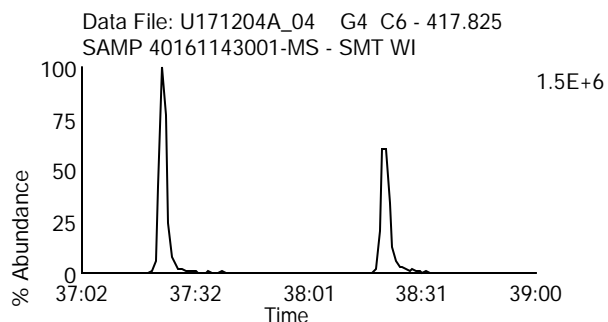
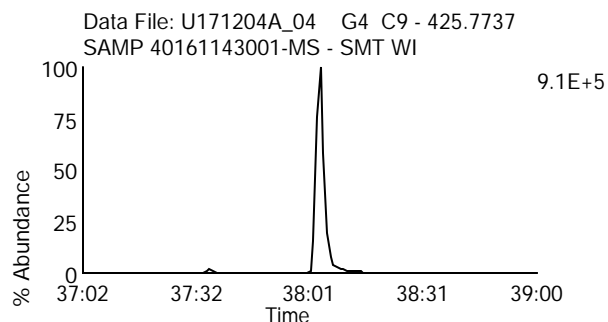
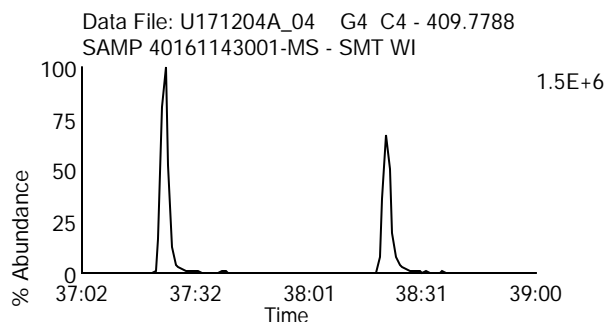
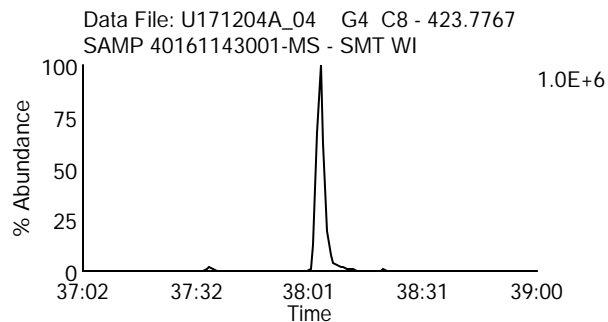
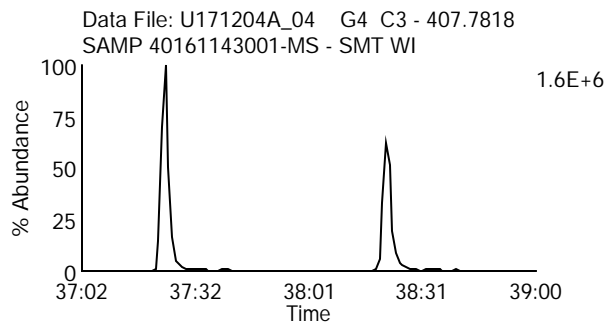
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MS - SMT WI

Lab Sample ID: 40161143001-MS

Client Sample ID: 111717022-MS

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171204A_04

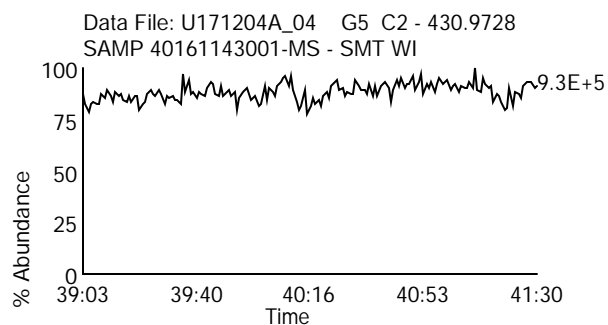
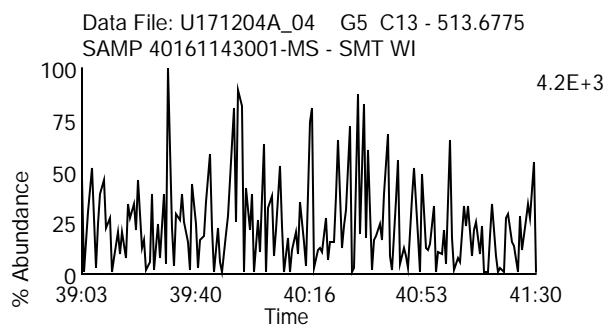
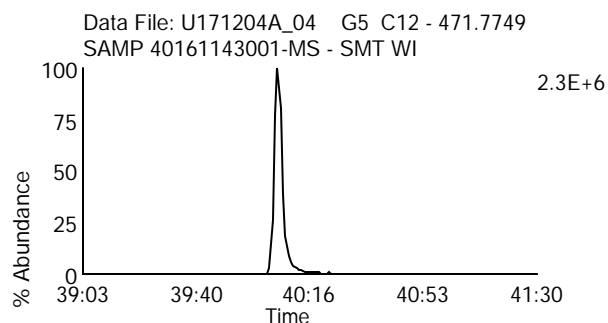
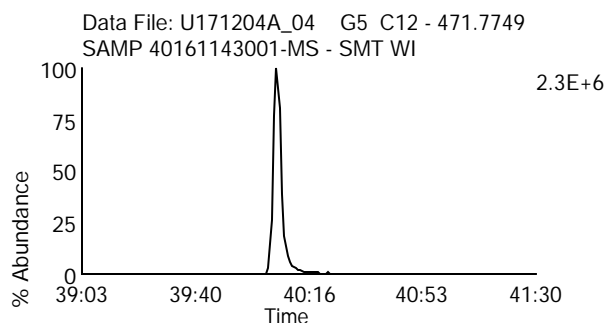
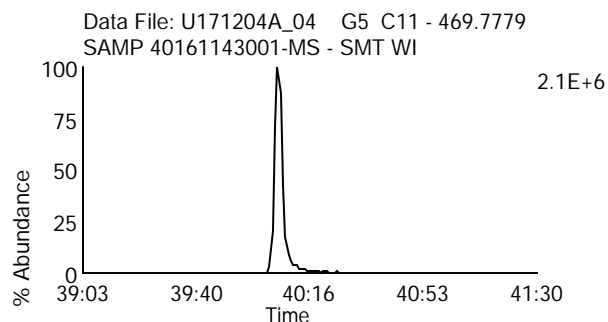
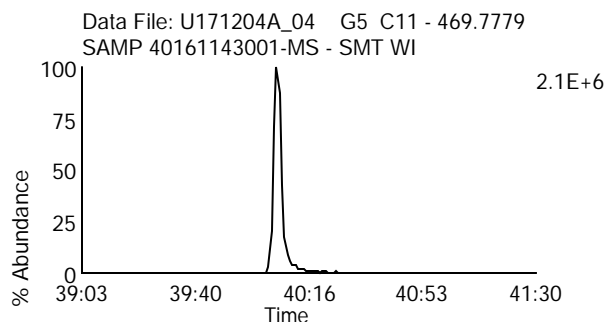
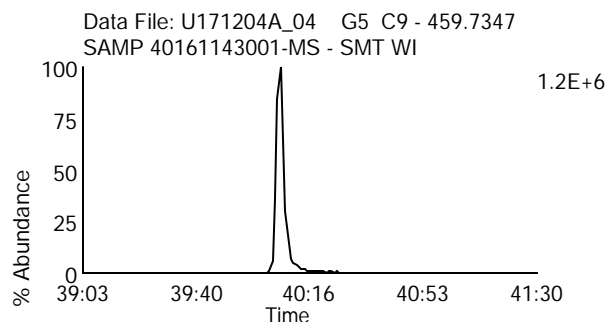
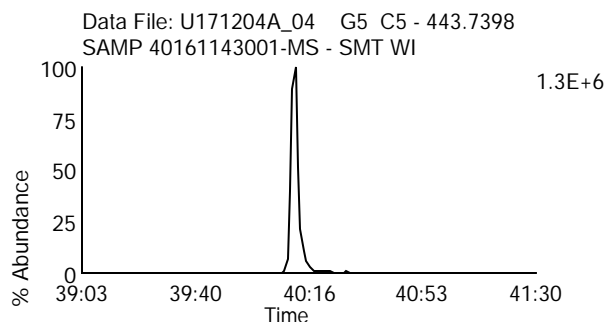
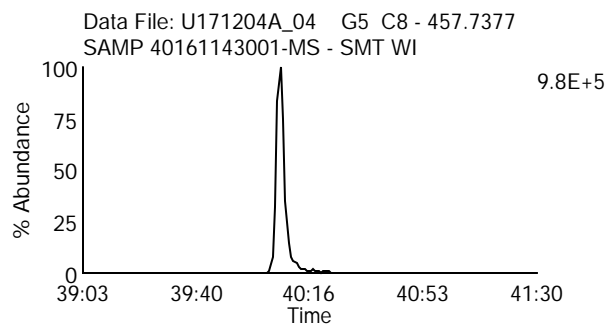
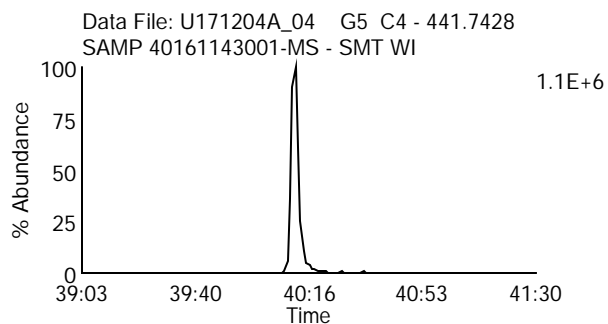
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MS - SMT WI

Lab Sample ID: 40161143001-MS

Client Sample ID: 111717022-MS

Instrument: 10MSHR06 (U)



Homologue Group: Tetras

Data File Name: U171204A_05

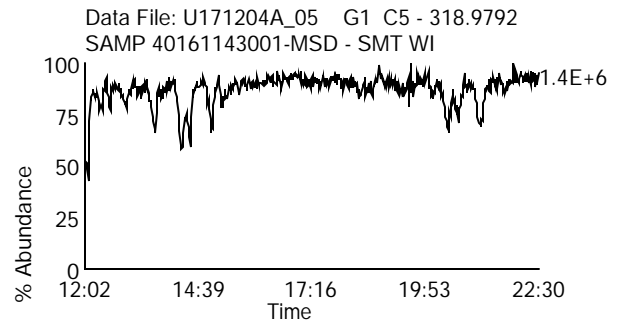
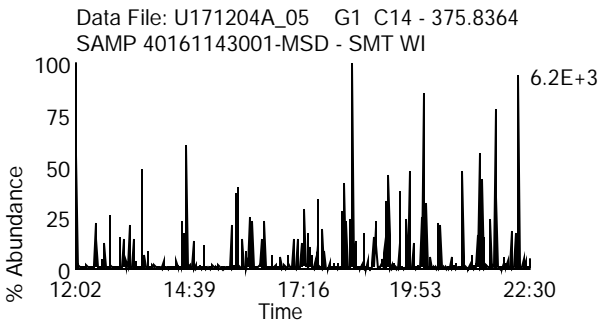
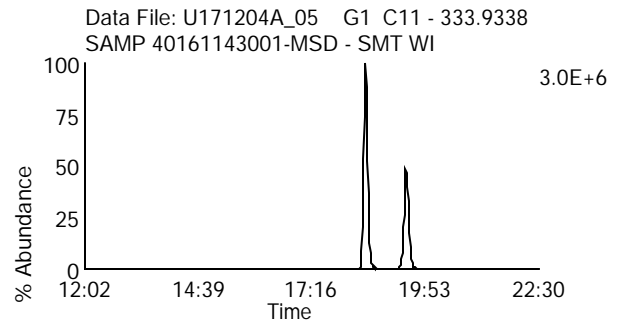
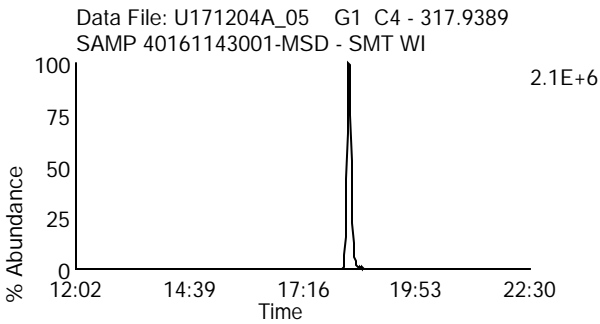
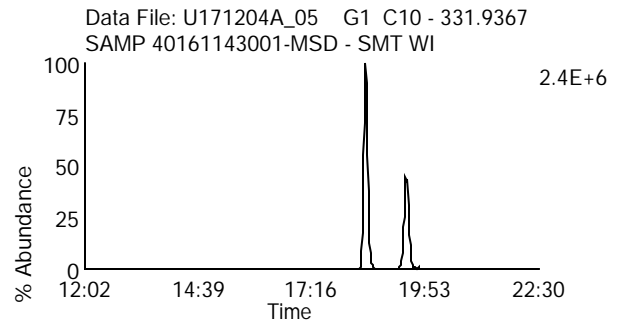
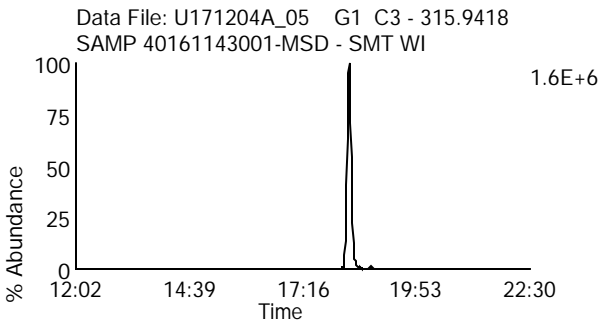
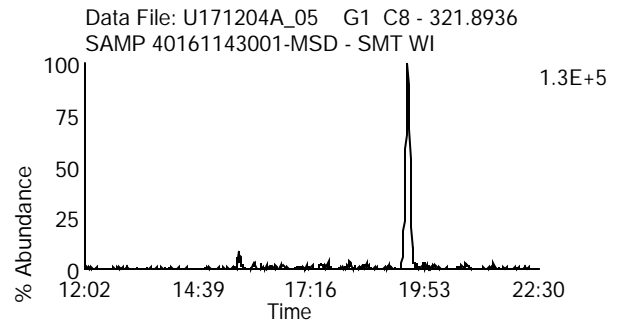
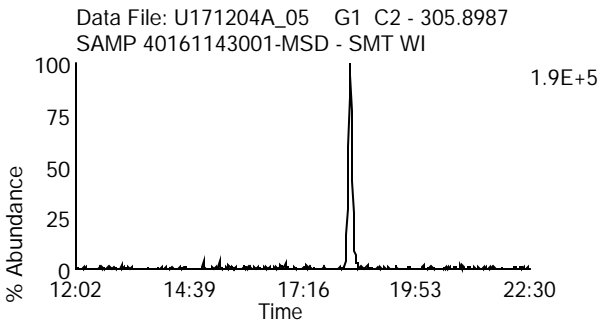
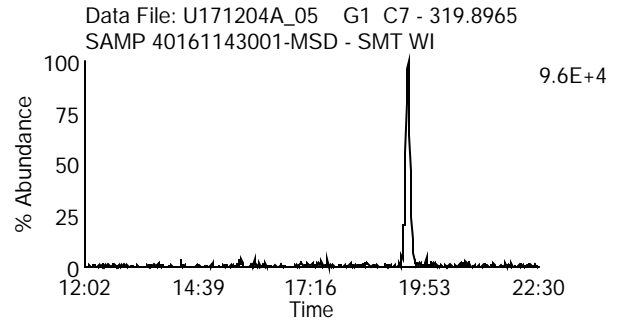
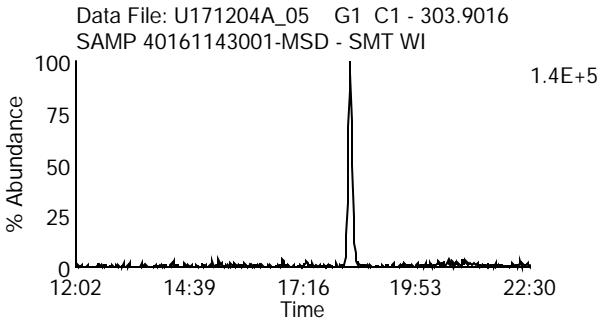
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MSD - SMT WI

Lab Sample ID: 40161143001-MSD

Client Sample ID: 111717022-MSD

Instrument: 10MSHR06 (U)



Homologue Group: Penta & Cleanup

Data File Name: U171204A_05

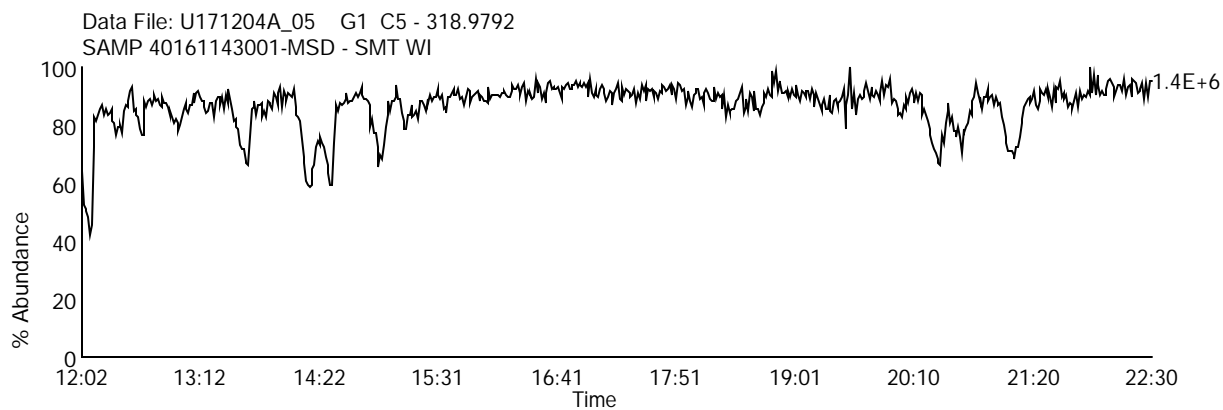
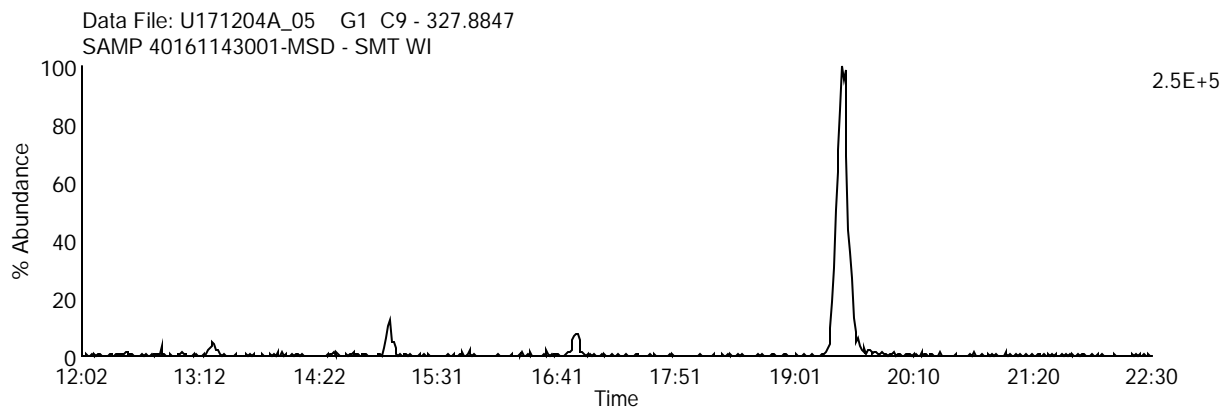
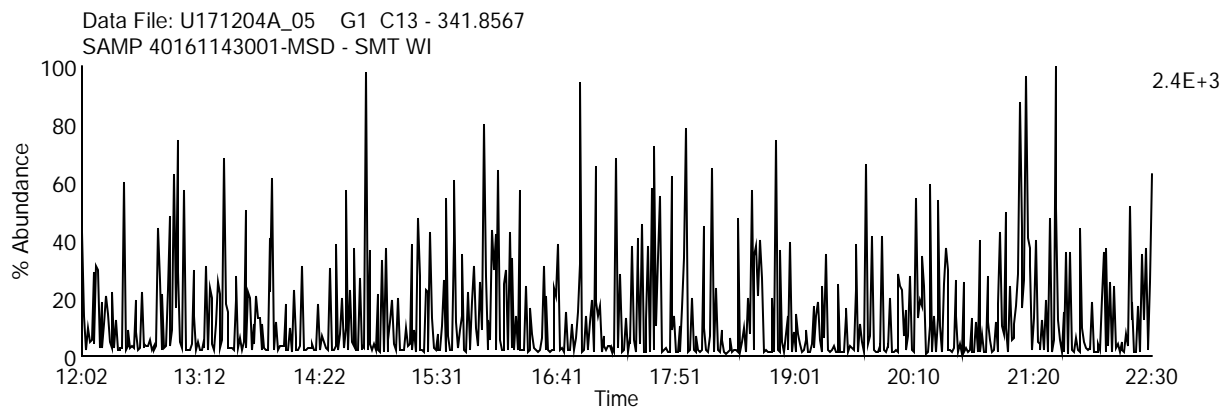
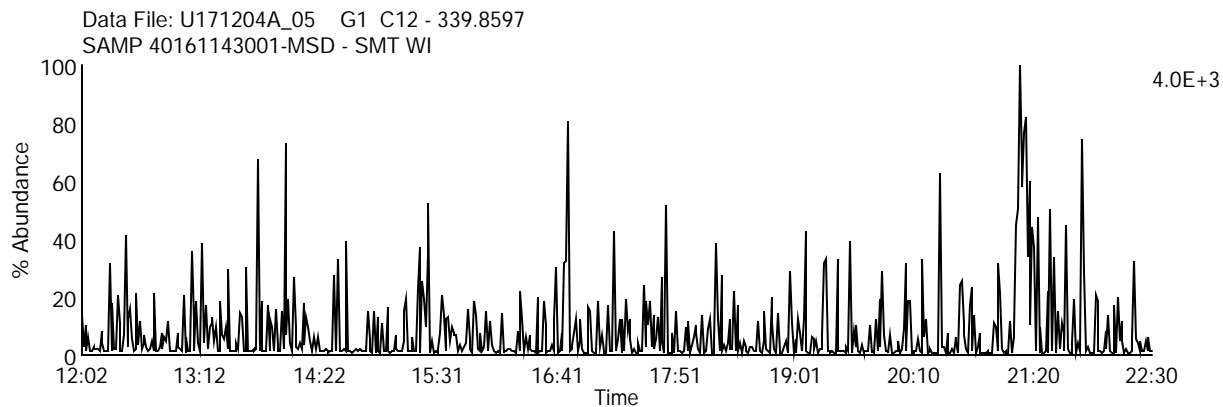
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MSD - SMT WI

Lab Sample ID: 40161143001-MSD

Client Sample ID: 111717022-MSD

Instrument: 10MSHR06 (U)



Homologue Group: Pentas

Data File Name: U171204A_05

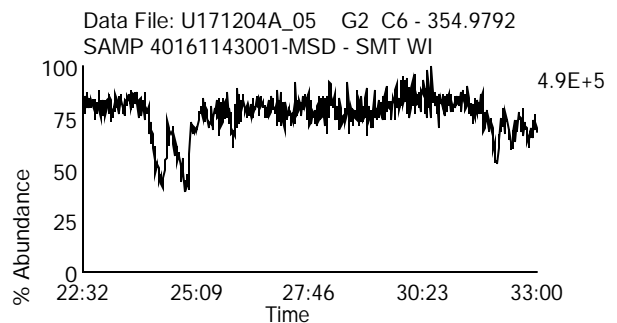
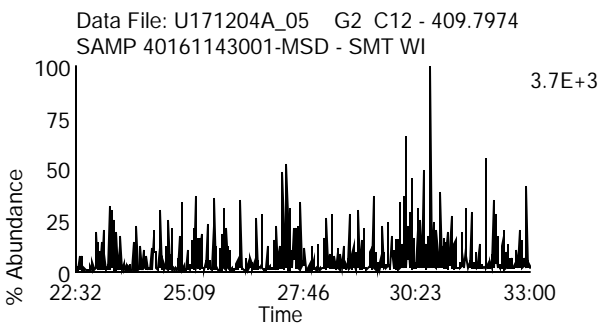
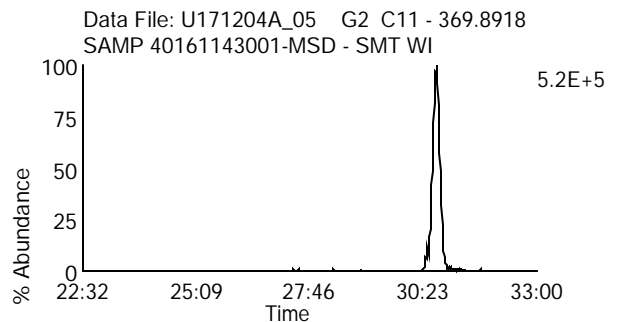
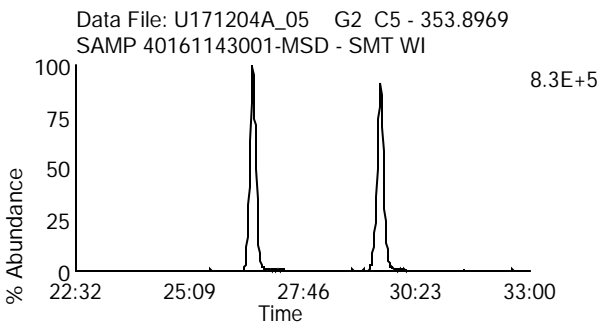
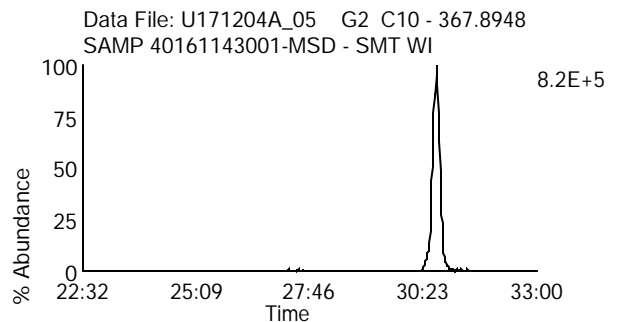
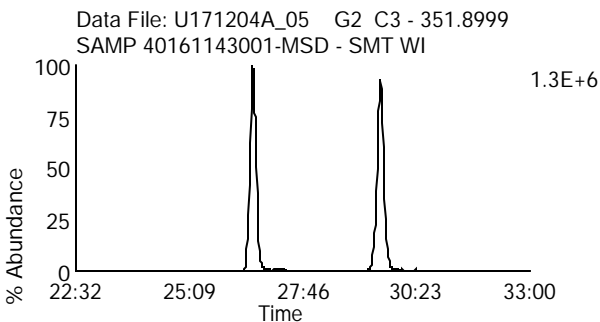
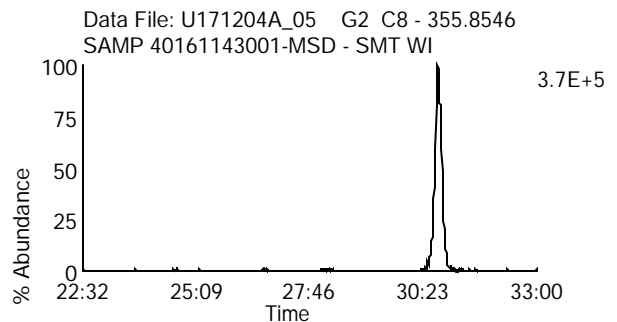
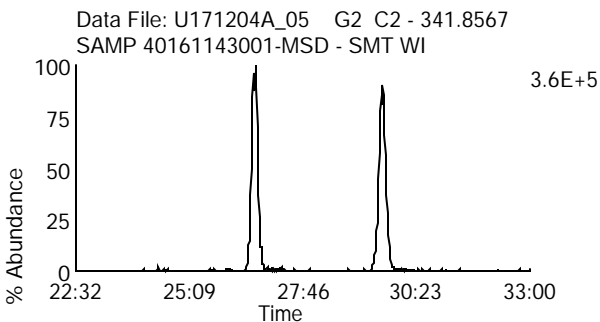
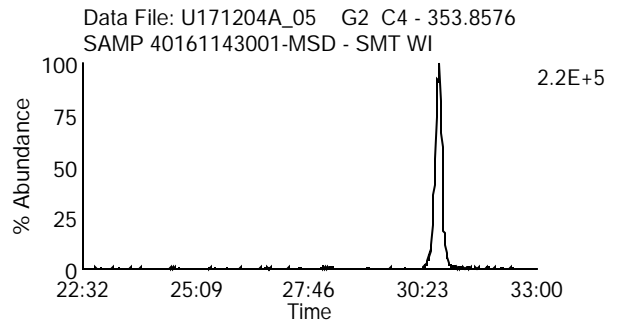
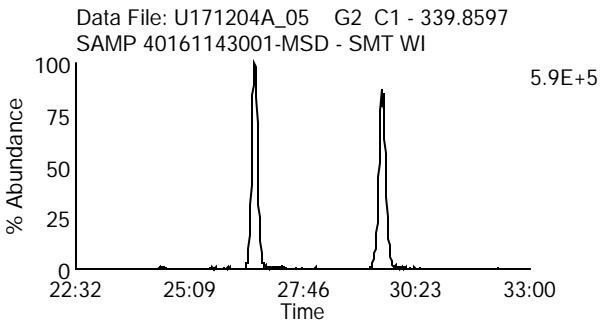
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MSD - SMT WI

Lab Sample ID: 40161143001-MSD

Client Sample ID: 111717022-MSD

Instrument: 10MSHR06 (U)



Homologue Group: Hexas

Data File Name: U171204A_05

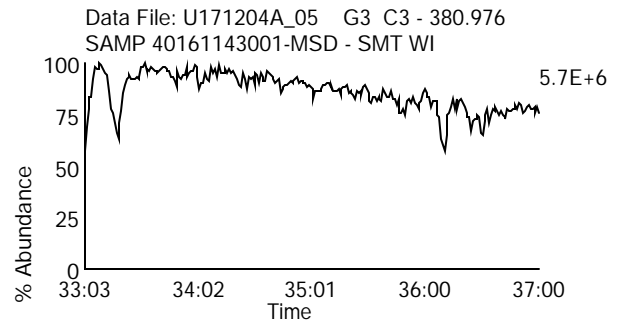
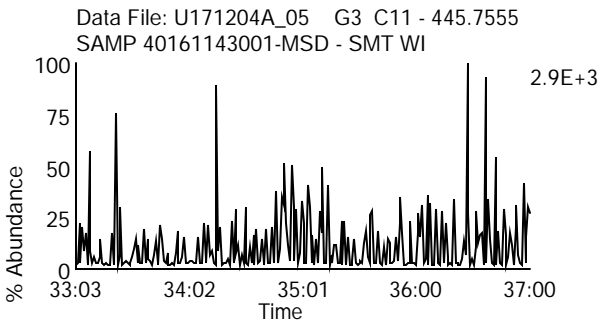
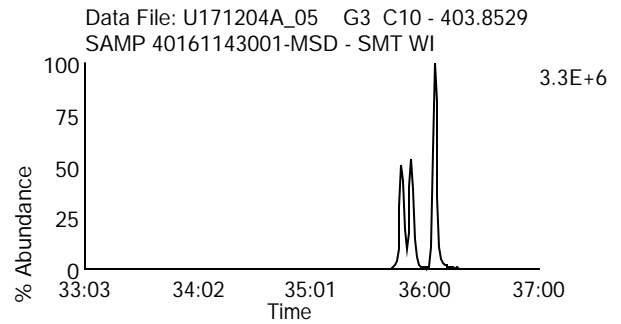
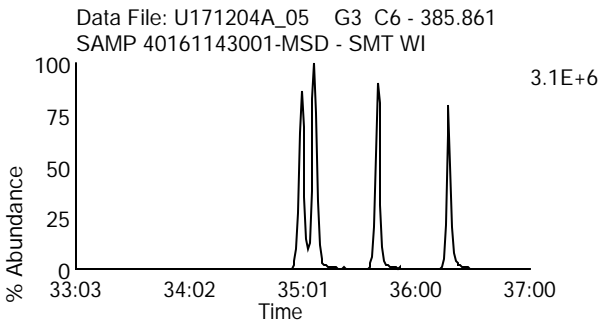
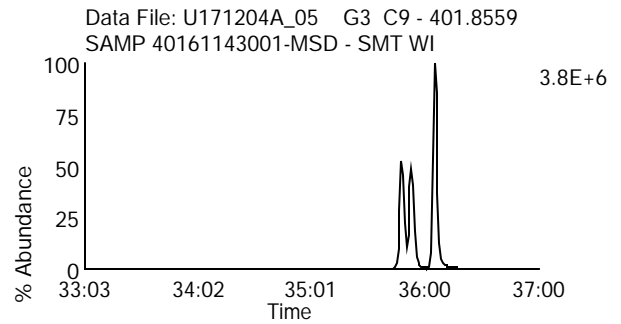
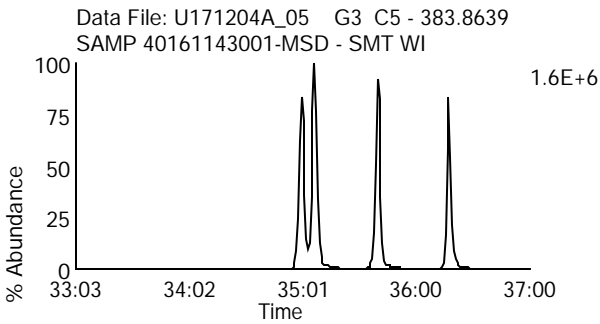
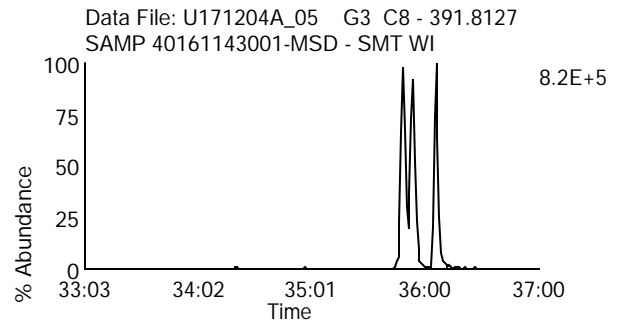
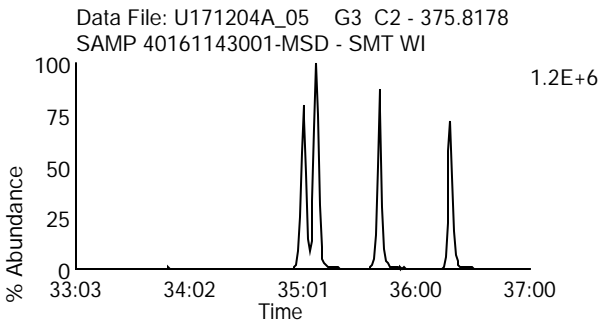
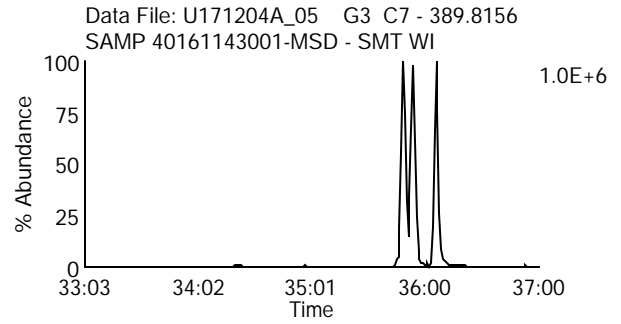
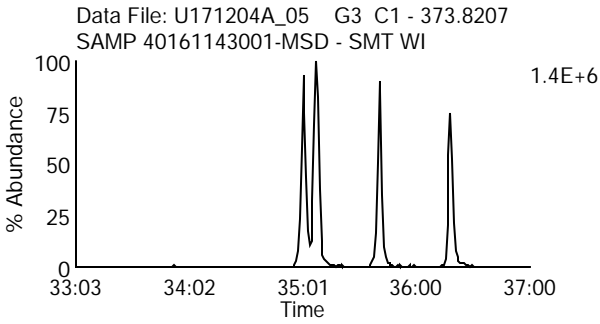
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MSD - SMT WI

Lab Sample ID: 40161143001-MSD

Client Sample ID: 111717022-MSD

Instrument: 10MSHR06 (U)



Homologue Group: Heptas

Data File Name: U171204A_05

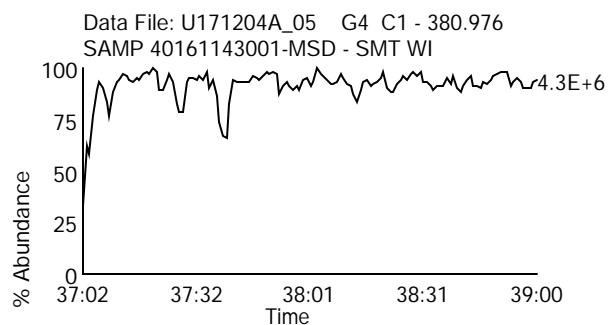
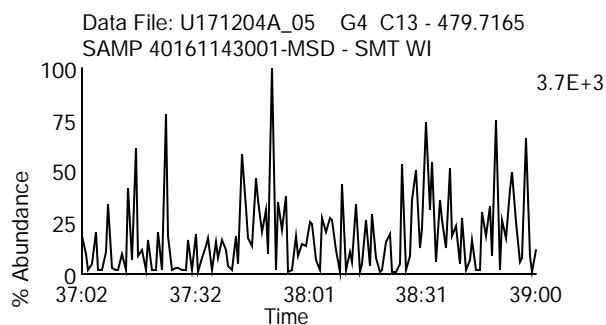
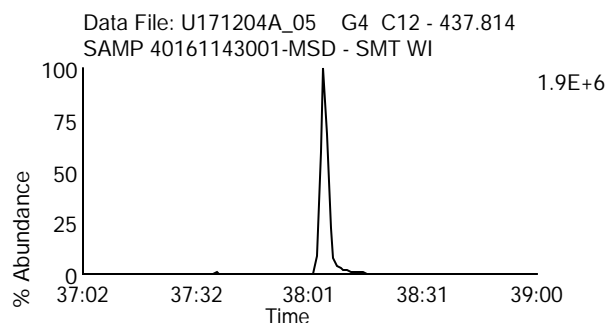
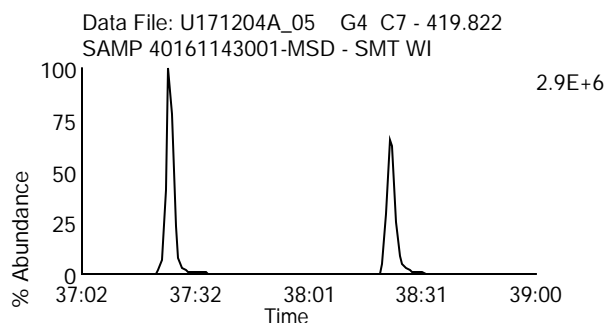
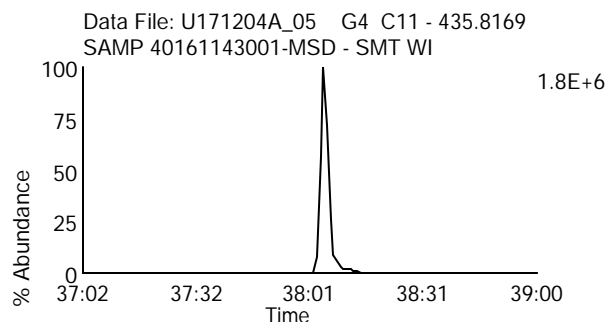
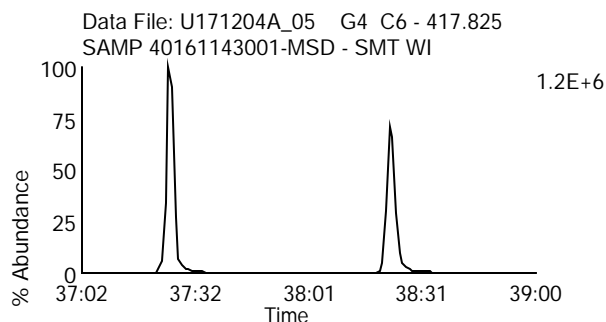
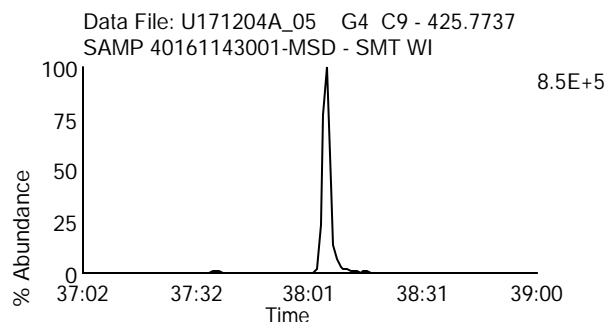
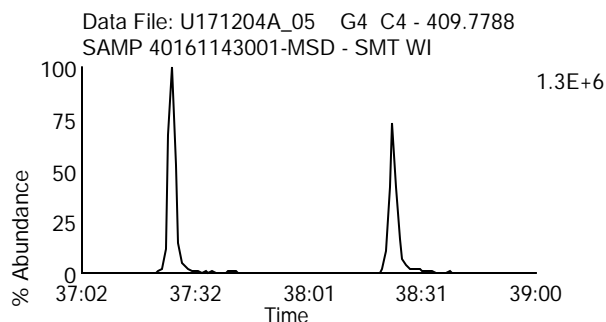
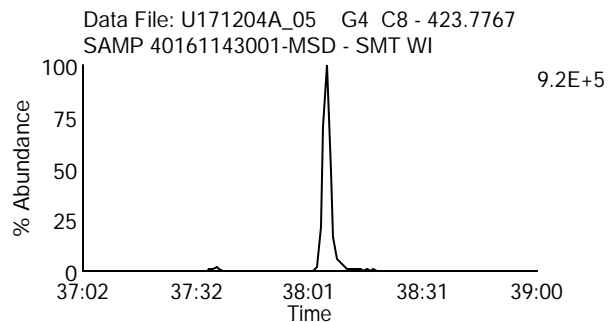
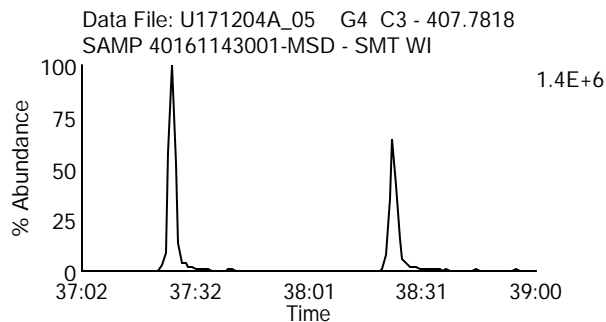
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MSD - SMT WI

Lab Sample ID: 40161143001-MSD

Client Sample ID: 111717022-MSD

Instrument: 10MSHR06 (U)



Homologue Group: Octas

Data File Name: U171204A_05

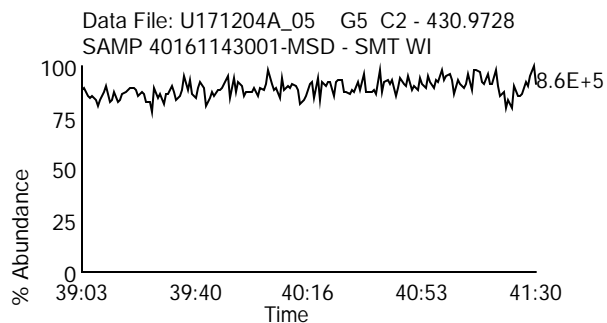
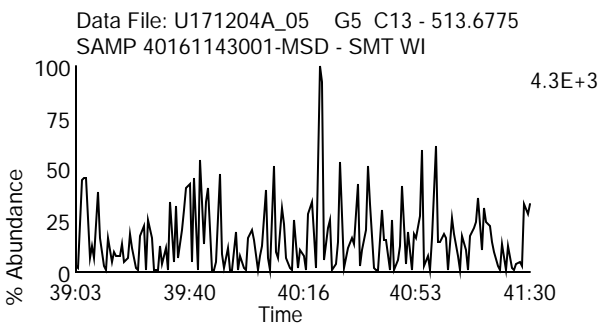
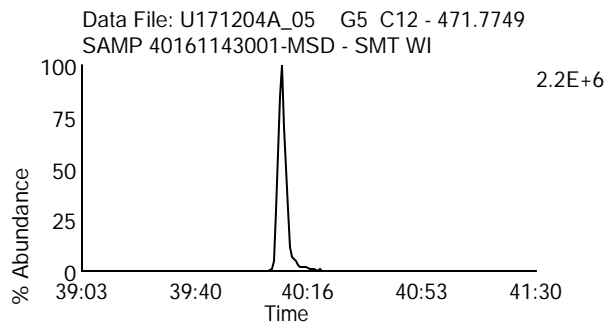
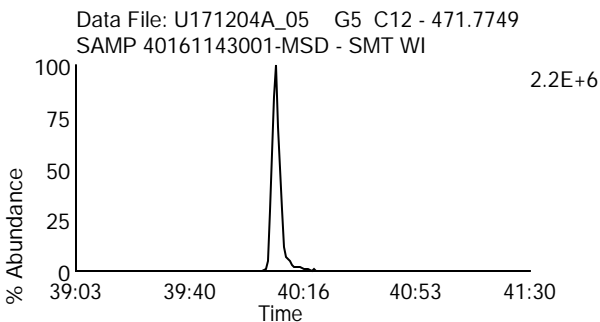
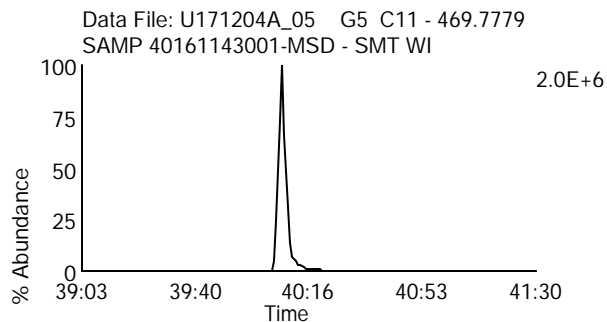
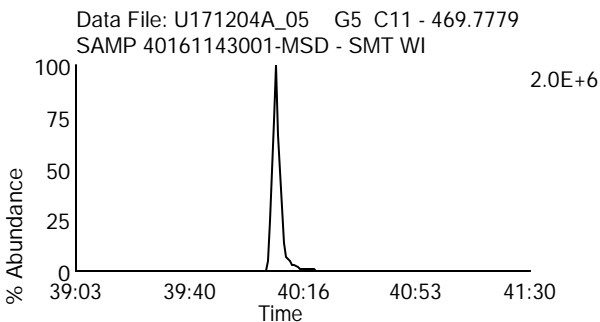
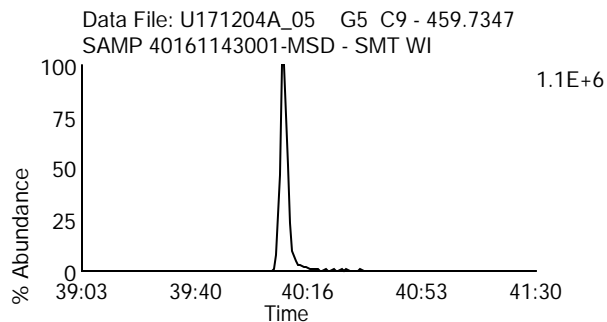
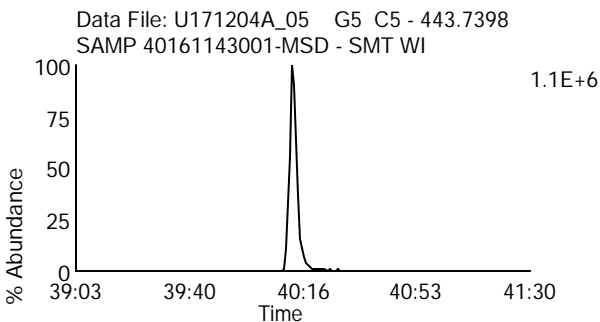
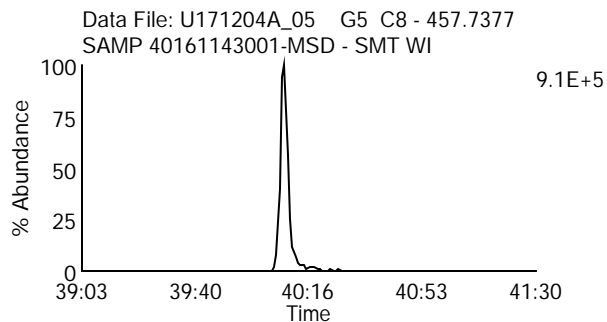
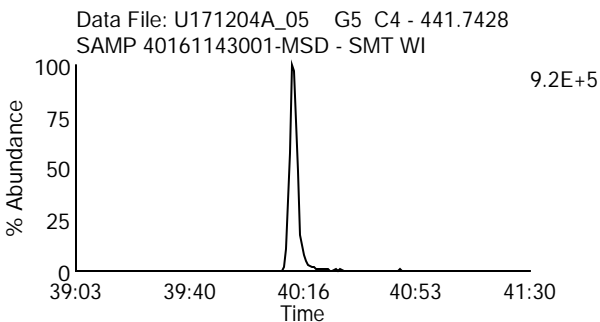
Date Acquired: 12/4/2017

Sample Description: SAMP 40161143001-MSD - SMT WI

Lab Sample ID: 40161143001-MSD

Client Sample ID: 111717022-MSD

Instrument: 10MSHR06 (U)





PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client ID		Injected By	SMT
Lab ID	BLANK-58881	Instrument ID	10MSHR06 (U)
Filename	U171130A_11	GC Column ID	USP117525H
Analyzed	11/30/2017 20:00	ICAL ID	U171107

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:16	1.86e7	2.39e7	2.74e6	3.56e6	6.226e3	1.111e4	0.78	
2,3,7,8-TCDF	18:18	(M)1.28e4	(M)1.05e4	4.26e3	2.57e3	7.848e2	6.713e2	1.22	I

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:26	2.32e7	2.93e7	3.60e6	4.59e6	2.676e3	2.033e3	0.79	
2,3,7,8-TCDD-13C	19:21	1.60e7	2.06e7	2.16e6	2.81e6	5.490e3	4.116e3	0.78	
2,3,7,8-TCDD-37Cl4	19:23	3.35e6		4.71e5		1.255e3	----		
2,3,7,8-TCDD	19:23	ND	ND	ND	ND	7.617e2	7.771e2		

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:31	2.15e7	1.40e7	2.09e6	1.37e6	1.131e3	1.449e3	1.54	
2,3,4,7,8-PeCDF-13C	29:24	2.07e7	1.36e7	1.86e6	1.17e6	4.321e3	3.562e3	1.53	
1,2,3,7,8-PeCDF	26:33	ND	ND	ND	ND	5.027e2	6.024e2		
2,3,4,7,8-PeCDF	29:27	ND	ND	ND	ND	7.009e2	6.976e2		

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:29	1.70e7	1.09e7	1.38e6	8.96e5	2.837e3	2.286e3	1.57	
1,2,3,7,8-PeCDD	30:32	ND	ND	ND	ND	6.089e2	7.015e2		

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:57	8.45e6	1.63e7	2.61e6	4.98e6	8.271e2	1.102e3	0.52	
1,2,3,6,7,8-HxCDF-13C	35:04	1.06e7	2.09e7	3.06e6	6.10e6	8.844e2	1.102e3	0.51	
2,3,4,6,7,8-HxCDF-13C	35:37	9.10e6	1.80e7	3.27e6	6.22e6	1.504e3	7.978e2	0.50	
1,2,3,7,8,9-HxCDF-13C	36:15	6.66e6	1.29e7	2.02e6	4.03e6	1.057e3	8.075e3	0.51	
1,2,3,4,7,8-HxCDF	34:58	ND	ND	ND	ND	9.400e2	1.476e3		
1,2,3,6,7,8-HxCDF	35:05	ND	ND	ND	ND	1.040e3	1.850e3		
2,3,4,6,7,8-HxCDF	35:39	ND	ND	ND	ND	1.003e3	1.094e3		
1,2,3,7,8,9-HxCDF	36:16	ND	ND	ND	ND	7.510e2	1.543e3		

REPORT OF LABORATORY ANALYSIS

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Client ID
Lab ID BLANK-58881
Filename U171130A_11
Analyzed 11/30/2017 20:00

Injected By
Instrument ID
GC Column ID
ICAL ID
SMT
10MSHR06 (U)
USP117525H
U171107

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Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:45	1.24e7	1.01e7	4.98e6	4.28e6	4.449e3	4.114e3	1.22	
1,2,3,6,7,8-HxCDD-13C	35:50	1.43e7	1.12e7	4.78e6	3.75e6	2.091e3	3.859e3	1.28	
1,2,3,7,8,9-HxCDD-13C	36:03	1.68e7	1.36e7	6.07e6	4.85e6	4.673e2	9.649e2	1.24	
1,2,3,4,7,8-HxCDD	35:45	ND	ND	ND	ND	1.425e3	5.849e2		
1,2,3,6,7,8-HxCDD	35:51	ND	ND	ND	ND	1.241e3	1.114e3		
1,2,3,7,8,9-HxCDD	36:03	ND	ND	ND	ND	1.354e3	9.308e2		

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:22	(M)7.81e6	1.76e7	3.45e6	7.67e6	2.899e3	6.391e3	0.44	
1,2,3,4,7,8,9-HpCDF-13C	38:21	5.91e6	(M)1.32e7	2.21e6	5.03e6	1.536e3	6.391e3	0.45	
1,2,3,4,6,7,8-HpCDF	37:23	ND	ND	ND	ND	4.634e3	1.170e3		
1,2,3,4,7,8,9-HpCDF	38:21	ND	ND	ND	ND	4.831e3	2.115e3		

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:03	1.25e7	1.12e7	4.59e6	4.16e6	3.592e3	1.600e3	1.11	
1,2,3,4,6,7,8-HpCDD	38:04	(M)1.01e4	(M)7.21e3	3.33e3	2.21e3	1.294e3	1.380e3	1.40	I

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:10	ND	ND	ND	ND	1.191e3	1.335e3		

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:04	1.41e7	1.64e7	4.47e6	5.17e6	1.120e3	2.515e3	0.86	
OCDD	40:05	(M)1.25e4	(M)1.99e4	6.11e3	5.42e3	2.495e3	1.622e3	0.63	I

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
 Reviewed By _____ Date _____

Client ID	DLCSMR	Injected By	SMT
Lab ID	LCS-58882	Instrument ID	10MSHR06 (U)
Filename	U171130A_07	GC Column ID	USP117525H
Analyzed	11/30/2017 17:03	ICAL ID	U171107

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Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:14	2.19e7	2.75e7	3.25e6	4.24e6	----	----	0.80	
2,3,7,8-TCDF	18:16	1.73e6	2.06e6	2.79e5	3.55e5	----	----	0.84	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:24	2.46e7	3.17e7	4.02e6	5.39e6	----	----	0.78	
2,3,7,8-TCDD-13C	19:18	1.77e7	2.33e7	2.61e6	3.26e6	----	----	0.76	
2,3,7,8-TCDD-37Cl4	19:21	3.85e6		5.71e5		----	----		
2,3,7,8-TCDD	19:20	1.38e6	1.75e6	2.06e5	2.59e5	----	----	0.79	

Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:26	2.42e7	1.54e7	2.21e6	1.42e6	----	----	1.57	
2,3,4,7,8-PeCDF-13C	29:22	2.28e7	1.46e7	2.03e6	1.28e6	----	----	1.56	
1,2,3,7,8-PeCDF	26:31	9.98e6	6.34e6	9.67e5	6.44e5	----	----	1.57	
2,3,4,7,8-PeCDF	29:24	9.37e6	5.80e6	8.12e5	5.27e5	----	----	1.62	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:27	1.82e7	1.18e7	1.46e6	9.44e5	----	----	1.55	
1,2,3,7,8-PeCDD	30:30	4.14e6	7.00e6	3.38e5	5.64e5	----	----	0.59	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:57	9.34e6	1.83e7	2.73e6	5.33e6	----	----	0.51	
1,2,3,6,7,8-HxCDF-13C	35:03	1.16e7	2.20e7	3.27e6	6.56e6	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	35:36	1.02e7	1.98e7	3.27e6	6.66e6	----	----	0.51	
1,2,3,7,8,9-HxCDF-13C	36:15	7.30e6	1.47e7	2.25e6	4.47e6	----	----	0.50	
1,2,3,4,7,8-HxCDF	34:58	8.24e6	6.61e6	2.44e6	1.93e6	----	----	1.25	
1,2,3,6,7,8-HxCDF	35:04	9.31e6	7.44e6	2.60e6	2.06e6	----	----	1.25	
2,3,4,6,7,8-HxCDF	35:38	8.26e6	6.84e6	2.52e6	2.10e6	----	----	1.21	
1,2,3,7,8,9-HxCDF	36:16	5.75e6	4.72e6	1.68e6	1.42e6	----	----	1.22	

REPORT OF LABORATORY ANALYSIS

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Client ID	DLCSMR	Injected By	SMT
Lab ID	LCS-58882	Instrument ID	10MSHR06 (U)
Filename	U171130A_07	GC Column ID	USP117525H
Analyzed	11/30/2017 17:03	ICAL ID	U171107

Page 2

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:44	1.36e7	1.06e7	4.78e6	3.64e6	----	----	1.29	
1,2,3,6,7,8-HxCDD-13C	35:49	1.68e7	1.36e7	5.56e6	4.58e6	----	----	1.23	
1,2,3,7,8,9-HxCDD-13C	36:02	1.92e7	1.56e7	5.84e6	4.81e6	----	----	1.23	
1,2,3,4,7,8-HxCDD	35:45	5.85e6	4.74e6	2.12e6	1.69e6	----	----	1.23	
1,2,3,6,7,8-HxCDD	35:50	7.25e6	5.71e6	2.20e6	1.79e6	----	----	1.27	
1,2,3,7,8,9-HxCDD	36:03	6.44e6	4.95e6	2.09e6	1.66e6	----	----	1.30	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:22	8.95e6	(M)2.01e7	3.32e6	7.48e6	----	----	0.45	
1,2,3,4,7,8,9-HpCDF-13C	38:21	6.24e6	1.42e7	2.30e6	5.27e6	----	----	0.44	
1,2,3,4,6,7,8-HpCDF	37:22	8.47e6	8.34e6	3.62e6	3.51e6	----	----	1.02	
1,2,3,4,7,8,9-HpCDF	38:21	5.75e6	5.61e6	1.84e6	1.83e6	----	----	1.03	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:02	1.30e7	1.28e7	4.99e6	4.96e6	----	----	1.02	
1,2,3,4,6,7,8-HpCDD	38:03	5.69e6	5.50e6	2.30e6	2.27e6	----	----	1.03	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:10	(M)7.23e6	8.60e6	2.41e6	2.83e6	----	----	0.84	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:04	1.57e7	1.71e7	4.93e6	5.58e6	----	----	0.92	
OCDD	40:05	(M)6.96e6	7.89e6	2.25e6	2.57e6	----	----	0.88	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____

Reviewed By _____ Date _____

Client Name PACE Wisconsin
Client ID 111717022-MS
Lab ID 40161143001-MS
Filename U171204A_04
Analyzed 12/04/2017 07:52

Injected By SMT
Instrument ID 10MSHR06 (U)
GC Column ID USP117525H
ICAL ID U171107

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:17	1.23e7	1.63e7	1.91e6	2.57e6	----	----	0.75	
2,3,7,8-TCDF	18:17	1.01e6	1.38e6	1.60e5	2.30e5	----	----	0.73	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:28	1.36e7	1.70e7	2.16e6	2.72e6	----	----	0.80	
2,3,7,8-TCDD-13C	19:24	9.76e6	1.22e7	1.38e6	1.72e6	----	----	0.80	
2,3,7,8-TCDD-37Cl4	19:25	2.23e6		3.11e5		----	----		
2,3,7,8-TCDD	19:25	8.89e5	1.10e6	1.22e5	1.48e5	----	----	0.81	

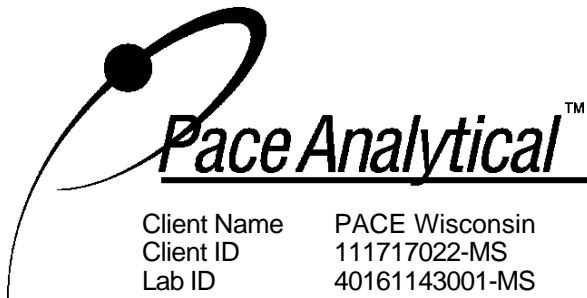
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:32	1.40e7	8.97e6	1.46e6	9.45e5	----	----	1.56	
2,3,4,7,8-PeCDF-13C	29:27	1.36e7	8.87e6	1.23e6	8.00e5	----	----	1.54	
1,2,3,7,8-PeCDF	26:36	6.18e6	4.08e6	6.42e5	4.30e5	----	----	1.51	
2,3,4,7,8-PeCDF	29:31	6.21e6	3.98e6	5.56e5	3.60e5	----	----	1.56	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:37	1.05e7	6.75e6	8.85e5	6.01e5	----	----	1.55	
1,2,3,7,8-PeCDD	30:40	2.74e6	4.37e6	2.32e5	3.82e5	----	----	0.63	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	34:59	4.88e6	9.46e6	1.58e6	2.99e6	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:06	5.72e6	1.10e7	1.69e6	3.30e6	----	----	0.52	
2,3,4,6,7,8-HxCDF-13C	35:39	4.92e6	9.20e6	1.67e6	3.23e6	----	----	0.53	
1,2,3,7,8,9-HxCDF-13C	36:16	3.90e6	7.66e6	1.44e6	2.82e6	----	----	0.51	
1,2,3,4,7,8-HxCDF	34:60	4.59e6	3.72e6	1.60e6	1.24e6	----	----	1.23	
1,2,3,6,7,8-HxCDF	35:07	4.97e6	4.03e6	1.54e6	1.23e6	----	----	1.23	
2,3,4,6,7,8-HxCDF	35:40	4.27e6	3.40e6	1.59e6	1.17e6	----	----	1.26	
1,2,3,7,8,9-HxCDF	36:17	3.45e6	2.72e6	1.30e6	9.91e5	----	----	1.27	

REPORT OF LABORATORY ANALYSIS

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID	111717022-MS	Instrument ID	10MSHR06 (U)
Lab ID	40161143001-MS	GC Column ID	USP117525H
Filename	U171204A_04	ICAL ID	U171107
Analyzed	12/04/2017 07:52		

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:47	6.17e6	5.19e6	2.36e6	1.87e6	----	----	1.19	
1,2,3,6,7,8-HxCDD-13C	35:51	6.45e6	5.54e6	2.34e6	1.99e6	----	----	1.16	
1,2,3,7,8,9-HxCDD-13C	36:04	8.75e6	7.90e6	3.52e6	3.22e6	----	----	1.11	
1,2,3,4,7,8-HxCDD	35:48	(M)2.99e6	2.40e6	1.03e6	8.12e5	----	----	1.25	
1,2,3,6,7,8-HxCDD	35:52	(M)3.11e6	2.46e6	1.03e6	8.27e5	----	----	1.26	
1,2,3,7,8,9-HxCDD	36:05	(M)2.98e6	2.40e6	1.16e6	9.38e5	----	----	1.24	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:24	3.44e6	7.88e6	1.52e6	3.68e6	----	----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	38:21	2.74e6	5.99e6	9.21e5	2.09e6	----	----	0.46	
1,2,3,4,6,7,8-HpCDF	37:24	3.58e6	3.47e6	1.56e6	1.46e6	----	----	1.03	
1,2,3,4,7,8,9-HpCDF	38:22	2.60e6	2.47e6	9.72e5	9.68e5	----	----	1.05	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:04	5.38e6	5.06e6	2.26e6	2.22e6	----	----	1.06	
1,2,3,4,6,7,8-HpCDD	38:04	2.41e6	2.24e6	1.00e6	9.11e5	----	----	1.08	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:12	3.28e6	3.68e6	1.09e6	1.26e6	----	----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:06	6.58e6	7.37e6	2.05e6	2.27e6	----	----	0.89	
OCDD	40:07	3.13e6	3.67e6	9.81e5	1.16e6	----	----	0.85	

REPORT OF LABORATORY ANALYSIS

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PCDD/PCDF Detected Peak List

Prepared By _____ Date _____
Reviewed By _____ Date _____

Client Name	PACE Wisconsin	Injected By	SMT
Client ID	111717022-MSD	Instrument ID	10MSHR06 (U)
Lab ID	40161143001-MSD	GC Column ID	USP117525H
Filename	U171204A_05	ICAL ID	U171107
Analyzed	12/04/2017 08:37		

Page 1

Tetra-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
2,3,7,8-TCDF-13C	18:20	1.09e7	1.49e7	1.57e6	2.05e6	----	----	0.73	
2,3,7,8-TCDF	18:21	9.40e5	1.24e6	1.42e5	1.90e5	----	----	0.76	

Tetra-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4-TCDD-13C	18:31	1.55e7	1.95e7	2.37e6	2.99e6	----	----	0.79	
2,3,7,8-TCDD-13C	19:26	8.60e6	1.13e7	1.06e6	1.45e6	----	----	0.76	
2,3,7,8-TCDD-37Cl4	19:29	1.96e6		2.47e5		----	----		
2,3,7,8-TCDD	19:29	7.76e5	9.78e5	9.62e4	1.34e5	----	----	0.79	

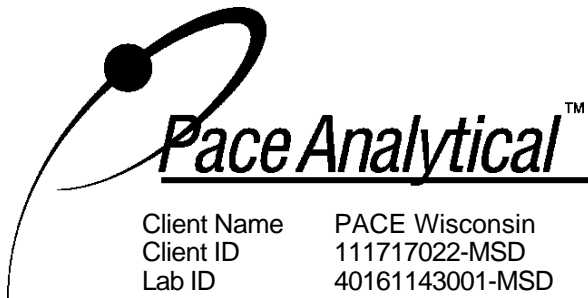
Penta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDF-13C	26:36	1.28e7	8.09e6	1.28e6	8.26e5	----	----	1.58	
2,3,4,7,8-PeCDF-13C	29:33	1.29e7	8.01e6	1.20e6	7.51e5	----	----	1.61	
1,2,3,7,8-PeCDF	26:40	5.82e6	3.64e6	5.85e5	3.57e5	----	----	1.60	
2,3,4,7,8-PeCDF	29:35	5.70e6	3.67e6	5.09e5	3.21e5	----	----	1.55	

Penta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,7,8-PeCDD-13C	30:42	9.58e6	6.23e6	8.17e5	5.20e5	----	----	1.54	
1,2,3,7,8-PeCDD	30:46	2.53e6	4.04e6	2.25e5	3.63e5	----	----	0.63	

Hexa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDF-13C	35:01	4.41e6	8.43e6	1.36e6	2.67e6	----	----	0.52	
1,2,3,6,7,8-HxCDF-13C	35:08	5.08e6	9.65e6	1.63e6	3.10e6	----	----	0.53	
2,3,4,6,7,8-HxCDF-13C	35:41	4.32e6	8.33e6	1.50e6	2.83e6	----	----	0.52	
1,2,3,7,8,9-HxCDF-13C	36:18	3.65e6	7.03e6	1.36e6	2.49e6	----	----	0.52	
1,2,3,4,7,8-HxCDF	35:02	3.91e6	3.19e6	1.31e6	9.54e5	----	----	1.23	
1,2,3,6,7,8-HxCDF	35:09	4.31e6	3.60e6	1.41e6	1.19e6	----	----	1.20	
2,3,4,6,7,8-HxCDF	35:42	3.67e6	2.91e6	1.28e6	1.04e6	----	----	1.26	
1,2,3,7,8,9-HxCDF	36:19	3.03e6	2.34e6	1.06e6	8.48e5	----	----	1.29	

REPORT OF LABORATORY ANALYSIS

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Client Name	PACE Wisconsin	Injected By	SMT
Client ID	111717022-MSD	Instrument ID	10MSHR06 (U)
Lab ID	40161143001-MSD	GC Column ID	USP117525H
Filename	U171204A_05	ICAL ID	U171107
Analyzed	12/04/2017 08:37		

Hexa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,7,8-HxCDD-13C	35:48	5.42e6	4.64e6	1.95e6	1.65e6	----	----	1.17	
1,2,3,6,7,8-HxCDD-13C	35:54	5.79e6	5.06e6	1.82e6	1.73e6	----	----	1.14	
1,2,3,7,8,9-HxCDD-13C	36:06	9.96e6	8.66e6	3.75e6	3.25e6	----	----	1.15	
1,2,3,4,7,8-HxCDD	35:49	2.63e6	2.13e6	1.04e6	8.01e5	----	----	1.24	
1,2,3,6,7,8-HxCDD	35:54	2.73e6	2.10e6	1.02e6	7.54e5	----	----	1.30	
1,2,3,7,8,9-HxCDD	36:07	2.78e6	2.09e6	1.04e6	8.15e5	----	----	1.33	

Hepta-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDF-13C	37:25	2.95e6	6.70e6	1.24e6	2.92e6	----	----	0.44	
1,2,3,4,7,8,9-HpCDF-13C	38:23	2.34e6	5.26e6	8.77e5	1.91e6	----	----	0.44	
1,2,3,4,6,7,8-HpCDF	37:26	2.94e6	2.82e6	1.38e6	1.25e6	----	----	1.04	
1,2,3,4,7,8,9-HpCDF	38:24	2.16e6	2.12e6	8.85e5	9.06e5	----	----	1.02	

Hepta-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
1,2,3,4,6,7,8-HpCDD-13C	38:05	4.43e6	4.42e6	1.82e6	1.87e6	----	----	1.00	
1,2,3,4,6,7,8-HpCDD	38:06	2.11e6	2.01e6	9.17e5	8.46e5	----	----	1.05	

Octa-Furans:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDF	40:13	2.86e6	3.22e6	9.19e5	1.12e6	----	----	0.89	

Octa-Dioxins:	RT	Area 1	Area 2	Height 1	Height 2	Noise 1	Noise 2	Ratio	Code
OCDD-13C	40:08	5.79e6	6.70e6	2.01e6	2.18e6	----	----	0.86	
OCDD	40:09	2.81e6	3.50e6	9.11e5	1.11e6	----	----	0.80	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL REPORT

Lab Number:	L1742869
Client:	Natural Resource Technology 234 W. Florida Street 5th Floor Milwaukee, WI 53204
ATTN:	Eric Hritsuk
Phone:	(773) 796-4368
Project Name:	WBS-GREEN BAY FORMER MGP
Project Number:	1584/14.3B
Report Date:	12/28/17

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), NJ NELAP (MA015), CT (PH-0141), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-13-00067), USFWS (Permit #LE2069641).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1742869-01	111717022	SOIL	Not Specified	11/17/17 13:15	11/21/17
L1742869-02	111717024	SOIL	Not Specified	11/17/17 15:00	11/21/17
L1742869-03	111817026	SOIL	Not Specified	11/18/17 09:00	11/21/17

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Alykated PAHs

L1742869: Samples were frozen upon receipt in order to arrest the holding time.

L1742869-01 and -02: The samples have elevated detection limits due to the dilution required by the sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Elizabeth Porta

Title: Technical Director/Representative

Date: 12/28/17

ORGANICS

SEMIVOLATILES

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-01 D2
 Client ID: 111717022
 Sample Location: Not Specified
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/27/17 17:58
 Analyst: SV
 Percent Solids: 79%

Date Collected: 11/17/17 13:15
 Date Received: 11/21/17
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 12/06/17 13:21
 Cleanup Method: EPA 3611B
 Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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PAHs - Mansfield Lab

Naphthalene	167000		ug/kg	189	54.2	50
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	111		50-130
Phenanthrene-d10	129		50-130
Benzo(a)pyrene-d12	127		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-01 D
 Client ID: 111717022
 Sample Location: Not Specified
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/19/17 04:39
 Analyst: SV
 Percent Solids: 79%

Date Collected: 11/17/17 13:15
 Date Received: 11/21/17
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 12/06/17 13:21
 Cleanup Method: EPA 3611B
 Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	141000	E	ug/kg	75.5	21.7	20
C1-Naphthalenes	56500		ug/kg	75.5	21.7	20
C2-Naphthalenes	14500		ug/kg	75.5	21.7	20
C3-Naphthalenes	2570		ug/kg	75.5	21.7	20
C4-Naphthalenes	673.		ug/kg	75.5	21.7	20
Acenaphthylene	5150		ug/kg	75.5	14.4	20
Acenaphthene	16700		ug/kg	75.5	13.3	20
Fluorene	6020		ug/kg	75.5	20.1	20
C1-Fluorenes	1760		ug/kg	75.5	20.1	20
C2-Fluorenes	673.		ug/kg	75.5	20.1	20
C3-Fluorenes	401.		ug/kg	75.5	20.1	20
Phenanthrene	14700		ug/kg	75.5	25.0	20
C1-Phenanthrenes/Anthracenes	6740		ug/kg	75.5	25.0	20
C2-Phenanthrenes/Anthracenes	2180		ug/kg	75.5	25.0	20
C3-Phenanthrenes/Anthracenes	666.		ug/kg	75.5	25.0	20
C4-Phenanthrenes/Anthracenes	386.		ug/kg	75.5	25.0	20
Anthracene	4480		ug/kg	75.5	15.6	20
Fluoranthene	4040		ug/kg	75.5	24.0	20
Pyrene	5040		ug/kg	75.5	19.8	20
C1-Fluoranthenes/Pyrenes	3760		ug/kg	75.5	19.8	20
Benz(a)anthracene	1850		ug/kg	75.5	15.4	20
Chrysene	1610		ug/kg	75.5	15.3	20
C1-Chrysenes	1230		ug/kg	75.5	15.3	20
C2-Chrysenes	534.		ug/kg	75.5	15.3	20
C3-Chrysenes	ND		ug/kg	75.5	15.3	20
C4-Chrysenes	ND		ug/kg	75.5	15.3	20
Benzo(b)fluoranthene	645.		ug/kg	75.5	19.6	20
Benzo(j)+(k)Fluoranthene	915.		ug/kg	75.5	15.0	20
Benzo(e)Pyrene	718.		ug/kg	75.5	15.6	20
Benzo(a)pyrene	1500		ug/kg	75.5	21.6	20

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-01 D
Client ID: 111717022
Sample Location: Not Specified

Date Collected: 11/17/17 13:15
Date Received: 11/21/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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PAHs - Mansfield Lab

Perylene	270.		ug/kg	75.5	14.6	20
Indeno(1,2,3-cd)Pyrene	519.		ug/kg	75.5	20.5	20
Dibenz(a,h)+(a,c)anthracene	162.		ug/kg	75.5	20.4	20
Benzo(ghi)perylene	625.		ug/kg	75.5	20.0	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	99		50-130
Phenanthrene-d10	113		50-130
Benzo(a)pyrene-d12	116		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-02 D2
 Client ID: 111717024
 Sample Location: Not Specified
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/21/17 10:43
 Analyst: SV
 Percent Solids: 75%

Date Collected: 11/17/17 15:00
 Date Received: 11/21/17
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 12/06/17 13:21
 Cleanup Method: EPA 3611B
 Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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PAHs - Mansfield Lab

Naphthalene	939000		ug/kg	840	241.	40
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	98		50-130
Phenanthrene-d10	127		50-130
Benzo(a)pyrene-d12	124		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-02 D
 Client ID: 111717024
 Sample Location: Not Specified
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 12/14/17 11:58
 Analyst: SV
 Percent Solids: 75%

Date Collected: 11/17/17 15:00
 Date Received: 11/21/17
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 12/06/17 13:21
 Cleanup Method: EPA 3611B
 Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	663000	E	ug/kg	420	121.	20
C1-Naphthalenes	444000		ug/kg	420	121.	20
C2-Naphthalenes	208000		ug/kg	420	121.	20
C3-Naphthalenes	54900		ug/kg	420	121.	20
C4-Naphthalenes	8270		ug/kg	420	121.	20
Acenaphthylene	22400		ug/kg	420	80.1	20
Acenaphthene	227000		ug/kg	420	74.0	20
Fluorene	92500		ug/kg	420	112.	20
C1-Fluorenes	36100		ug/kg	420	112.	20
C2-Fluorenes	14800		ug/kg	420	112.	20
C3-Fluorenes	6550		ug/kg	420	112.	20
Phenanthrene	277000		ug/kg	420	139.	20
C1-Phenanthrenes/Anthracenes	154000		ug/kg	420	139.	20
C2-Phenanthrenes/Anthracenes	51000		ug/kg	420	139.	20
C3-Phenanthrenes/Anthracenes	12000		ug/kg	420	139.	20
C4-Phenanthrenes/Anthracenes	4110		ug/kg	420	139.	20
Anthracene	89600		ug/kg	420	86.6	20
Fluoranthene	98500		ug/kg	420	133.	20
Pyrene	121000		ug/kg	420	110.	20
C1-Fluoranthenes/Pyrenes	100000		ug/kg	420	110.	20
Benz(a)anthracene	57600		ug/kg	420	85.6	20
Chrysene	48000		ug/kg	420	84.9	20
C1-Chrysenes	37800		ug/kg	420	84.9	20
C2-Chrysenes	14300		ug/kg	420	84.9	20
C3-Chrysenes	5630		ug/kg	420	84.9	20
C4-Chrysenes	3770		ug/kg	420	84.9	20
Benzo(b)fluoranthene	19800		ug/kg	420	109.	20
Benzo(j)+(k)Fluoranthene	29400		ug/kg	420	83.4	20
Benzo(e)Pyrene	22300		ug/kg	420	86.7	20
Benzo(a)pyrene	46400		ug/kg	420	120.	20

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-02 D
Client ID: 111717024
Sample Location: Not Specified

Date Collected: 11/17/17 15:00
Date Received: 11/21/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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PAHs - Mansfield Lab

Perylene	6490		ug/kg	420	81.1	20
Indeno(1,2,3-cd)Pyrene	16400		ug/kg	420	114.	20
Dibenz(a,h)+(a,c)anthracene	4980		ug/kg	420	113.	20
Benzo(ghi)perylene	17200		ug/kg	420	112.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	70		50-130
Phenanthrene-d10	85		50-130
Benzo(a)pyrene-d12	95		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-03
Client ID: 111817026
Sample Location: Not Specified

Matrix: Soil
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 12/14/17 03:31
Analyst: SV
Percent Solids: 46%

Date Collected: 11/18/17 09:00
Date Received: 11/21/17
Field Prep: Not Specified
Extraction Method: ALPHA OP-013
Extraction Date: 12/06/17 13:21
Cleanup Method: EPA 3611B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	23700		ug/kg	96.6	27.8	1
C1-Naphthalenes	23500		ug/kg	96.6	27.8	1
C2-Naphthalenes	32100		ug/kg	96.6	27.8	1
C3-Naphthalenes	17200		ug/kg	96.6	27.8	1
C4-Naphthalenes	6050		ug/kg	96.6	27.8	1
Acenaphthylene	999.		ug/kg	96.6	18.4	1
Acenaphthene	10200		ug/kg	96.6	17.0	1
Fluorene	6020		ug/kg	96.6	25.8	1
C1-Fluorenes	2880		ug/kg	96.6	25.8	1
C2-Fluorenes	3240		ug/kg	96.6	25.8	1
C3-Fluorenes	4810		ug/kg	96.6	25.8	1
Phenanthrene	24400		ug/kg	96.6	32.0	1
C1-Phenanthrenes/Anthracenes	16700		ug/kg	96.6	32.0	1
C2-Phenanthrenes/Anthracenes	13800		ug/kg	96.6	32.0	1
C3-Phenanthrenes/Anthracenes	43000		ug/kg	96.6	32.0	1
C4-Phenanthrenes/Anthracenes	123000		ug/kg	96.6	32.0	1
Anthracene	5740		ug/kg	96.6	19.9	1
Fluoranthene	13500		ug/kg	96.6	30.7	1
Pyrene	14200		ug/kg	96.6	25.4	1
C1-Fluoranthenes/Pyrenes	15000		ug/kg	96.6	25.4	1
Benz(a)anthracene	6020		ug/kg	96.6	19.7	1
Chrysene	7000		ug/kg	96.6	19.5	1
C1-Chrysenes	7360		ug/kg	96.6	19.5	1
C2-Chrysenes	8640		ug/kg	96.6	19.5	1
C3-Chrysenes	11000		ug/kg	96.6	19.5	1
C4-Chrysenes	6890		ug/kg	96.6	19.5	1
Benzo(b)fluoranthene	3470		ug/kg	96.6	25.1	1
Benzo(j)+(k)Fluoranthene	3300		ug/kg	96.6	19.2	1
Benzo(e)Pyrene	3330		ug/kg	96.6	19.9	1
Benzo(a)pyrene	4430		ug/kg	96.6	27.6	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-03
Client ID: 111817026
Sample Location: Not Specified

Date Collected: 11/18/17 09:00
Date Received: 11/21/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Perylene	1070		ug/kg	96.6	18.6	1
Indeno(1,2,3-cd)Pyrene	2140		ug/kg	96.6	26.2	1
Dibenz(a,h)+(a,c)anthracene	605.		ug/kg	96.6	26.1	1
Benzo(ghi)perylene	2380		ug/kg	96.6	25.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	80		50-130
Phenanthrene-d10	98		50-130
Benzo(a)pyrene-d12	102		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 12/13/17 19:05
Analyst: PS

Extraction Method: ALPHA OP-013
Extraction Date: 12/06/17 12:21
Cleanup Method: EPA 3611B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-03 Batch: WG1069664-1					
Naphthalene	ND		ug/kg	1.00	0.287
C1-Naphthalenes	ND		ug/kg	1.00	0.287
C2-Naphthalenes	ND		ug/kg	1.00	0.287
C3-Naphthalenes	ND		ug/kg	1.00	0.287
C4-Naphthalenes	ND		ug/kg	1.00	0.287
Acenaphthylene	ND		ug/kg	1.00	0.191
Acenaphthene	ND		ug/kg	1.00	0.176
Fluorene	ND		ug/kg	1.00	0.267
C1-Fluorenes	ND		ug/kg	1.00	0.267
C2-Fluorenes	ND		ug/kg	1.00	0.267
C3-Fluorenes	ND		ug/kg	1.00	0.267
Phenanthrene	ND		ug/kg	1.00	0.331
C1-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C2-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C3-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C4-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
Anthracene	ND		ug/kg	1.00	0.206
Fluoranthene	ND		ug/kg	1.00	0.318
Pyrene	ND		ug/kg	1.00	0.263
C1-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
Benz(a)anthracene	ND		ug/kg	1.00	0.204
Chrysene	ND		ug/kg	1.00	0.202
C1-Chrysenes	ND		ug/kg	1.00	0.202
C2-Chrysenes	ND		ug/kg	1.00	0.202
C3-Chrysenes	ND		ug/kg	1.00	0.202
C4-Chrysenes	ND		ug/kg	1.00	0.202
Benzo(b)fluoranthene	ND		ug/kg	1.00	0.260
Benzo(j)+(k)Fluoranthene	ND		ug/kg	1.00	0.198
Benzo(e)Pyrene	ND		ug/kg	1.00	0.206

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 12/13/17 19:05
Analyst: PS

Extraction Method: ALPHA OP-013
Extraction Date: 12/06/17 12:21
Cleanup Method: EPA 3611B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-03 Batch: WG1069664-1					
Benzo(a)pyrene	ND		ug/kg	1.00	0.285
Perylene	ND		ug/kg	1.00	0.193
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	1.00	0.271
Dibenz(a,h)+(a,c)anthracene	ND		ug/kg	1.00	0.270
Benzo(ghi)perylene	ND		ug/kg	1.00	0.266

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	79		50-130
Phenanthrene-d10	100		50-130
Benzo(a)pyrene-d12	105		50-130

Lab Control Sample Analysis Batch Quality Control

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01-03 Batch: WG1069664-2 WG1069664-3								
Naphthalene	85		82		50-130	4		30
Acenaphthylene	93		91		50-130	2		30
Acenaphthene	97		94		50-130	3		30
Fluorene	100		94		50-130	6		30
Phenanthrene	105		100		50-130	5		30
Anthracene	104		100		50-130	4		30
Fluoranthene	116		108		50-130	7		30
Pyrene	109		103		50-130	6		30
Benz(a)anthracene	107		105		50-130	2		30
Chrysene	124		120		50-130	3		30
Benzo(b)fluoranthene	105		103		50-130	2		30
Benzo(j)+(k)Fluoranthene	127		124		50-130	2		30
Benzo(a)pyrene	112		109		50-130	3		30
Indeno(1,2,3-cd)Pyrene	117		113		50-130	3		30
Dibenz(a,h)+(a,c)anthracene	109		106		50-130	3		30
Benzo(ghi)perylene	111		107		50-130	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Naphthalene-d8	93		90		50-130
Phenanthrene-d10	117		109		50-130
Benzo(a)pyrene-d12	113		109		50-130



INORGANICS & MISCELLANEOUS

Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1742869**Project Number:** 1584/14.3B**Report Date:** 12/28/17**SAMPLE RESULTS**

Lab ID: L1742869-01

Date Collected: 11/17/17 13:15

Client ID: 111717022

Date Received: 11/21/17

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	79.0		%	0.100	0.100	1	-	12/21/17 16:20	121,2540G	RM



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-02
Client ID: 111717024
Sample Location: Not Specified
Matrix: Soil

Date Collected: 11/17/17 15:00
Date Received: 11/21/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	75.3		%	0.100	0.100	1	-	12/21/17 16:20	121,2540G	RM



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

SAMPLE RESULTS

Lab ID: L1742869-03
Client ID: 111817026
Sample Location: Not Specified
Matrix: Soil

Date Collected: 11/18/17 09:00
Date Received: 11/21/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	46.1		%	0.100	0.100	1	-	12/21/17 16:20	121,2540G	RM



Lab Duplicate Analysis

Batch Quality Control

Project Name: WBS-GREEN BAY FORMER MGP

Project Number: 1584/14.3B

Lab Number: L1742869

Report Date: 12/28/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1075457-1 QC Sample: L1742869-01 Client ID: 111717022						
Solids, Total	79.0	79.1	%	0		10

Project Name: WBS-GREEN BAY FORMER MGP

Project Number: 1584/14.3B

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1742869-01A	Glass 120ml/4oz unpreserved	A	NA		5.7	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1742869-02A	Glass 120ml/4oz unpreserved	A	NA		5.7	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1742869-03A	Glass 120ml/4oz unpreserved	A	NA		5.7	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers



Project Name: WBS-GREEN BAY FORMER MGP
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Report Date: 12/28/17

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1742869
Report Date: 12/28/17

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: DW: Bromide

EPA 6860: NPW and SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

EPA 9012B: NPW: Total Cyanide

EPA 9050A: NPW: Specific Conductance

SM3500: NPW: Ferrous Iron

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.

SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS

EPA 3005A NPW

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L1742869



NATURAL RESOURCE TECHNOLOGY, An OBG Company
 234 W. FLORIDA STREET, 5th FLOOR
 MILWAUKEE, WI 53204
 TEL: 414.837.3607

Chain of Custody #: 1584-11202017-02

Date: 11/20/2017

Custody Seal #: 1584-11202017-02-1

Page: 1 of 1

LABORATORY SAMPLES SUBMITTED TO: Alpha Analytical				CLIENT PROJECT NAME WBS - Green Bay Former MGP				PROJECT NUMBER / TASK NUMBER: 1584/14.3B									
ADDRESS: 320 Forbes Blvd.				PROJECT CONTACT: Eric Hritsuk, eric.hritsuk@obg.com, 773-796-4368				QUOTE NO.: N/A									
CITY: Mansfield, MA 02048				SAMPLER(S): (SIGNATURE) <i>Andrew Hardwick</i>													
TPI: (508) 844-4117		FAX:		E-MAIL: sonel@alphalab.com													
TURNAROUND TIME Standard				REQUESTED ANALYSIS													
Data Package: Standard				Preservatives: A = none, B = HCL, C = H ₂ SO ₄ , D = HNO ₃ , E = methanol, F = sodium bisulfate, G = zinc acetate, H = other				Method Number and Analytes									
				Preservation Code (pick letter)				A									
				Filtered (Yor N)				N									
SPECIAL REQUIREMENTS Send all SA Fs & Reports to eric.hritsuk@obg.com								Alylated PAH (34)									
Lab Use Only	ROW	SAMPLE ID	GC SAMPLE	FIELD COMMENTS	SAMPLE		METHOD	SAMPLE TYPE	SAMPLE INTERVAL (ft)		COUNT	Alylated PAH (34)					
					DATE	TIME			TOP	BOTTOM							
	1	11171702 2	N/A	N/A	11/17/2017	13:15	S	Grab	12.7	13.7	1	x					
	2	11171702 4	N/A	N/A	11/17/2017	15:00	S	Grab	8.6	9.1	1	x					
	3	11181702 6	N/A	N/A	11/18/2017	9:00	S	Grab	10	11.6	1	x					
	4																
	5																
	6																
	7																
	8																
	9																
	10																
	11																
	12																
	13																
	14																
	15																
Relinquished by: (Signature) <i>[Signature]</i>		Date: <u>11/20/17</u>		Time: <u>17:00</u>		Received by: (Signature) <i>FEDEX</i>											
Relinquished by: (Signature) <i>FEDEX</i>		Date:		Time:		Received by: (Signature) <i>Ken C. Bauls - AAPL</i>										Time: <u>9:55</u>	
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)										Time:	



ANALYTICAL REPORT

Lab Number:	L1801387
Client:	Natural Resource Technology 234 W. Florida Street 5th Floor Milwaukee, WI 53204
ATTN:	Eric Hritsuk
Phone:	(773) 796-4368
Project Name:	WBS-GREEN BAY FORMER MGP
Project Number:	1584/14.3B
Report Date:	03/15/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), NJ NELAP (MA015), CT (PH-0141), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-13-00067), USFWS (Permit #LE2069641).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1801387-01	111417001 (10.3-10.8)	SOIL	Not Specified	02/16/18 15:05	02/22/18
L1801387-02	111417002 (20.2-20.5)	SOIL	Not Specified	02/16/18 15:09	02/22/18
L1801387-03	111417003 (7.25-7.5)	SOIL	Not Specified	02/16/18 15:13	02/22/18
L1801387-04	111417004 (18.45-18.8)	SOIL	Not Specified	02/16/18 15:20	02/22/18
L1801387-05	111417005 (8.2-8.5)	SOIL	Not Specified	02/16/18 15:24	02/22/18
L1801387-06	111417006 (17.0-17.4)	SOIL	Not Specified	02/16/18 15:29	02/22/18
L1801387-07	111417007 (20.65-20.95)	SOIL	Not Specified	02/16/18 15:33	02/22/18
L1801387-08	111417008 (9.95-10.25)	SOIL	Not Specified	02/16/18 15:38	02/22/18
L1801387-09	111417009 (18.6-18.9)	SOIL	Not Specified	02/16/18 15:42	02/22/18
L1801387-10	111417010 (19.6-19.9)	SOIL	Not Specified	02/16/18 15:46	02/22/18
L1801387-11	111417011 (4.0-4.4)	SOIL	Not Specified	02/16/18 15:50	02/22/18
L1801387-12	111417012 (10.85-11.15)	SOIL	Not Specified	02/16/18 15:54	02/22/18
L1801387-13	111717023 (15.5-15.8)	SOIL	Not Specified	02/16/18 15:58	02/22/18
L1801387-14	111717025 (9.05-9.35)	SOIL	Not Specified	02/16/18 16:02	02/22/18
L1801387-15	111817027 (10.5-10.85)	SOIL	Not Specified	02/16/18 16:06	02/22/18

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

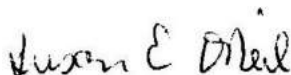
Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Susan O'Neil

Title: Technical Director/Representative

Date: 03/15/18

ORGANICS

SEMIVOLATILES

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-01
 Client ID: 111417001 (10.3-10.8)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/08/18 20:56
 Analyst: SV
 Percent Solids: 65%

Date Collected: 02/16/18 15:05
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	1570		ug/kg	10.1	2.90	1
C1-Naphthalenes	637.		ug/kg	10.1	2.90	1
C2-Naphthalenes	944.		ug/kg	10.1	2.90	1
C3-Naphthalenes	712.		ug/kg	10.1	2.90	1
C4-Naphthalenes	284.		ug/kg	10.1	2.90	1
Acenaphthylene	353.		ug/kg	10.1	1.92	1
Acenaphthene	2520		ug/kg	10.1	1.78	1
Fluorene	1670		ug/kg	10.1	2.69	1
C1-Fluorenes	584.		ug/kg	10.1	2.69	1
C2-Fluorenes	354.		ug/kg	10.1	2.69	1
C3-Fluorenes	292.	G	ug/kg	10.1	2.69	1
Phenanthrene	7820		ug/kg	10.1	3.34	1
C1-Phenanthrenes/Anthracenes	2820		ug/kg	10.1	3.34	1
C2-Phenanthrenes/Anthr BS	1290		ug/kg	10.1	3.34	1
C3-Phenanthrenes/Anthracenes	566.		ug/kg	10.1	3.34	1
C4-Phenanthrenes/Anthracenes	489.		ug/kg	10.1	3.34	1
Anthracene	1740		ug/kg	10.1	2.08	1
Fluoranthene	6640		ug/kg	10.1	3.20	1
Pyrene	5380		ug/kg	10.1	2.65	1
C1-Fluoranthenes/Pyrenes	2670		ug/kg	10.1	2.65	1
Benz(a)anthracene	2610		ug/kg	10.1	2.05	1
Chrysene	2550		ug/kg	10.1	2.04	1
C1-Chrysenes	1150		ug/kg	10.1	2.04	1
C2-Chrysenes BS	562.		ug/kg	10.1	2.04	1
C3-Chrysenes	405.		ug/kg	10.1	2.04	1
C4-Chrysenes	205.		ug/kg	10.1	2.04	1
Benzo(b)fluoranthene	2160		ug/kg	10.1	2.62	1
Benzo(j)+(k)fluoranthene	2170		ug/kg	10.1	2.00	1
Benzo(e)pyrene	1730		ug/kg	10.1	2.08	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-01
 Client ID: 111417001 (10.3-10.8)
 Sample Location: Not Specified
 Sample Depth:

Date Collected: 02/16/18 15:05
 Date Received: 02/22/18
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	2640		ug/kg	10.1	2.88	1
Perylene	735.		ug/kg	10.1	1.94	1
Indeno(1,2,3-cd)pyrene	1610		ug/kg	10.1	2.74	1
Dibenz(a,h)+(a,c)anthracene	461.		ug/kg	10.1	2.72	1
Benzo(g,h,i)perylene	1720		ug/kg	10.1	2.68	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	88		50-130
Phenanthrene-d10	109		50-130
Benzo(a)pyrene-d12	82		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-02 D2
 Client ID: 111417002 (20.2-20.5)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/12/18 15:23
 Analyst: SV
 Percent Solids: 72%

Date Collected: 02/16/18 15:09
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method:ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	3020000		ug/kg	3100	892.	20
C1-Naphthalenes	1570000		ug/kg	3100	892.	20
Acenaphthene	858000		ug/kg	3100	547.	20
Phenanthrene	1100000		ug/kg	3100	1030	20

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-02 D
 Client ID: 111417002 (20.2-20.5)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/08/18 22:19
 Analyst: SV
 Percent Solids: 72%

Date Collected: 02/16/18 15:09
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	2080000	E	ug/kg	310	89.2	2
C1-Naphthalenes	1150000	E	ug/kg	310	89.2	2
C2-Naphthalenes	488000		ug/kg	310	89.2	2
C3-Naphthalenes	103000		ug/kg	310	89.2	2
C4-Naphthalenes	15200		ug/kg	310	89.2	2
Acenaphthylene	73300		ug/kg	310	59.2	2
Acenaphthene	579000	E	ug/kg	310	54.7	2
Fluorene	235000		ug/kg	310	82.7	2
C1-Fluorenes	88000		ug/kg	310	82.7	2
C2-Fluorenes	33200		ug/kg	310	82.7	2
C3-Fluorenes	11200		ug/kg	310	82.7	2
Phenanthrene	748000	E	ug/kg	310	103.	2
C1-Phenanthrenes/Anthracenes	405000		ug/kg	310	103.	2
C2-Phenanthrenes/Anthr BS	124000		ug/kg	310	103.	2
C3-Phenanthrenes/Anthracenes	25700		ug/kg	310	103.	2
C4-Phenanthrenes/Anthracenes	5240		ug/kg	310	103.	2
Anthracene	212000		ug/kg	310	63.9	2
Fluoranthene	222000		ug/kg	310	98.6	2
Pyrene	283000		ug/kg	310	81.6	2
C1-Fluoranthenes/Pyrenes	229000		ug/kg	310	81.6	2
Benz(a)anthracene	136000		ug/kg	310	63.2	2
Chrysene	114000		ug/kg	310	62.7	2
C1-Chrysenes	86000		ug/kg	310	62.7	2
C2-Chrysenes BS	30300		ug/kg	310	62.7	2
C3-Chrysenes	11800		ug/kg	310	62.7	2
C4-Chrysenes	4630		ug/kg	310	62.7	2
Benzo(b)fluoranthene	55000		ug/kg	310	80.7	2
Benzo(j)+(k)fluoranthene	68100		ug/kg	310	61.6	2
Benzo(e)pyrene	57000		ug/kg	310	64.0	2

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-02 D
 Client ID: 111417002 (20.2-20.5)
 Sample Location: Not Specified
 Sample Depth:

Date Collected: 02/16/18 15:09
 Date Received: 02/22/18
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	119000		ug/kg	310	88.6	2
Perylene	18100		ug/kg	310	59.9	2
Indeno(1,2,3-cd)pyrene	43600		ug/kg	310	84.2	2
Dibenz(a,h)+(a,c)anthracene	13100		ug/kg	310	83.8	2
Benzo(g,h,i)perylene	46600		ug/kg	310	82.4	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	98		50-130
Phenanthrene-d10	93		50-130
Benzo(a)pyrene-d12	87		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-03
 Client ID: 111417003 (7.25-7.5)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/08/18 23:43
 Analyst: SV
 Percent Solids: 73%

Date Collected: 02/16/18 15:13
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	4800		ug/kg	15.2	4.36	1
C1-Naphthalenes	5910		ug/kg	15.2	4.36	1
C2-Naphthalenes	4070		ug/kg	15.2	4.36	1
C3-Naphthalenes	3080		ug/kg	15.2	4.36	1
C4-Naphthalenes	1830		ug/kg	15.2	4.36	1
Acenaphthylene	327.		ug/kg	15.2	2.89	1
Acenaphthene	2170		ug/kg	15.2	2.67	1
Fluorene	998.		ug/kg	15.2	4.04	1
C1-Fluorenes	712.		ug/kg	15.2	4.04	1
C2-Fluorenes	1190		ug/kg	15.2	4.04	1
C3-Fluorenes	1180		ug/kg	15.2	4.04	1
Phenanthrene	4030		ug/kg	15.2	5.02	1
C1-Phenanthrenes/Anthracenes	3910		ug/kg	15.2	5.02	1
C2-Phenanthrenes/Anthr BS	3900		ug/kg	15.2	5.02	1
C3-Phenanthrenes/Anthracenes	2990		ug/kg	15.2	5.02	1
C4-Phenanthrenes/Anthracenes	2520		ug/kg	15.2	5.02	1
Anthracene	875.		ug/kg	15.2	3.12	1
Fluoranthene	2420		ug/kg	15.2	4.82	1
Pyrene	2360		ug/kg	15.2	3.99	1
C1-Fluoranthenes/Pyrenes	2460		ug/kg	15.2	3.99	1
Benz(a)anthracene	1320		ug/kg	15.2	3.09	1
Chrysene	1490		ug/kg	15.2	3.06	1
C1-Chrysenes	1560		ug/kg	15.2	3.06	1
C2-Chrysenes BS	1420		ug/kg	15.2	3.06	1
C3-Chrysenes	1300		ug/kg	15.2	3.06	1
C4-Chrysenes	838.		ug/kg	15.2	3.06	1
Benzo(b)fluoranthene	1090		ug/kg	15.2	3.94	1
Benzo(j)+(k)fluoranthene	941.		ug/kg	15.2	3.01	1
Benzo(e)pyrene	998.		ug/kg	15.2	3.13	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-03
Client ID: 111417003 (7.25-7.5)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:13
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	1440		ug/kg	15.2	4.33	1
Perylene	356.		ug/kg	15.2	2.92	1
Indeno(1,2,3-cd)pyrene	793.		ug/kg	15.2	4.11	1
Dibenz(a,h)+(a,c)anthracene	246.		ug/kg	15.2	4.09	1
Benzo(g,h,i)perylene	935.		ug/kg	15.2	4.03	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	93		50-130
Phenanthrene-d10	93		50-130
Benzo(a)pyrene-d12	81		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-04
 Client ID: 111417004 (18.45-18.8)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 01:07
 Analyst: SV
 Percent Solids: 76%

Date Collected: 02/16/18 15:20
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	118000	E	ug/kg	13.2	3.78	1
C1-Naphthalenes	58700	E	ug/kg	13.2	3.78	1
C2-Naphthalenes	10900		ug/kg	13.2	3.78	1
C3-Naphthalenes	690.		ug/kg	13.2	3.78	1
C4-Naphthalenes	122.		ug/kg	13.2	3.78	1
Acenaphthylene	9300		ug/kg	13.2	2.51	1
Acenaphthene	11900		ug/kg	13.2	2.32	1
Fluorene	4840		ug/kg	13.2	3.51	1
C1-Fluorenes	436.		ug/kg	13.2	3.51	1
C2-Fluorenes	75.8		ug/kg	13.2	3.51	1
C3-Fluorenes	55.3	G	ug/kg	13.2	3.51	1
Phenanthrene	4820		ug/kg	13.2	4.36	1
C1-Phenanthrenes/Anthracenes	641.		ug/kg	13.2	4.36	1
C2-Phenanthrenes/Anthr BS	137.		ug/kg	13.2	4.36	1
C3-Phenanthrenes/Anthracenes	84.8		ug/kg	13.2	4.36	1
C4-Phenanthrenes/Anthracenes	50.5		ug/kg	13.2	4.36	1
Anthracene	980.		ug/kg	13.2	2.71	1
Fluoranthene	232.		ug/kg	13.2	4.18	1
Pyrene	271.		ug/kg	13.2	3.46	1
C1-Fluoranthenes/Pyrenes	130.		ug/kg	13.2	3.46	1
Benz(a)anthracene	54.4		ug/kg	13.2	2.68	1
Chrysene	71.1		ug/kg	13.2	2.66	1
C1-Chrysenes	52.3		ug/kg	13.2	2.66	1
C2-Chrysenes BS	50.5		ug/kg	13.2	2.66	1
C3-Chrysenes	80.1		ug/kg	13.2	2.66	1
C4-Chrysenes	ND		ug/kg	13.2	2.66	1
Benzo(b)fluoranthene	20.8		ug/kg	13.2	3.42	1
Benzo(j)+(k)fluoranthene	23.5		ug/kg	13.2	2.61	1
Benzo(e)pyrene	25.1		ug/kg	13.2	2.72	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-04
Client ID: 111417004 (18.45-18.8)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:20
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	40.4		ug/kg	13.2	3.76	1
Perylene	41.5		ug/kg	13.2	2.54	1
Indeno(1,2,3-cd)pyrene	14.0		ug/kg	13.2	3.57	1
Dibenz(a,h)+(a,c)anthracene	4.99	J	ug/kg	13.2	3.56	1
Benzo(g,h,i)perylene	45.6		ug/kg	13.2	3.50	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	93		50-130
Phenanthrene-d10	87		50-130
Benzo(a)pyrene-d12	73		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-04 D
 Client ID: 111417004 (18.45-18.8)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/14/18 20:50
 Analyst: SV
 Percent Solids: 76%

Date Collected: 02/16/18 15:20
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	138000		ug/kg	263	75.6	20
C1-Naphthalenes	62500		ug/kg	263	75.6	20

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-05
 Client ID: 111417005 (8.2-8.5)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 02:31
 Analyst: SV
 Percent Solids: 70%

Date Collected: 02/16/18 15:24
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	2810		ug/kg	80.1	23.0	1
C1-Naphthalenes	3810		ug/kg	80.1	23.0	1
C2-Naphthalenes	3330		ug/kg	80.1	23.0	1
C3-Naphthalenes	2100		ug/kg	80.1	23.0	1
C4-Naphthalenes	916.		ug/kg	80.1	23.0	1
Acenaphthylene	772.		ug/kg	80.1	15.3	1
Acenaphthene	4650		ug/kg	80.1	14.1	1
Fluorene	3580		ug/kg	80.1	21.4	1
C1-Fluorenes	1260		ug/kg	80.1	21.4	1
C2-Fluorenes	924.		ug/kg	80.1	21.4	1
C3-Fluorenes	937.	G	ug/kg	80.1	21.4	1
Phenanthrene	23500		ug/kg	80.1	26.5	1
C1-Phenanthrenes/Anthracenes	8960		ug/kg	80.1	26.5	1
C2-Phenanthrenes/Anthr BS	4250		ug/kg	80.1	26.5	1
C3-Phenanthrenes/Anthracenes	1660		ug/kg	80.1	26.5	1
C4-Phenanthrenes/Anthracenes	947.		ug/kg	80.1	26.5	1
Anthracene	5520		ug/kg	80.1	16.5	1
Fluoranthene	17700		ug/kg	80.1	25.4	1
Pyrene	16100		ug/kg	80.1	21.1	1
C1-Fluoranthenes/Pyrenes	7160		ug/kg	80.1	21.1	1
Benz(a)anthracene	7980		ug/kg	80.1	16.3	1
Chrysene	7880		ug/kg	80.1	16.2	1
C1-Chrysenes	3990		ug/kg	80.1	16.2	1
C2-Chrysenes BS	2170		ug/kg	80.1	16.2	1
C3-Chrysenes	1900		ug/kg	80.1	16.2	1
C4-Chrysenes	1290		ug/kg	80.1	16.2	1
Benzo(b)fluoranthene	5850		ug/kg	80.1	20.8	1
Benzo(j)+(k)fluoranthene	6100		ug/kg	80.1	15.9	1
Benzo(e)pyrene	5220		ug/kg	80.1	16.5	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-05
 Client ID: 111417005 (8.2-8.5)
 Sample Location: Not Specified
 Sample Depth:

Date Collected: 02/16/18 15:24
 Date Received: 02/22/18
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	8370		ug/kg	80.1	22.8	1
Perylene	2010		ug/kg	80.1	15.4	1
Indeno(1,2,3-cd)pyrene	4770		ug/kg	80.1	21.7	1
Dibenz(a,h)+(a,c)anthracene	1220		ug/kg	80.1	21.6	1
Benzo(g,h,i)perylene	5380		ug/kg	80.1	21.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	86		50-130
Phenanthrene-d10	85		50-130
Benzo(a)pyrene-d12	79		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-06
 Client ID: 111417006 (17.0-17.4)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 05:19
 Analyst: SV
 Percent Solids: 72%

Date Collected: 02/16/18 15:29
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	120000	E	ug/kg	27.8	7.98	1
C1-Naphthalenes	58900	E	ug/kg	27.8	7.98	1
C2-Naphthalenes	22300		ug/kg	27.8	7.98	1
C3-Naphthalenes	5020		ug/kg	27.8	7.98	1
C4-Naphthalenes	773.		ug/kg	27.8	7.98	1
Acenaphthylene	16400		ug/kg	27.8	5.30	1
Acenaphthene	9900		ug/kg	27.8	4.89	1
Fluorene	10900		ug/kg	27.8	7.40	1
C1-Fluorenes	3950		ug/kg	27.8	7.40	1
C2-Fluorenes	1400		ug/kg	27.8	7.40	1
C3-Fluorenes	627.	G	ug/kg	27.8	7.40	1
Phenanthrene	38000	E	ug/kg	27.8	9.20	1
C1-Phenanthrenes/Anthracenes	19500		ug/kg	27.8	9.20	1
C2-Phenanthrenes/Anthr BS	5390		ug/kg	27.8	9.20	1
C3-Phenanthrenes/Anthracenes	1000		ug/kg	27.8	9.20	1
C4-Phenanthrenes/Anthracenes	208.		ug/kg	27.8	9.20	1
Anthracene	9920		ug/kg	27.8	5.72	1
Fluoranthene	9970		ug/kg	27.8	8.82	1
Pyrene	12900		ug/kg	27.8	7.30	1
C1-Fluoranthenes/Pyrenes	8600		ug/kg	27.8	7.30	1
Benz(a)anthracene	4660		ug/kg	27.8	5.66	1
Chrysene	4140		ug/kg	27.8	5.61	1
C1-Chrysenes	2880		ug/kg	27.8	5.61	1
C2-Chrysenes BS	943.		ug/kg	27.8	5.61	1
C3-Chrysenes	370.		ug/kg	27.8	5.61	1
C4-Chrysenes	207.		ug/kg	27.8	5.61	1
Benzo(b)fluoranthene	1730		ug/kg	27.8	7.22	1
Benzo(j)+(k)fluoranthene	2160		ug/kg	27.8	5.51	1
Benzo(e)pyrene	1840		ug/kg	27.8	5.73	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-06
Client ID: 111417006 (17.0-17.4)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:29
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	3790		ug/kg	27.8	7.92	1
Perylene	631.		ug/kg	27.8	5.36	1
Indeno(1,2,3-cd)pyrene	1250		ug/kg	27.8	7.53	1
Dibenz(a,h)+(a,c)anthracene	416.		ug/kg	27.8	7.50	1
Benzo(g,h,i)perylene	1480		ug/kg	27.8	7.37	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	92		50-130
Phenanthrene-d10	90		50-130
Benzo(a)pyrene-d12	73		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-06 D
 Client ID: 111417006 (17.0-17.4)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/12/18 18:10
 Analyst: SV
 Percent Solids: 72%

Date Collected: 02/16/18 15:29
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method:ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	150000		ug/kg	139	39.9	5
C1-Naphthalenes	71700		ug/kg	139	39.9	5
Phenanthrene	48700		ug/kg	139	46.0	5

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-07
Client ID: 111417007 (20.65-20.95)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 03/09/18 06:43
Analyst: SV
Percent Solids: 75%

Date Collected: 02/16/18 15:33
Date Received: 02/22/18
Field Prep: Not Specified
Extraction Method: ALPHA OP-013
Extraction Date: 02/23/18 15:30
Cleanup Method: EPA 3611B
Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	88600	E	ug/kg	25.7	7.38	1
C1-Naphthalenes	64300	E	ug/kg	25.7	7.38	1
C2-Naphthalenes	29700		ug/kg	25.7	7.38	1
C3-Naphthalenes	7540		ug/kg	25.7	7.38	1
C4-Naphthalenes	1280		ug/kg	25.7	7.38	1
Acenaphthylene	13500		ug/kg	25.7	4.90	1
Acenaphthene	28100		ug/kg	25.7	4.53	1
Fluorene	17600		ug/kg	25.7	6.85	1
C1-Fluorenes	6950		ug/kg	25.7	6.85	1
C2-Fluorenes	2640		ug/kg	25.7	6.85	1
C3-Fluorenes	1160	G	ug/kg	25.7	6.85	1
Phenanthrene	60200	E	ug/kg	25.7	8.51	1
C1-Phenanthrenes/Anthracenes	33400		ug/kg	25.7	8.51	1
C2-Phenanthrenes/Anthr BS	10500		ug/kg	25.7	8.51	1
C3-Phenanthrenes/Anthracenes	2220		ug/kg	25.7	8.51	1
C4-Phenanthrenes/Anthracenes	457.		ug/kg	25.7	8.51	1
Anthracene	16200		ug/kg	25.7	5.30	1
Fluoranthene	17600		ug/kg	25.7	8.16	1
Pyrene	22900		ug/kg	25.7	6.76	1
C1-Fluoranthenes/Pyrenes	18800		ug/kg	25.7	6.76	1
Benz(a)anthracene	10300		ug/kg	25.7	5.24	1
Chrysene	8820		ug/kg	25.7	5.19	1
C1-Chrysenes	6810		ug/kg	25.7	5.19	1
C2-Chrysenes BS	2370		ug/kg	25.7	5.19	1
C3-Chrysenes	857.		ug/kg	25.7	5.19	1
C4-Chrysenes	345.		ug/kg	25.7	5.19	1
Benzo(b)fluoranthene	3980		ug/kg	25.7	6.68	1
Benzo(j)+(k)fluoranthene	5220		ug/kg	25.7	5.10	1
Benzo(e)pyrene	4320		ug/kg	25.7	5.30	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-07
Client ID: 111417007 (20.65-20.95)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:33
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	8840		ug/kg	25.7	7.33	1
Perylene	1410		ug/kg	25.7	4.96	1
Indeno(1,2,3-cd)pyrene	3140		ug/kg	25.7	6.97	1
Dibenz(a,h)+(a,c)anthracene	1070		ug/kg	25.7	6.94	1
Benzo(g,h,i)perylene	3560		ug/kg	25.7	6.82	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	89		50-130
Phenanthrene-d10	99		50-130
Benzo(a)pyrene-d12	79		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-07 D
 Client ID: 111417007 (20.65-20.95)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/12/18 19:34
 Analyst: SV
 Percent Solids: 75%

Date Collected: 02/16/18 15:33
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	107000		ug/kg	128	36.9	5
C1-Naphthalenes	75400		ug/kg	128	36.9	5
Phenanthrene	75600		ug/kg	128	42.6	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	85		50-130
Phenanthrene-d10	105		50-130
Benzo(a)pyrene-d12	76		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-08
 Client ID: 111417008 (9.95-10.25)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 08:07
 Analyst: SV
 Percent Solids: 84%

Date Collected: 02/16/18 15:38
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	884.		ug/kg	2.27	0.653	1
C1-Naphthalenes	777.		ug/kg	2.27	0.653	1
C2-Naphthalenes	448.		ug/kg	2.27	0.653	1
C3-Naphthalenes	214.		ug/kg	2.27	0.653	1
C4-Naphthalenes	89.2		ug/kg	2.27	0.653	1
Acenaphthylene	204.		ug/kg	2.27	0.433	1
Acenaphthene	657.		ug/kg	2.27	0.400	1
Fluorene	259.		ug/kg	2.27	0.606	1
C1-Fluorenes	132.		ug/kg	2.27	0.606	1
C2-Fluorenes	107.		ug/kg	2.27	0.606	1
C3-Fluorenes	85.3	G	ug/kg	2.27	0.606	1
Phenanthrene	1060		ug/kg	2.27	0.752	1
C1-Phenanthrenes/Anthracenes	765.		ug/kg	2.27	0.752	1
C2-Phenanthrenes/Anthr BS	492.		ug/kg	2.27	0.752	1
C3-Phenanthrenes/Anthracenes	211.		ug/kg	2.27	0.752	1
C4-Phenanthrenes/Anthracenes	147.		ug/kg	2.27	0.752	1
Anthracene	367.		ug/kg	2.27	0.468	1
Fluoranthene	1130		ug/kg	2.27	0.722	1
Pyrene	1070		ug/kg	2.27	0.597	1
C1-Fluoranthenes/Pyrenes	884.		ug/kg	2.27	0.597	1
Benz(a)anthracene	681.		ug/kg	2.27	0.463	1
Chrysene	653.		ug/kg	2.27	0.459	1
C1-Chrysenes	558.		ug/kg	2.27	0.459	1
C2-Chrysenes BS	294.		ug/kg	2.27	0.459	1
C3-Chrysenes	175.		ug/kg	2.27	0.459	1
C4-Chrysenes	90.5		ug/kg	2.27	0.459	1
Benzo(b)fluoranthene	513.		ug/kg	2.27	0.591	1
Benzo(j)+(k)fluoranthene	530.		ug/kg	2.27	0.451	1
Benzo(e)pyrene	508.		ug/kg	2.27	0.468	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-08
 Client ID: 111417008 (9.95-10.25)
 Sample Location: Not Specified
 Sample Depth:

Date Collected: 02/16/18 15:38
 Date Received: 02/22/18
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	744.		ug/kg	2.27	0.648	1
Perylene	198.		ug/kg	2.27	0.438	1
Indeno(1,2,3-cd)pyrene	439.		ug/kg	2.27	0.616	1
Dibenz(a,h)+(a,c)anthracene	141.		ug/kg	2.27	0.613	1
Benzo(g,h,i)perylene	483.		ug/kg	2.27	0.603	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	91		50-130
Phenanthrene-d10	92		50-130
Benzo(a)pyrene-d12	79		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-09
 Client ID: 111417009 (18.6-18.9)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 09:30
 Analyst: SV
 Percent Solids: 75%

Date Collected: 02/16/18 15:42
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	346000	E	ug/kg	52.3	15.0	1
C1-Naphthalenes	205000	E	ug/kg	52.3	15.0	1
C2-Naphthalenes	81300		ug/kg	52.3	15.0	1
C3-Naphthalenes	19200		ug/kg	52.3	15.0	1
C4-Naphthalenes	3050		ug/kg	52.3	15.0	1
Acenaphthylene	15700		ug/kg	52.3	9.98	1
Acenaphthene	105000	E	ug/kg	52.3	9.22	1
Fluorene	44100		ug/kg	52.3	13.9	1
C1-Fluorenes	17200		ug/kg	52.3	13.9	1
C2-Fluorenes	6750		ug/kg	52.3	13.9	1
C3-Fluorenes	2990	G	ug/kg	52.3	13.9	1
Phenanthrene	153000	E	ug/kg	52.3	17.3	1
C1-Phenanthrenes/Anthracenes	84600		ug/kg	52.3	17.3	1
C2-Phenanthrenes/Anthr BS	26200		ug/kg	52.3	17.3	1
C3-Phenanthrenes/Anthracenes	5500		ug/kg	52.3	17.3	1
C4-Phenanthrenes/Anthracenes	1180		ug/kg	52.3	17.3	1
Anthracene	43300		ug/kg	52.3	10.8	1
Fluoranthene	44400		ug/kg	52.3	16.6	1
Pyrene	57900		ug/kg	52.3	13.8	1
C1-Fluoranthenes/Pyrenes	47700		ug/kg	52.3	13.8	1
Benz(a)anthracene	25100		ug/kg	52.3	10.7	1
Chrysene	21800		ug/kg	52.3	10.6	1
C1-Chrysenes	17000		ug/kg	52.3	10.6	1
C2-Chrysenes BS	6120		ug/kg	52.3	10.6	1
C3-Chrysenes	2340		ug/kg	52.3	10.6	1
C4-Chrysenes	880.		ug/kg	52.3	10.6	1
Benzo(b)fluoranthene	9870		ug/kg	52.3	13.6	1
Benzo(j)+(k)fluoranthene	13100		ug/kg	52.3	10.4	1
Benzo(e)pyrene	10900		ug/kg	52.3	10.8	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-09
Client ID: 111417009 (18.6-18.9)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:42
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	22100		ug/kg	52.3	14.9	1
Perylene	3380		ug/kg	52.3	10.1	1
Indeno(1,2,3-cd)pyrene	8220		ug/kg	52.3	14.2	1
Dibenz(a,h)+(a,c)anthracene	2820		ug/kg	52.3	14.1	1
Benzo(g,h,i)perylene	9150		ug/kg	52.3	13.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	103		50-130
Phenanthrene-d10	99		50-130
Benzo(a)pyrene-d12	81		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-09 D
 Client ID: 111417009 (18.6-18.9)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/12/18 22:22
 Analyst: SV
 Percent Solids: 75%

Date Collected: 02/16/18 15:42
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	425000		ug/kg	523	150.	10
C1-Naphthalenes	242000		ug/kg	523	150.	10
Acenaphthene	138000		ug/kg	523	92.2	10
Phenanthrene	201000		ug/kg	523	173.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	95		50-130
Phenanthrene-d10	106		50-130
Benzo(a)pyrene-d12	76		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-10
 Client ID: 111417010 (19.6-19.9)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 10:54
 Analyst: SV
 Percent Solids: 76%

Date Collected: 02/16/18 15:46
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	119000	E	ug/kg	26.3	7.56	1
C1-Naphthalenes	52600	E	ug/kg	26.3	7.56	1
C2-Naphthalenes	21900		ug/kg	26.3	7.56	1
C3-Naphthalenes	5300		ug/kg	26.3	7.56	1
C4-Naphthalenes	758.		ug/kg	26.3	7.56	1
Acenaphthylene	6230		ug/kg	26.3	5.02	1
Acenaphthene	16400		ug/kg	26.3	4.64	1
Fluorene	10500		ug/kg	26.3	7.01	1
C1-Fluorenes	4070		ug/kg	26.3	7.01	1
C2-Fluorenes	1230		ug/kg	26.3	7.01	1
C3-Fluorenes	527.	G	ug/kg	26.3	7.01	1
Phenanthrene	38400	E	ug/kg	26.3	8.71	1
C1-Phenanthrenes/Anthracenes	16800		ug/kg	26.3	8.71	1
C2-Phenanthrenes/Anthr BS	3680		ug/kg	26.3	8.71	1
C3-Phenanthrenes/Anthracenes	689.		ug/kg	26.3	8.71	1
C4-Phenanthrenes/Anthracenes	150.		ug/kg	26.3	8.71	1
Anthracene	9460		ug/kg	26.3	5.42	1
Fluoranthene	7800		ug/kg	26.3	8.36	1
Pyrene	9680		ug/kg	26.3	6.92	1
C1-Fluoranthenes/Pyrenes	5630		ug/kg	26.3	6.92	1
Benz(a)anthracene	2870		ug/kg	26.3	5.36	1
Chrysene	2590		ug/kg	26.3	5.32	1
C1-Chrysenes	1830		ug/kg	26.3	5.32	1
C2-Chrysenes BS	654.		ug/kg	26.3	5.32	1
C3-Chrysenes	284.		ug/kg	26.3	5.32	1
C4-Chrysenes	178.		ug/kg	26.3	5.32	1
Benzo(b)fluoranthene	1120		ug/kg	26.3	6.84	1
Benzo(j)+(k)fluoranthene	1360		ug/kg	26.3	5.22	1
Benzo(e)pyrene	1170		ug/kg	26.3	5.42	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-10
Client ID: 111417010 (19.6-19.9)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:46
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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PAHs - Mansfield Lab

Benzo(a)pyrene	2390		ug/kg	26.3	7.51	1
Perylene	398.		ug/kg	26.3	5.08	1
Indeno(1,2,3-cd)pyrene	853.		ug/kg	26.3	7.14	1
Dibenz(a,h)+(a,c)anthracene	280.		ug/kg	26.3	7.10	1
Benzo(g,h,i)perylene	974.		ug/kg	26.3	6.99	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	102		50-130
Phenanthrene-d10	93		50-130
Benzo(a)pyrene-d12	75		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-10 D
 Client ID: 111417010 (19.6-19.9)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/12/18 23:46
 Analyst: SV
 Percent Solids: 76%

Date Collected: 02/16/18 15:46
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	145000		ug/kg	131	37.8	5
C1-Naphthalenes	62100		ug/kg	131	37.8	5
Phenanthrene	49300		ug/kg	131	43.6	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	96		50-130
Phenanthrene-d10	102		50-130
Benzo(a)pyrene-d12	72		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-11
Client ID: 111417011 (4.0-4.4)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 03/09/18 12:18
Analyst: SV
Percent Solids: 71%

Date Collected: 02/16/18 15:50
Date Received: 02/22/18
Field Prep: Not Specified

Extraction Method: ALPHA OP-013
Extraction Date: 02/23/18 15:30
Cleanup Method: EPA 3611B
Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	17000		ug/kg	27.0	7.75	1
C1-Naphthalenes	10200		ug/kg	27.0	7.75	1
C2-Naphthalenes	4120		ug/kg	27.0	7.75	1
C3-Naphthalenes	1000		ug/kg	27.0	7.75	1
C4-Naphthalenes	235.		ug/kg	27.0	7.75	1
Acenaphthylene	1000		ug/kg	27.0	5.14	1
Acenaphthene	4940		ug/kg	27.0	4.75	1
Fluorene	2280		ug/kg	27.0	7.19	1
C1-Fluorenes	795.		ug/kg	27.0	7.19	1
C2-Fluorenes	339.		ug/kg	27.0	7.19	1
C3-Fluorenes	214.	G	ug/kg	27.0	7.19	1
Phenanthrene	7480		ug/kg	27.0	8.93	1
C1-Phenanthrenes/Anthracenes	3860		ug/kg	27.0	8.93	1
C2-Phenanthrenes/Anthr BS	1390		ug/kg	27.0	8.93	1
C3-Phenanthrenes/Anthracenes	404.		ug/kg	27.0	8.93	1
C4-Phenanthrenes/Anthracenes	191.		ug/kg	27.0	8.93	1
Anthracene	1920		ug/kg	27.0	5.56	1
Fluoranthene	2930		ug/kg	27.0	8.57	1
Pyrene	3220		ug/kg	27.0	7.09	1
C1-Fluoranthenes/Pyrenes	2280		ug/kg	27.0	7.09	1
Benz(a)anthracene	1510		ug/kg	27.0	5.50	1
Chrysene	1480		ug/kg	27.0	5.45	1
C1-Chrysenes	1000		ug/kg	27.0	5.45	1
C2-Chrysenes BS	513.		ug/kg	27.0	5.45	1
C3-Chrysenes	348.		ug/kg	27.0	5.45	1
C4-Chrysenes	249.		ug/kg	27.0	5.45	1
Benzo(b)fluoranthene	860.		ug/kg	27.0	7.01	1
Benzo(j)+(k)fluoranthene	984.		ug/kg	27.0	5.35	1
Benzo(e)pyrene	862.		ug/kg	27.0	5.56	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-11
Client ID: 111417011 (4.0-4.4)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:50
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	1460		ug/kg	27.0	7.70	1
Perylene	305.		ug/kg	27.0	5.20	1
Indeno(1,2,3-cd)pyrene	675.		ug/kg	27.0	7.32	1
Dibenz(a,h)+(a,c)anthracene	196.		ug/kg	27.0	7.28	1
Benzo(g,h,i)perylene	782.		ug/kg	27.0	7.16	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	90		50-130
Phenanthrene-d10	95		50-130
Benzo(a)pyrene-d12	76		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-12 D2
 Client ID: 111417012 (10.85-11.15)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/13/18 01:09
 Analyst: SV
 Percent Solids: 53%

Date Collected: 02/16/18 15:54
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	12300000		ug/kg	10600	3050	50
C1-Naphthalenes	6660000		ug/kg	10600	3050	50
Phenanthrene	4430000		ug/kg	10600	3510	50

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-12 D
Client ID: 111417012 (10.85-11.15)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D-SIM(M)
Analytical Date: 03/09/18 13:42
Analyst: SV
Percent Solids: 53%

Date Collected: 02/16/18 15:54
Date Received: 02/22/18
Field Prep: Not Specified
Extraction Method: ALPHA OP-013
Extraction Date: 02/23/18 15:30
Cleanup Method: EPA 3611B
Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	9680000	E	ug/kg	2120	609.	10
C1-Naphthalenes	5370000	E	ug/kg	2120	609.	10
C2-Naphthalenes	2230000		ug/kg	2120	609.	10
C3-Naphthalenes	468000		ug/kg	2120	609.	10
C4-Naphthalenes	64700		ug/kg	2120	609.	10
Acenaphthylene	368000		ug/kg	2120	404.	10
Acenaphthene	2480000		ug/kg	2120	374.	10
Fluorene	1070000		ug/kg	2120	565.	10
C1-Fluorenes	399000		ug/kg	2120	565.	10
C2-Fluorenes	141000		ug/kg	2120	565.	10
C3-Fluorenes	56500	G	ug/kg	2120	565.	10
Phenanthrene	3350000	E	ug/kg	2120	702.	10
C1-Phenanthrenes/Anthracenes	1870000		ug/kg	2120	702.	10
C2-Phenanthrenes/Anthr BS	559000		ug/kg	2120	702.	10
C3-Phenanthrenes/Anthracenes	112000		ug/kg	2120	702.	10
C4-Phenanthrenes/Anthracenes	30100		ug/kg	2120	702.	10
Anthracene	995000		ug/kg	2120	437.	10
Fluoranthene	957000		ug/kg	2120	674.	10
Pyrene	1240000		ug/kg	2120	558.	10
C1-Fluoranthenes/Pyrenes	1020000		ug/kg	2120	558.	10
Benz(a)anthracene	551000		ug/kg	2120	432.	10
Chrysene	478000		ug/kg	2120	428.	10
C1-Chrysenes	352000		ug/kg	2120	428.	10
C2-Chrysenes BS	118000		ug/kg	2120	428.	10
C3-Chrysenes	41900		ug/kg	2120	428.	10
C4-Chrysenes	19300		ug/kg	2120	428.	10
Benzo(b)fluoranthene	209000		ug/kg	2120	551.	10
Benzo(j)+(k)fluoranthene	275000		ug/kg	2120	421.	10
Benzo(e)pyrene	226000		ug/kg	2120	437.	10

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-12 D
Client ID: 111417012 (10.85-11.15)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:54
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	471000		ug/kg	2120	605.	10
Perylene	73000		ug/kg	2120	409.	10
Indeno(1,2,3-cd)pyrene	165000		ug/kg	2120	575.	10
Dibenz(a,h)+(a,c)anthracene	52300		ug/kg	2120	573.	10
Benzo(g,h,i)perylene	180000		ug/kg	2120	563.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	116		50-130
Phenanthrene-d10	107		50-130
Benzo(a)pyrene-d12	82		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-13
 Client ID: 111717023 (15.5-15.8)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 15:06
 Analyst: SV
 Percent Solids: 78%

Date Collected: 02/16/18 15:58
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	68900	E	ug/kg	12.4	3.58	1
C1-Naphthalenes	14000		ug/kg	12.4	3.58	1
C2-Naphthalenes	3740		ug/kg	12.4	3.58	1
C3-Naphthalenes	759.		ug/kg	12.4	3.58	1
C4-Naphthalenes	271.		ug/kg	12.4	3.58	1
Acenaphthylene	761.		ug/kg	12.4	2.37	1
Acenaphthene	3680		ug/kg	12.4	2.19	1
Fluorene	1240		ug/kg	12.4	3.32	1
C1-Fluorenes	434.		ug/kg	12.4	3.32	1
C2-Fluorenes	204.		ug/kg	12.4	3.32	1
C3-Fluorenes	118.	G	ug/kg	12.4	3.32	1
Phenanthrene	3920		ug/kg	12.4	4.12	1
C1-Phenanthrenes/Anthracenes	2360		ug/kg	12.4	4.12	1
C2-Phenanthrenes/Anthr BS	832.		ug/kg	12.4	4.12	1
C3-Phenanthrenes/Anthracenes	318.		ug/kg	12.4	4.12	1
C4-Phenanthrenes/Anthracenes	278.		ug/kg	12.4	4.12	1
Anthracene	1080		ug/kg	12.4	2.56	1
Fluoranthene	1280		ug/kg	12.4	3.95	1
Pyrene	1630		ug/kg	12.4	3.27	1
C1-Fluoranthenes/Pyrenes	1340		ug/kg	12.4	3.27	1
Benz(a)anthracene	761.		ug/kg	12.4	2.54	1
Chrysene	701.		ug/kg	12.4	2.52	1
C1-Chrysenes	517.		ug/kg	12.4	2.52	1
C2-Chrysenes BS	210.		ug/kg	12.4	2.52	1
C3-Chrysenes	132.		ug/kg	12.4	2.52	1
C4-Chrysenes	85.7		ug/kg	12.4	2.52	1
Benzo(b)fluoranthene	311.		ug/kg	12.4	3.24	1
Benzo(j)+(k)fluoranthene	402.		ug/kg	12.4	2.47	1
Benzo(e)pyrene	337.		ug/kg	12.4	2.57	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-13
Client ID: 111717023 (15.5-15.8)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 15:58
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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PAHs - Mansfield Lab

Benzo(a)pyrene	684.		ug/kg	12.4	3.55	1
Perylene	152.		ug/kg	12.4	2.40	1
Indeno(1,2,3-cd)pyrene	243.		ug/kg	12.4	3.38	1
Dibenz(a,h)+(a,c)anthracene	81.7		ug/kg	12.4	3.36	1
Benzo(g,h,i)perylene	320.		ug/kg	12.4	3.31	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	98		50-130
Phenanthrene-d10	95		50-130
Benzo(a)pyrene-d12	77		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-13 D
 Client ID: 111717023 (15.5-15.8)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/13/18 02:33
 Analyst: SV
 Percent Solids: 78%

Date Collected: 02/16/18 15:58
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method:ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	106000		ug/kg	622	179.	50

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-14
 Client ID: 111717025 (9.05-9.35)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 16:30
 Analyst: SV
 Percent Solids: 75%

Date Collected: 02/16/18 16:02
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	298000	E	ug/kg	52.9	15.2	1
C1-Naphthalenes	178000		ug/kg	52.9	15.2	1
C2-Naphthalenes	74400		ug/kg	52.9	15.2	1
C3-Naphthalenes	16200		ug/kg	52.9	15.2	1
C4-Naphthalenes	2030		ug/kg	52.9	15.2	1
Acenaphthylene	6740		ug/kg	52.9	10.1	1
Acenaphthene	87400	E	ug/kg	52.9	9.33	1
Fluorene	35100		ug/kg	52.9	14.1	1
C1-Fluorenes	12100		ug/kg	52.9	14.1	1
C2-Fluorenes	3950		ug/kg	52.9	14.1	1
C3-Fluorenes	1880	G	ug/kg	52.9	14.1	1
Phenanthrene	114000	E	ug/kg	52.9	17.5	1
C1-Phenanthrenes/Anthracenes	54900		ug/kg	52.9	17.5	1
C2-Phenanthrenes/Anthr BS	15100		ug/kg	52.9	17.5	1
C3-Phenanthrenes/Anthracenes	2940		ug/kg	52.9	17.5	1
C4-Phenanthrenes/Anthracenes	929.		ug/kg	52.9	17.5	1
Anthracene	31800		ug/kg	52.9	10.9	1
Fluoranthene	28500		ug/kg	52.9	16.8	1
Pyrene	37200		ug/kg	52.9	13.9	1
C1-Fluoranthenes/Pyrenes	26400		ug/kg	52.9	13.9	1
Benz(a)anthracene	13400		ug/kg	52.9	10.8	1
Chrysene	12200		ug/kg	52.9	10.7	1
C1-Chrysenes	8220		ug/kg	52.9	10.7	1
C2-Chrysenes BS	2650		ug/kg	52.9	10.7	1
C3-Chrysenes	968.		ug/kg	52.9	10.7	1
C4-Chrysenes	416.		ug/kg	52.9	10.7	1
Benzo(b)fluoranthene	4920		ug/kg	52.9	13.8	1
Benzo(j)+(k)fluoranthene	6360		ug/kg	52.9	10.5	1
Benzo(e)pyrene	5280		ug/kg	52.9	10.9	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-14
Client ID: 111717025 (9.05-9.35)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 16:02
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benzo(a)pyrene	10700		ug/kg	52.9	15.1	1
Perylene	1640		ug/kg	52.9	10.2	1
Indeno(1,2,3-cd)pyrene	3600		ug/kg	52.9	14.4	1
Dibenz(a,h)+(a,c)anthracene	1190		ug/kg	52.9	14.3	1
Benzo(g,h,i)perylene	4120		ug/kg	52.9	14.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	96		50-130
Phenanthrene-d10	94		50-130
Benzo(a)pyrene-d12	70		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-14 D
 Client ID: 111717025 (9.05-9.35)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/13/18 03:56
 Analyst: SV
 Percent Solids: 75%

Date Collected: 02/16/18 16:02
 Date Received: 02/22/18
 Field Prep: Not Specified

Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	387000		ug/kg	529	152.	10
Acenaphthene	114000		ug/kg	529	93.3	10
Phenanthrene	143000		ug/kg	529	175.	10

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-15
 Client ID: 111817027 (10.5-10.85)
 Sample Location: Not Specified
 Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D-SIM(M)
 Analytical Date: 03/09/18 17:54
 Analyst: SV
 Percent Solids: 33%

Date Collected: 02/16/18 16:06
 Date Received: 02/22/18
 Field Prep: Not Specified
 Extraction Method: ALPHA OP-013
 Extraction Date: 02/23/18 15:30
 Cleanup Method: EPA 3611B
 Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Naphthalene	8840		ug/kg	57.3	16.5	1
C1-Naphthalenes	10700		ug/kg	57.3	16.5	1
C2-Naphthalenes	12100		ug/kg	57.3	16.5	1
C3-Naphthalenes	6720		ug/kg	57.3	16.5	1
C4-Naphthalenes	3300		ug/kg	57.3	16.5	1
Acenaphthylene	509.		ug/kg	57.3	10.9	1
Acenaphthene	3050		ug/kg	57.3	10.1	1
Fluorene	2470		ug/kg	57.3	15.3	1
C1-Fluorenes	1340		ug/kg	57.3	15.3	1
C2-Fluorenes	2270		ug/kg	57.3	15.3	1
C3-Fluorenes	3640		ug/kg	57.3	15.3	1
Phenanthrene	10500		ug/kg	57.3	19.0	1
C1-Phenanthrenes/Anthracenes	8420		ug/kg	57.3	19.0	1
C2-Phenanthrenes/Anthr BS	9920		ug/kg	57.3	19.0	1
C3-Phenanthrenes/Anthracenes	76500	G	ug/kg	57.3	19.0	1
C4-Phenanthrenes/Anthracenes	254000	G	ug/kg	57.3	19.0	1
Anthracene	2020		ug/kg	57.3	11.8	1
Fluoranthene	5990		ug/kg	57.3	18.2	1
Pyrene	5570		ug/kg	57.3	15.1	1
C1-Fluoranthenes/Pyrenes	11600	G	ug/kg	57.3	15.1	1
Benz(a)anthracene	2360		ug/kg	57.3	11.7	1
Chrysene	3150		ug/kg	57.3	11.6	1
C1-Chrysenes	3410		ug/kg	57.3	11.6	1
C2-Chrysenes BS	4150		ug/kg	57.3	11.6	1
C3-Chrysenes	4810		ug/kg	57.3	11.6	1
C4-Chrysenes	3200		ug/kg	57.3	11.6	1
Benzo(b)fluoranthene	1740		ug/kg	57.3	14.9	1
Benzo(j)+(k)fluoranthene	1660		ug/kg	57.3	11.4	1
Benzo(e)pyrene	1690		ug/kg	57.3	11.8	1

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-15
Client ID: 111817027 (10.5-10.85)
Sample Location: Not Specified
Sample Depth:

Date Collected: 02/16/18 16:06
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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PAHs - Mansfield Lab

Benzo(a)pyrene	1880		ug/kg	57.3	16.4	1
Perylene	560.		ug/kg	57.3	11.1	1
Indeno(1,2,3-cd)pyrene	1180		ug/kg	57.3	15.6	1
Dibenz(a,h)+(a,c)anthracene	344.		ug/kg	57.3	15.5	1
Benzo(g,h,i)perylene	1360		ug/kg	57.3	15.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	108		50-130
Phenanthrene-d10	112		50-130
Benzo(a)pyrene-d12	92		50-130

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 03/08/18 19:32
Analyst: SV

Extraction Method: ALPHA OP-013
Extraction Date: 02/23/18 15:30
Cleanup Method: EPA 3611B
Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-15 Batch: WG1091940-1					
Naphthalene	ND		ug/kg	1.00	0.287
C1-Naphthalenes	ND		ug/kg	1.00	0.287
C2-Naphthalenes	ND		ug/kg	1.00	0.287
C3-Naphthalenes	ND		ug/kg	1.00	0.287
C4-Naphthalenes	ND		ug/kg	1.00	0.287
Acenaphthylene	ND		ug/kg	1.00	0.191
Acenaphthene	ND		ug/kg	1.00	0.176
Fluorene	ND		ug/kg	1.00	0.267
C1-Fluorenes	ND		ug/kg	1.00	0.267
C2-Fluorenes	ND		ug/kg	1.00	0.267
C3-Fluorenes	ND		ug/kg	1.00	0.267
Phenanthrene	ND		ug/kg	1.00	0.331
C1-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C2-Phenanthrenes/Anthr BS	ND		ug/kg	1.00	0.331
C3-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C4-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
Anthracene	ND		ug/kg	1.00	0.206
Fluoranthene	ND		ug/kg	1.00	0.318
Pyrene	ND		ug/kg	1.00	0.263
C1-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
Benz(a)anthracene	ND		ug/kg	1.00	0.204
Chrysene	ND		ug/kg	1.00	0.202
C1-Chrysenes	ND		ug/kg	1.00	0.202
C2-Chrysenes BS	ND		ug/kg	1.00	0.202
C3-Chrysenes	ND		ug/kg	1.00	0.202
C4-Chrysenes	ND		ug/kg	1.00	0.202
Benzo(b)fluoranthene	ND		ug/kg	1.00	0.260
Benzo(j)+(k)fluoranthene	ND		ug/kg	1.00	0.198
Benzo(e)pyrene	ND		ug/kg	1.00	0.206

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM(M)
Analytical Date: 03/08/18 19:32
Analyst: SV

Extraction Method: ALPHA OP-013
Extraction Date: 02/23/18 15:30
Cleanup Method: EPA 3611B
Cleanup Date: 03/08/18

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-15 Batch: WG1091940-1					
Benzo(a)pyrene	ND		ug/kg	1.00	0.285
Perylene	ND		ug/kg	1.00	0.193
Indeno(1,2,3-cd)pyrene	ND		ug/kg	1.00	0.271
Dibenz(a,h)+(a,c)anthracene	ND		ug/kg	1.00	0.270
Benzo(g,h,i)perylene	ND		ug/kg	1.00	0.266

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	100		50-130
Phenanthrene-d10	81		50-130
Benzo(a)pyrene-d12	58		50-130

Lab Control Sample Analysis Batch Quality Control

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PAHs - Mansfield Lab Associated sample(s): 01-15 Batch: WG1091940-2 WG1091940-3								
Naphthalene	88		83		50-130	6		30
Acenaphthylene	75		73		50-130	3		30
Acenaphthene	82		79		50-130	4		30
Fluorene	84		82		50-130	2		30
Phenanthrene	92		90		50-130	2		30
Anthracene	74		73		50-130	1		30
Fluoranthene	76		75		50-130	1		30
Pyrene	71		70		50-130	1		30
Benz(a)anthracene	83		85		50-130	2		30
Chrysene	91		91		50-130	0		30
Benzo(b)fluoranthene	98		96		50-130	2		30
Benzo(j)+(k)Fluoranthene	100		102		50-130	2		30
Benzo(a)pyrene	98		100		50-130	2		30
Indeno(1,2,3-cd)Pyrene	100		106		50-130	6		30
Dibenz(a,h)+(a,c)anthracene	97		102		50-130	5		30
Benzo(ghi)perylene	104		107		50-130	3		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Naphthalene-d8	108		101		50-130
Phenanthrene-d10	85		83		50-130
Benzo(a)pyrene-d12	64		67		50-130



INORGANICS & MISCELLANEOUS

Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-01
Client ID: 111417001 (10.3-10.8)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 02/16/18 15:05
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	64.6		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-02
Client ID: 111417002 (20.2-20.5)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 02/16/18 15:09
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	71.5		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-03

Date Collected: 02/16/18 15:13

Client ID: 111417003 (7.25-7.5)

Date Received: 02/22/18

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	72.7		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-04
Client ID: 111417004 (18.45-18.8)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 02/16/18 15:20
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	75.8		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-05

Date Collected: 02/16/18 15:24

Client ID: 111417005 (8.2-8.5)

Date Received: 02/22/18

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	69.7		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-06
Client ID: 111417006 (17.0-17.4)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 02/16/18 15:29
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	71.8		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-07

Date Collected: 02/16/18 15:33

Client ID: 111417007 (20.65-20.95)

Date Received: 02/22/18

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	74.9		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-08

Date Collected: 02/16/18 15:38

Client ID: 111417008 (9.95-10.25)

Date Received: 02/22/18

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	83.5		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-09

Date Collected: 02/16/18 15:42

Client ID: 111417009 (18.6-18.9)

Date Received: 02/22/18

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	74.7		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-10

Date Collected: 02/16/18 15:46

Client ID: 111417010 (19.6-19.9)

Date Received: 02/22/18

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	75.5		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-11
Client ID: 111417011 (4.0-4.4)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 02/16/18 15:50
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	71.0		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP

Lab Number: L1801387

Project Number: 1584/14.3B

Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-12

Date Collected: 02/16/18 15:54

Client ID: 111417012 (10.85-11.15)

Date Received: 02/22/18

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	52.8		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-13
Client ID: 111717023 (15.5-15.8)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 02/16/18 15:58
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	78.1		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

SAMPLE RESULTS

Lab ID: L1801387-14
Client ID: 111717025 (9.05-9.35)
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 02/16/18 16:02
Date Received: 02/22/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	74.9		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**SAMPLE RESULTS**

Lab ID: L1801387-15

Date Collected: 02/16/18 16:06

Client ID: 111817027 (10.5-10.85)

Date Received: 02/22/18

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	33.0		%	0.100	0.100	1	-	02/26/18 10:10	121,2540G	SP



Lab Duplicate Analysis

Batch Quality Control

Project Name: WBS-GREEN BAY FORMER MGP

Project Number: 1584/14.3B

Lab Number: L1801387

Report Date: 03/15/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-15 QC Batch ID: WG1091831-1 QC Sample: L1806014-01 Client ID: DUP Sample						
Solids, Total	48.6	51.0	%	5		10

Project Name: WBS-GREEN BAY FORMER MGP**Lab Number:** L1801387**Project Number:** 1584/14.3B**Report Date:** 03/15/18**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1801387-01A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-02A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-03A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-04A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-05A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-06A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-07A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-08A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-09A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-10A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-11A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-12A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-13A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-14A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)
L1801387-15A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-ALKPAH(14),A2-TS(7)

Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: WBS-GREEN BAY FORMER MGP
Project Number: 1584/14.3B

Lab Number: L1801387
Report Date: 03/15/18

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 300: DW: Bromide

EPA 6860: SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E,**

SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 2/22/18

ALPHA Job #: L1801387

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: WBS-Green Bay Former MGP

Project Location:

Project #: 1534/14-3B

Project Manager: Erik Hritsuk

ALPHA Quote #:

Report Information - Data Deliverables

ADEx EMAIL

Same as Client info PO #:

Client Information

Client: Natural Resource Technology

Address: 234 W. Florida Str. 5th Floor

Milwaukee, WI 53204

Phone: 414-337-3607

Email: eric.hritsuk@nrt.com
773 796 4368

Additional Project Information:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program Criteria

ANALYSIS	VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SAMPLE INFO
	SVOC: <input type="checkbox"/> ABN <input checked="" type="checkbox"/> PAH	
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15		Filtration
METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13		<input type="checkbox"/> Field
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		<input type="checkbox"/> Lab to do
VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		Preservation
PCB: <input type="checkbox"/> PEST		<input type="checkbox"/> Lab to do
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
		Sample Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
801387-01	111417001 (10.3-10.8)	2/16/18	1505	soil	JS
-02	111417002 (20.2-20.5)		1509		
-03	111417003 (7.25-7.50)		1513		
-04	111417004 (13.45-13.8)		1520		
-05	111417005 (3.2-3.5)		1524		
-06	111417006 (17.0-17.4)		1529		
-07	111417007 (20.65-20.95)		1533		
-08	111417008 (9.95-10.25)		1538		
-09	111417009 (13.6-13.9)		1542		
-10	111417010 (19.6-19.9)		1546		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H = Na₂S₂O₅
I= Ascorbic Acid
J = NH₄Cl
K= Zn Acetate
O= Other

Container Type A

Preservative

Relinquished By:

PTS LABS, INC
FedEx

Date/Time

2/21/18 1000

Received By:

FedEx
Turn Banks

Date/Time

2/22/18 9:50

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 2/22/18

ALPHA Job #: L1801387

8 Waikup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: WBS Green Bay former MGP

Project Location:

Project #: 1584/143B

Project Manager: Erik Hritsuk

ALPHA Quote #:

Report Information - Data Deliverables

ADEx EMAIL

Same as Client info PO #:

Client Information

Client: Natural Resource Technology

Address: 234 W. Florida St. 5th floor

Milwaukee, WI 53204

Phone: 414-337-3607

Email: eric.hritsuk@obg.com
773-796-4363

Additional Project Information:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program _____ Criteria _____

ANALYSIS	VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SAMPLE INFO
	SVOC: <input type="checkbox"/> ABN <input checked="" type="checkbox"/> PAH	
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do	
METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8		
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	Preservation <input type="checkbox"/> Lab to do	
VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
-11	111417011 (4.0-4.4)	2/16/18	1550	Soil	JD
-12	111417012 (10.85-11.15)	↓	1554	↓	↓
-13	111717023 (15.5-15.8)		1558		
-14	111717025 (9.05-9.35)		1602		
-15	111817027 (10.5-10.85)		1606		

- Container Type**
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle
- Preservative**
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H = Na₂S₂O₅
I= Ascorbic Acid
J = NH₄Cl
K= Zn Acetate
O= Other

Container Type	<u>A</u>
Preservative	

Relinquished By: <u>PTC LABS. INC</u> <u>Red Ex</u>	Date/Time: <u>2/21/18 1000</u>	Received By: <u>felex</u> <u>AMC</u>	Date/Time: <u>2/22/18 9:50</u>
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All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-140832-1

Client Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

For:

O'Brien & Gere Engineers, Inc.
234 West Florida Street, Fifth Floor
Milwaukee, Wisconsin 53204

Attn: Eric Hritsuk



Authorized for release by:
2/28/2018 3:29:08 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

Review your project
results through
TotalAccess

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Job ID: 500-140832-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-140832-1

Comments

No additional comments.

Receipt

The samples were received on 2/13/2018 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 3.4° C, 3.8° C, 5.3° C and 5.9° C.

Receipt Exceptions

The 4 oz. container labels for ALL samples did not match the information listed on the Chain-of-Custody (COC): All samples have different sample times.

GC/MS VOA

Method(s) 8260B: The method blank for 421025 contained Naphthalene above the method detection limit (MDL). Associated samples were not re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 8260B: The extraction LCS associated with preparation batches 420032 and 420044 had analyte recoveries above control limits. The instrument LCS associated with analytical batches 421029 and 420368 had all analytes within control limits; therefore re-analysis was not performed. The data have been reported and qualified. 111417001 (500-140832-1), 111417002 (500-140832-2), 111417003 (500-140832-3), 111417004 (500-140832-4), 111417005 (500-140832-5), 111417006 (500-140832-6), 111417007 (500-140832-7), 111417008 (500-140832-8), 111417009 (500-140832-9), 111417010 (500-140832-10), 111417011 (500-140832-11), 111417012 (500-140832-12), 111617013 (500-140832-13), 111617014 (500-140832-14), 111617015 (500-140832-15), 111717016 (500-140832-16), 111717017 (500-140832-17), 111717018 (500-140832-18), 111717019 (500-140832-19), 111717020 (500-140832-20), 111717021 (500-140832-21), 111717023 (500-140832-22), 111717025 (500-140832-23), 111817027 (500-140832-24), 111817028 (500-140832-25), 111817029 (500-140832-26), 111817030 (500-140832-27) and Trip Blank (500-140832-28)

Method(s) 8260B: The laboratory control sample (LCS) for 421197 recovered outside control limits for the following analytes: Bromomethane, Chloroethane, Dichlorodifluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The laboratory control sample (LCS) for 421034 recovered outside control limits for the following analytes: Bromomethane, Naphthalene. These analytes were biased high in the LCS and were not detected in associated samples or the compounds were reported from a separate dilution batch; therefore, the data have been reported.

Method(s) 8260B: The following samples were diluted due to the abundance of non-target analytes: 111417001 (500-140832-1) and 111417003 (500-140832-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: 111417002 (500-140832-2), 111417004 (500-140832-4), 111417006 (500-140832-6), 111417009 (500-140832-9), 111417012 (500-140832-12), 111617014 (500-140832-14), 111717020 (500-140832-20), 111717025 (500-140832-23), 111817029 (500-140832-26) and 111817030 (500-140832-27). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-420017 and analytical batch 500-420068 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: 111417001 (500-140832-1), 111417004 (500-140832-4), 111417005 (500-140832-5), 111417009 (500-140832-9), 111417010 (500-140832-10), 111417011 (500-140832-11), 111417012 (500-140832-12), 111617014 (500-140832-14), 111717020 (500-140832-20), (500-140832-E-1-D MS) and

Case Narrative

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Job ID: 500-140832-1 (Continued)

Laboratory: TestAmerica Chicago (Continued)

(500-140832-E-1-E MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following sample contained one acid and one base surrogate outside acceptance limits: 111717018 (500-140832-18). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method(s) 8270D: Surrogate recovery for the following samples were outside control limits: 111417003 (500-140832-3), 111417005 (500-140832-5), 111717025 (500-140832-23) and 111817027 (500-140832-24). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D: The following samples required a dilution due to the nature of the sample matrix: 111417002 (500-140832-2), 111717020 (500-140832-20), 111717023 (500-140832-22), 111817029 (500-140832-26) and 111817030 (500-140832-27). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8082A: The following samples were diluted due to the nature of the sample matrix and/or high target analyte concentration: 111417001 (500-140832-1), 111417002 (500-140832-2), 111417003 (500-140832-3), 111417004 (500-140832-4), 111417005 (500-140832-5), 111417006 (500-140832-6), 111417007 (500-140832-7), 111417008 (500-140832-8), 111417009 (500-140832-9), 111417010 (500-140832-10), 111417011 (500-140832-11), 111417012 (500-140832-12), 111717023 (500-140832-22), 111717025 (500-140832-23), 111817027 (500-140832-24), (500-140832-E-23-C MS) and (500-140832-E-23-D MS). Elevated reporting limits (RLs) are provided.

Method(s) 8082A: DCB Decachlorobiphenyl surrogate recovery was above the control limit in the following sample: 111417008 (500-140832-8); however, Tetrachloro-m-xylene surrogate was within control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Dioxin

Method(s) 1613B, 8290, 8290A: Reported analytes OCDD and/or OCDF that are flagged with the "E" qualifier exceed the upper calibration range of the instrument. Per the method, dilutions are not required to bring these analytes within the calibration range.

Method(s) 1613B: Ion abundance ratios are outside criteria for the Isotope Dilution Analyte (IDA) associated with the following sample: 111417003 (500-140832-3).

Method(s) 1613B: Ion abundance ratios are outside criteria for the Isotope Dilution Analyte (IDA) associated with the following sample: 111417012 (500-140832-12).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010C: The low-level CCV, at line 8, in 6010C batch 500-420206 was above the method acceptance limits of 70-130% recovery for Lead. The samples 111417001 (500-140832-1), 111417002 (500-140832-2), 111417003 (500-140832-3), 111417004 (500-140832-4), 111417005 (500-140832-5), 111417006 (500-140832-6), 111417007 (500-140832-7), 111417008 (500-140832-8), 111417009 (500-140832-9), 111417010 (500-140832-10), 111417011 (500-140832-11), 111417012 (500-140832-12), 111617013 (500-140832-13), 111617014 (500-140832-14), 111617015 (500-140832-15), 111717016 (500-140832-16), 111717017 (500-140832-17), 111717018 (500-140832-18), 111717019 (500-140832-19), 111717020 (500-140832-20), 111717021 (500-140832-21), 111717023 (500-140832-22), 111717025 (500-140832-23), 111817027 (500-140832-24), 111817028 (500-140832-25), 111817029 (500-140832-26) and 111817030 (500-140832-27) were bracketed. The low-level standard concentration was insignificant compared with the reported sample results and the sample results were unaffected by the bias at that level. The mid-range bracketing the data were all within the 90-110% recovery limits.

Method(s) 6010C: The continuing calibration verification (CCV) associated with batch 500-420206 recovered above the upper control limit

Case Narrative

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Job ID: 500-140832-1 (Continued)

Laboratory: TestAmerica Chicago (Continued)

for Silver. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 111717023 (500-140832-22), 111717025 (500-140832-23), 111817028 (500-140832-25), 111817029 (500-140832-26) and 111817030 (500-140832-27).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417001

Lab Sample ID: 500-140832-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	1.7		0.98	0.081	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	2.2	J	4.9	0.28	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	4.2	J	4.9	0.27	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	23		4.9	0.27	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	12		4.9	0.25	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	510		4.9	0.063	pg/g	1	☼	1613B	Total/NA
OCDD	6200	E B	9.8	0.75	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	11		0.98	0.18	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	1.9	J I	4.9	0.083	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	3.5	J	4.9	0.091	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	8.5	I	4.9	0.50	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	7.0		4.9	0.50	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	3.4	J	4.9	0.52	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	210	B	4.9	0.10	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	6.8		4.9	0.15	pg/g	1	☼	1613B	Total/NA
OCDF	450	B	9.8	0.15	pg/g	1	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	960	J	1800	640	ug/Kg	500	☼	8260B	Total/NA
Benzene	410	J	440	260	ug/Kg	500	☼	8260B	Total/NA
Chloroform	1100	J	3600	660	ug/Kg	500	☼	8260B	Total/NA
Ethylbenzene	540		440	330	ug/Kg	500	☼	8260B	Total/NA
n-Butylbenzene	1700	J	1800	690	ug/Kg	500	☼	8260B	Total/NA
sec-Butylbenzene	2600		1800	710	ug/Kg	500	☼	8260B	Total/NA
Xylenes, Total	440	J	890	390	ug/Kg	500	☼	8260B	Total/NA
1-Methylnaphthalene	3900	F1	640	78	ug/Kg	5	☼	8270D	Total/NA
2-Methylnaphthalene	5000	F1	640	59	ug/Kg	5	☼	8270D	Total/NA
3 & 4 Methylphenol	1100	J	1600	530	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene	3600		320	57	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	910		320	42	ug/Kg	5	☼	8270D	Total/NA
Anthracene	2100		320	53	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2700		320	43	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	3400	F1	320	62	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	4400		320	69	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1200	F1	320	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1600		320	94	ug/Kg	5	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1300	J	1600	580	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2800	F1	320	87	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	950	J	1600	370	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	5900	F1	320	59	ug/Kg	5	☼	8270D	Total/NA
Fluorene	2200		320	45	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1100	F1	320	83	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	2600	F1	320	49	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	9900	F1	320	45	ug/Kg	5	☼	8270D	Total/NA
Pyrene	4900	F1	320	63	ug/Kg	5	☼	8270D	Total/NA
PCB-1242	3800		330	110	ug/Kg	10	☼	8082A	Total/NA
PCB-1254	1200		330	72	ug/Kg	10	☼	8082A	Total/NA
Arsenic	4.8		1.9	0.65	mg/Kg	1	☼	6010C	Total/NA
Barium	86		1.9	0.22	mg/Kg	1	☼	6010C	Total/NA
Cadmium	2.0	B	0.38	0.069	mg/Kg	1	☼	6010C	Total/NA
Chromium	32		1.9	0.95	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417001 (Continued)

Lab Sample ID: 500-140832-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	150	^	0.95	0.44	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.7	J	1.9	1.1	mg/Kg	1	☼	6010C	Total/NA
Silver	2.1		0.95	0.25	mg/Kg	1	☼	6010C	Total/NA
Mercury	8.9		0.67	0.22	mg/Kg	20	☼	7471B	Total/NA

Client Sample ID: 111417002

Lab Sample ID: 500-140832-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	1.0	J q	50	0.40	pg/g	10	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	1.3	J	50	0.43	pg/g	10	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	2.1	J	50	0.69	pg/g	10	☼	1613B	Total/NA
OCDD	14	J B	100	0.80	pg/g	10	☼	1613B	Total/NA
2,3,7,8-TCDF	0.61	J q	10	0.45	pg/g	10	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.63	J q	50	0.34	pg/g	10	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	0.90	J q	50	0.49	pg/g	10	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	2.2	J B q	50	0.49	pg/g	10	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	1.4	J q	50	0.70	pg/g	10	☼	1613B	Total/NA
OCDF	3.5	J B	100	0.37	pg/g	10	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	19000		1600	560	ug/Kg	500	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	5800		1600	590	ug/Kg	500	☼	8260B	Total/NA
Benzene	16000		390	230	ug/Kg	500	☼	8260B	Total/NA
Ethylbenzene	48000		390	280	ug/Kg	500	☼	8260B	Total/NA
Isopropylbenzene	3600		1600	600	ug/Kg	500	☼	8260B	Total/NA
N-Propylbenzene	800	J	1600	640	ug/Kg	500	☼	8260B	Total/NA
p-Isopropyltoluene	1700		1600	560	ug/Kg	500	☼	8260B	Total/NA
Toluene	30000		390	230	ug/Kg	500	☼	8260B	Total/NA
Xylenes, Total	46000		780	340	ug/Kg	500	☼	8260B	Total/NA
Acenaphthylene	42000		6400	850	ug/Kg	100	☼	8270D	Total/NA
Anthracene	230000		6400	1100	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]anthracene	110000		6400	870	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]pyrene	79000		6400	1300	ug/Kg	100	☼	8270D	Total/NA
Benzo[b]fluoranthene	86000		6400	1400	ug/Kg	100	☼	8270D	Total/NA
Benzo[g,h,i]perylene	14000		6400	2100	ug/Kg	100	☼	8270D	Total/NA
Benzo[k]fluoranthene	32000		6400	1900	ug/Kg	100	☼	8270D	Total/NA
Carbazole	29000	J	32000	16000	ug/Kg	100	☼	8270D	Total/NA
Chrysene	90000		6400	1800	ug/Kg	100	☼	8270D	Total/NA
Dibenz(a,h)anthracene	7700		6400	1200	ug/Kg	100	☼	8270D	Total/NA
Dibenzofuran	60000		32000	7600	ug/Kg	100	☼	8270D	Total/NA
Fluoranthene	220000		6400	1200	ug/Kg	100	☼	8270D	Total/NA
Fluorene	280000		6400	910	ug/Kg	100	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	15000		6400	1700	ug/Kg	100	☼	8270D	Total/NA
Pyrene	410000		6400	1300	ug/Kg	100	☼	8270D	Total/NA
1-Methylnaphthalene - DL	900000		65000	7900	ug/Kg	500	☼	8270D	Total/NA
2-Methylnaphthalene - DL	1500000		65000	5900	ug/Kg	500	☼	8270D	Total/NA
Acenaphthene - DL	810000		32000	5800	ug/Kg	500	☼	8270D	Total/NA
Phenanthrene - DL	790000		32000	4500	ug/Kg	500	☼	8270D	Total/NA
Naphthalene - DL2	3100000		64000	9900	ug/Kg	1000	☼	8270D	Total/NA
Arsenic	3.7		1.8	0.60	mg/Kg	1	☼	6010C	Total/NA
Barium	52		1.8	0.20	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417002 (Continued)

Lab Sample ID: 500-140832-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.76	B	0.35	0.063	mg/Kg	1	☼	6010C	Total/NA
Chromium	22		1.8	0.87	mg/Kg	1	☼	6010C	Total/NA
Lead	95	^	0.88	0.41	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.2	J	1.8	1.0	mg/Kg	1	☼	6010C	Total/NA
Silver	0.70	J	0.88	0.23	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.58		0.030	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111417003

Lab Sample ID: 500-140832-3

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	8.0		4.9	0.87	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	11	J	25	0.47	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	12	J	25	0.82	pg/g	5	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	100		25	0.87	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	34		25	0.79	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	2500		25	1.5	pg/g	5	☼	1613B	Total/NA
OCDD	33000	E B	49	2.7	pg/g	5	☼	1613B	Total/NA
2,3,7,8-TCDF	18	q	4.9	0.84	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	3.3	J S	25	0.36	pg/g	5	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	6.4	J I	25	0.41	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	35	I	25	2.0	pg/g	5	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	16	J	25	2.0	pg/g	5	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	12	J	25	2.2	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	1000	B	25	0.91	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	36		25	1.3	pg/g	5	☼	1613B	Total/NA
OCDF	2300	B	49	1.7	pg/g	5	☼	1613B	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
sec-Butylbenzene	1100	J	1400	540	ug/Kg	500	☼	8260B	Total/NA
1,4-Dichlorobenzene	230	J	260	67	ug/Kg	1	☼	8270D	Total/NA
1-Methylnaphthalene	1800		110	13	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	2400		110	9.6	ug/Kg	1	☼	8270D	Total/NA
3 & 4 Methylphenol	340		260	87	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	1800		52	9.4	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	340		52	6.9	ug/Kg	1	☼	8270D	Total/NA
Anthracene	1600		52	8.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1300		52	7.0	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1300		52	10	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1300		52	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	380		52	17	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	870		52	15	ug/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	300		260	96	ug/Kg	1	☼	8270D	Total/NA
Carbazole	170	J	260	130	ug/Kg	1	☼	8270D	Total/NA
Chrysene	1400		52	14	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	89		52	10	ug/Kg	1	☼	8270D	Total/NA
Dibenzofuran	340		260	61	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	3100		52	9.7	ug/Kg	1	☼	8270D	Total/NA
Fluorene	1100		52	7.4	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	340		52	14	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	1100		52	8.1	ug/Kg	1	☼	8270D	Total/NA
Pyrene	3100		52	10	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417003 (Continued)

Lab Sample ID: 500-140832-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene - DL	6200		260	37	ug/Kg	5	☼	8270D	Total/NA
PCB-1242	1100		260	84	ug/Kg	10	☼	8082A	Total/NA
PCB-1254	790		260	55	ug/Kg	10	☼	8082A	Total/NA
Arsenic	2.8		1.4	0.47	mg/Kg	1	☼	6010C	Total/NA
Barium	74		1.4	0.16	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.67	B	0.28	0.050	mg/Kg	1	☼	6010C	Total/NA
Chromium	17		1.4	0.68	mg/Kg	1	☼	6010C	Total/NA
Lead	120	^	0.69	0.32	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.82	J	1.4	0.81	mg/Kg	1	☼	6010C	Total/NA
Silver	1.2		0.69	0.18	mg/Kg	1	☼	6010C	Total/NA
Mercury	3.9		0.51	0.17	mg/Kg	20	☼	7471B	Total/NA

Client Sample ID: 111417004

Lab Sample ID: 500-140832-4

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	1.7	J	4.9	0.096	pg/g	1	☼	1613B	Total/NA
OCDD	12	B	9.9	0.14	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	4.2	J I	4.9	0.14	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.70	J q B	4.9	0.075	pg/g	1	☼	1613B	Total/NA
OCDF	0.87	J q B	9.9	0.12	pg/g	1	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	5800		330	120	ug/Kg	200	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	1800		330	120	ug/Kg	200	☼	8260B	Total/NA
Benzene	2800		82	48	ug/Kg	200	☼	8260B	Total/NA
Ethylbenzene	16000		82	60	ug/Kg	200	☼	8260B	Total/NA
Isopropylbenzene	1100		330	130	ug/Kg	200	☼	8260B	Total/NA
n-Butylbenzene	260	J	330	130	ug/Kg	200	☼	8260B	Total/NA
N-Propylbenzene	240	J	330	130	ug/Kg	200	☼	8260B	Total/NA
p-Isopropyltoluene	450		330	120	ug/Kg	200	☼	8260B	Total/NA
Toluene	5100		82	48	ug/Kg	200	☼	8260B	Total/NA
Xylenes, Total	16000		160	72	ug/Kg	200	☼	8260B	Total/NA
Acenaphthylene	15000		220	29	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	7500		220	30	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	6300		220	43	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	5000		220	48	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	2700		220	71	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	2100		220	65	ug/Kg	5	☼	8270D	Total/NA
Carbazole	2200		1100	550	ug/Kg	5	☼	8270D	Total/NA
Chrysene	6700		220	60	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	630		220	43	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	4400		1100	260	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2000		220	57	ug/Kg	5	☼	8270D	Total/NA
1-Methylnaphthalene - DL	79000		4500	540	ug/Kg	50	☼	8270D	Total/NA
2-Methylnaphthalene - DL	120000		4500	410	ug/Kg	50	☼	8270D	Total/NA
Acenaphthene - DL	56000		2200	400	ug/Kg	50	☼	8270D	Total/NA
Anthracene - DL	28000		2200	370	ug/Kg	50	☼	8270D	Total/NA
Fluoranthene - DL	24000		2200	410	ug/Kg	50	☼	8270D	Total/NA
Fluorene - DL	36000		2200	310	ug/Kg	50	☼	8270D	Total/NA
Phenanthrene - DL	85000		2200	310	ug/Kg	50	☼	8270D	Total/NA
Pyrene - DL	49000		2200	440	ug/Kg	50	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417004 (Continued)

Lab Sample ID: 500-140832-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene - DL2	210000		4400	680	ug/Kg	100	☒	8270D	Total/NA
Arsenic	3.3		1.3	0.45	mg/Kg	1	☒	6010C	Total/NA
Barium	100		1.3	0.15	mg/Kg	1	☒	6010C	Total/NA
Cadmium	0.062	J B	0.26	0.047	mg/Kg	1	☒	6010C	Total/NA
Chromium	29		1.3	0.65	mg/Kg	1	☒	6010C	Total/NA
Lead	9.9	^	0.66	0.30	mg/Kg	1	☒	6010C	Total/NA
Mercury	0.020	J	0.022	0.0072	mg/Kg	1	☒	7471B	Total/NA

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	1.5		0.96	0.19	pg/g	1	☒	1613B	Total/NA
1,2,3,7,8-PeCDD	2.2	J	4.8	0.12	pg/g	1	☒	1613B	Total/NA
1,2,3,4,7,8-HxCDD	3.6	J	4.8	0.27	pg/g	1	☒	1613B	Total/NA
1,2,3,6,7,8-HxCDD	27		4.8	0.32	pg/g	1	☒	1613B	Total/NA
1,2,3,7,8,9-HxCDD	8.3		4.8	0.27	pg/g	1	☒	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	780		4.8	0.13	pg/g	1	☒	1613B	Total/NA
OCDD	11000	E B	9.6	0.42	pg/g	1	☒	1613B	Total/NA
2,3,7,8-TCDF	11		0.96	0.23	pg/g	1	☒	1613B	Total/NA
1,2,3,7,8-PeCDF	1.5	J S	4.8	0.067	pg/g	1	☒	1613B	Total/NA
2,3,4,7,8-PeCDF	2.5	J	4.8	0.076	pg/g	1	☒	1613B	Total/NA
1,2,3,4,7,8-HxCDF	12	I	4.8	0.79	pg/g	1	☒	1613B	Total/NA
1,2,3,6,7,8-HxCDF	5.7		4.8	0.75	pg/g	1	☒	1613B	Total/NA
2,3,4,6,7,8-HxCDF	3.1	J	4.8	0.78	pg/g	1	☒	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	270	B	4.8	0.21	pg/g	1	☒	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	11		4.8	0.28	pg/g	1	☒	1613B	Total/NA
OCDF	970	B	9.6	0.20	pg/g	1	☒	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	18	J	24	17	ug/Kg	50	☒	8260B	Total/NA
Toluene	86		24	14	ug/Kg	50	☒	8260B	Total/NA
Xylenes, Total	53		48	21	ug/Kg	50	☒	8260B	Total/NA
1-Methylnaphthalene	1800		470	57	ug/Kg	5	☒	8270D	Total/NA
2-Methylnaphthalene	2400		470	43	ug/Kg	5	☒	8270D	Total/NA
Acenaphthene	3200		230	42	ug/Kg	5	☒	8270D	Total/NA
Acenaphthylene	1700		230	31	ug/Kg	5	☒	8270D	Total/NA
Anthracene	4000		230	39	ug/Kg	5	☒	8270D	Total/NA
Benzo[a]anthracene	7700		230	31	ug/Kg	5	☒	8270D	Total/NA
Benzo[a]pyrene	8200		230	45	ug/Kg	5	☒	8270D	Total/NA
Benzo[b]fluoranthene	8500		230	50	ug/Kg	5	☒	8270D	Total/NA
Benzo[g,h,i]perylene	3200		230	75	ug/Kg	5	☒	8270D	Total/NA
Benzo[k]fluoranthene	3400		230	69	ug/Kg	5	☒	8270D	Total/NA
Chrysene	6900		230	64	ug/Kg	5	☒	8270D	Total/NA
Dibenz(a,h)anthracene	790		230	45	ug/Kg	5	☒	8270D	Total/NA
Dibenzofuran	820	J	1200	270	ug/Kg	5	☒	8270D	Total/NA
Fluoranthene	14000		230	43	ug/Kg	5	☒	8270D	Total/NA
Fluorene	2100		230	33	ug/Kg	5	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2800		230	61	ug/Kg	5	☒	8270D	Total/NA
Naphthalene	2400		230	36	ug/Kg	5	☒	8270D	Total/NA
Phenanthrene	12000		230	33	ug/Kg	5	☒	8270D	Total/NA
Pyrene	12000		230	46	ug/Kg	5	☒	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417005 (Continued)

Lab Sample ID: 500-140832-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1900		230	76	ug/Kg	10	☼	8082A	Total/NA
PCB-1254	490		230	50	ug/Kg	10	☼	8082A	Total/NA
Arsenic	2.7		1.2	0.42	mg/Kg	1	☼	6010C	Total/NA
Barium	80		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.75	B	0.25	0.044	mg/Kg	1	☼	6010C	Total/NA
Chromium	19		1.2	0.61	mg/Kg	1	☼	6010C	Total/NA
Lead	110	^	0.62	0.28	mg/Kg	1	☼	6010C	Total/NA
Silver	0.54	J	0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Mercury	1.3		0.11	0.037	mg/Kg	5	☼	7471B	Total/NA

Client Sample ID: 111417006

Lab Sample ID: 500-140832-6

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.27	J	4.8	0.038	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	0.18	J q	4.8	0.059	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	3.2	J	4.8	0.087	pg/g	1	☼	1613B	Total/NA
OCDD	43	B	9.6	0.16	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	0.15	J	0.96	0.035	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	0.16	J	4.8	0.041	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	1.4	J B	4.8	0.085	pg/g	1	☼	1613B	Total/NA
OCDF	3.3	J B	9.6	0.12	pg/g	1	☼	1613B	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	5500		360	130	ug/Kg	200	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	1700		360	140	ug/Kg	200	☼	8260B	Total/NA
Benzene	6800		89	52	ug/Kg	200	☼	8260B	Total/NA
Ethylbenzene	17000		89	65	ug/Kg	200	☼	8260B	Total/NA
Isopropylbenzene	1100		360	140	ug/Kg	200	☼	8260B	Total/NA
N-Propylbenzene	220	J	360	150	ug/Kg	200	☼	8260B	Total/NA
p-Isopropyltoluene	440		360	130	ug/Kg	200	☼	8260B	Total/NA
Toluene	15000		89	52	ug/Kg	200	☼	8260B	Total/NA
Xylenes, Total	16000		180	79	ug/Kg	200	☼	8260B	Total/NA
2,4-Dimethylphenol	1000	J	2200	860	ug/Kg	5	☼	8270D	Total/NA
2-Methylphenol	450	J	1100	360	ug/Kg	5	☼	8270D	Total/NA
3 & 4 Methylphenol	2000		1100	380	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene	9000		220	41	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	6200		220	30	ug/Kg	5	☼	8270D	Total/NA
Anthracene	4900		220	38	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2800		220	30	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	2400		220	44	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	1900		220	49	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	870		220	73	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	690		220	67	ug/Kg	5	☼	8270D	Total/NA
Benzoic acid	4400	J	11000	2200	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2400		220	62	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	230		220	44	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	1100		1100	270	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	5300		220	42	ug/Kg	5	☼	8270D	Total/NA
Fluorene	5900		220	32	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	750		220	59	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	16000		220	32	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417006 (Continued)

Lab Sample ID: 500-140832-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenol	550	J	1100	500	ug/Kg	5	☼	8270D	Total/NA
Pyrene	6700		220	45	ug/Kg	5	☼	8270D	Total/NA
1-Methylnaphthalene - DL	18000		2300	280	ug/Kg	25	☼	8270D	Total/NA
2-Methylnaphthalene - DL	28000		2300	210	ug/Kg	25	☼	8270D	Total/NA
Naphthalene - DL	76000		1100	170	ug/Kg	25	☼	8270D	Total/NA
Arsenic	3.2		1.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	97		1.4	0.16	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.053	J B	0.28	0.050	mg/Kg	1	☼	6010C	Total/NA
Chromium	28		1.4	0.69	mg/Kg	1	☼	6010C	Total/NA
Lead	8.9	^	0.70	0.32	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.014	J	0.022	0.0072	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111417007

Lab Sample ID: 500-140832-7

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.043	J	0.99	0.031	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	0.11	J	5.0	0.036	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	0.13	J q	5.0	0.033	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	0.56	J q	5.0	0.096	pg/g	1	☼	1613B	Total/NA
OCDD	6.4	J B	9.9	0.11	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	0.12	J	0.99	0.020	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.47	J B	5.0	0.060	pg/g	1	☼	1613B	Total/NA
OCDF	0.46	J B	9.9	0.097	pg/g	1	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	100		87	31	ug/Kg	50	☼	8260B	Total/NA
Benzene	13000		22	13	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	600		22	16	ug/Kg	50	☼	8260B	Total/NA
Toluene	5200		22	13	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	560		43	19	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	13000		440	53	ug/Kg	5	☼	8270D	Total/NA
2-Methylphenol	440	J	1100	350	ug/Kg	5	☼	8270D	Total/NA
3 & 4 Methylphenol	1900		1100	360	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene	8800		220	39	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	4600		220	29	ug/Kg	5	☼	8270D	Total/NA
Anthracene	4900		220	36	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2700		220	29	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	2200		220	42	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	1700		220	47	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	840		220	70	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	740		220	64	ug/Kg	5	☼	8270D	Total/NA
Benzoic acid	3800	J	11000	2200	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2500		220	59	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	1100		1100	260	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	5400		220	40	ug/Kg	5	☼	8270D	Total/NA
Fluorene	5700		220	31	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	730		220	56	ug/Kg	5	☼	8270D	Total/NA
Phenol	750	J	1100	480	ug/Kg	5	☼	8270D	Total/NA
Pyrene	6500		220	43	ug/Kg	5	☼	8270D	Total/NA
2-Methylnaphthalene - DL	23000		2200	200	ug/Kg	25	☼	8270D	Total/NA
Naphthalene - DL	40000		1100	170	ug/Kg	25	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417007 (Continued)

Lab Sample ID: 500-140832-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene - DL	17000		1100	150	ug/Kg	25	☼	8270D	Total/NA
Arsenic	2.9		1.2	0.39	mg/Kg	1	☼	6010C	Total/NA
Barium	81		1.2	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.042	J B	0.23	0.041	mg/Kg	1	☼	6010C	Total/NA
Chromium	25		1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Lead	8.6	^	0.58	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.032		0.022	0.0074	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.35	J	4.9	0.15	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	1.3	J	24	0.25	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	0.50	J q	24	0.16	pg/g	5	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	12	J	24	0.18	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	3.3	J	24	0.16	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	160		24	0.27	pg/g	5	☼	1613B	Total/NA
OCDD	1700	B	49	0.39	pg/g	5	☼	1613B	Total/NA
2,3,7,8-TCDF	3.8	J q	4.9	0.43	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	1.2	J q	24	0.14	pg/g	5	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	3.1	J	24	0.14	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	7.1	J	24	0.32	pg/g	5	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	7.5	J l	24	0.31	pg/g	5	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	3.2	J q	24	0.32	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	240	B	24	0.22	pg/g	5	☼	1613B	Total/NA
OCDF	110	B	49	0.38	pg/g	5	☼	1613B	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	160		19	11	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	52		19	14	ug/Kg	50	☼	8260B	Total/NA
Toluene	89		19	11	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	60		39	17	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	2800		81	9.8	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	460		40	5.3	ug/Kg	1	☼	8270D	Total/NA
Anthracene	2200		40	6.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	2300		40	5.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	2200		40	7.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	2400		40	8.6	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1000		40	13	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	710		40	12	ug/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	99	J	200	73	ug/Kg	1	☼	8270D	Total/NA
Carbazole	300		200	100	ug/Kg	1	☼	8270D	Total/NA
Chrysene	2000		40	11	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	280		40	7.7	ug/Kg	1	☼	8270D	Total/NA
Dibenzofuran	630		200	47	ug/Kg	1	☼	8270D	Total/NA
Fluorene	1800		40	5.6	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	980		40	10	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	1900		40	6.1	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene - DL	3900		400	37	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene - DL	4100		200	36	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene - DL	4000		200	37	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417008 (Continued)

Lab Sample ID: 500-140832-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene - DL	7500		200	28	ug/Kg	5	☼	8270D	Total/NA
Pyrene - DL	7000		200	40	ug/Kg	5	☼	8270D	Total/NA
PCB-1242	360		200	67	ug/Kg	10	☼	8082A	Total/NA
Arsenic	1.6		1.2	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	18		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.35	B	0.24	0.043	mg/Kg	1	☼	6010C	Total/NA
Chromium	6.6		1.2	0.60	mg/Kg	1	☼	6010C	Total/NA
Lead	35	^	0.60	0.28	mg/Kg	1	☼	6010C	Total/NA
Silver	0.55	J	0.60	0.16	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.28		0.021	0.0071	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111417009

Lab Sample ID: 500-140832-9

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.076	J q	0.98	0.030	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	0.10	J q	4.9	0.038	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	0.082	J q	4.9	0.032	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	0.22	J	4.9	0.038	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	0.16	J q	4.9	0.032	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	2.4	J	4.9	0.058	pg/g	1	☼	1613B	Total/NA
OCDD	28	B	9.8	0.11	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	0.44	J	0.98	0.025	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	0.14	J q S	4.9	0.037	pg/g	1	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	0.11	J q	4.9	0.030	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	0.20	J	4.9	0.028	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	1.5	J B	4.9	0.041	pg/g	1	☼	1613B	Total/NA
OCDF	2.1	J B	9.8	0.055	pg/g	1	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	12000		910	330	ug/Kg	500	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	3700		910	350	ug/Kg	500	☼	8260B	Total/NA
Benzene	6000		230	130	ug/Kg	500	☼	8260B	Total/NA
Ethylbenzene	26000		230	170	ug/Kg	500	☼	8260B	Total/NA
Hexane	490	J	910	450	ug/Kg	500	☼	8260B	Total/NA
Isopropylbenzene	2400		910	350	ug/Kg	500	☼	8260B	Total/NA
n-Butylbenzene	700	J	910	350	ug/Kg	500	☼	8260B	Total/NA
p-Isopropyltoluene	3200		910	330	ug/Kg	500	☼	8260B	Total/NA
Toluene	16000		230	130	ug/Kg	500	☼	8260B	Total/NA
Xylenes, Total	26000		450	200	ug/Kg	500	☼	8260B	Total/NA
3 & 4 Methylphenol	7800		4800	1600	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	22000		950	310	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	29000		950	280	ug/Kg	20	☼	8270D	Total/NA
Carbazole	18000		4800	2400	ug/Kg	20	☼	8270D	Total/NA
Dibenz(a,h)anthracene	7000		950	190	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	41000		4800	1100	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	20000		950	250	ug/Kg	20	☼	8270D	Total/NA
Acenaphthylene - DL	110000		4800	630	ug/Kg	100	☼	8270D	Total/NA
Anthracene - DL	250000		4800	800	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]anthracene - DL	110000		4800	650	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]pyrene - DL	100000		4800	930	ug/Kg	100	☼	8270D	Total/NA
Benzo[b]fluoranthene - DL	84000		4800	1000	ug/Kg	100	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417009 (Continued)

Lab Sample ID: 500-140832-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene - DL	100000		4800	1300	ug/Kg	100	☼	8270D	Total/NA
Fluoranthene - DL	250000		4800	890	ug/Kg	100	☼	8270D	Total/NA
Fluorene - DL	270000		4800	670	ug/Kg	100	☼	8270D	Total/NA
Pyrene - DL	250000		4800	950	ug/Kg	100	☼	8270D	Total/NA
1-Methylnaphthalene - DL2	1000000		97000	12000	ug/Kg	1000	☼	8270D	Total/NA
2-Methylnaphthalene - DL2	1500000		97000	8800	ug/Kg	1000	☼	8270D	Total/NA
Acenaphthene - DL2	740000		48000	8600	ug/Kg	1000	☼	8270D	Total/NA
Naphthalene - DL2	2800000		48000	7400	ug/Kg	1000	☼	8270D	Total/NA
Phenanthrene - DL2	970000		48000	6700	ug/Kg	1000	☼	8270D	Total/NA
Arsenic	2.9		1.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	57		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.23	J B	0.25	0.045	mg/Kg	1	☼	6010C	Total/NA
Chromium	17		1.2	0.62	mg/Kg	1	☼	6010C	Total/NA
Lead	77	^	0.62	0.29	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.19		0.023	0.0078	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111417010

Lab Sample ID: 500-140832-10

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.24	J q	24	0.13	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	0.36	J q	24	0.17	pg/g	5	☼	1613B	Total/NA
OCDD	3.9	J B	49	0.13	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.41	J B q	24	0.10	pg/g	5	☼	1613B	Total/NA
OCDF	0.37	J B	49	0.089	pg/g	5	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	3200		82	30	ug/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	970		82	31	ug/Kg	50	☼	8260B	Total/NA
Benzene	4600		21	12	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	13000		21	15	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	660		82	32	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	120		82	34	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	610		82	30	ug/Kg	50	☼	8260B	Total/NA
Toluene	8000		21	12	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	12000		41	18	ug/Kg	50	☼	8260B	Total/NA
Acenaphthene	8600		210	38	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	11000		210	28	ug/Kg	5	☼	8270D	Total/NA
Anthracene	6700		210	35	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2300		210	28	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	2000		210	41	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	1700		210	45	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	710		210	68	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	600		210	62	ug/Kg	5	☼	8270D	Total/NA
Carbazole	800	J	1100	520	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2200		210	57	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	1700		1100	250	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	6000		210	39	ug/Kg	5	☼	8270D	Total/NA
Fluorene	7600		210	29	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	560		210	54	ug/Kg	5	☼	8270D	Total/NA
Pyrene	6800		210	42	ug/Kg	5	☼	8270D	Total/NA
1-Methylnaphthalene - DL	33000		4200	510	ug/Kg	50	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417010 (Continued)

Lab Sample ID: 500-140832-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene - DL	50000		4200	390	ug/Kg	50	☼	8270D	Total/NA
Naphthalene - DL	96000		2100	320	ug/Kg	50	☼	8270D	Total/NA
Phenanthrene - DL	25000		2100	290	ug/Kg	50	☼	8270D	Total/NA
Arsenic	3.1		1.2	0.42	mg/Kg	1	☼	6010C	Total/NA
Barium	88		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Chromium	27		1.2	0.61	mg/Kg	1	☼	6010C	Total/NA
Lead	7.0	^	0.61	0.28	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.74	J	1.2	0.72	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.017	J	0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	1.6	J	4.9	0.22	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	1.7	J q	24	0.22	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	5.7	J	24	0.30	pg/g	5	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	30		24	0.27	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	9.8	J	24	0.27	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	920		24	0.20	pg/g	5	☼	1613B	Total/NA
OCDD	13000	B	49	1.0	pg/g	5	☼	1613B	Total/NA
2,3,7,8-TCDF	13	q	4.9	0.57	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	3.0	J q	24	0.35	pg/g	5	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	2.5	J	24	0.32	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	7.4	J	24	0.31	pg/g	5	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	10	J	24	0.31	pg/g	5	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	1.7	J	24	0.32	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	270	B	24	0.33	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	14	J	24	0.48	pg/g	5	☼	1613B	Total/NA
OCDF	1100	B	49	0.21	pg/g	5	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	190		21	12	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	77		21	15	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	250		83	32	ug/Kg	50	☼	8260B	Total/NA
Toluene	470		21	12	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	130		42	18	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	1700		430	53	ug/Kg	5	☼	8270D	Total/NA
2-Methylnaphthalene	990		430	40	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene	2200		210	39	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	480		210	28	ug/Kg	5	☼	8270D	Total/NA
Anthracene	2400		210	36	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2900		210	29	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	3200		210	42	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	3500		210	46	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1300		210	69	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1700		210	63	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2800		210	59	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	300		210	42	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	610	J	1100	250	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	6600		210	40	ug/Kg	5	☼	8270D	Total/NA
Fluorene	1500		210	30	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417011 (Continued)

Lab Sample ID: 500-140832-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	1300		210	56	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	1400		210	33	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	8100		210	30	ug/Kg	5	☼	8270D	Total/NA
Pyrene	5200		210	43	ug/Kg	5	☼	8270D	Total/NA
PCB-1242	910		220	72	ug/Kg	10	☼	8082A	Total/NA
PCB-1254	460		220	47	ug/Kg	10	☼	8082A	Total/NA
Arsenic	3.1		1.3	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	150		1.3	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.69	B	0.25	0.045	mg/Kg	1	☼	6010C	Total/NA
Chromium	13		1.3	0.62	mg/Kg	1	☼	6010C	Total/NA
Lead	84	^	0.63	0.29	mg/Kg	1	☼	6010C	Total/NA
Silver	0.75		0.63	0.16	mg/Kg	1	☼	6010C	Total/NA
Mercury	3.0		0.39	0.13	mg/Kg	20	☼	7471B	Total/NA

Client Sample ID: 111417012

Lab Sample ID: 500-140832-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.74	J q	48	0.23	pg/g	10	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	8.4	J	48	0.49	pg/g	10	☼	1613B	Total/NA
OCDD	84	J B	96	0.42	pg/g	10	☼	1613B	Total/NA
2,3,7,8-TCDF	1.9	J	9.6	0.32	pg/g	10	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	3.4	J B	48	0.25	pg/g	10	☼	1613B	Total/NA
OCDF	7.7	J B	96	0.30	pg/g	10	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	130000		3800	1400	ug/Kg	1000	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	39000		3800	1500	ug/Kg	1000	☼	8260B	Total/NA
Benzene	200000		950	560	ug/Kg	1000	☼	8260B	Total/NA
Ethylbenzene	520000		950	700	ug/Kg	1000	☼	8260B	Total/NA
Isopropylbenzene	32000		3800	1500	ug/Kg	1000	☼	8260B	Total/NA
N-Propylbenzene	5300		3800	1600	ug/Kg	1000	☼	8260B	Total/NA
p-Isopropyltoluene	28000		3800	1400	ug/Kg	1000	☼	8260B	Total/NA
Toluene	280000		950	560	ug/Kg	1000	☼	8260B	Total/NA
Xylenes, Total	470000		1900	840	ug/Kg	1000	☼	8260B	Total/NA
3 & 4 Methylphenol	630	J	1600	530	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	9300		310	42	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	18000		310	42	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	16000		310	61	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	15000		310	68	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	4700		310	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	5200		310	93	ug/Kg	5	☼	8270D	Total/NA
Carbazole	4000		1600	790	ug/Kg	5	☼	8270D	Total/NA
Chrysene	15000		310	86	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	1400		310	61	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	8300		1600	370	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	4300		310	82	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene - DL	100000		1600	280	ug/Kg	25	☼	8270D	Total/NA
Anthracene - DL	42000		1600	260	ug/Kg	25	☼	8270D	Total/NA
Fluoranthene - DL	46000		1600	290	ug/Kg	25	☼	8270D	Total/NA
Fluorene - DL	55000		1600	220	ug/Kg	25	☼	8270D	Total/NA
Pyrene - DL	45000		1600	310	ug/Kg	25	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417012 (Continued)

Lab Sample ID: 500-140832-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene - DL2	180000		13000	1500	ug/Kg	100	☼	8270D	Total/NA
2-Methylnaphthalene - DL2	260000		13000	1200	ug/Kg	100	☼	8270D	Total/NA
Phenanthrene - DL2	160000		6300	880	ug/Kg	100	☼	8270D	Total/NA
Naphthalene - DL3	490000		13000	1900	ug/Kg	200	☼	8270D	Total/NA
Arsenic	3.7		1.9	0.66	mg/Kg	1	☼	6010C	Total/NA
Barium	76		1.9	0.22	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.36	J B	0.38	0.069	mg/Kg	1	☼	6010C	Total/NA
Chromium	26		1.9	0.95	mg/Kg	1	☼	6010C	Total/NA
Lead	43	^	0.96	0.44	mg/Kg	1	☼	6010C	Total/NA
Silver	0.50	J	0.96	0.25	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.60		0.032	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111617013

Lab Sample ID: 500-140832-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hexane	64	J	79	39	ug/Kg	50	☼	8260B	Total/NA
Toluene	23		20	12	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	83	J	84	10	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	130		84	7.6	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	69		41	7.4	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	9.5	J	41	5.5	ug/Kg	1	☼	8270D	Total/NA
Anthracene	27	J	41	6.9	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	21	J	41	5.6	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	15	J	41	8.0	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	13	J	41	8.9	ug/Kg	1	☼	8270D	Total/NA
Benzoic acid	690	J	2100	410	ug/Kg	1	☼	8270D	Total/NA
Chrysene	16	J	41	11	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	35	J	41	7.7	ug/Kg	1	☼	8270D	Total/NA
Fluorene	33	J	41	5.8	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	250		41	6.4	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	96		41	5.8	ug/Kg	1	☼	8270D	Total/NA
Pyrene	45		41	8.2	ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.0	J	1.2	0.42	mg/Kg	1	☼	6010C	Total/NA
Barium	22	V	1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.12	J B	0.25	0.044	mg/Kg	1	☼	6010C	Total/NA
Chromium	8.9		1.2	0.61	mg/Kg	1	☼	6010C	Total/NA
Lead	2.4	^	0.61	0.28	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.010	J	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111617014

Lab Sample ID: 500-140832-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	30000		640	230	ug/Kg	200	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	7900		640	240	ug/Kg	200	☼	8260B	Total/NA
Benzene	750		160	94	ug/Kg	200	☼	8260B	Total/NA
Ethylbenzene	21000		160	120	ug/Kg	200	☼	8260B	Total/NA
Isopropylbenzene	5500		640	250	ug/Kg	200	☼	8260B	Total/NA
n-Butylbenzene	2600		640	250	ug/Kg	200	☼	8260B	Total/NA
N-Propylbenzene	1300		640	270	ug/Kg	200	☼	8260B	Total/NA
p-Isopropyltoluene	2700		640	230	ug/Kg	200	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617014 (Continued)

Lab Sample ID: 500-140832-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	320		160	95	ug/Kg	200	☼	8260B	Total/NA
Xylenes, Total	8800		320	140	ug/Kg	200	☼	8260B	Total/NA
1-Methylnaphthalene	10000		650	79	ug/Kg	5	☼	8270D	Total/NA
2-Methylnaphthalene	13000		650	59	ug/Kg	5	☼	8270D	Total/NA
3 & 4 Methylphenol	1300	J	1600	540	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene	11000		320	58	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	1400		320	43	ug/Kg	5	☼	8270D	Total/NA
Anthracene	6300		320	54	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	5200		320	43	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	5500		320	63	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	6900		320	70	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	2400		320	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	2300		320	95	ug/Kg	5	☼	8270D	Total/NA
Chrysene	5400		320	88	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	630		320	62	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	1600		1600	380	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	13000		320	60	ug/Kg	5	☼	8270D	Total/NA
Fluorene	5700		320	45	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2100		320	84	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	14000		320	50	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	20000		320	45	ug/Kg	5	☼	8270D	Total/NA
Pyrene	11000		320	64	ug/Kg	5	☼	8270D	Total/NA
Arsenic	2.4		1.8	0.62	mg/Kg	1	☼	6010C	Total/NA
Barium	55		1.8	0.21	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.37	B	0.36	0.065	mg/Kg	1	☼	6010C	Total/NA
Chromium	23		1.8	0.90	mg/Kg	1	☼	6010C	Total/NA
Lead	34	^	0.91	0.42	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.24		0.029	0.0095	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111617015

Lab Sample ID: 500-140832-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	58		18	11	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	65		18	13	ug/Kg	50	☼	8260B	Total/NA
Toluene	120		18	11	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	130		36	16	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	55	J	81	9.8	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	84		81	7.4	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	40		40	7.2	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	8.5	J	40	5.3	ug/Kg	1	☼	8270D	Total/NA
Anthracene	22	J	40	6.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	15	J	40	5.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	18	J	40	7.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	13	J	40	8.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	48		40	13	ug/Kg	1	☼	8270D	Total/NA
Chrysene	34	J	40	11	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	32	J	40	7.5	ug/Kg	1	☼	8270D	Total/NA
Fluorene	24	J	40	5.7	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	170		40	6.2	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	90		40	5.6	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617015 (Continued)

Lab Sample ID: 500-140832-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	42		40	8.0	ug/Kg	1	☒	8270D	Total/NA
Arsenic	2.7		1.1	0.37	mg/Kg	1	☒	6010C	Total/NA
Barium	76		1.1	0.12	mg/Kg	1	☒	6010C	Total/NA
Chromium	22		1.1	0.54	mg/Kg	1	☒	6010C	Total/NA
Lead	6.7	^	0.55	0.25	mg/Kg	1	☒	6010C	Total/NA
Mercury	0.018		0.018	0.0061	mg/Kg	1	☒	7471B	Total/NA

Client Sample ID: 111717016

Lab Sample ID: 500-140832-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1900		70	25	ug/Kg	50	☒	8260B	Total/NA
1,3,5-Trimethylbenzene	600		70	27	ug/Kg	50	☒	8260B	Total/NA
Benzene	120		18	10	ug/Kg	50	☒	8260B	Total/NA
Ethylbenzene	3100		18	13	ug/Kg	50	☒	8260B	Total/NA
Isopropylbenzene	360		70	27	ug/Kg	50	☒	8260B	Total/NA
N-Propylbenzene	68	J	70	29	ug/Kg	50	☒	8260B	Total/NA
p-Isopropyltoluene	140		70	26	ug/Kg	50	☒	8260B	Total/NA
Toluene	230		18	10	ug/Kg	50	☒	8260B	Total/NA
Xylenes, Total	2500		35	15	ug/Kg	50	☒	8260B	Total/NA
Acenaphthylene	1900		190	25	ug/Kg	5	☒	8270D	Total/NA
Anthracene	5600		190	31	ug/Kg	5	☒	8270D	Total/NA
Benzo[a]anthracene	4000		190	25	ug/Kg	5	☒	8270D	Total/NA
Benzo[a]pyrene	3400		190	36	ug/Kg	5	☒	8270D	Total/NA
Benzo[b]fluoranthene	3000		190	41	ug/Kg	5	☒	8270D	Total/NA
Benzo[g,h,i]perylene	1300		190	61	ug/Kg	5	☒	8270D	Total/NA
Benzo[k]fluoranthene	1200		190	55	ug/Kg	5	☒	8270D	Total/NA
Carbazole	1300		940	470	ug/Kg	5	☒	8270D	Total/NA
Chrysene	3600		190	51	ug/Kg	5	☒	8270D	Total/NA
Dibenz(a,h)anthracene	330		190	36	ug/Kg	5	☒	8270D	Total/NA
Dibenzofuran	2300		940	220	ug/Kg	5	☒	8270D	Total/NA
Fluoranthene	9400		190	35	ug/Kg	5	☒	8270D	Total/NA
Fluorene	6800		190	26	ug/Kg	5	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300		190	49	ug/Kg	5	☒	8270D	Total/NA
Pyrene	8800		190	37	ug/Kg	5	☒	8270D	Total/NA
1-Methylnaphthalene - DL	17000		1900	230	ug/Kg	25	☒	8270D	Total/NA
2-Methylnaphthalene - DL	27000		1900	170	ug/Kg	25	☒	8270D	Total/NA
Acenaphthene - DL	17000		930	170	ug/Kg	25	☒	8270D	Total/NA
Naphthalene - DL	52000		930	140	ug/Kg	25	☒	8270D	Total/NA
Phenanthrene - DL	23000		930	130	ug/Kg	25	☒	8270D	Total/NA
Arsenic	3.3		1.0	0.34	mg/Kg	1	☒	6010C	Total/NA
Barium	45		1.0	0.11	mg/Kg	1	☒	6010C	Total/NA
Chromium	25		1.0	0.50	mg/Kg	1	☒	6010C	Total/NA
Lead	7.2	^	0.50	0.23	mg/Kg	1	☒	6010C	Total/NA
Selenium	0.61	J	1.0	0.59	mg/Kg	1	☒	6010C	Total/NA
Mercury	0.021		0.018	0.0060	mg/Kg	1	☒	7471B	Total/NA

Client Sample ID: 111717017

Lab Sample ID: 500-140832-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	26		18	10	ug/Kg	50	☒	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717017 (Continued)

Lab Sample ID: 500-140832-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	35		18	13	ug/Kg	50	✳	8260B	Total/NA
Toluene	130		18	11	ug/Kg	50	✳	8260B	Total/NA
Xylenes, Total	73		36	16	ug/Kg	50	✳	8260B	Total/NA
1-Methylnaphthalene	78	J	81	9.8	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene	120		81	7.4	ug/Kg	1	✳	8270D	Total/NA
Acenaphthene	400		40	7.2	ug/Kg	1	✳	8270D	Total/NA
Acenaphthylene	64		40	5.3	ug/Kg	1	✳	8270D	Total/NA
Anthracene	450		40	6.7	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	750		40	5.4	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	710		40	7.8	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	970		40	8.7	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	460		40	13	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	320		40	12	ug/Kg	1	✳	8270D	Total/NA
Benzoic acid	550	J	2000	400	ug/Kg	1	✳	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	600		200	74	ug/Kg	1	✳	8270D	Total/NA
Carbazole	110	J	200	100	ug/Kg	1	✳	8270D	Total/NA
Chrysene	770		40	11	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	100		40	7.8	ug/Kg	1	✳	8270D	Total/NA
Dibenzofuran	77	J	200	47	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	1700		40	7.5	ug/Kg	1	✳	8270D	Total/NA
Fluorene	270		40	5.7	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	440		40	10	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	200		40	6.2	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	1500		40	5.6	ug/Kg	1	✳	8270D	Total/NA
Pyrene	1400		40	8.0	ug/Kg	1	✳	8270D	Total/NA
Arsenic	1.3		1.1	0.37	mg/Kg	1	✳	6010C	Total/NA
Barium	17		1.1	0.12	mg/Kg	1	✳	6010C	Total/NA
Cadmium	0.15	J B	0.22	0.039	mg/Kg	1	✳	6010C	Total/NA
Chromium	5.7		1.1	0.54	mg/Kg	1	✳	6010C	Total/NA
Lead	25	^	0.54	0.25	mg/Kg	1	✳	6010C	Total/NA
Silver	0.21	J	0.54	0.14	mg/Kg	1	✳	6010C	Total/NA
Mercury	0.66		0.096	0.032	mg/Kg	5	✳	7471B	Total/NA

Client Sample ID: 111717018

Lab Sample ID: 500-140832-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	510		67	24	ug/Kg	50	✳	8260B	Total/NA
1,3,5-Trimethylbenzene	200		67	26	ug/Kg	50	✳	8260B	Total/NA
Benzene	170		17	9.8	ug/Kg	50	✳	8260B	Total/NA
Ethylbenzene	730		17	12	ug/Kg	50	✳	8260B	Total/NA
Isopropylbenzene	83		67	26	ug/Kg	50	✳	8260B	Total/NA
p-Isopropyltoluene	36	J	67	24	ug/Kg	50	✳	8260B	Total/NA
Toluene	170		17	9.9	ug/Kg	50	✳	8260B	Total/NA
Xylenes, Total	1300		34	15	ug/Kg	50	✳	8260B	Total/NA
1-Methylnaphthalene	1100		77	9.3	ug/Kg	1	✳	8270D	Total/NA
2,4-Dimethylphenol	650		380	140	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene	1800		77	7.0	ug/Kg	1	✳	8270D	Total/NA
Acenaphthene	1100		38	6.8	ug/Kg	1	✳	8270D	Total/NA
Acenaphthylene	210		38	5.0	ug/Kg	1	✳	8270D	Total/NA
Anthracene	510		38	6.3	ug/Kg	1	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717018 (Continued)

Lab Sample ID: 500-140832-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	320		38	5.1	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	270		38	7.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	310		38	8.2	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	150		38	12	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	110		38	11	ug/Kg	1	☼	8270D	Total/NA
Benzoic acid	1600	J	1900	380	ug/Kg	1	☼	8270D	Total/NA
Carbazole	540		190	95	ug/Kg	1	☼	8270D	Total/NA
Chrysene	270		38	10	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	28	J	38	7.3	ug/Kg	1	☼	8270D	Total/NA
Dibenzofuran	460		190	44	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	920		38	7.0	ug/Kg	1	☼	8270D	Total/NA
Fluorene	540		38	5.3	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	140		38	9.8	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	1700		38	5.3	ug/Kg	1	☼	8270D	Total/NA
Pyrene	730		38	7.5	ug/Kg	1	☼	8270D	Total/NA
Naphthalene - DL	20000		380	58	ug/Kg	10	☼	8270D	Total/NA
Arsenic	3.6		1.2	0.40	mg/Kg	1	☼	6010C	Total/NA
Barium	70		1.2	0.13	mg/Kg	1	☼	6010C	Total/NA
Chromium	23		1.2	0.58	mg/Kg	1	☼	6010C	Total/NA
Lead	7.7	^	0.59	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.017	J	0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111717019

Lab Sample ID: 500-140832-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	49	J	78	28	ug/Kg	50	☼	8260B	Total/NA
Benzene	6000		20	11	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	160		20	14	ug/Kg	50	☼	8260B	Total/NA
Toluene	130		20	12	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	420		39	17	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	1200		86	10	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	2000		86	7.8	ug/Kg	1	☼	8270D	Total/NA
2-Methylphenol	140	J	210	68	ug/Kg	1	☼	8270D	Total/NA
3 & 4 Methylphenol	570		210	71	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	1900		42	7.6	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	340		42	5.6	ug/Kg	1	☼	8270D	Total/NA
Anthracene	1500		42	7.1	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1100		42	5.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	950		42	8.2	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1000		42	9.2	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	520		42	14	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	380		42	13	ug/Kg	1	☼	8270D	Total/NA
Carbazole	620		210	110	ug/Kg	1	☼	8270D	Total/NA
Chrysene	920		42	12	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	130		42	8.2	ug/Kg	1	☼	8270D	Total/NA
Dibenzofuran	1100		210	50	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	2900		42	7.9	ug/Kg	1	☼	8270D	Total/NA
Fluorene	1400		42	6.0	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	500		42	11	ug/Kg	1	☼	8270D	Total/NA
Pyrene	2300		42	8.5	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717019 (Continued)

Lab Sample ID: 500-140832-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene - DL	6500		210	33	ug/Kg	5		☒	8270D	Total/NA
Phenanthrene - DL	5500		210	30	ug/Kg	5		☒	8270D	Total/NA
Arsenic	2.8		1.2	0.42	mg/Kg	1		☒	6010C	Total/NA
Barium	66		1.2	0.14	mg/Kg	1		☒	6010C	Total/NA
Cadmium	0.051	J B	0.24	0.044	mg/Kg	1		☒	6010C	Total/NA
Chromium	22		1.2	0.61	mg/Kg	1		☒	6010C	Total/NA
Lead	6.2	^	0.61	0.28	mg/Kg	1		☒	6010C	Total/NA
Mercury	0.018	J	0.019	0.0064	mg/Kg	1		☒	7471B	Total/NA

Client Sample ID: 111717020

Lab Sample ID: 500-140832-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	30000		180	69	ug/Kg	100		☒	8260B	Total/NA
Hexane	200		180	89	ug/Kg	100		☒	8260B	Total/NA
Isopropylbenzene	8600		180	69	ug/Kg	100		☒	8260B	Total/NA
N-Propylbenzene	1200		180	75	ug/Kg	100		☒	8260B	Total/NA
p-Isopropyltoluene	3100		180	65	ug/Kg	100		☒	8260B	Total/NA
sec-Butylbenzene	150	J	180	72	ug/Kg	100		☒	8260B	Total/NA
1,2,4-Trimethylbenzene - DL	73000		1800	650	ug/Kg	1000		☒	8260B	Total/NA
Benzene - DL	57000		450	260	ug/Kg	1000		☒	8260B	Total/NA
Ethylbenzene - DL	93000		450	330	ug/Kg	1000		☒	8260B	Total/NA
Toluene - DL	80000		450	270	ug/Kg	1000		☒	8260B	Total/NA
Xylenes, Total - DL	190000		900	400	ug/Kg	1000		☒	8260B	Total/NA
2,4-Dimethylphenol	28000	J	47000	18000	ug/Kg	100		☒	8270D	Total/NA
Acenaphthylene	270000		4700	620	ug/Kg	100		☒	8270D	Total/NA
Benzo[g,h,i]perylene	140000		4700	1500	ug/Kg	100		☒	8270D	Total/NA
Benzo[k]fluoranthene	160000		4700	1400	ug/Kg	100		☒	8270D	Total/NA
Dibenz(a,h)anthracene	35000		4700	910	ug/Kg	100		☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	140000		4700	1200	ug/Kg	100		☒	8270D	Total/NA
1-Methylnaphthalene - DL	610000		48000	5800	ug/Kg	500		☒	8270D	Total/NA
2-Methylnaphthalene - DL	1100000		48000	4300	ug/Kg	500		☒	8270D	Total/NA
Acenaphthene - DL	700000		23000	4200	ug/Kg	500		☒	8270D	Total/NA
Anthracene - DL	1400000		23000	3900	ug/Kg	500		☒	8270D	Total/NA
Benzo[a]anthracene - DL	460000		23000	3200	ug/Kg	500		☒	8270D	Total/NA
Benzo[a]pyrene - DL	480000		23000	4600	ug/Kg	500		☒	8270D	Total/NA
Benzo[b]fluoranthene - DL	490000		23000	5100	ug/Kg	500		☒	8270D	Total/NA
Carbazole - DL	570000		120000	59000	ug/Kg	500		☒	8270D	Total/NA
Chrysene - DL	450000		23000	6400	ug/Kg	500		☒	8270D	Total/NA
Dibenzofuran - DL	570000		120000	28000	ug/Kg	500		☒	8270D	Total/NA
Fluoranthene - DL	1500000		23000	4400	ug/Kg	500		☒	8270D	Total/NA
Fluorene - DL	700000		23000	3300	ug/Kg	500		☒	8270D	Total/NA
Pyrene - DL	970000		23000	4700	ug/Kg	500		☒	8270D	Total/NA
Naphthalene - DL2	6300000		94000	15000	ug/Kg	2000		☒	8270D	Total/NA
Phenanthrene - DL2	2900000		94000	13000	ug/Kg	2000		☒	8270D	Total/NA
Arsenic	4.1		1.2	0.42	mg/Kg	1		☒	6010C	Total/NA
Barium	71		1.2	0.14	mg/Kg	1		☒	6010C	Total/NA
Cadmium	0.13	J B	0.25	0.044	mg/Kg	1		☒	6010C	Total/NA
Chromium	21		1.2	0.61	mg/Kg	1		☒	6010C	Total/NA
Lead	17	^	0.62	0.28	mg/Kg	1		☒	6010C	Total/NA
Selenium	0.80	J	1.2	0.72	mg/Kg	1		☒	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717020 (Continued)

Lab Sample ID: 500-140832-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.089		0.023	0.0078	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111717021

Lab Sample ID: 500-140832-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	5300		80	29	ug/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	2200		80	30	ug/Kg	50	☼	8260B	Total/NA
Benzene	2800		20	12	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	7500		20	15	ug/Kg	50	☼	8260B	Total/NA
Hexane	70	J	80	39	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	470		80	31	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	110		80	33	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	240		80	29	ug/Kg	50	☼	8260B	Total/NA
Toluene	5000		20	12	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	13000		40	18	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	17000		860	100	ug/Kg	10	☼	8270D	Total/NA
2,4-Dimethylphenol	2700	J	4200	1600	ug/Kg	10	☼	8270D	Total/NA
2-Methylnaphthalene	29000		860	78	ug/Kg	10	☼	8270D	Total/NA
Acenaphthene	9200		420	76	ug/Kg	10	☼	8270D	Total/NA
Acenaphthylene	11000		420	56	ug/Kg	10	☼	8270D	Total/NA
Anthracene	1500		420	71	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	580		420	57	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	760		420	82	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	770		420	92	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	340	J	420	140	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	270	J	420	130	ug/Kg	10	☼	8270D	Total/NA
Benzoic acid	5400	J	21000	4200	ug/Kg	10	☼	8270D	Total/NA
Carbazole	13000		2100	1100	ug/Kg	10	☼	8270D	Total/NA
Chrysene	530		420	120	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	6900		2100	500	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	1600		420	79	ug/Kg	10	☼	8270D	Total/NA
Fluorene	5800		420	60	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	390	J	420	110	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	5000		420	59	ug/Kg	10	☼	8270D	Total/NA
Pyrene	2000		420	85	ug/Kg	10	☼	8270D	Total/NA
Naphthalene - DL	250000		4200	650	ug/Kg	100	☼	8270D	Total/NA
Arsenic	2.8		1.2	0.40	mg/Kg	1	☼	6010C	Total/NA
Barium	70		1.2	0.13	mg/Kg	1	☼	6010C	Total/NA
Chromium	24		1.2	0.58	mg/Kg	1	☼	6010C	Total/NA
Lead	8.0	^	0.59	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.034		0.021	0.0071	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111717023

Lab Sample ID: 500-140832-22

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	0.095	J	1.0	0.035	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	0.15	J q	5.0	0.021	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	0.11	J	5.0	0.027	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	0.13	J	5.0	0.025	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	0.81	J	5.0	0.029	pg/g	1	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717023 (Continued)

Lab Sample ID: 500-140832-22

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDD	10	B	10	0.043	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	0.19	J	1.0	0.021	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	0.069	J q	5.0	0.029	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.077	J q	5.0	0.032	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.55	J B	5.0	0.046	pg/g	1	☼	1613B	Total/NA
OCDF	0.67	J B	10	0.026	pg/g	1	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2100		96	35	ug/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	690		96	37	ug/Kg	50	☼	8260B	Total/NA
Benzene	440		24	14	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	4500		24	18	ug/Kg	50	☼	8260B	Total/NA
Hexane	74	J	96	47	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	390		96	37	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	130		96	40	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	670		96	35	ug/Kg	50	☼	8260B	Total/NA
Toluene	110		24	14	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	4200		48	21	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	23000		1900	230	ug/Kg	20	☼	8270D	Total/NA
2-Methylnaphthalene	37000		1900	170	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	20000		930	170	ug/Kg	20	☼	8270D	Total/NA
Acenaphthylene	3200		930	120	ug/Kg	20	☼	8270D	Total/NA
Anthracene	8300		930	160	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	8500		930	130	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	8000		930	180	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	11000		930	200	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	2500		930	300	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	3900		930	280	ug/Kg	20	☼	8270D	Total/NA
Chrysene	7100		930	260	ug/Kg	20	☼	8270D	Total/NA
Dibenz(a,h)anthracene	1100		930	180	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	4400	J	4700	1100	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	17000		930	170	ug/Kg	20	☼	8270D	Total/NA
Fluorene	10000		930	130	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2600		930	240	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	28000		930	130	ug/Kg	20	☼	8270D	Total/NA
Pyrene	25000		930	190	ug/Kg	20	☼	8270D	Total/NA
Naphthalene - DL	130000		2300	360	ug/Kg	50	☼	8270D	Total/NA
Arsenic	3.0		1.4	0.46	mg/Kg	1	☼	6010C	Total/NA
Barium	53		1.4	0.15	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.27	B	0.27	0.049	mg/Kg	1	☼	6010C	Total/NA
Chromium	16		1.4	0.67	mg/Kg	1	☼	6010C	Total/NA
Lead	60	^	0.68	0.31	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.15		0.022	0.0072	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111717025

Lab Sample ID: 500-140832-23

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDD	0.080	J q	5.0	0.020	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	0.17	J q	5.0	0.050	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	0.20	J	5.0	0.046	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	5.0		5.0	0.055	pg/g	1	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717025 (Continued)

Lab Sample ID: 500-140832-23

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDD	64	B	10	0.063	pg/g	1	☼	1613B	Total/NA
2,3,7,8-TCDF	0.32	J	1.0	0.022	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	0.17	J q	5.0	0.029	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.12	J I	5.0	0.030	pg/g	1	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	0.044	J	5.0	0.028	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	1.6	J B	5.0	0.035	pg/g	1	☼	1613B	Total/NA
OCDF	5.7	J B	10	0.056	pg/g	1	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	50000		840	300	ug/Kg	500	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	15000		840	320	ug/Kg	500	☼	8260B	Total/NA
Benzene	11000		210	120	ug/Kg	500	☼	8260B	Total/NA
Ethylbenzene	140000		210	150	ug/Kg	500	☼	8260B	Total/NA
Isopropylbenzene	9300		840	320	ug/Kg	500	☼	8260B	Total/NA
N-Propylbenzene	2600		840	350	ug/Kg	500	☼	8260B	Total/NA
p-Isopropyltoluene	9300		840	310	ug/Kg	500	☼	8260B	Total/NA
Toluene	8700		210	120	ug/Kg	500	☼	8260B	Total/NA
Xylenes, Total	120000		420	190	ug/Kg	500	☼	8260B	Total/NA
1-Methylnaphthalene	780		86	10	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	1200		86	7.9	ug/Kg	1	☼	8270D	Total/NA
3 & 4 Methylphenol	150	J	210	71	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	510		42	7.7	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	89		42	5.6	ug/Kg	1	☼	8270D	Total/NA
Anthracene	150		42	7.1	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	69		42	5.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	74		42	8.3	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	64		42	9.2	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	50		42	14	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	26	J	42	13	ug/Kg	1	☼	8270D	Total/NA
Chrysene	71		42	12	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	120		42	7.9	ug/Kg	1	☼	8270D	Total/NA
Fluorene	210		42	6.0	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	49		42	11	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	470		42	6.0	ug/Kg	1	☼	8270D	Total/NA
Phenol	500		210	95	ug/Kg	1	☼	8270D	Total/NA
Pyrene	280		42	8.5	ug/Kg	1	☼	8270D	Total/NA
Naphthalene - DL	21000		420	66	ug/Kg	10	☼	8270D	Total/NA
Arsenic	3.4		1.1	0.38	mg/Kg	1	☼	6010C	Total/NA
Barium	93		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Chromium	25		1.1	0.55	mg/Kg	1	☼	6010C	Total/NA
Lead	7.7	^	0.55	0.26	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.019		0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111817027

Lab Sample ID: 500-140832-24

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	2.3	J q	5.5	0.28	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8-PeCDD	4.3	J	27	0.18	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDD	4.7	J	27	0.24	pg/g	5	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	86		27	0.25	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	18	J	27	0.23	pg/g	5	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817027 (Continued)

Lab Sample ID: 500-140832-24

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	1700		27	0.28	pg/g	5	☼	1613B	Total/NA
OCDD	20000	B	55	3.5	pg/g	5	☼	1613B	Total/NA
2,3,7,8-TCDF	280		5.5	0.62	pg/g	5	☼	1613B	Total/NA
1,2,3,7,8-PeCDF	16	J	27	0.26	pg/g	5	☼	1613B	Total/NA
2,3,4,7,8-PeCDF	18	J	27	0.24	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	35	I	27	1.8	pg/g	5	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	23	J	27	1.9	pg/g	5	☼	1613B	Total/NA
2,3,4,6,7,8-HxCDF	8.4	J I	27	2.0	pg/g	5	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	1000	B	27	0.26	pg/g	5	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	25	J	27	0.39	pg/g	5	☼	1613B	Total/NA
OCDF	1200	B	55	0.30	pg/g	5	☼	1613B	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	4800		170	64	ug/Kg	50	☼	8260B	Total/NA
Benzene	160		42	24	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	200		42	31	ug/Kg	50	☼	8260B	Total/NA
Hexane	120	J	170	82	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	1600		170	64	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	2400		170	69	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	2400		170	61	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	3100		170	67	ug/Kg	50	☼	8260B	Total/NA
tert-Butylbenzene	420		170	67	ug/Kg	50	☼	8260B	Total/NA
Toluene	330		42	25	ug/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene - DL	30000		340	120	ug/Kg	100	☼	8260B	Total/NA
1-Methylnaphthalene	9300		1500	180	ug/Kg	10	☼	8270D	Total/NA
2-Methylnaphthalene	12000		1500	130	ug/Kg	10	☼	8270D	Total/NA
Acenaphthene	3100		730	130	ug/Kg	10	☼	8270D	Total/NA
Acenaphthylene	1100		730	96	ug/Kg	10	☼	8270D	Total/NA
Anthracene	2500		730	120	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	3800		730	98	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	2800		730	140	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	4700		730	160	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	930		730	240	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	1500		730	220	ug/Kg	10	☼	8270D	Total/NA
Chrysene	4100		730	200	ug/Kg	10	☼	8270D	Total/NA
Dibenz(a,h)anthracene	740		730	140	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	970	J	3700	850	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	7000		730	140	ug/Kg	10	☼	8270D	Total/NA
Fluorene	2800		730	100	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1100		730	190	ug/Kg	10	☼	8270D	Total/NA
Naphthalene	15000		730	110	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	11000		730	100	ug/Kg	10	☼	8270D	Total/NA
Pyrene	11000		730	150	ug/Kg	10	☼	8270D	Total/NA
Arsenic	8.8		2.1	0.71	mg/Kg	1	☼	6010C	Total/NA
Barium	760		2.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Cadmium	4.7	B	0.42	0.075	mg/Kg	1	☼	6010C	Total/NA
Chromium	56		2.1	1.0	mg/Kg	1	☼	6010C	Total/NA
Lead	1500	^	1.0	0.48	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.6	J	2.1	1.2	mg/Kg	1	☼	6010C	Total/NA
Silver	1.2		1.0	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	2.4		0.18	0.059	mg/Kg	5	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817028

Lab Sample ID: 500-140832-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	62	J	96	35	ug/Kg	50	☼	8260B	Total/NA
Benzene	27		24	14	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	30		24	18	ug/Kg	50	☼	8260B	Total/NA
Hexane	66	J	96	47	ug/Kg	50	☼	8260B	Total/NA
Toluene	40		24	14	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	99		48	21	ug/Kg	50	☼	8260B	Total/NA
2-Methylnaphthalene	11	J	96	8.7	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	11	J	47	6.3	ug/Kg	1	☼	8270D	Total/NA
Anthracene	12	J	47	7.9	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	11	J	47	6.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	24	J	47	10	ug/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	160	J	240	87	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	20	J	47	8.8	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	50		47	7.3	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	28	J	47	6.6	ug/Kg	1	☼	8270D	Total/NA
Pyrene	32	J	47	9.4	ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.5		1.3	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	25		1.3	0.15	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.16	J B	0.26	0.047	mg/Kg	1	☼	6010C	Total/NA
Chromium	13		1.3	0.65	mg/Kg	1	☼	6010C	Total/NA
Lead	3.6	^	0.66	0.30	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: 111817029

Lab Sample ID: 500-140832-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	150000		2000	710	ug/Kg	1000	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	47000		2000	750	ug/Kg	1000	☼	8260B	Total/NA
Benzene	32000		500	290	ug/Kg	1000	☼	8260B	Total/NA
Ethylbenzene	250000		500	360	ug/Kg	1000	☼	8260B	Total/NA
Isopropylbenzene	29000		2000	760	ug/Kg	1000	☼	8260B	Total/NA
N-Propylbenzene	13000		2000	820	ug/Kg	1000	☼	8260B	Total/NA
p-Isopropyltoluene	8700		2000	720	ug/Kg	1000	☼	8260B	Total/NA
Toluene	16000		500	290	ug/Kg	1000	☼	8260B	Total/NA
Xylenes, Total	420000		990	440	ug/Kg	1000	☼	8260B	Total/NA
Acenaphthylene	65000		4900	650	ug/Kg	100	☼	8270D	Total/NA
Anthracene	200000		4900	820	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]anthracene	150000		4900	660	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]pyrene	110000		4900	950	ug/Kg	100	☼	8270D	Total/NA
Benzo[b]fluoranthene	140000		4900	1100	ug/Kg	100	☼	8270D	Total/NA
Benzo[g,h,i]perylene	26000		4900	1600	ug/Kg	100	☼	8270D	Total/NA
Benzo[k]fluoranthene	53000		4900	1500	ug/Kg	100	☼	8270D	Total/NA
Carbazole	31000		25000	12000	ug/Kg	100	☼	8270D	Total/NA
Chrysene	130000		4900	1300	ug/Kg	100	☼	8270D	Total/NA
Dibenz(a,h)anthracene	9500		4900	950	ug/Kg	100	☼	8270D	Total/NA
Dibenzofuran	69000		25000	5800	ug/Kg	100	☼	8270D	Total/NA
Fluoranthene	290000		4900	910	ug/Kg	100	☼	8270D	Total/NA
Fluorene	220000		4900	690	ug/Kg	100	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	25000		4900	1300	ug/Kg	100	☼	8270D	Total/NA
1-Methylnaphthalene - DL	520000		20000	2400	ug/Kg	200	☼	8270D	Total/NA
Acenaphthene - DL	440000		9800	1800	ug/Kg	200	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817029 (Continued)

Lab Sample ID: 500-140832-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene - DL	490000		9800	2000	ug/Kg	200	☼	8270D	Total/NA
2-Methylnaphthalene - DL2	890000		99000	9100	ug/Kg	1000	☼	8270D	Total/NA
Naphthalene - DL2	2600000		49000	7600	ug/Kg	1000	☼	8270D	Total/NA
Phenanthrene - DL2	1000000		49000	6900	ug/Kg	1000	☼	8270D	Total/NA
Arsenic	3.6		1.3	0.46	mg/Kg	1	☼	6010C	Total/NA
Barium	77		1.3	0.15	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.31	B	0.27	0.048	mg/Kg	1	☼	6010C	Total/NA
Chromium	21		1.3	0.66	mg/Kg	1	☼	6010C	Total/NA
Lead	53	^	0.67	0.31	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.91	J	1.3	0.79	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.31		0.023	0.0078	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: 111817030

Lab Sample ID: 500-140832-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	460000		2800	990	ug/Kg	2000	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	140000		2800	1000	ug/Kg	2000	☼	8260B	Total/NA
2-Chlorotoluene	41000		2800	870	ug/Kg	2000	☼	8260B	Total/NA
Benzene	270000		690	400	ug/Kg	2000	☼	8260B	Total/NA
Ethylbenzene	250000		690	500	ug/Kg	2000	☼	8260B	Total/NA
Isopropylbenzene	29000		2800	1100	ug/Kg	2000	☼	8260B	Total/NA
n-Butylbenzene	21000		2800	1100	ug/Kg	2000	☼	8260B	Total/NA
N-Propylbenzene	29000		2800	1100	ug/Kg	2000	☼	8260B	Total/NA
p-Isopropyltoluene	16000		2800	1000	ug/Kg	2000	☼	8260B	Total/NA
sec-Butylbenzene	2100	J	2800	1100	ug/Kg	2000	☼	8260B	Total/NA
Toluene	130000		690	410	ug/Kg	2000	☼	8260B	Total/NA
Xylenes, Total - DL	680000		14000	6100	ug/Kg	20000	☼	8260B	Total/NA
Acenaphthene	780000		19000	3400	ug/Kg	500	☼	8270D	Total/NA
Acenaphthylene	310000		19000	2500	ug/Kg	500	☼	8270D	Total/NA
Anthracene	800000		19000	3200	ug/Kg	500	☼	8270D	Total/NA
Benzo[a]anthracene	490000		19000	2600	ug/Kg	500	☼	8270D	Total/NA
Benzo[a]pyrene	360000		19000	3700	ug/Kg	500	☼	8270D	Total/NA
Benzo[b]fluoranthene	470000		19000	4100	ug/Kg	500	☼	8270D	Total/NA
Benzo[g,h,i]perylene	83000		19000	6200	ug/Kg	500	☼	8270D	Total/NA
Benzo[k]fluoranthene	150000		19000	5600	ug/Kg	500	☼	8270D	Total/NA
Carbazole	120000		96000	48000	ug/Kg	500	☼	8270D	Total/NA
Chrysene	420000		19000	5200	ug/Kg	500	☼	8270D	Total/NA
Dibenz(a,h)anthracene	33000		19000	3700	ug/Kg	500	☼	8270D	Total/NA
Dibenzofuran	280000		96000	22000	ug/Kg	500	☼	8270D	Total/NA
Fluoranthene	970000		19000	3600	ug/Kg	500	☼	8270D	Total/NA
Fluorene	810000		19000	2700	ug/Kg	500	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	80000		19000	5000	ug/Kg	500	☼	8270D	Total/NA
1-Methylnaphthalene - DL	2200000		150000	19000	ug/Kg	2000	☼	8270D	Total/NA
2-Methylnaphthalene - DL	3100000		150000	14000	ug/Kg	2000	☼	8270D	Total/NA
Phenanthrene - DL	3000000		76000	11000	ug/Kg	2000	☼	8270D	Total/NA
Pyrene - DL	1900000		76000	15000	ug/Kg	2000	☼	8270D	Total/NA
Naphthalene - DL2	8000000		190000	29000	ug/Kg	5000	☼	8270D	Total/NA
Arsenic	3.3		1.1	0.39	mg/Kg	1	☼	6010C	Total/NA
Barium	29		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.45	B	0.23	0.041	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817030 (Continued)

Lab Sample ID: 500-140832-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	11		1.1	0.56	mg/Kg	1	☼	6010C	Total/NA
Lead	34	^	0.56	0.26	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.77	J	1.1	0.66	mg/Kg	1	☼	6010C	Total/NA
Silver	0.18	J ^	0.56	0.15	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.11		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 500-140832-28

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
1613B	Dioxins and Furans (HRGC/HRMS)	40CFR136A	TAL KNX
6010C	Metals (ICP)	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-140832-1	111417001	Solid	02/09/18 14:32	02/13/18 10:30
500-140832-2	111417002	Solid	02/09/18 14:39	02/13/18 10:30
500-140832-3	111417003	Solid	02/09/18 14:43	02/13/18 10:30
500-140832-4	111417004	Solid	02/09/18 14:43	02/13/18 10:30
500-140832-5	111417005	Solid	02/09/18 14:48	02/13/18 10:30
500-140832-6	111417006	Solid	02/09/18 14:50	02/13/18 10:30
500-140832-7	111417007	Solid	02/09/18 14:53	02/13/18 10:30
500-140832-8	111417008	Solid	02/09/18 14:54	02/13/18 10:30
500-140832-9	111417009	Solid	02/09/18 14:58	02/13/18 10:30
500-140832-10	111417010	Solid	02/09/18 15:00	02/13/18 10:30
500-140832-11	111417011	Solid	02/09/18 15:04	02/13/18 10:30
500-140832-12	111417012	Solid	02/09/18 15:10	02/13/18 10:30
500-140832-13	111617013	Solid	02/09/18 12:00	02/13/18 10:30
500-140832-14	111617014	Solid	02/09/18 13:00	02/13/18 10:30
500-140832-15	111617015	Solid	02/09/18 13:03	02/13/18 10:30
500-140832-16	111717016	Solid	02/09/18 13:05	02/13/18 10:30
500-140832-17	111717017	Solid	02/09/18 13:08	02/13/18 10:30
500-140832-18	111717018	Solid	02/09/18 13:11	02/13/18 10:30
500-140832-19	111717019	Solid	02/09/18 13:15	02/13/18 10:30
500-140832-20	111717020	Solid	02/09/18 13:20	02/13/18 10:30
500-140832-21	111717021	Solid	02/09/18 13:23	02/13/18 10:30
500-140832-22	111717023	Solid	02/09/18 15:15	02/13/18 10:30
500-140832-23	111717025	Solid	02/09/18 15:13	02/13/18 10:30
500-140832-24	111817027	Solid	02/09/18 15:18	02/13/18 10:30
500-140832-25	111817028	Solid	02/09/18 13:35	02/13/18 10:30
500-140832-26	111817029	Solid	02/09/18 13:38	02/13/18 10:30
500-140832-27	111817030	Solid	02/09/18 13:40	02/13/18 10:30
500-140832-28	Trip Blank	Solid	02/09/18 00:00	02/13/18 10:30

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417001

Lab Sample ID: 500-140832-1

Date Collected: 02/09/18 14:32

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<820		1800	820	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,1,1-Trichloroethane	<680		1800	680	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,1,2,2-Tetrachloroethane	<710		1800	710	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,1,2-Trichloroethane	<630		1800	630	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,1-Dichloroethane	<730		1800	730	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,1-Dichloroethene	<690		1800	690	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,1-Dichloropropene	<530		1800	530	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2,3-Trichlorobenzene	<810		1800	810	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2,3-Trichloropropane	<740		1800	740	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2,4-Trichlorobenzene	<610		1800	610	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2,4-Trimethylbenzene	960	J	1800	640	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2-Dibromo-3-Chloropropane	<3500		8900	3500	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2-Dibromoethane	<690		1800	690	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2-Dichlorobenzene	<590		1800	590	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2-Dichloroethane	<700		1800	700	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,2-Dichloropropane	<760		1800	760	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,3,5-Trimethylbenzene	<680		1800	680	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,3-Dichlorobenzene	<710		1800	710	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,3-Dichloropropane	<640		1800	640	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
1,4-Dichlorobenzene	<650		1800	650	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
2,2-Dichloropropane	<790		1800	790	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
2-Butanone (MEK)	<3800		8900	3800	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
2-Chlorotoluene	<560		1800	560	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
4-Chlorotoluene	<620		1800	620	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Benzene	410	J	440	260	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Bromobenzene	<630		1800	630	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Bromochloromethane	<760		1800	760	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Bromodichloromethane	<660		1800	660	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Bromoform	<860		1800	860	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Bromomethane	<1400	*	3600	1400	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Carbon tetrachloride	<680		1800	680	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Chlorobenzene	<690		1800	690	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Chloroethane	<900		1800	900	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Chloroform	1100	J	3600	660	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Chloromethane	<570		1800	570	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
cis-1,2-Dichloroethene	<730		1800	730	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
cis-1,3-Dichloropropene	<740		1800	740	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Dibromochloromethane	<870		1800	870	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Dibromomethane	<480		1800	480	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Dichlorodifluoromethane	<1200		3600	1200	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Ethylbenzene	540		440	330	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Hexachlorobutadiene	<790		1800	790	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Hexane	<880		1800	880	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Isopropyl ether	<490		1800	490	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Isopropylbenzene	<680		1800	680	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Methyl tert-butyl ether	<700		1800	700	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Methylene Chloride	<2900		8900	2900	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
n-Butylbenzene	1700	J	1800	690	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
N-Propylbenzene	<740		1800	740	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417001

Lab Sample ID: 500-140832-1

Date Collected: 02/09/18 14:32

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<640		1800	640	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
sec-Butylbenzene	2600		1800	710	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Styrene	<690		1800	690	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
tert-Butylbenzene	<710		1800	710	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Tetrachloroethene	<660		1800	660	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Toluene	<260		440	260	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
trans-1,2-Dichloroethene	<620		1800	620	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
trans-1,3-Dichloropropene	<640		1800	640	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Trichloroethene	<290		890	290	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Trichlorofluoromethane	<760		1800	760	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Vinyl chloride	<470		890	470	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Xylenes, Total	440 J		890	390	ug/Kg	☼	02/09/18 14:32	02/22/18 09:18	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126				02/09/18 14:32	02/22/18 09:18	500
4-Bromofluorobenzene (Surr)	99		72 - 124				02/09/18 14:32	02/22/18 09:18	500
Dibromofluoromethane	84		75 - 120				02/09/18 14:32	02/22/18 09:18	500
Toluene-d8 (Surr)	103		75 - 120				02/09/18 14:32	02/22/18 09:18	500

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<340		1600	340	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
1,2-Dichlorobenzene	<380		1600	380	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
1,3-Dichlorobenzene	<360		1600	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
1,4-Dichlorobenzene	<410		1600	410	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
1-Methylnaphthalene	3900 F1		640	78	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2,2'-oxybis[1-chloropropane]	<370		1600	370	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2,4,5-Trichlorophenol	<730		3200	730	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2,4,6-Trichlorophenol	<1100		3200	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2,4-Dichlorophenol	<760		3200	760	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2,4-Dimethylphenol	<1200		3200	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2,4-Dinitrophenol	<5600		6400	5600	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2,4-Dinitrotoluene	<510		1600	510	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2,6-Dinitrotoluene	<630		1600	630	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2-Chloronaphthalene	<350		1600	350	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2-Chlorophenol	<550		1600	550	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2-Methylnaphthalene	5000 F1		640	59	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2-Methylphenol	<510		1600	510	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2-Nitroaniline	<430		1600	430	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
2-Nitrophenol	<750		3200	750	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
3 & 4 Methylphenol	1100 J		1600	530	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
3,3'-Dichlorobenzidine	<450 F1		1600	450	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
3-Nitroaniline	<990 F1		3200	990	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
4,6-Dinitro-2-methylphenol	<2600 F1		6400	2600	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
4-Bromophenyl phenyl ether	<420		1600	420	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
4-Chloro-3-methylphenol	<1100		3200	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
4-Chloroaniline	<1500 F1		6400	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
4-Chlorophenyl phenyl ether	<370		1600	370	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
4-Nitroaniline	<1300 F1		3200	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
4-Nitrophenol	<3000		6400	3000	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417001

Lab Sample ID: 500-140832-1

Date Collected: 02/09/18 14:32

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3600		320	57	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Acenaphthylene	910		320	42	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Anthracene	2100		320	53	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Benzo[a]anthracene	2700		320	43	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Benzo[a]pyrene	3400	F1	320	62	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Benzo[b]fluoranthene	4400		320	69	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Benzo[g,h,i]perylene	1200	F1	320	100	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Benzo[k]fluoranthene	1600		320	94	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Benzoic acid	<3200	F1	16000	3200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Benzyl alcohol	<3200		6400	3200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Bis(2-chloroethoxy)methane	<330		1600	330	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Bis(2-chloroethyl)ether	<480		1600	480	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Bis(2-ethylhexyl) phthalate	1300	J	1600	580	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Butyl benzyl phthalate	<610		1600	610	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Carbazole	<800		1600	800	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Chrysene	2800	F1	320	87	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Dibenz(a,h)anthracene	<62	F1	320	62	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Dibenzofuran	950	J	1600	370	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Diethyl phthalate	<540		1600	540	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Dimethyl phthalate	<420		1600	420	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Di-n-butyl phthalate	<490		1600	490	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Di-n-octyl phthalate	<520		1600	520	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Fluoranthene	5900	F1	320	59	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Fluorene	2200		320	45	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Hexachlorobenzene	<74	F1 F2	640	74	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Hexachlorobutadiene	<500		1600	500	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Hexachlorocyclopentadiene	<1800	F1	6400	1800	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Hexachloroethane	<490	F1	1600	490	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Indeno[1,2,3-cd]pyrene	1100	F1	320	83	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Isophorone	<360		1600	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Naphthalene	2600	F1	320	49	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Nitrobenzene	<80		320	80	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
N-Nitrosodi-n-propylamine	<390	F1	640	390	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
N-Nitrosodiphenylamine	<380	F1	1600	380	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Pentachlorophenol	<5100	F1	6400	5100	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Phenanthrene	9900	F1	320	45	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Phenol	<710		1600	710	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5
Pyrene	4900	F1	320	63	ug/Kg	☼	02/13/18 17:39	02/14/18 13:19	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	115		25 - 139	02/13/18 17:39	02/14/18 13:19	5
2-Fluorobiphenyl (Surr)	78		44 - 121	02/13/18 17:39	02/14/18 13:19	5
2-Fluorophenol (Surr)	97		46 - 133	02/13/18 17:39	02/14/18 13:19	5
Nitrobenzene-d5 (Surr)	112		41 - 120	02/13/18 17:39	02/14/18 13:19	5
Phenol-d5 (Surr)	92		46 - 125	02/13/18 17:39	02/14/18 13:19	5
Terphenyl-d14 (Surr)	75		35 - 160	02/13/18 17:39	02/14/18 13:19	5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<120		330	120	ug/Kg	☼	02/13/18 16:24	02/14/18 10:31	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417001

Lab Sample ID: 500-140832-1

Date Collected: 02/09/18 14:32

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	<150		330	150	ug/Kg	☼	02/13/18 16:24	02/14/18 10:31	10
PCB-1232	<140		330	140	ug/Kg	☼	02/13/18 16:24	02/14/18 10:31	10
PCB-1242	3800		330	110	ug/Kg	☼	02/13/18 16:24	02/14/18 10:31	10
PCB-1248	<130		330	130	ug/Kg	☼	02/13/18 16:24	02/14/18 10:31	10
PCB-1254	1200		330	72	ug/Kg	☼	02/13/18 16:24	02/14/18 10:31	10
PCB-1260	<160		330	160	ug/Kg	☼	02/13/18 16:24	02/14/18 10:31	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	125		49 - 129	02/13/18 16:24	02/14/18 10:31	10
DCB Decachlorobiphenyl	94		37 - 121	02/13/18 16:24	02/14/18 10:31	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	1.7		0.98	0.081	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,7,8-PeCDD	2.2	J	4.9	0.28	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,4,7,8-HxCDD	4.2	J	4.9	0.27	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,6,7,8-HxCDD	23		4.9	0.27	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,7,8,9-HxCDD	12		4.9	0.25	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,4,6,7,8-HpCDD	510		4.9	0.063	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
OCDD	6200	E B	9.8	0.75	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
2,3,7,8-TCDF	11		0.98	0.18	pg/g	☼	02/16/18 10:10	02/23/18 02:52	1
1,2,3,7,8-PeCDF	1.9	J I	4.9	0.083	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
2,3,4,7,8-PeCDF	3.5	J	4.9	0.091	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,4,7,8-HxCDF	8.5	I	4.9	0.50	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,6,7,8-HxCDF	7.0		4.9	0.50	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
2,3,4,6,7,8-HxCDF	3.4	J	4.9	0.52	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,7,8,9-HxCDF	<0.61		4.9	0.61	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,4,6,7,8-HpCDF	210	B	4.9	0.10	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
1,2,3,4,7,8,9-HpCDF	6.8		4.9	0.15	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1
OCDF	450	B	9.8	0.15	pg/g	☼	02/16/18 10:10	02/22/18 02:28	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	67		25 - 164	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,7,8-PeCDD	58		25 - 181	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,4,7,8-HxCDD	57		32 - 141	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,6,7,8-HxCDD	58		28 - 130	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,4,6,7,8-HpCDD	52		23 - 140	02/16/18 10:10	02/22/18 02:28	1
13C-OCDD	22		17 - 157	02/16/18 10:10	02/22/18 02:28	1
13C-2,3,7,8-TCDF	60		24 - 169	02/16/18 10:10	02/22/18 02:28	1
13C-2,3,7,8-TCDF	140		24 - 169	02/16/18 10:10	02/23/18 02:52	1
13C-1,2,3,7,8-PeCDF	56		24 - 185	02/16/18 10:10	02/22/18 02:28	1
13C-2,3,4,7,8-PeCDF	53		21 - 178	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,4,7,8-HxCDF	58		26 - 152	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,6,7,8-HxCDF	53		26 - 123	02/16/18 10:10	02/22/18 02:28	1
13C-2,3,4,6,7,8-HxCDF	56		28 - 136	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,7,8,9-HxCDF	49		29 - 147	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,4,6,7,8-HpCDF	41		28 - 143	02/16/18 10:10	02/22/18 02:28	1
13C-1,2,3,4,7,8,9-HpCDF	43		26 - 138	02/16/18 10:10	02/22/18 02:28	1
13C-OCDF	22		17 - 157	02/16/18 10:10	02/22/18 02:28	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417001

Lab Sample ID: 500-140832-1

Date Collected: 02/09/18 14:32

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	63		35 - 197	02/16/18 10:10	02/22/18 02:28	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.8		1.9	0.65	mg/Kg	☼	02/13/18 14:50	02/14/18 13:26	1
Barium	86		1.9	0.22	mg/Kg	☼	02/13/18 14:50	02/14/18 13:26	1
Cadmium	2.0	B	0.38	0.069	mg/Kg	☼	02/13/18 14:50	02/14/18 13:26	1
Chromium	32		1.9	0.95	mg/Kg	☼	02/13/18 14:50	02/14/18 13:26	1
Lead	150	^	0.95	0.44	mg/Kg	☼	02/13/18 14:50	02/14/18 13:26	1
Selenium	1.7	J	1.9	1.1	mg/Kg	☼	02/13/18 14:50	02/14/18 13:26	1
Silver	2.1		0.95	0.25	mg/Kg	☼	02/13/18 14:50	02/14/18 13:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	8.9		0.67	0.22	mg/Kg	☼	02/14/18 14:00	02/15/18 13:38	20

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417002

Lab Sample ID: 500-140832-2

Date Collected: 02/09/18 14:39

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<720		1600	720	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,1,1-Trichloroethane	<590		1600	590	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,1,1,2,2-Tetrachloroethane	<620		1600	620	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,1,2-Trichloroethane	<550		1600	550	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,1-Dichloroethane	<640		1600	640	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,1-Dichloroethene	<610		1600	610	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,1-Dichloropropene	<460		1600	460	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2,3-Trichlorobenzene	<710		1600	710	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2,3-Trichloropropane	<640		1600	640	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2,4-Trichlorobenzene	<530		1600	530	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2,4-Trimethylbenzene	19000		1600	560	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2-Dibromo-3-Chloropropane	<3100		7800	3100	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2-Dibromoethane	<600		1600	600	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2-Dichlorobenzene	<520		1600	520	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2-Dichloroethane	<610		1600	610	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,2-Dichloropropane	<660		1600	660	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,3,5-Trimethylbenzene	5800		1600	590	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,3-Dichlorobenzene	<620		1600	620	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,3-Dichloropropane	<560		1600	560	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
1,4-Dichlorobenzene	<560		1600	560	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
2,2-Dichloropropane	<690		1600	690	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
2-Butanone (MEK)	<3300		7800	3300	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
2-Chlorotoluene	<490		1600	490	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
4-Chlorotoluene	<540		1600	540	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Benzene	16000		390	230	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Bromobenzene	<550		1600	550	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Bromochloromethane	<660		1600	660	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Bromodichloromethane	<580		1600	580	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Bromoform	<750		1600	750	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Bromomethane	<1200 *		3100	1200	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Carbon tetrachloride	<600		1600	600	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Chlorobenzene	<600		1600	600	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Chloroethane	<780		1600	780	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Chloroform	<570		3100	570	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Chloromethane	<500		1600	500	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
cis-1,2-Dichloroethene	<630		1600	630	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
cis-1,3-Dichloropropene	<650		1600	650	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Dibromochloromethane	<760		1600	760	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Dibromomethane	<420		1600	420	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Dichlorodifluoromethane	<1000		3100	1000	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Ethylbenzene	48000		390	280	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Hexachlorobutadiene	<690		1600	690	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Hexane	<760		1600	760	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Isopropyl ether	<430		1600	430	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Isopropylbenzene	3600		1600	600	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Methyl tert-butyl ether	<610		1600	610	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Methylene Chloride	<2500		7800	2500	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
n-Butylbenzene	<600		1600	600	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
N-Propylbenzene	800 J		1600	640	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417002

Lab Sample ID: 500-140832-2

Date Collected: 02/09/18 14:39

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	1700		1600	560	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
sec-Butylbenzene	<620		1600	620	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Styrene	<600		1600	600	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
tert-Butylbenzene	<620		1600	620	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Tetrachloroethene	<570		1600	570	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Toluene	30000		390	230	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
trans-1,2-Dichloroethene	<540		1600	540	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
trans-1,3-Dichloropropene	<560		1600	560	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Trichloroethene	<250		780	250	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Trichlorofluoromethane	<660		1600	660	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Vinyl chloride	<410		780	410	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Xylenes, Total	46000		780	340	ug/Kg	☼	02/09/18 14:39	02/22/18 09:45	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 126				02/09/18 14:39	02/22/18 09:45	500
4-Bromofluorobenzene (Surr)	94		72 - 124				02/09/18 14:39	02/22/18 09:45	500
Dibromofluoromethane	84		75 - 120				02/09/18 14:39	02/22/18 09:45	500
Toluene-d8 (Surr)	103		75 - 120				02/09/18 14:39	02/22/18 09:45	500

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		75 - 126	02/09/18 14:39	02/22/18 10:13	5000
4-Bromofluorobenzene (Surr)	102		72 - 124	02/09/18 14:39	02/22/18 10:13	5000
Dibromofluoromethane	84		75 - 120	02/09/18 14:39	02/22/18 10:13	5000
Toluene-d8 (Surr)	104		75 - 120	02/09/18 14:39	02/22/18 10:13	5000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<7000		32000	7000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
1,2-Dichlorobenzene	<7700		32000	7700	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
1,3-Dichlorobenzene	<7300		32000	7300	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
1,4-Dichlorobenzene	<8300		32000	8300	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2,2'-oxybis[1-chloropropane]	<7500		32000	7500	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2,4,5-Trichlorophenol	<15000		64000	15000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2,4,6-Trichlorophenol	<22000		64000	22000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2,4-Dichlorophenol	<15000		64000	15000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2,4-Dimethylphenol	<25000		64000	25000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2,4-Dinitrophenol	<110000		130000	110000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2,4-Dinitrotoluene	<10000		32000	10000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2,6-Dinitrotoluene	<13000		32000	13000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2-Chloronaphthalene	<7100		32000	7100	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2-Chlorophenol	<11000		32000	11000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2-Methylphenol	<10000		32000	10000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2-Nitroaniline	<8700		32000	8700	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
2-Nitrophenol	<15000		64000	15000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
3 & 4 Methylphenol	<11000		32000	11000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
3,3'-Dichlorobenzidine	<9000		32000	9000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
3-Nitroaniline	<20000		64000	20000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
4,6-Dinitro-2-methylphenol	<52000		130000	52000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
4-Bromophenyl phenyl ether	<8500		32000	8500	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417002

Lab Sample ID: 500-140832-2

Date Collected: 02/09/18 14:39

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	<22000		64000	22000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
4-Chloroaniline	<30000		130000	30000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
4-Chlorophenyl phenyl ether	<7500		32000	7500	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
4-Nitroaniline	<27000		64000	27000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
4-Nitrophenol	<61000		130000	61000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Acenaphthylene	42000		6400	850	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Anthracene	230000		6400	1100	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Benzo[a]anthracene	110000		6400	870	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Benzo[a]pyrene	79000		6400	1300	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Benzo[b]fluoranthene	86000		6400	1400	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Benzo[g,h,i]perylene	14000		6400	2100	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Benzo[k]fluoranthene	32000		6400	1900	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Benzoic acid	<64000		320000	64000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Benzyl alcohol	<64000		130000	64000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Bis(2-chloroethoxy)methane	<6600		32000	6600	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Bis(2-chloroethyl)ether	<9700		32000	9700	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Bis(2-ethylhexyl) phthalate	<12000		32000	12000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Butyl benzyl phthalate	<12000		32000	12000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Carbazole	29000 J		32000	16000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Chrysene	90000		6400	1800	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Dibenz(a,h)anthracene	7700		6400	1200	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Dibenzofuran	60000		32000	7600	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Diethyl phthalate	<11000		32000	11000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Dimethyl phthalate	<8400		32000	8400	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Di-n-butyl phthalate	<9800		32000	9800	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Di-n-octyl phthalate	<11000		32000	11000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Fluoranthene	220000		6400	1200	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Fluorene	280000		6400	910	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Hexachlorobenzene	<1500		13000	1500	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Hexachlorobutadiene	<10000		32000	10000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Hexachlorocyclopentadiene	<37000		130000	37000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Hexachloroethane	<9800		32000	9800	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Indeno[1,2,3-cd]pyrene	15000		6400	1700	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Isophorone	<7300		32000	7300	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Nitrobenzene	<1600		6400	1600	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
N-Nitrosodi-n-propylamine	<7900		13000	7900	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
N-Nitrosodiphenylamine	<7600		32000	7600	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Pentachlorophenol	<100000		130000	100000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Phenol	<14000		32000	14000	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100
Pyrene	410000		6400	1300	ug/Kg	☼	02/13/18 17:39	02/16/18 03:24	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	D	25 - 139	02/13/18 17:39	02/16/18 03:24	100
2-Fluorobiphenyl (Surr)	0	D	44 - 121	02/13/18 17:39	02/16/18 03:24	100
2-Fluorophenol (Surr)	0	D	46 - 133	02/13/18 17:39	02/16/18 03:24	100
Nitrobenzene-d5 (Surr)	0	D	41 - 120	02/13/18 17:39	02/16/18 03:24	100
Phenol-d5 (Surr)	0	D	46 - 125	02/13/18 17:39	02/16/18 03:24	100
Terphenyl-d14 (Surr)	0	D	35 - 160	02/13/18 17:39	02/16/18 03:24	100

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417002

Lab Sample ID: 500-140832-2

Date Collected: 02/09/18 14:39

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	900000		65000	7900	ug/Kg	☼	02/13/18 17:39	02/16/18 03:49	500
2-Methylnaphthalene	1500000		65000	5900	ug/Kg	☼	02/13/18 17:39	02/16/18 03:49	500
Acenaphthene	810000		32000	5800	ug/Kg	☼	02/13/18 17:39	02/16/18 03:49	500
Phenanthrene	790000		32000	4500	ug/Kg	☼	02/13/18 17:39	02/16/18 03:49	500

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3100000		64000	9900	ug/Kg	☼	02/13/18 17:39	02/16/18 14:54	1000

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<120		340	120	ug/Kg	☼	02/13/18 16:24	02/14/18 10:47	10
PCB-1221	<150		340	150	ug/Kg	☼	02/13/18 16:24	02/14/18 10:47	10
PCB-1232	<150		340	150	ug/Kg	☼	02/13/18 16:24	02/14/18 10:47	10
PCB-1242	<110		340	110	ug/Kg	☼	02/13/18 16:24	02/14/18 10:47	10
PCB-1248	<130		340	130	ug/Kg	☼	02/13/18 16:24	02/14/18 10:47	10
PCB-1254	<73		340	73	ug/Kg	☼	02/13/18 16:24	02/14/18 10:47	10
PCB-1260	<170		340	170	ug/Kg	☼	02/13/18 16:24	02/14/18 10:47	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	02/13/18 16:24	02/14/18 10:47	10
DCB Decachlorobiphenyl	97		37 - 121	02/13/18 16:24	02/14/18 10:47	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.60		10	0.60	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,7,8-PeCDD	1.0	J q	50	0.40	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,4,7,8-HxCDD	<0.44		50	0.44	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,6,7,8-HxCDD	<0.48		50	0.48	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,7,8,9-HxCDD	1.3	J	50	0.43	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,4,6,7,8-HpCDD	2.1	J	50	0.69	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
OCDD	14	J B	100	0.80	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
2,3,7,8-TCDF	0.61	J q	10	0.45	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,7,8-PeCDF	<0.46		50	0.46	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
2,3,4,7,8-PeCDF	<0.41		50	0.41	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,4,7,8-HxCDF	<0.34		50	0.34	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,6,7,8-HxCDF	0.63	J q	50	0.34	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
2,3,4,6,7,8-HxCDF	<0.44		50	0.44	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,7,8,9-HxCDF	0.90	J q	50	0.49	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,4,6,7,8-HpCDF	2.2	J B q	50	0.49	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
1,2,3,4,7,8,9-HpCDF	1.4	J q	50	0.70	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10
OCDF	3.5	J B	100	0.37	pg/g	☼	02/16/18 10:10	02/22/18 13:32	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	43		25 - 164	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,7,8-PeCDD	58		25 - 181	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,4,7,8-HxCDD	45		32 - 141	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,6,7,8-HxCDD	41		28 - 130	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,4,6,7,8-HpCDD	44		23 - 140	02/16/18 10:10	02/22/18 13:32	10
13C-OCDD	43		17 - 157	02/16/18 10:10	02/22/18 13:32	10
13C-2,3,7,8-TCDF	38		24 - 169	02/16/18 10:10	02/22/18 13:32	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417002

Lab Sample ID: 500-140832-2

Date Collected: 02/09/18 14:39

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.0

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,7,8-PeCDF	48		24 - 185	02/16/18 10:10	02/22/18 13:32	10
13C-2,3,4,7,8-PeCDF	46		21 - 178	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,4,7,8-HxCDF	36		26 - 152	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,6,7,8-HxCDF	33		26 - 123	02/16/18 10:10	02/22/18 13:32	10
13C-2,3,4,6,7,8-HxCDF	31		28 - 136	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,7,8,9-HxCDF	31		29 - 147	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,4,6,7,8-HpCDF	31		28 - 143	02/16/18 10:10	02/22/18 13:32	10
13C-1,2,3,4,7,8,9-HpCDF	31		26 - 138	02/16/18 10:10	02/22/18 13:32	10
13C-OCDF	34		17 - 157	02/16/18 10:10	02/22/18 13:32	10
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	70		35 - 197	02/16/18 10:10	02/22/18 13:32	10

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		1.8	0.60	mg/Kg	☼	02/13/18 14:50	02/14/18 13:30	1
Barium	52		1.8	0.20	mg/Kg	☼	02/13/18 14:50	02/14/18 13:30	1
Cadmium	0.76	B	0.35	0.063	mg/Kg	☼	02/13/18 14:50	02/14/18 13:30	1
Chromium	22		1.8	0.87	mg/Kg	☼	02/13/18 14:50	02/14/18 13:30	1
Lead	95	^	0.88	0.41	mg/Kg	☼	02/13/18 14:50	02/14/18 13:30	1
Selenium	1.2	J	1.8	1.0	mg/Kg	☼	02/13/18 14:50	02/14/18 13:30	1
Silver	0.70	J	0.88	0.23	mg/Kg	☼	02/13/18 14:50	02/14/18 13:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.58		0.030	0.010	mg/Kg	☼	02/14/18 14:00	02/15/18 12:09	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417003

Lab Sample ID: 500-140832-3

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 61.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<630		1400	630	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,1,1-Trichloroethane	<520		1400	520	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,1,2,2-Tetrachloroethane	<540		1400	540	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,1,2-Trichloroethane	<480		1400	480	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,1-Dichloroethane	<560		1400	560	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,1-Dichloroethene	<530		1400	530	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,1-Dichloropropene	<410		1400	410	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2,3-Trichlorobenzene	<630		1400	630	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2,3-Trichloropropane	<570		1400	570	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2,4-Trichlorobenzene	<470		1400	470	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2,4-Trimethylbenzene	<490		1400	490	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2-Dibromo-3-Chloropropane	<2700		6800	2700	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2-Dibromoethane	<530		1400	530	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2-Dichlorobenzene	<460		1400	460	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2-Dichloroethane	<540		1400	540	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,2-Dichloropropane	<590		1400	590	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,3,5-Trimethylbenzene	<520		1400	520	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,3-Dichlorobenzene	<550		1400	550	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,3-Dichloropropane	<490		1400	490	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
1,4-Dichlorobenzene	<500		1400	500	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
2,2-Dichloropropane	<610		1400	610	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
2-Butanone (MEK)	<2900		6800	2900	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
2-Chlorotoluene	<430		1400	430	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
4-Chlorotoluene	<480		1400	480	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Benzene	<200		340	200	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Bromobenzene	<490		1400	490	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Bromochloromethane	<590		1400	590	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Bromodichloromethane	<510		1400	510	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Bromoform	<660		1400	660	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Bromomethane	<1100 *		2700	1100	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Carbon tetrachloride	<530		1400	530	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Chlorobenzene	<530		1400	530	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Chloroethane	<690		1400	690	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Chloroform	<510		2700	510	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Chloromethane	<440		1400	440	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
cis-1,2-Dichloroethene	<560		1400	560	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
cis-1,3-Dichloropropene	<570		1400	570	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Dibromochloromethane	<670		1400	670	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Dibromomethane	<370		1400	370	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Dichlorodifluoromethane	<920		2700	920	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Ethylbenzene	<250		340	250	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Hexachlorobutadiene	<610		1400	610	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Hexane	<670		1400	670	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Isopropyl ether	<380		1400	380	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Isopropylbenzene	<530		1400	530	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Methyl tert-butyl ether	<540		1400	540	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Methylene Chloride	<2200		6800	2200	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
n-Butylbenzene	<530		1400	530	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
N-Propylbenzene	<570		1400	570	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417003

Lab Sample ID: 500-140832-3

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 61.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<490		1400	490	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
sec-Butylbenzene	1100	J	1400	540	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Styrene	<530		1400	530	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
tert-Butylbenzene	<540		1400	540	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Tetrachloroethene	<510		1400	510	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Toluene	<200		340	200	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
trans-1,2-Dichloroethene	<480		1400	480	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
trans-1,3-Dichloropropene	<490		1400	490	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Trichloroethene	<220		680	220	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Trichlorofluoromethane	<590		1400	590	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Vinyl chloride	<360		680	360	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500
Xylenes, Total	<300		680	300	ug/Kg	☼	02/09/18 14:43	02/22/18 10:40	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 126	02/09/18 14:43	02/22/18 10:40	500
4-Bromofluorobenzene (Surr)	99		72 - 124	02/09/18 14:43	02/22/18 10:40	500
Dibromofluoromethane	84		75 - 120	02/09/18 14:43	02/22/18 10:40	500
Toluene-d8 (Surr)	104		75 - 120	02/09/18 14:43	02/22/18 10:40	500

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<56		260	56	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
1,2-Dichlorobenzene	<63		260	63	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
1,3-Dichlorobenzene	<59		260	59	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
1,4-Dichlorobenzene	230	J	260	67	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
1-Methylnaphthalene	1800		110	13	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2,2'-oxybis[1-chloropropane]	<61		260	61	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2,4,5-Trichlorophenol	<120		520	120	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2,4,6-Trichlorophenol	<180		520	180	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2,4-Dichlorophenol	<120		520	120	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2,4-Dimethylphenol	<200		520	200	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2,4-Dinitrophenol	<920		1100	920	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2,4-Dinitrotoluene	<83		260	83	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2,6-Dinitrotoluene	<100		260	100	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2-Chloronaphthalene	<58		260	58	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2-Chlorophenol	<89		260	89	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2-Methylnaphthalene	2400		110	9.6	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2-Methylphenol	<84		260	84	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2-Nitroaniline	<70		260	70	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
2-Nitrophenol	<120		520	120	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
3 & 4 Methylphenol	340		260	87	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
3,3'-Dichlorobenzidine	<73		260	73	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
3-Nitroaniline	<160		520	160	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
4,6-Dinitro-2-methylphenol	<420		1100	420	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
4-Bromophenyl phenyl ether	<69		260	69	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
4-Chloro-3-methylphenol	<180		520	180	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
4-Chloroaniline	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
4-Chlorophenyl phenyl ether	<61		260	61	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
4-Nitroaniline	<220		520	220	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
4-Nitrophenol	<500		1100	500	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417003

Lab Sample ID: 500-140832-3

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 61.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1800		52	9.4	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Acenaphthylene	340		52	6.9	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Anthracene	1600		52	8.8	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Benzo[a]anthracene	1300		52	7.0	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Benzo[a]pyrene	1300		52	10	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Benzo[b]fluoranthene	1300		52	11	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Benzo[g,h,i]perylene	380		52	17	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Benzo[k]fluoranthene	870		52	15	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Benzoic acid	<520		2600	520	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Benzyl alcohol	<520		1100	520	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Bis(2-chloroethoxy)methane	<53		260	53	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Bis(2-chloroethyl)ether	<79		260	79	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Bis(2-ethylhexyl) phthalate	300		260	96	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Butyl benzyl phthalate	<100		260	100	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Carbazole	170	J	260	130	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Chrysene	1400		52	14	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Dibenz(a,h)anthracene	89		52	10	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Dibenzofuran	340		260	61	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Diethyl phthalate	<89		260	89	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Dimethyl phthalate	<68		260	68	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Di-n-butyl phthalate	<80		260	80	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Di-n-octyl phthalate	<85		260	85	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Fluoranthene	3100		52	9.7	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Fluorene	1100		52	7.4	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Hexachlorobenzene	<12		110	12	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Hexachlorobutadiene	<82		260	82	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Hexachlorocyclopentadiene	<300		1100	300	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Hexachloroethane	<80		260	80	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Indeno[1,2,3-cd]pyrene	340		52	14	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Isophorone	<59		260	59	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Naphthalene	1100		52	8.1	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Nitrobenzene	<13		52	13	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
N-Nitrosodi-n-propylamine	<64		110	64	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
N-Nitrosodiphenylamine	<62		260	62	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Pentachlorophenol	<840		1100	840	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Phenol	<120		260	120	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1
Pyrene	3100		52	10	ug/Kg	☼	02/13/18 17:39	02/14/18 11:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	137		25 - 139	02/13/18 17:39	02/14/18 11:59	1
2-Fluorobiphenyl (Surr)	81		44 - 121	02/13/18 17:39	02/14/18 11:59	1
2-Fluorophenol (Surr)	106		46 - 133	02/13/18 17:39	02/14/18 11:59	1
Nitrobenzene-d5 (Surr)	72		41 - 120	02/13/18 17:39	02/14/18 11:59	1
Phenol-d5 (Surr)	84		46 - 125	02/13/18 17:39	02/14/18 11:59	1
Terphenyl-d14 (Surr)	87		35 - 160	02/13/18 17:39	02/14/18 11:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	6200		260	37	ug/Kg	☼	02/13/18 17:39	02/16/18 15:21	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417003

Lab Sample ID: 500-140832-3

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 61.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<90		260	90	ug/Kg	☼	02/13/18 16:24	02/14/18 11:02	10
PCB-1221	<110		260	110	ug/Kg	☼	02/13/18 16:24	02/14/18 11:02	10
PCB-1232	<110		260	110	ug/Kg	☼	02/13/18 16:24	02/14/18 11:02	10
PCB-1242	1100		260	84	ug/Kg	☼	02/13/18 16:24	02/14/18 11:02	10
PCB-1248	<100		260	100	ug/Kg	☼	02/13/18 16:24	02/14/18 11:02	10
PCB-1254	790		260	55	ug/Kg	☼	02/13/18 16:24	02/14/18 11:02	10
PCB-1260	<130		260	130	ug/Kg	☼	02/13/18 16:24	02/14/18 11:02	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	125		49 - 129	02/13/18 16:24	02/14/18 11:02	10
DCB Decachlorobiphenyl	104		37 - 121	02/13/18 16:24	02/14/18 11:02	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	8.0		4.9	0.87	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,7,8-PeCDD	11	J	25	0.47	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,4,7,8-HxCDD	12	J	25	0.82	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,6,7,8-HxCDD	100		25	0.87	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,7,8,9-HxCDD	34		25	0.79	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,4,6,7,8-HpCDD	2500		25	1.5	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
OCDD	33000	E B	49	2.7	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
2,3,7,8-TCDF	18	q	4.9	0.84	pg/g	☼	02/16/18 10:10	02/23/18 03:28	5
1,2,3,7,8-PeCDF	3.3	J S	25	0.36	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
2,3,4,7,8-PeCDF	6.4	J I	25	0.41	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,4,7,8-HxCDF	35	I	25	2.0	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,6,7,8-HxCDF	16	J	25	2.0	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
2,3,4,6,7,8-HxCDF	12	J	25	2.2	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,7,8,9-HxCDF	<2.3		25	2.3	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,4,6,7,8-HpCDF	1000	B	25	0.91	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
1,2,3,4,7,8,9-HpCDF	36		25	1.3	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5
OCDF	2300	B	49	1.7	pg/g	☼	02/16/18 10:10	02/22/18 03:28	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	55		25 - 164	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,7,8-PeCDD	66		25 - 181	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,4,7,8-HxCDD	55		32 - 141	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,6,7,8-HxCDD	48		28 - 130	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,4,6,7,8-HpCDD	55		23 - 140	02/16/18 10:10	02/22/18 03:28	5
13C-OCDD	35		17 - 157	02/16/18 10:10	02/22/18 03:28	5
13C-2,3,7,8-TCDF	49		24 - 169	02/16/18 10:10	02/22/18 03:28	5
13C-2,3,7,8-TCDF	69		24 - 169	02/16/18 10:10	02/23/18 03:28	5
13C-1,2,3,7,8-PeCDF	54		24 - 185	02/16/18 10:10	02/22/18 03:28	5
13C-2,3,4,7,8-PeCDF	56		21 - 178	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,4,7,8-HxCDF	45		26 - 152	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,6,7,8-HxCDF	40		26 - 123	02/16/18 10:10	02/22/18 03:28	5
13C-2,3,4,6,7,8-HxCDF	41		28 - 136	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,7,8,9-HxCDF	43		29 - 147	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,4,6,7,8-HpCDF	39	q	28 - 143	02/16/18 10:10	02/22/18 03:28	5
13C-1,2,3,4,7,8,9-HpCDF	40		26 - 138	02/16/18 10:10	02/22/18 03:28	5
13C-OCDF	34		17 - 157	02/16/18 10:10	02/22/18 03:28	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417003

Lab Sample ID: 500-140832-3

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 61.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	65		35 - 197	02/16/18 10:10	02/22/18 03:28	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		1.4	0.47	mg/Kg	☼	02/13/18 14:50	02/14/18 13:34	1
Barium	74		1.4	0.16	mg/Kg	☼	02/13/18 14:50	02/14/18 13:34	1
Cadmium	0.67	B	0.28	0.050	mg/Kg	☼	02/13/18 14:50	02/14/18 13:34	1
Chromium	17		1.4	0.68	mg/Kg	☼	02/13/18 14:50	02/14/18 13:34	1
Lead	120	^	0.69	0.32	mg/Kg	☼	02/13/18 14:50	02/14/18 13:34	1
Selenium	0.82	J	1.4	0.81	mg/Kg	☼	02/13/18 14:50	02/14/18 13:34	1
Silver	1.2		0.69	0.18	mg/Kg	☼	02/13/18 14:50	02/14/18 13:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.9		0.51	0.17	mg/Kg	☼	02/14/18 14:00	02/15/18 13:40	20

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417004

Lab Sample ID: 500-140832-4

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 73.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<150		330	150	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,1,1-Trichloroethane	<120		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,1,1,2,2-Tetrachloroethane	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,1,2-Trichloroethane	<110		330	110	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,1-Dichloroethane	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,1-Dichloroethene	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,1-Dichloropropene	<97		330	97	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2,3-Trichlorobenzene	<150		330	150	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2,3-Trichloropropane	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2,4-Trichlorobenzene	<110		330	110	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2,4-Trimethylbenzene	5800		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2-Dibromo-3-Chloropropane	<650		1600	650	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2-Dibromoethane	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2-Dichlorobenzene	<110		330	110	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2-Dichloroethane	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,2-Dichloropropane	<140		330	140	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,3,5-Trimethylbenzene	1800		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,3-Dichlorobenzene	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,3-Dichloropropane	<120		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
1,4-Dichlorobenzene	<120		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
2,2-Dichloropropane	<140		330	140	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
2-Butanone (MEK)	<690		1600	690	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
2-Chlorotoluene	<100		330	100	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
4-Chlorotoluene	<110		330	110	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Benzene	2800		82	48	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Bromobenzene	<120		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Bromochloromethane	<140		330	140	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Bromodichloromethane	<120		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Bromoform	<160		330	160	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Bromomethane	<260 *		650	260	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Carbon tetrachloride	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Chlorobenzene	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Chloroethane	<160		330	160	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Chloroform	<120		650	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Chloromethane	<100		330	100	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
cis-1,2-Dichloroethene	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
cis-1,3-Dichloropropene	<140		330	140	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Dibromochloromethane	<160		330	160	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Dibromomethane	<88		330	88	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Dichlorodifluoromethane	<220		650	220	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Ethylbenzene	16000		82	60	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Hexachlorobutadiene	<150		330	150	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Hexane	<160		330	160	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Isopropyl ether	<90		330	90	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Isopropylbenzene	1100		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Methyl tert-butyl ether	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Methylene Chloride	<530		1600	530	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
n-Butylbenzene	260 J		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
N-Propylbenzene	240 J		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200

TestAmerica Chicago

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Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417004

Lab Sample ID: 500-140832-4

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 73.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	450		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
sec-Butylbenzene	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Styrene	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
tert-Butylbenzene	<130		330	130	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Tetrachloroethene	<120		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Toluene	5100		82	48	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
trans-1,2-Dichloroethene	<110		330	110	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
trans-1,3-Dichloropropene	<120		330	120	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Trichloroethene	<53		160	53	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Trichlorofluoromethane	<140		330	140	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Vinyl chloride	<85		160	85	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200
Xylenes, Total	16000		160	72	ug/Kg	☼	02/09/18 14:43	02/22/18 11:07	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 126	02/09/18 14:43	02/22/18 11:07	200
4-Bromofluorobenzene (Surr)	96		72 - 124	02/09/18 14:43	02/22/18 11:07	200
Dibromofluoromethane	84		75 - 120	02/09/18 14:43	02/22/18 11:07	200
Toluene-d8 (Surr)	102		75 - 120	02/09/18 14:43	02/22/18 11:07	200

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126	02/09/18 14:43	02/22/18 11:35	2000
4-Bromofluorobenzene (Surr)	103		72 - 124	02/09/18 14:43	02/22/18 11:35	2000
Dibromofluoromethane	85		75 - 120	02/09/18 14:43	02/22/18 11:35	2000
Toluene-d8 (Surr)	102		75 - 120	02/09/18 14:43	02/22/18 11:35	2000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
1,2-Dichlorobenzene	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
1,3-Dichlorobenzene	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
1,4-Dichlorobenzene	<280		1100	280	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2,2'-oxybis[1-chloropropane]	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2,4,5-Trichlorophenol	<500		2200	500	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2,4,6-Trichlorophenol	<760		2200	760	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2,4-Dichlorophenol	<530		2200	530	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2,4-Dimethylphenol	<840		2200	840	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2,4-Dinitrophenol	<3900		4500	3900	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2,4-Dinitrotoluene	<350		1100	350	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2,6-Dinitrotoluene	<440		1100	440	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2-Chloronaphthalene	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2-Chlorophenol	<380		1100	380	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2-Methylphenol	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2-Nitroaniline	<300		1100	300	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
2-Nitrophenol	<520		2200	520	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
3 & 4 Methylphenol	<370		1100	370	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
3,3'-Dichlorobenzidine	<310		1100	310	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
3-Nitroaniline	<690		2200	690	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
4,6-Dinitro-2-methylphenol	<1800		4500	1800	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
4-Bromophenyl phenyl ether	<290		1100	290	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5

TestAmerica Chicago

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TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417004

Lab Sample ID: 500-140832-4

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 73.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	<750		2200	750	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
4-Chloroaniline	<1000		4500	1000	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
4-Chlorophenyl phenyl ether	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
4-Nitroaniline	<930		2200	930	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
4-Nitrophenol	<2100		4500	2100	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Acenaphthylene	15000		220	29	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Benzo[a]anthracene	7500		220	30	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Benzo[a]pyrene	6300		220	43	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Benzo[b]fluoranthene	5000		220	48	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Benzo[g,h,i]perylene	2700		220	71	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Benzo[k]fluoranthene	2100		220	65	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Benzoic acid	<2200		11000	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Benzyl alcohol	<2200		4500	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Bis(2-chloroethoxy)methane	<230		1100	230	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Bis(2-chloroethyl)ether	<330		1100	330	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Bis(2-ethylhexyl) phthalate	<400		1100	400	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Butyl benzyl phthalate	<420		1100	420	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Carbazole	2200		1100	550	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Chrysene	6700		220	60	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Dibenz(a,h)anthracene	630		220	43	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Dibenzofuran	4400		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Diethyl phthalate	<380		1100	380	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Dimethyl phthalate	<290		1100	290	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Di-n-butyl phthalate	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Di-n-octyl phthalate	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Hexachlorobenzene	<51		450	51	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Hexachlorobutadiene	<350		1100	350	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Hexachlorocyclopentadiene	<1300		4500	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Hexachloroethane	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Indeno[1,2,3-cd]pyrene	2000		220	57	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Isophorone	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Nitrobenzene	<55		220	55	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
N-Nitrosodi-n-propylamine	<270		450	270	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
N-Nitrosodiphenylamine	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Pentachlorophenol	<3600		4500	3600	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5
Phenol	<490		1100	490	ug/Kg	☼	02/13/18 17:39	02/14/18 11:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	113		25 - 139	02/13/18 17:39	02/14/18 11:32	5
2-Fluorobiphenyl (Surr)	78		44 - 121	02/13/18 17:39	02/14/18 11:32	5
2-Fluorophenol (Surr)	79		46 - 133	02/13/18 17:39	02/14/18 11:32	5
Nitrobenzene-d5 (Surr)	65		41 - 120	02/13/18 17:39	02/14/18 11:32	5
Phenol-d5 (Surr)	77		46 - 125	02/13/18 17:39	02/14/18 11:32	5
Terphenyl-d14 (Surr)	86		35 - 160	02/13/18 17:39	02/14/18 11:32	5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	79000		4500	540	ug/Kg	☼	02/13/18 17:39	02/16/18 02:58	50
2-Methylnaphthalene	120000		4500	410	ug/Kg	☼	02/13/18 17:39	02/16/18 02:58	50
Acenaphthene	56000		2200	400	ug/Kg	☼	02/13/18 17:39	02/16/18 02:58	50

TestAmerica Chicago

Client Sample Results

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TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417004

Lab Sample ID: 500-140832-4

Date Collected: 02/09/18 14:43

Matrix: Solid

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Percent Solids: 73.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	28000		2200	370	ug/Kg	☼	02/13/18 17:39	02/16/18 02:58	50
Fluoranthene	24000		2200	410	ug/Kg	☼	02/13/18 17:39	02/16/18 02:58	50
Fluorene	36000		2200	310	ug/Kg	☼	02/13/18 17:39	02/16/18 02:58	50
Phenanthrene	85000		2200	310	ug/Kg	☼	02/13/18 17:39	02/16/18 02:58	50
Pyrene	49000		2200	440	ug/Kg	☼	02/13/18 17:39	02/16/18 02:58	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	210000		4400	680	ug/Kg	☼	02/13/18 17:39	02/16/18 15:47	100

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<78		220	78	ug/Kg	☼	02/13/18 16:24	02/14/18 11:18	10
PCB-1221	<97		220	97	ug/Kg	☼	02/13/18 16:24	02/14/18 11:18	10
PCB-1232	<96		220	96	ug/Kg	☼	02/13/18 16:24	02/14/18 11:18	10
PCB-1242	<72		220	72	ug/Kg	☼	02/13/18 16:24	02/14/18 11:18	10
PCB-1248	<87		220	87	ug/Kg	☼	02/13/18 16:24	02/14/18 11:18	10
PCB-1254	<48		220	48	ug/Kg	☼	02/13/18 16:24	02/14/18 11:18	10
PCB-1260	<110		220	110	ug/Kg	☼	02/13/18 16:24	02/14/18 11:18	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		49 - 129	02/13/18 16:24	02/14/18 11:18	10
DCB Decachlorobiphenyl	105		37 - 121	02/13/18 16:24	02/14/18 11:18	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.17		0.99	0.17	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,7,8-PeCDD	<0.097		4.9	0.097	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,4,7,8-HxCDD	<0.34		4.9	0.34	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,6,7,8-HxCDD	<0.39		4.9	0.39	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,7,8,9-HxCDD	<0.34		4.9	0.34	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,4,6,7,8-HpCDD	1.7	J	4.9	0.096	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
OCDD	12	B	9.9	0.14	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
2,3,7,8-TCDF	<0.21		0.99	0.21	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,7,8-PeCDF	<0.32		4.9	0.32	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
2,3,4,7,8-PeCDF	<0.29		4.9	0.29	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,4,7,8-HxCDF	4.2	J I	4.9	0.14	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,6,7,8-HxCDF	<0.15		4.9	0.15	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
2,3,4,6,7,8-HxCDF	<0.14		4.9	0.14	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,7,8,9-HxCDF	<0.16		4.9	0.16	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,4,6,7,8-HpCDF	0.70	J q B	4.9	0.075	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
1,2,3,4,7,8,9-HpCDF	<0.090		4.9	0.090	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1
OCDF	0.87	J q B	9.9	0.12	pg/g	☼	02/16/18 10:10	02/21/18 21:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
¹³ C-2,3,7,8-TCDD	70		25 - 164	02/16/18 10:10	02/21/18 21:27	1
¹³ C-1,2,3,7,8-PeCDD	79		25 - 181	02/16/18 10:10	02/21/18 21:27	1
¹³ C-1,2,3,4,7,8-HxCDD	68		32 - 141	02/16/18 10:10	02/21/18 21:27	1
¹³ C-1,2,3,6,7,8-HxCDD	64		28 - 130	02/16/18 10:10	02/21/18 21:27	1
¹³ C-1,2,3,4,6,7,8-HpCDD	97		23 - 140	02/16/18 10:10	02/21/18 21:27	1
¹³ C-OCDD	91		17 - 157	02/16/18 10:10	02/21/18 21:27	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417004

Lab Sample ID: 500-140832-4

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 73.9

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C-2,3,7,8-TCDF	66		24 - 169	02/16/18 10:10	02/21/18 21:27	1
13C-1,2,3,7,8-PeCDF	77		24 - 185	02/16/18 10:10	02/21/18 21:27	1
13C-2,3,4,7,8-PeCDF	76		21 - 178	02/16/18 10:10	02/21/18 21:27	1
13C-1,2,3,4,7,8-HxCDF	65		26 - 152	02/16/18 10:10	02/21/18 21:27	1
13C-1,2,3,6,7,8-HxCDF	60		26 - 123	02/16/18 10:10	02/21/18 21:27	1
13C-2,3,4,6,7,8-HxCDF	69		28 - 136	02/16/18 10:10	02/21/18 21:27	1
13C-1,2,3,7,8,9-HxCDF	71		29 - 147	02/16/18 10:10	02/21/18 21:27	1
13C-1,2,3,4,6,7,8-HpCDF	70		28 - 143	02/16/18 10:10	02/21/18 21:27	1
13C-1,2,3,4,7,8,9-HpCDF	84		26 - 138	02/16/18 10:10	02/21/18 21:27	1
13C-OCDF	84		17 - 157	02/16/18 10:10	02/21/18 21:27	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	79		35 - 197	02/16/18 10:10	02/21/18 21:27	1

Method: 6010C - Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Arsenic	3.3		1.3	0.45	mg/Kg	☼	02/13/18 14:50	02/14/18 13:37	1
Barium	100		1.3	0.15	mg/Kg	☼	02/13/18 14:50	02/14/18 13:37	1
Cadmium	0.062	J B	0.26	0.047	mg/Kg	☼	02/13/18 14:50	02/14/18 13:37	1
Chromium	29		1.3	0.65	mg/Kg	☼	02/13/18 14:50	02/14/18 13:37	1
Lead	9.9	^	0.66	0.30	mg/Kg	☼	02/13/18 14:50	02/14/18 13:37	1
Selenium	<0.77		1.3	0.77	mg/Kg	☼	02/13/18 14:50	02/14/18 13:37	1
Silver	<0.17		0.66	0.17	mg/Kg	☼	02/13/18 14:50	02/14/18 13:37	1

Method: 7471B - Mercury (CVAA)

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Mercury	0.020	J	0.022	0.0072	mg/Kg	☼	02/14/18 14:00	02/15/18 13:43	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Date Collected: 02/09/18 14:48

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<44		95	44	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,1,1-Trichloroethane	<36		95	36	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,1,1,2,2-Tetrachloroethane	<38		95	38	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,1,2-Trichloroethane	<33		95	33	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,1-Dichloroethane	<39		95	39	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,1-Dichloroethene	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,1-Dichloropropene	<28		95	28	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2,3-Trichlorobenzene	<44		95	44	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2,3-Trichloropropane	<39		95	39	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2,4-Trichlorobenzene	<33		95	33	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2,4-Trimethylbenzene	<34		95	34	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2-Dibromo-3-Chloropropane	<190		480	190	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2-Dibromoethane	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2-Dichlorobenzene	<32		95	32	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2-Dichloroethane	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,2-Dichloropropane	<41		95	41	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,3,5-Trimethylbenzene	<36		95	36	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,3-Dichlorobenzene	<38		95	38	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,3-Dichloropropane	<34		95	34	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
1,4-Dichlorobenzene	<35		95	35	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
2,2-Dichloropropane	<42		95	42	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
2-Butanone (MEK)	<200		480	200	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
2-Chlorotoluene	<30		95	30	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
4-Chlorotoluene	<33		95	33	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Benzene	<14		24	14	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Bromobenzene	<34		95	34	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Bromochloromethane	<41		95	41	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Bromodichloromethane	<35		95	35	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Bromoform	<46		95	46	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Bromomethane	<76 *		190	76	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Carbon tetrachloride	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Chlorobenzene	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Chloroethane	<48		95	48	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Chloroform	<35		190	35	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Chloromethane	<30		95	30	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
cis-1,2-Dichloroethene	<39		95	39	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
cis-1,3-Dichloropropene	<40		95	40	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Dibromochloromethane	<46		95	46	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Dibromomethane	<26		95	26	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Dichlorodifluoromethane	<64		190	64	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Ethylbenzene	18 J		24	17	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Hexachlorobutadiene	<42		95	42	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Hexane	<47		95	47	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Isopropyl ether	<26		95	26	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Isopropylbenzene	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Methyl tert-butyl ether	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Methylene Chloride	<150		480	150	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
n-Butylbenzene	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
N-Propylbenzene	<39		95	39	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Date Collected: 02/09/18 14:48

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<34		95	34	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
sec-Butylbenzene	<38		95	38	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Styrene	<37		95	37	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
tert-Butylbenzene	<38		95	38	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Tetrachloroethene	<35		95	35	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Toluene	86		24	14	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
trans-1,2-Dichloroethene	<33		95	33	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
trans-1,3-Dichloropropene	<34		95	34	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Trichloroethene	<16		48	16	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Trichlorofluoromethane	<41		95	41	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Vinyl chloride	<25		48	25	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Xylenes, Total	53		48	21	ug/Kg	☼	02/09/18 14:48	02/22/18 12:03	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126				02/09/18 14:48	02/22/18 12:03	50
4-Bromofluorobenzene (Surr)	96		72 - 124				02/09/18 14:48	02/22/18 12:03	50
Dibromofluoromethane	85		75 - 120				02/09/18 14:48	02/22/18 12:03	50
Toluene-d8 (Surr)	102		75 - 120				02/09/18 14:48	02/22/18 12:03	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<250		1200	250	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
1,2-Dichlorobenzene	<280		1200	280	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
1,3-Dichlorobenzene	<260		1200	260	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
1,4-Dichlorobenzene	<300		1200	300	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
1-Methylnaphthalene	1800		470	57	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2,2'-oxybis[1-chloropropane]	<270		1200	270	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2,4,5-Trichlorophenol	<530		2300	530	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2,4,6-Trichlorophenol	<800		2300	800	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2,4-Dichlorophenol	<560		2300	560	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2,4-Dimethylphenol	<890		2300	890	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2,4-Dinitrophenol	<4100		4700	4100	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2,4-Dinitrotoluene	<370		1200	370	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2,6-Dinitrotoluene	<460		1200	460	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2-Chloronaphthalene	<260		1200	260	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2-Chlorophenol	<400		1200	400	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2-Methylnaphthalene	2400		470	43	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2-Methylphenol	<380		1200	380	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2-Nitroaniline	<310		1200	310	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
2-Nitrophenol	<550		2300	550	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
3 & 4 Methylphenol	<390		1200	390	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
3,3'-Dichlorobenzidine	<330		1200	330	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
3-Nitroaniline	<730		2300	730	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
4,6-Dinitro-2-methylphenol	<1900		4700	1900	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
4-Bromophenyl phenyl ether	<310		1200	310	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
4-Chloro-3-methylphenol	<800		2300	800	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
4-Chloroaniline	<1100		4700	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
4-Chlorophenyl phenyl ether	<270		1200	270	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
4-Nitroaniline	<980		2300	980	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
4-Nitrophenol	<2200		4700	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Date Collected: 02/09/18 14:48

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3200		230	42	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Acenaphthylene	1700		230	31	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Anthracene	4000		230	39	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Benzo[a]anthracene	7700		230	31	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Benzo[a]pyrene	8200		230	45	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Benzo[b]fluoranthene	8500		230	50	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Benzo[g,h,i]perylene	3200		230	75	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Benzo[k]fluoranthene	3400		230	69	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Benzoic acid	<2300		12000	2300	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Benzyl alcohol	<2300		4700	2300	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Bis(2-chloroethoxy)methane	<240		1200	240	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Bis(2-chloroethyl)ether	<350		1200	350	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Bis(2-ethylhexyl) phthalate	<430		1200	430	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Butyl benzyl phthalate	<440		1200	440	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Carbazole	<580		1200	580	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Chrysene	6900		230	64	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Dibenz(a,h)anthracene	790		230	45	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Dibenzofuran	820 J		1200	270	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Diethyl phthalate	<400		1200	400	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Dimethyl phthalate	<310		1200	310	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Di-n-butyl phthalate	<360		1200	360	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Di-n-octyl phthalate	<380		1200	380	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Fluoranthene	14000		230	43	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Fluorene	2100		230	33	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Hexachlorobenzene	<54		470	54	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Hexachlorobutadiene	<370		1200	370	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Hexachlorocyclopentadiene	<1300		4700	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Hexachloroethane	<360		1200	360	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Indeno[1,2,3-cd]pyrene	2800		230	61	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Isophorone	<260		1200	260	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Naphthalene	2400		230	36	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Nitrobenzene	<58		230	58	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
N-Nitrosodi-n-propylamine	<290		470	290	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
N-Nitrosodiphenylamine	<280		1200	280	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Pentachlorophenol	<3800		4700	3800	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Phenanthrene	12000		230	33	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Phenol	<520		1200	520	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5
Pyrene	12000		230	46	ug/Kg	☼	02/13/18 17:39	02/14/18 12:25	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	143	X	25 - 139	02/13/18 17:39	02/14/18 12:25	5
2-Fluorobiphenyl (Surr)	93		44 - 121	02/13/18 17:39	02/14/18 12:25	5
2-Fluorophenol (Surr)	87		46 - 133	02/13/18 17:39	02/14/18 12:25	5
Nitrobenzene-d5 (Surr)	70		41 - 120	02/13/18 17:39	02/14/18 12:25	5
Phenol-d5 (Surr)	84		46 - 125	02/13/18 17:39	02/14/18 12:25	5
Terphenyl-d14 (Surr)	91		35 - 160	02/13/18 17:39	02/14/18 12:25	5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<81		230	81	ug/Kg	☼	02/13/18 16:24	02/14/18 11:33	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Date Collected: 02/09/18 14:48

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	<100		230	100	ug/Kg	☼	02/13/18 16:24	02/14/18 11:33	10
PCB-1232	<100		230	100	ug/Kg	☼	02/13/18 16:24	02/14/18 11:33	10
PCB-1242	1900		230	76	ug/Kg	☼	02/13/18 16:24	02/14/18 11:33	10
PCB-1248	<91		230	91	ug/Kg	☼	02/13/18 16:24	02/14/18 11:33	10
PCB-1254	490		230	50	ug/Kg	☼	02/13/18 16:24	02/14/18 11:33	10
PCB-1260	<110		230	110	ug/Kg	☼	02/13/18 16:24	02/14/18 11:33	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	97		49 - 129	02/13/18 16:24	02/14/18 11:33	10
DCB Decachlorobiphenyl	120		37 - 121	02/13/18 16:24	02/14/18 11:33	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	1.5		0.96	0.19	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,7,8-PeCDD	2.2	J	4.8	0.12	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,4,7,8-HxCDD	3.6	J	4.8	0.27	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,6,7,8-HxCDD	27		4.8	0.32	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,7,8,9-HxCDD	8.3		4.8	0.27	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,4,6,7,8-HpCDD	780		4.8	0.13	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
OCDD	11000	E B	9.6	0.42	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
2,3,7,8-TCDF	11		0.96	0.23	pg/g	☼	02/16/18 10:10	02/23/18 04:05	1
1,2,3,7,8-PeCDF	1.5	J S	4.8	0.067	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
2,3,4,7,8-PeCDF	2.5	J	4.8	0.076	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,4,7,8-HxCDF	12	I	4.8	0.79	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,6,7,8-HxCDF	5.7		4.8	0.75	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
2,3,4,6,7,8-HxCDF	3.1	J	4.8	0.78	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,7,8,9-HxCDF	<0.84		4.8	0.84	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,4,6,7,8-HpCDF	270	B	4.8	0.21	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
1,2,3,4,7,8,9-HpCDF	11		4.8	0.28	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1
OCDF	970	B	9.6	0.20	pg/g	☼	02/16/18 10:10	02/22/18 04:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	65		25 - 164	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,7,8-PeCDD	85		25 - 181	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,4,7,8-HxCDD	65		32 - 141	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,6,7,8-HxCDD	63		28 - 130	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,4,6,7,8-HpCDD	83		23 - 140	02/16/18 10:10	02/22/18 04:29	1
13C-OCDD	84		17 - 157	02/16/18 10:10	02/22/18 04:29	1
13C-2,3,7,8-TCDF	57		24 - 169	02/16/18 10:10	02/22/18 04:29	1
13C-2,3,7,8-TCDF	86		24 - 169	02/16/18 10:10	02/23/18 04:05	1
13C-1,2,3,7,8-PeCDF	61		24 - 185	02/16/18 10:10	02/22/18 04:29	1
13C-2,3,4,7,8-PeCDF	73		21 - 178	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,4,7,8-HxCDF	55		26 - 152	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,6,7,8-HxCDF	51		26 - 123	02/16/18 10:10	02/22/18 04:29	1
13C-2,3,4,6,7,8-HxCDF	59		28 - 136	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,7,8,9-HxCDF	59		29 - 147	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,4,6,7,8-HpCDF	55		28 - 143	02/16/18 10:10	02/22/18 04:29	1
13C-1,2,3,4,7,8,9-HpCDF	63		26 - 138	02/16/18 10:10	02/22/18 04:29	1
13C-OCDF	70		17 - 157	02/16/18 10:10	02/22/18 04:29	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Date Collected: 02/09/18 14:48

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	74		35 - 197	02/16/18 10:10	02/22/18 04:29	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		1.2	0.42	mg/Kg	☼	02/13/18 14:50	02/14/18 13:41	1
Barium	80		1.2	0.14	mg/Kg	☼	02/13/18 14:50	02/14/18 13:41	1
Cadmium	0.75	B	0.25	0.044	mg/Kg	☼	02/13/18 14:50	02/14/18 13:41	1
Chromium	19		1.2	0.61	mg/Kg	☼	02/13/18 14:50	02/14/18 13:41	1
Lead	110	^	0.62	0.28	mg/Kg	☼	02/13/18 14:50	02/14/18 13:41	1
Selenium	<0.72		1.2	0.72	mg/Kg	☼	02/13/18 14:50	02/14/18 13:41	1
Silver	0.54	J	0.62	0.16	mg/Kg	☼	02/13/18 14:50	02/14/18 13:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.3		0.11	0.037	mg/Kg	☼	02/14/18 14:00	02/15/18 13:45	5

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417006

Lab Sample ID: 500-140832-6

Date Collected: 02/09/18 14:50

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<160		360	160	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,1,1-Trichloroethane	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,1,2,2-Tetrachloroethane	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,1,2-Trichloroethane	<130		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,1-Dichloroethane	<150		360	150	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,1-Dichloroethene	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,1-Dichloropropene	<110		360	110	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2,3-Trichlorobenzene	<160		360	160	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2,3-Trichloropropane	<150		360	150	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2,4-Trichlorobenzene	<120		360	120	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2,4-Trimethylbenzene	5500		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2-Dibromo-3-Chloropropane	<710		1800	710	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2-Dibromoethane	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2-Dichlorobenzene	<120		360	120	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2-Dichloroethane	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,2-Dichloropropane	<150		360	150	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,3,5-Trimethylbenzene	1700		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,3-Dichlorobenzene	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,3-Dichloropropane	<130		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
1,4-Dichlorobenzene	<130		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
2,2-Dichloropropane	<160		360	160	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
2-Butanone (MEK)	<760		1800	760	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
2-Chlorotoluene	<110		360	110	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
4-Chlorotoluene	<120		360	120	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Benzene	6800		89	52	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Bromobenzene	<130		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Bromochloromethane	<150		360	150	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Bromodichloromethane	<130		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Bromoform	<170		360	170	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Bromomethane	<280 *		710	280	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Carbon tetrachloride	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Chlorobenzene	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Chloroethane	<180		360	180	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Chloroform	<130		710	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Chloromethane	<110		360	110	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
cis-1,2-Dichloroethene	<150		360	150	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
cis-1,3-Dichloropropene	<150		360	150	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Dibromochloromethane	<170		360	170	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Dibromomethane	<96		360	96	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Dichlorodifluoromethane	<240		710	240	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Ethylbenzene	17000		89	65	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Hexachlorobutadiene	<160		360	160	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Hexane	<180		360	180	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Isopropyl ether	<99		360	99	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Isopropylbenzene	1100		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Methyl tert-butyl ether	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Methylene Chloride	<580		1800	580	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
n-Butylbenzene	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
N-Propylbenzene	220 J		360	150	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417006

Lab Sample ID: 500-140832-6

Date Collected: 02/09/18 14:50

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	440		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
sec-Butylbenzene	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Styrene	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
tert-Butylbenzene	<140		360	140	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Tetrachloroethene	<130		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Toluene	15000		89	52	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
trans-1,2-Dichloroethene	<120		360	120	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
trans-1,3-Dichloropropene	<130		360	130	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Trichloroethene	<59		180	59	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Trichlorofluoromethane	<150		360	150	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Vinyl chloride	<94		180	94	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Xylenes, Total	16000		180	79	ug/Kg	☼	02/09/18 14:50	02/22/18 12:30	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 126				02/09/18 14:50	02/22/18 12:30	200
4-Bromofluorobenzene (Surr)	96		72 - 124				02/09/18 14:50	02/22/18 12:30	200
Dibromofluoromethane	83		75 - 120				02/09/18 14:50	02/22/18 12:30	200
Toluene-d8 (Surr)	104		75 - 120				02/09/18 14:50	02/22/18 12:30	200

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126				02/09/18 14:50	02/22/18 12:58	2000
4-Bromofluorobenzene (Surr)	100		72 - 124				02/09/18 14:50	02/22/18 12:58	2000
Dibromofluoromethane	86		75 - 120				02/09/18 14:50	02/22/18 12:58	2000
Toluene-d8 (Surr)	102		75 - 120				02/09/18 14:50	02/22/18 12:58	2000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
1,2-Dichlorobenzene	<270		1100	270	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
1,3-Dichlorobenzene	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
1,4-Dichlorobenzene	<290		1100	290	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2,2'-oxybis[1-chloropropane]	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2,4,5-Trichlorophenol	<520		2200	520	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2,4,6-Trichlorophenol	<780		2200	780	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2,4-Dichlorophenol	<540		2200	540	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2,4-Dimethylphenol	1000 J		2200	860	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2,4-Dinitrophenol	<4000		4600	4000	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2,4-Dinitrotoluene	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2,6-Dinitrotoluene	<450		1100	450	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2-Chloronaphthalene	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2-Chlorophenol	<390		1100	390	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2-Methylphenol	450 J		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2-Nitroaniline	<300		1100	300	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
2-Nitrophenol	<540		2200	540	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
3 & 4 Methylphenol	2000		1100	380	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
3,3'-Dichlorobenzidine	<320		1100	320	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
3-Nitroaniline	<700		2200	700	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
4,6-Dinitro-2-methylphenol	<1800		4600	1800	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
4-Bromophenyl phenyl ether	<300		1100	300	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417006

Lab Sample ID: 500-140832-6

Date Collected: 02/09/18 14:50

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	<770		2200	770	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
4-Chloroaniline	<1100		4600	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
4-Chlorophenyl phenyl ether	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
4-Nitroaniline	<950		2200	950	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
4-Nitrophenol	<2200		4600	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Acenaphthene	9000		220	41	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Acenaphthylene	6200		220	30	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Anthracene	4900		220	38	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Benzo[a]anthracene	2800		220	30	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Benzo[a]pyrene	2400		220	44	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Benzo[b]fluoranthene	1900		220	49	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Benzo[g,h,i]perylene	870		220	73	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Benzo[k]fluoranthene	690		220	67	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Benzoic acid	4400	J	11000	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Benzyl alcohol	<2200		4600	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Bis(2-chloroethoxy)methane	<230		1100	230	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Bis(2-chloroethyl)ether	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Bis(2-ethylhexyl) phthalate	<410		1100	410	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Butyl benzyl phthalate	<430		1100	430	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Carbazole	<570		1100	570	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Chrysene	2400		220	62	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Dibenz(a,h)anthracene	230		220	44	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Dibenzofuran	1100		1100	270	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Diethyl phthalate	<380		1100	380	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Dimethyl phthalate	<300		1100	300	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Di-n-butyl phthalate	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Di-n-octyl phthalate	<370		1100	370	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Fluoranthene	5300		220	42	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Fluorene	5900		220	32	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Hexachlorobenzene	<52		460	52	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Hexachlorobutadiene	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Hexachlorocyclopentadiene	<1300		4600	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Hexachloroethane	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Indeno[1,2,3-cd]pyrene	750		220	59	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Isophorone	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Nitrobenzene	<57		220	57	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
N-Nitrosodi-n-propylamine	<280		460	280	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
N-Nitrosodiphenylamine	<270		1100	270	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Pentachlorophenol	<3600		4600	3600	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Phenanthrene	16000		220	32	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Phenol	550	J	1100	500	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5
Pyrene	6700		220	45	ug/Kg	☼	02/13/18 17:39	02/14/18 13:12	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		25 - 139	02/13/18 17:39	02/14/18 13:12	5
2-Fluorobiphenyl (Surr)	84		44 - 121	02/13/18 17:39	02/14/18 13:12	5
2-Fluorophenol (Surr)	80		46 - 133	02/13/18 17:39	02/14/18 13:12	5
Nitrobenzene-d5 (Surr)	72		41 - 120	02/13/18 17:39	02/14/18 13:12	5
Phenol-d5 (Surr)	85		46 - 125	02/13/18 17:39	02/14/18 13:12	5
Terphenyl-d14 (Surr)	83		35 - 160	02/13/18 17:39	02/14/18 13:12	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	18000		2300	280	ug/Kg	☼	02/13/18 17:39	02/15/18 00:22	25
2-Methylnaphthalene	28000		2300	210	ug/Kg	☼	02/13/18 17:39	02/15/18 00:22	25
Naphthalene	76000		1100	170	ug/Kg	☼	02/13/18 17:39	02/15/18 00:22	25

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<80		230	80	ug/Kg	☼	02/13/18 16:24	02/14/18 11:48	10
PCB-1221	<99		230	99	ug/Kg	☼	02/13/18 16:24	02/14/18 11:48	10
PCB-1232	<98		230	98	ug/Kg	☼	02/13/18 16:24	02/14/18 11:48	10
PCB-1242	<74		230	74	ug/Kg	☼	02/13/18 16:24	02/14/18 11:48	10
PCB-1248	<89		230	89	ug/Kg	☼	02/13/18 16:24	02/14/18 11:48	10
PCB-1254	<49		230	49	ug/Kg	☼	02/13/18 16:24	02/14/18 11:48	10
PCB-1260	<110		230	110	ug/Kg	☼	02/13/18 16:24	02/14/18 11:48	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		49 - 129	02/13/18 16:24	02/14/18 11:48	10
DCB Decachlorobiphenyl	105		37 - 121	02/13/18 16:24	02/14/18 11:48	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.051		0.96	0.051	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,7,8-PeCDD	0.27	J	4.8	0.038	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,4,7,8-HxCDD	<0.052		4.8	0.052	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,6,7,8-HxCDD	0.18	J q	4.8	0.059	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,7,8,9-HxCDD	<0.051		4.8	0.051	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,4,6,7,8-HpCDD	3.2	J	4.8	0.087	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
OCDD	43	B	9.6	0.16	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
2,3,7,8-TCDF	0.15	J	0.96	0.035	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,7,8-PeCDF	<0.042		4.8	0.042	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
2,3,4,7,8-PeCDF	<0.034		4.8	0.034	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,4,7,8-HxCDF	0.16	J	4.8	0.041	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,6,7,8-HxCDF	<0.041		4.8	0.041	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
2,3,4,6,7,8-HxCDF	<0.040		4.8	0.040	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,7,8,9-HxCDF	<0.043		4.8	0.043	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,4,6,7,8-HpCDF	1.4	J B	4.8	0.085	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
1,2,3,4,7,8,9-HpCDF	<0.11		4.8	0.11	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1
OCDF	3.3	J B	9.6	0.12	pg/g	☼	02/16/18 10:10	02/22/18 05:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	66		25 - 164	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,7,8-PeCDD	96		25 - 181	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,4,7,8-HxCDD	71		32 - 141	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,6,7,8-HxCDD	67		28 - 130	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,4,6,7,8-HpCDD	88		23 - 140	02/16/18 10:10	02/22/18 05:31	1
13C-OCDD	91		17 - 157	02/16/18 10:10	02/22/18 05:31	1
13C-2,3,7,8-TCDF	56		24 - 169	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,7,8-PeCDF	79		24 - 185	02/16/18 10:10	02/22/18 05:31	1
13C-2,3,4,7,8-PeCDF	80		21 - 178	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,4,7,8-HxCDF	54		26 - 152	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,6,7,8-HxCDF	52		26 - 123	02/16/18 10:10	02/22/18 05:31	1
13C-2,3,4,6,7,8-HxCDF	58		28 - 136	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,7,8,9-HxCDF	63		29 - 147	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,4,6,7,8-HpCDF	56		28 - 143	02/16/18 10:10	02/22/18 05:31	1
13C-1,2,3,4,7,8,9-HpCDF	69		26 - 138	02/16/18 10:10	02/22/18 05:31	1
13C-OCDF	77		17 - 157	02/16/18 10:10	02/22/18 05:31	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	71		35 - 197	02/16/18 10:10	02/22/18 05:31	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.2		1.4	0.48	mg/Kg	☼	02/13/18 14:50	02/14/18 13:45	1
Barium	97		1.4	0.16	mg/Kg	☼	02/13/18 14:50	02/14/18 13:45	1
Cadmium	0.053	J B	0.28	0.050	mg/Kg	☼	02/13/18 14:50	02/14/18 13:45	1
Chromium	28		1.4	0.69	mg/Kg	☼	02/13/18 14:50	02/14/18 13:45	1
Lead	8.9	^	0.70	0.32	mg/Kg	☼	02/13/18 14:50	02/14/18 13:45	1
Selenium	<0.82		1.4	0.82	mg/Kg	☼	02/13/18 14:50	02/14/18 13:45	1
Silver	<0.18		0.70	0.18	mg/Kg	☼	02/13/18 14:50	02/14/18 13:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.022	0.0072	mg/Kg	☼	02/14/18 14:00	02/15/18 12:18	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417007

Lab Sample ID: 500-140832-7

Date Collected: 02/09/18 14:53

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 74.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<40		87	40	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,1,1-Trichloroethane	<33		87	33	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,1,1,2,2-Tetrachloroethane	<35		87	35	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,1,2-Trichloroethane	<31		87	31	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,1-Dichloroethane	<36		87	36	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,1-Dichloroethene	<34		87	34	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,1-Dichloropropene	<26		87	26	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2,3-Trichlorobenzene	<40		87	40	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2,3-Trichloropropane	<36		87	36	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2,4-Trichlorobenzene	<30		87	30	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2,4-Trimethylbenzene	100		87	31	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2-Dibromo-3-Chloropropane	<170		430	170	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2-Dibromoethane	<33		87	33	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2-Dichlorobenzene	<29		87	29	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2-Dichloroethane	<34		87	34	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,2-Dichloropropane	<37		87	37	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,3,5-Trimethylbenzene	<33		87	33	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,3-Dichlorobenzene	<35		87	35	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,3-Dichloropropane	<31		87	31	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
1,4-Dichlorobenzene	<32		87	32	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
2,2-Dichloropropane	<39		87	39	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
2-Butanone (MEK)	<180		430	180	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
2-Chlorotoluene	<27		87	27	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
4-Chlorotoluene	<30		87	30	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Benzene	13000		22	13	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Bromobenzene	<31		87	31	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Bromochloromethane	<37		87	37	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Bromodichloromethane	<32		87	32	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Bromoform	<42		87	42	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Bromomethane	<69 *		170	69	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Carbon tetrachloride	<33		87	33	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Chlorobenzene	<33		87	33	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Chloroethane	<44		87	44	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Chloroform	<32		170	32	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Chloromethane	<28		87	28	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
cis-1,2-Dichloroethene	<35		87	35	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
cis-1,3-Dichloropropene	<36		87	36	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Dibromochloromethane	<42		87	42	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Dibromomethane	<23		87	23	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Dichlorodifluoromethane	<58		170	58	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Ethylbenzene	600		22	16	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Hexachlorobutadiene	<39		87	39	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Hexane	<43		87	43	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Isopropyl ether	<24		87	24	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Isopropylbenzene	<33		87	33	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Methyl tert-butyl ether	<34		87	34	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Methylene Chloride	<140		430	140	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
n-Butylbenzene	<34		87	34	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
N-Propylbenzene	<36		87	36	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417007

Lab Sample ID: 500-140832-7

Date Collected: 02/09/18 14:53

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 74.6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<31		87	31	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
sec-Butylbenzene	<35		87	35	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Styrene	<33		87	33	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
tert-Butylbenzene	<35		87	35	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Tetrachloroethene	<32		87	32	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Toluene	5200		22	13	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
trans-1,2-Dichloroethene	<30		87	30	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
trans-1,3-Dichloropropene	<31		87	31	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Trichloroethene	<14		43	14	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Trichlorofluoromethane	<37		87	37	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Vinyl chloride	<23		43	23	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Xylenes, Total	560		43	19	ug/Kg	☼	02/09/18 14:53	02/22/18 13:25	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 126				02/09/18 14:53	02/22/18 13:25	50
4-Bromofluorobenzene (Surr)	98		72 - 124				02/09/18 14:53	02/22/18 13:25	50
Dibromofluoromethane	84		75 - 120				02/09/18 14:53	02/22/18 13:25	50
Toluene-d8 (Surr)	103		75 - 120				02/09/18 14:53	02/22/18 13:25	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<230		1100	230	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
1,2-Dichlorobenzene	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
1,3-Dichlorobenzene	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
1,4-Dichlorobenzene	<280		1100	280	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
1-Methylnaphthalene	13000		440	53	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2,2'-oxybis[1-chloropropane]	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2,4,5-Trichlorophenol	<500		2200	500	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2,4,6-Trichlorophenol	<750		2200	750	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2,4-Dichlorophenol	<520		2200	520	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2,4-Dimethylphenol	<830		2200	830	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2,4-Dinitrophenol	<3800		4400	3800	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2,4-Dinitrotoluene	<350		1100	350	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2,6-Dinitrotoluene	<430		1100	430	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2-Chloronaphthalene	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2-Chlorophenol	<370		1100	370	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2-Methylphenol	440 J		1100	350	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2-Nitroaniline	<290		1100	290	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
2-Nitrophenol	<510		2200	510	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
3 & 4 Methylphenol	1900		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
3,3'-Dichlorobenzidine	<300		1100	300	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
3-Nitroaniline	<680		2200	680	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
4,6-Dinitro-2-methylphenol	<1800		4400	1800	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
4-Bromophenyl phenyl ether	<290		1100	290	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
4-Chloro-3-methylphenol	<740		2200	740	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
4-Chloroaniline	<1000		4400	1000	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
4-Chlorophenyl phenyl ether	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
4-Nitroaniline	<910		2200	910	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
4-Nitrophenol	<2100		4400	2100	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Acenaphthene	8800		220	39	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417007

Lab Sample ID: 500-140832-7

Date Collected: 02/09/18 14:53

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 74.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	4600		220	29	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Anthracene	4900		220	36	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Benzo[a]anthracene	2700		220	29	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Benzo[a]pyrene	2200		220	42	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Benzo[b]fluoranthene	1700		220	47	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Benzo[g,h,i]perylene	840		220	70	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Benzo[k]fluoranthene	740		220	64	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Benzoic acid	3800	J	11000	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Benzyl alcohol	<2200		4400	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Bis(2-chloroethoxy)methane	<220		1100	220	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Bis(2-chloroethyl)ether	<330		1100	330	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Bis(2-ethylhexyl) phthalate	<400		1100	400	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Butyl benzyl phthalate	<410		1100	410	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Carbazole	<540		1100	540	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Chrysene	2500		220	59	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Dibenz(a,h)anthracene	<42		220	42	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Dibenzofuran	1100		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Diethyl phthalate	<370		1100	370	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Dimethyl phthalate	<280		1100	280	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Di-n-butyl phthalate	<330		1100	330	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Di-n-octyl phthalate	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Fluoranthene	5400		220	40	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Fluorene	5700		220	31	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Hexachlorobenzene	<50		440	50	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Hexachlorobutadiene	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Hexachlorocyclopentadiene	<1300		4400	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Hexachloroethane	<330		1100	330	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Indeno[1,2,3-cd]pyrene	730		220	56	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Isophorone	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Nitrobenzene	<54		220	54	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
N-Nitrosodi-n-propylamine	<270		440	270	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
N-Nitrosodiphenylamine	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Pentachlorophenol	<3500		4400	3500	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Phenol	750	J	1100	480	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5
Pyrene	6500		220	43	ug/Kg	☼	02/13/18 17:39	02/14/18 13:39	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	102		25 - 139	02/13/18 17:39	02/14/18 13:39	5
2-Fluorobiphenyl (Surr)	101		44 - 121	02/13/18 17:39	02/14/18 13:39	5
2-Fluorophenol (Surr)	99		46 - 133	02/13/18 17:39	02/14/18 13:39	5
Nitrobenzene-d5 (Surr)	89		41 - 120	02/13/18 17:39	02/14/18 13:39	5
Phenol-d5 (Surr)	101		46 - 125	02/13/18 17:39	02/14/18 13:39	5
Terphenyl-d14 (Surr)	94		35 - 160	02/13/18 17:39	02/14/18 13:39	5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	23000		2200	200	ug/Kg	☼	02/13/18 17:39	02/15/18 00:48	25
Naphthalene	40000		1100	170	ug/Kg	☼	02/13/18 17:39	02/15/18 00:48	25
Phenanthrene	17000		1100	150	ug/Kg	☼	02/13/18 17:39	02/15/18 00:48	25

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417007

Lab Sample ID: 500-140832-7

Date Collected: 02/09/18 14:53

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 74.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<78		220	78	ug/Kg	☼	02/13/18 16:24	02/14/18 12:04	10
PCB-1221	<97		220	97	ug/Kg	☼	02/13/18 16:24	02/14/18 12:04	10
PCB-1232	<96		220	96	ug/Kg	☼	02/13/18 16:24	02/14/18 12:04	10
PCB-1242	<73		220	73	ug/Kg	☼	02/13/18 16:24	02/14/18 12:04	10
PCB-1248	<87		220	87	ug/Kg	☼	02/13/18 16:24	02/14/18 12:04	10
PCB-1254	<48		220	48	ug/Kg	☼	02/13/18 16:24	02/14/18 12:04	10
PCB-1260	<110		220	110	ug/Kg	☼	02/13/18 16:24	02/14/18 12:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	118		49 - 129	02/13/18 16:24	02/14/18 12:04	10
DCB Decachlorobiphenyl	110		37 - 121	02/13/18 16:24	02/14/18 12:04	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.043	J	0.99	0.031	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,7,8-PeCDD	<0.047		5.0	0.047	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,4,7,8-HxCDD	<0.034	q	5.0	0.034	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,6,7,8-HxCDD	0.11	J	5.0	0.036	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,7,8,9-HxCDD	0.13	J q	5.0	0.033	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,4,6,7,8-HpCDD	0.56	J q	5.0	0.096	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
OCDD	6.4	J B	9.9	0.11	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
2,3,7,8-TCDF	0.12	J	0.99	0.020	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,7,8-PeCDF	<0.039		5.0	0.039	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
2,3,4,7,8-PeCDF	<0.044		5.0	0.044	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,4,7,8-HxCDF	<0.037		5.0	0.037	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,6,7,8-HxCDF	<0.037		5.0	0.037	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
2,3,4,6,7,8-HxCDF	<0.042		5.0	0.042	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,7,8,9-HxCDF	<0.042		5.0	0.042	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,4,6,7,8-HpCDF	0.47	J B	5.0	0.060	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
1,2,3,4,7,8,9-HpCDF	<0.084		5.0	0.084	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1
OCDF	0.46	J B	9.9	0.097	pg/g	☼	02/16/18 10:10	02/22/18 06:33	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	69		25 - 164	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,7,8-PeCDD	96		25 - 181	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,4,7,8-HxCDD	70		32 - 141	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,6,7,8-HxCDD	67		28 - 130	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,4,6,7,8-HpCDD	84		23 - 140	02/16/18 10:10	02/22/18 06:33	1
13C-OCDD	87		17 - 157	02/16/18 10:10	02/22/18 06:33	1
13C-2,3,7,8-TCDF	57		24 - 169	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,7,8-PeCDF	79		24 - 185	02/16/18 10:10	02/22/18 06:33	1
13C-2,3,4,7,8-PeCDF	79		21 - 178	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,4,7,8-HxCDF	56		26 - 152	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,6,7,8-HxCDF	51		26 - 123	02/16/18 10:10	02/22/18 06:33	1
13C-2,3,4,6,7,8-HxCDF	56		28 - 136	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,7,8,9-HxCDF	59		29 - 147	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,4,6,7,8-HpCDF	57		28 - 143	02/16/18 10:10	02/22/18 06:33	1
13C-1,2,3,4,7,8,9-HpCDF	64		26 - 138	02/16/18 10:10	02/22/18 06:33	1
13C-OCDF	74		17 - 157	02/16/18 10:10	02/22/18 06:33	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417007

Lab Sample ID: 500-140832-7

Date Collected: 02/09/18 14:53

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 74.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	74		35 - 197	02/16/18 10:10	02/22/18 06:33	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.9		1.2	0.39	mg/Kg	☼	02/13/18 14:50	02/14/18 13:49	1
Barium	81		1.2	0.13	mg/Kg	☼	02/13/18 14:50	02/14/18 13:49	1
Cadmium	0.042	J B	0.23	0.041	mg/Kg	☼	02/13/18 14:50	02/14/18 13:49	1
Chromium	25		1.2	0.57	mg/Kg	☼	02/13/18 14:50	02/14/18 13:49	1
Lead	8.6	^	0.58	0.27	mg/Kg	☼	02/13/18 14:50	02/14/18 13:49	1
Selenium	<0.68		1.2	0.68	mg/Kg	☼	02/13/18 14:50	02/14/18 13:49	1
Silver	<0.15		0.58	0.15	mg/Kg	☼	02/13/18 14:50	02/14/18 13:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.022	0.0074	mg/Kg	☼	02/14/18 14:00	02/15/18 12:21	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Date Collected: 02/09/18 14:54

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 78.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<36		78	36	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,1,1-Trichloroethane	<29		78	29	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,1,2,2-Tetrachloroethane	<31		78	31	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,1,2-Trichloroethane	<27		78	27	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,1-Dichloroethane	<32		78	32	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,1-Dichloroethene	<30		78	30	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,1-Dichloropropene	<23		78	23	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2,3-Trichlorobenzene	<36		78	36	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2,3-Trichloropropane	<32		78	32	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2,4-Trichlorobenzene	<27		78	27	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2,4-Trimethylbenzene	<28		78	28	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2-Dibromo-3-Chloropropane	<150		390	150	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2-Dibromoethane	<30		78	30	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2-Dichlorobenzene	<26		78	26	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2-Dichloroethane	<30		78	30	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,2-Dichloropropane	<33		78	33	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,3,5-Trimethylbenzene	<29		78	29	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,3-Dichlorobenzene	<31		78	31	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,3-Dichloropropane	<28		78	28	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
1,4-Dichlorobenzene	<28		78	28	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
2,2-Dichloropropane	<34		78	34	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
2-Butanone (MEK)	<160		390	160	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
2-Chlorotoluene	<24		78	24	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
4-Chlorotoluene	<27		78	27	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Benzene	160		19	11	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Bromobenzene	<28		78	28	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Bromochloromethane	<33		78	33	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Bromodichloromethane	<29		78	29	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Bromoform	<38		78	38	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Bromomethane	<62 *		160	62	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Carbon tetrachloride	<30		78	30	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Chlorobenzene	<30		78	30	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Chloroethane	<39		78	39	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Chloroform	<29		160	29	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Chloromethane	<25		78	25	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
cis-1,2-Dichloroethene	<32		78	32	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
cis-1,3-Dichloropropene	<32		78	32	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Dibromochloromethane	<38		78	38	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Dibromomethane	<21		78	21	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Dichlorodifluoromethane	<52		160	52	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Ethylbenzene	52		19	14	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Hexachlorobutadiene	<35		78	35	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Hexane	<38		78	38	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Isopropyl ether	<21		78	21	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Isopropylbenzene	<30		78	30	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Methyl tert-butyl ether	<31		78	31	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Methylene Chloride	<130		390	130	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
n-Butylbenzene	<30		78	30	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
N-Propylbenzene	<32		78	32	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Date Collected: 02/09/18 14:54

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 78.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<28		78	28	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
sec-Butylbenzene	<31		78	31	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Styrene	<30		78	30	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
tert-Butylbenzene	<31		78	31	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Tetrachloroethene	<29		78	29	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Toluene	89		19	11	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
trans-1,2-Dichloroethene	<27		78	27	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
trans-1,3-Dichloropropene	<28		78	28	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Trichloroethene	<13		39	13	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Trichlorofluoromethane	<33		78	33	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Vinyl chloride	<20		39	20	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Xylenes, Total	60		39	17	ug/Kg	☼	02/09/18 14:54	02/22/18 13:52	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 126				02/09/18 14:54	02/22/18 13:52	50
4-Bromofluorobenzene (Surr)	98		72 - 124				02/09/18 14:54	02/22/18 13:52	50
Dibromofluoromethane	84		75 - 120				02/09/18 14:54	02/22/18 13:52	50
Toluene-d8 (Surr)	102		75 - 120				02/09/18 14:54	02/22/18 13:52	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<43		200	43	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
1,2-Dichlorobenzene	<48		200	48	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
1,3-Dichlorobenzene	<45		200	45	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
1,4-Dichlorobenzene	<51		200	51	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
1-Methylnaphthalene	2800		81	9.8	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2,2'-oxybis[1-chloropropane]	<46		200	46	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2,4,5-Trichlorophenol	<91		400	91	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2,4,6-Trichlorophenol	<140		400	140	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2,4-Dichlorophenol	<95		400	95	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2,4-Dimethylphenol	<150		400	150	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2,4-Dinitrophenol	<700		810	700	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2,4-Dinitrotoluene	<64		200	64	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2,6-Dinitrotoluene	<79		200	79	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2-Chloronaphthalene	<44		200	44	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2-Chlorophenol	<68		200	68	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2-Methylphenol	<64		200	64	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2-Nitroaniline	<54		200	54	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
2-Nitrophenol	<94		400	94	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
3 & 4 Methylphenol	<67		200	67	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
3,3'-Dichlorobenzidine	<56		200	56	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
3-Nitroaniline	<120		400	120	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
4,6-Dinitro-2-methylphenol	<320		810	320	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
4-Bromophenyl phenyl ether	<53		200	53	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
4-Chloro-3-methylphenol	<140		400	140	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
4-Chloroaniline	<190		810	190	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
4-Chlorophenyl phenyl ether	<47		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
4-Nitroaniline	<170		400	170	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
4-Nitrophenol	<380		810	380	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Acenaphthylene	460		40	5.3	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Date Collected: 02/09/18 14:54

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 78.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	2200		40	6.7	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Benzo[a]anthracene	2300		40	5.4	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Benzo[a]pyrene	2200		40	7.7	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Benzo[b]fluoranthene	2400		40	8.6	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Benzo[g,h,i]perylene	1000		40	13	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Benzo[k]fluoranthene	710		40	12	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Benzoic acid	<400		2000	400	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Benzyl alcohol	<400		810	400	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Bis(2-chloroethoxy)methane	<41		200	41	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Bis(2-chloroethyl)ether	<60		200	60	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Bis(2-ethylhexyl) phthalate	99	J	200	73	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Butyl benzyl phthalate	<76		200	76	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Carbazole	300		200	100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Chrysene	2000		40	11	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Dibenz(a,h)anthracene	280		40	7.7	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Dibenzofuran	630		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Diethyl phthalate	<68		200	68	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Dimethyl phthalate	<52		200	52	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Di-n-butyl phthalate	<61		200	61	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Di-n-octyl phthalate	<65		200	65	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Fluorene	1800		40	5.6	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Hexachlorobenzene	<9.3		81	9.3	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Hexachlorobutadiene	<63		200	63	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Hexachlorocyclopentadiene	<230		810	230	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Hexachloroethane	<61		200	61	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Indeno[1,2,3-cd]pyrene	980		40	10	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Isophorone	<45		200	45	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Naphthalene	1900		40	6.1	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Nitrobenzene	<10		40	10	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
N-Nitrosodi-n-propylamine	<49		81	49	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
N-Nitrosodiphenylamine	<47		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Pentachlorophenol	<640		810	640	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1
Phenol	<89		200	89	ug/Kg	☼	02/13/18 17:39	02/14/18 14:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	94		25 - 139	02/13/18 17:39	02/14/18 14:32	1
2-Fluorobiphenyl (Surr)	76		44 - 121	02/13/18 17:39	02/14/18 14:32	1
2-Fluorophenol (Surr)	69		46 - 133	02/13/18 17:39	02/14/18 14:32	1
Nitrobenzene-d5 (Surr)	67		41 - 120	02/13/18 17:39	02/14/18 14:32	1
Phenol-d5 (Surr)	72		46 - 125	02/13/18 17:39	02/14/18 14:32	1
Terphenyl-d14 (Surr)	75		35 - 160	02/13/18 17:39	02/14/18 14:32	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	3900		400	37	ug/Kg	☼	02/13/18 17:39	02/15/18 01:14	5
Acenaphthene	4100		200	36	ug/Kg	☼	02/13/18 17:39	02/15/18 01:14	5
Fluoranthene	4000		200	37	ug/Kg	☼	02/13/18 17:39	02/15/18 01:14	5
Phenanthrene	7500		200	28	ug/Kg	☼	02/13/18 17:39	02/15/18 01:14	5
Pyrene	7000		200	40	ug/Kg	☼	02/13/18 17:39	02/15/18 01:14	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Date Collected: 02/09/18 14:54

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 78.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<72		200	72	ug/Kg	☼	02/13/18 16:24	02/14/18 12:19	10
PCB-1221	<90		200	90	ug/Kg	☼	02/13/18 16:24	02/14/18 12:19	10
PCB-1232	<89		200	89	ug/Kg	☼	02/13/18 16:24	02/14/18 12:19	10
PCB-1242	360		200	67	ug/Kg	☼	02/13/18 16:24	02/14/18 12:19	10
PCB-1248	<80		200	80	ug/Kg	☼	02/13/18 16:24	02/14/18 12:19	10
PCB-1254	<44		200	44	ug/Kg	☼	02/13/18 16:24	02/14/18 12:19	10
PCB-1260	<100		200	100	ug/Kg	☼	02/13/18 16:24	02/14/18 12:19	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	115		49 - 129	02/13/18 16:24	02/14/18 12:19	10
<i>DCB Decachlorobiphenyl</i>	136	X	37 - 121	02/13/18 16:24	02/14/18 12:19	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.35	J	4.9	0.15	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,7,8-PeCDD	1.3	J	24	0.25	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,4,7,8-HxCDD	0.50	J q	24	0.16	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,6,7,8-HxCDD	12	J	24	0.18	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,7,8,9-HxCDD	3.3	J	24	0.16	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,4,6,7,8-HpCDD	160		24	0.27	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
OCDD	1700	B	49	0.39	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
2,3,7,8-TCDF	3.8	J q	4.9	0.43	pg/g	☼	02/16/18 10:10	02/23/18 04:41	5
1,2,3,7,8-PeCDF	1.2	J q	24	0.14	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
2,3,4,7,8-PeCDF	3.1	J	24	0.14	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,4,7,8-HxCDF	7.1	J	24	0.32	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,6,7,8-HxCDF	7.5	J I	24	0.31	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
2,3,4,6,7,8-HxCDF	3.2	J q	24	0.32	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,7,8,9-HxCDF	<0.35		24	0.35	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,4,6,7,8-HpCDF	240	B	24	0.22	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
1,2,3,4,7,8,9-HpCDF	<0.32		24	0.32	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5
OCDF	110	B	49	0.38	pg/g	☼	02/16/18 10:10	02/22/18 07:34	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>13C-2,3,7,8-TCDD</i>	66		25 - 164	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,7,8-PeCDD</i>	90		25 - 181	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,4,7,8-HxCDD</i>	64		32 - 141	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,6,7,8-HxCDD</i>	59		28 - 130	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,4,6,7,8-HpCDD</i>	73		23 - 140	02/16/18 10:10	02/22/18 07:34	5
<i>13C-OCDD</i>	76		17 - 157	02/16/18 10:10	02/22/18 07:34	5
<i>13C-2,3,7,8-TCDF</i>	54		24 - 169	02/16/18 10:10	02/22/18 07:34	5
<i>13C-2,3,7,8-TCDF</i>	70		24 - 169	02/16/18 10:10	02/23/18 04:41	5
<i>13C-1,2,3,7,8-PeCDF</i>	76		24 - 185	02/16/18 10:10	02/22/18 07:34	5
<i>13C-2,3,4,7,8-PeCDF</i>	73		21 - 178	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,4,7,8-HxCDF</i>	53		26 - 152	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,6,7,8-HxCDF</i>	48		26 - 123	02/16/18 10:10	02/22/18 07:34	5
<i>13C-2,3,4,6,7,8-HxCDF</i>	52		28 - 136	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,7,8,9-HxCDF</i>	53		29 - 147	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,4,6,7,8-HpCDF</i>	53		28 - 143	02/16/18 10:10	02/22/18 07:34	5
<i>13C-1,2,3,4,7,8,9-HpCDF</i>	55		26 - 138	02/16/18 10:10	02/22/18 07:34	5
<i>13C-OCDF</i>	63		17 - 157	02/16/18 10:10	02/22/18 07:34	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Date Collected: 02/09/18 14:54

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 78.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	71		35 - 197	02/16/18 10:10	02/22/18 07:34	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.6		1.2	0.41	mg/Kg	☼	02/13/18 14:50	02/14/18 14:01	1
Barium	18		1.2	0.14	mg/Kg	☼	02/13/18 14:50	02/14/18 14:01	1
Cadmium	0.35	B	0.24	0.043	mg/Kg	☼	02/13/18 14:50	02/14/18 14:01	1
Chromium	6.6		1.2	0.60	mg/Kg	☼	02/13/18 14:50	02/14/18 14:01	1
Lead	35	^	0.60	0.28	mg/Kg	☼	02/13/18 14:50	02/14/18 14:01	1
Selenium	<0.71		1.2	0.71	mg/Kg	☼	02/13/18 14:50	02/14/18 14:01	1
Silver	0.55	J	0.60	0.16	mg/Kg	☼	02/13/18 14:50	02/14/18 14:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.28		0.021	0.0071	mg/Kg	☼	02/14/18 14:00	02/15/18 12:23	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417009

Lab Sample ID: 500-140832-9

Date Collected: 02/09/18 14:58

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<420		910	420	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,1,1-Trichloroethane	<350		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,1,1,2,2-Tetrachloroethane	<360		910	360	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,1,2-Trichloroethane	<320		910	320	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,1-Dichloroethane	<370		910	370	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,1-Dichloroethene	<350		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,1-Dichloropropene	<270		910	270	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2,3-Trichlorobenzene	<420		910	420	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2,3-Trichloropropane	<380		910	380	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2,4-Trichlorobenzene	<310		910	310	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2,4-Trimethylbenzene	12000		910	330	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2-Dibromo-3-Chloropropane	<1800		4500	1800	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2-Dibromoethane	<350		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2-Dichlorobenzene	<300		910	300	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2-Dichloroethane	<360		910	360	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,2-Dichloropropane	<390		910	390	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,3,5-Trimethylbenzene	3700		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,3-Dichlorobenzene	<360		910	360	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,3-Dichloropropane	<330		910	330	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
1,4-Dichlorobenzene	<330		910	330	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
2,2-Dichloropropane	<400		910	400	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
2-Butanone (MEK)	<1900		4500	1900	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
2-Chlorotoluene	<290		910	290	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
4-Chlorotoluene	<320		910	320	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Benzene	6000		230	130	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Bromobenzene	<320		910	320	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Bromochloromethane	<390		910	390	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Bromodichloromethane	<340		910	340	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Bromoform	<440		910	440	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Bromomethane	<720 *		1800	720	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Carbon tetrachloride	<350		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Chlorobenzene	<350		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Chloroethane	<460		910	460	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Chloroform	<340		1800	340	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Chloromethane	<290		910	290	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
cis-1,2-Dichloroethene	<370		910	370	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
cis-1,3-Dichloropropene	<380		910	380	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Dibromochloromethane	<440		910	440	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Dibromomethane	<250		910	250	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Dichlorodifluoromethane	<610		1800	610	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Ethylbenzene	26000		230	170	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Hexachlorobutadiene	<410		910	410	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Hexane	490 J		910	450	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Isopropyl ether	<250		910	250	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Isopropylbenzene	2400		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Methyl tert-butyl ether	<360		910	360	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Methylene Chloride	<1500		4500	1500	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
n-Butylbenzene	700 J		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
N-Propylbenzene	<380		910	380	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417009

Lab Sample ID: 500-140832-9

Date Collected: 02/09/18 14:58

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	3200		910	330	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
sec-Butylbenzene	<360		910	360	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Styrene	<350		910	350	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
tert-Butylbenzene	<360		910	360	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Tetrachloroethene	<340		910	340	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Toluene	16000		230	130	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
trans-1,2-Dichloroethene	<320		910	320	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
trans-1,3-Dichloropropene	<330		910	330	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Trichloroethene	<150		450	150	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Trichlorofluoromethane	<390		910	390	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Vinyl chloride	<240		450	240	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Xylenes, Total	26000		450	200	ug/Kg	☼	02/09/18 14:58	02/22/18 14:20	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 126				02/09/18 14:58	02/22/18 14:20	500
4-Bromofluorobenzene (Surr)	96		72 - 124				02/09/18 14:58	02/22/18 14:20	500
Dibromofluoromethane	86		75 - 120				02/09/18 14:58	02/22/18 14:20	500
Toluene-d8 (Surr)	104		75 - 120				02/09/18 14:58	02/22/18 14:20	500

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 126	02/09/18 14:58	02/22/18 14:47	5000
4-Bromofluorobenzene (Surr)	102		72 - 124	02/09/18 14:58	02/22/18 14:47	5000
Dibromofluoromethane	84		75 - 120	02/09/18 14:58	02/22/18 14:47	5000
Toluene-d8 (Surr)	103		75 - 120	02/09/18 14:58	02/22/18 14:47	5000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1000		4800	1000	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
1,2-Dichlorobenzene	<1100		4800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
1,3-Dichlorobenzene	<1100		4800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
1,4-Dichlorobenzene	<1200		4800	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2,2'-oxybis[1-chloropropane]	<1100		4800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2,4,5-Trichlorophenol	<2200		9500	2200	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2,4,6-Trichlorophenol	<3300		9500	3300	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2,4-Dichlorophenol	<2300		9500	2300	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2,4-Dimethylphenol	<3600		9500	3600	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2,4-Dinitrophenol	<17000		19000	17000	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2,4-Dinitrotoluene	<1500		4800	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2,6-Dinitrotoluene	<1900		4800	1900	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2-Chloronaphthalene	<1100		4800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2-Chlorophenol	<1600		4800	1600	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2-Methylphenol	<1500		4800	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2-Nitroaniline	<1300		4800	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
2-Nitrophenol	<2300		9500	2300	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
3 & 4 Methylphenol	7800		4800	1600	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
3,3'-Dichlorobenzidine	<1300		4800	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
3-Nitroaniline	<3000		9500	3000	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
4,6-Dinitro-2-methylphenol	<7700		19000	7700	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
4-Bromophenyl phenyl ether	<1300		4800	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417009

Lab Sample ID: 500-140832-9

Date Collected: 02/09/18 14:58

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	<3300		9500	3300	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
4-Chloroaniline	<4500		19000	4500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
4-Chlorophenyl phenyl ether	<1100		4800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
4-Nitroaniline	<4000		9500	4000	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
4-Nitrophenol	<9100		19000	9100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Benzo[g,h,i]perylene	22000		950	310	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Benzo[k]fluoranthene	29000		950	280	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Benzoic acid	<9500		48000	9500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Benzyl alcohol	<9500		19000	9500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Bis(2-chloroethoxy)methane	<980		4800	980	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Bis(2-chloroethyl)ether	<1400		4800	1400	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Bis(2-ethylhexyl) phthalate	<1800		4800	1800	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Butyl benzyl phthalate	<1800		4800	1800	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Carbazole	18000		4800	2400	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Dibenz(a,h)anthracene	7000		950	190	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Dibenzofuran	41000		4800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Diethyl phthalate	<1600		4800	1600	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Dimethyl phthalate	<1300		4800	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Di-n-butyl phthalate	<1500		4800	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Di-n-octyl phthalate	<1600		4800	1600	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Hexachlorobenzene	<220		1900	220	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Hexachlorobutadiene	<1500		4800	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Hexachlorocyclopentadiene	<5500		19000	5500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Hexachloroethane	<1500		4800	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Indeno[1,2,3-cd]pyrene	20000		950	250	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Isophorone	<1100		4800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Nitrobenzene	<240		950	240	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
N-Nitrosodi-n-propylamine	<1200		1900	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
N-Nitrosodiphenylamine	<1100		4800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Pentachlorophenol	<15000		19000	15000	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20
Phenol	<2100		4800	2100	ug/Kg	☼	02/13/18 17:39	02/14/18 15:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	135		25 - 139	02/13/18 17:39	02/14/18 15:33	20
2-Fluorobiphenyl (Surr)	95		44 - 121	02/13/18 17:39	02/14/18 15:33	20
2-Fluorophenol (Surr)	95		46 - 133	02/13/18 17:39	02/14/18 15:33	20
Nitrobenzene-d5 (Surr)	116		41 - 120	02/13/18 17:39	02/14/18 15:33	20
Phenol-d5 (Surr)	92		46 - 125	02/13/18 17:39	02/14/18 15:33	20
Terphenyl-d14 (Surr)	129		35 - 160	02/13/18 17:39	02/14/18 15:33	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	110000		4800	630	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100
Anthracene	250000		4800	800	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100
Benzo[a]anthracene	110000		4800	650	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100
Benzo[a]pyrene	100000		4800	930	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100
Benzo[b]fluoranthene	84000		4800	1000	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100
Chrysene	100000		4800	1300	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100
Fluoranthene	250000		4800	890	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100
Fluorene	270000		4800	670	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417009

Lab Sample ID: 500-140832-9

Date Collected: 02/09/18 14:58

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	250000		4800	950	ug/Kg	☼	02/13/18 17:39	02/16/18 17:33	100

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1000000		97000	12000	ug/Kg	☼	02/13/18 17:39	02/16/18 17:59	1000
2-Methylnaphthalene	1500000		97000	8800	ug/Kg	☼	02/13/18 17:39	02/16/18 17:59	1000
Acenaphthene	740000		48000	8600	ug/Kg	☼	02/13/18 17:39	02/16/18 17:59	1000
Naphthalene	2800000		48000	7400	ug/Kg	☼	02/13/18 17:39	02/16/18 17:59	1000
Phenanthrene	970000		48000	6700	ug/Kg	☼	02/13/18 17:39	02/16/18 17:59	1000

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<83		240	83	ug/Kg	☼	02/13/18 16:24	02/14/18 12:35	10
PCB-1221	<100		240	100	ug/Kg	☼	02/13/18 16:24	02/14/18 12:35	10
PCB-1232	<100		240	100	ug/Kg	☼	02/13/18 16:24	02/14/18 12:35	10
PCB-1242	<77		240	77	ug/Kg	☼	02/13/18 16:24	02/14/18 12:35	10
PCB-1248	<93		240	93	ug/Kg	☼	02/13/18 16:24	02/14/18 12:35	10
PCB-1254	<51		240	51	ug/Kg	☼	02/13/18 16:24	02/14/18 12:35	10
PCB-1260	<120		240	120	ug/Kg	☼	02/13/18 16:24	02/14/18 12:35	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	02/13/18 16:24	02/14/18 12:35	10
DCB Decachlorobiphenyl	100		37 - 121	02/13/18 16:24	02/14/18 12:35	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.076	J q	0.98	0.030	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,7,8-PeCDD	0.10	J q	4.9	0.038	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,4,7,8-HxCDD	0.082	J q	4.9	0.032	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,6,7,8-HxCDD	0.22	J	4.9	0.038	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,7,8,9-HxCDD	0.16	J q	4.9	0.032	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,4,6,7,8-HpCDD	2.4	J	4.9	0.058	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
OCDD	28	B	9.8	0.11	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
2,3,7,8-TCDF	0.44	J	0.98	0.025	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,7,8-PeCDF	0.14	J q S	4.9	0.037	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
2,3,4,7,8-PeCDF	0.11	J q	4.9	0.030	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,4,7,8-HxCDF	0.20	J	4.9	0.028	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,6,7,8-HxCDF	<0.026		4.9	0.026	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
2,3,4,6,7,8-HxCDF	<0.028		4.9	0.028	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,7,8,9-HxCDF	<0.031		4.9	0.031	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,4,6,7,8-HpCDF	1.5	J B	4.9	0.041	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
1,2,3,4,7,8,9-HpCDF	<0.050		4.9	0.050	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1
OCDF	2.1	J B	9.8	0.055	pg/g	☼	02/16/18 10:10	02/22/18 08:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	63		25 - 164	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,7,8-PeCDD	76		25 - 181	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,4,7,8-HxCDD	65		32 - 141	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,6,7,8-HxCDD	59		28 - 130	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,4,6,7,8-HpCDD	72		23 - 140	02/16/18 10:10	02/22/18 08:36	1
13C-OCDD	71		17 - 157	02/16/18 10:10	02/22/18 08:36	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417009

Lab Sample ID: 500-140832-9

Date Collected: 02/09/18 14:58

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.5

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	59		24 - 169	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,7,8-PeCDF	48		24 - 185	02/16/18 10:10	02/22/18 08:36	1
13C-2,3,4,7,8-PeCDF	60		21 - 178	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,4,7,8-HxCDF	55		26 - 152	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,6,7,8-HxCDF	50		26 - 123	02/16/18 10:10	02/22/18 08:36	1
13C-2,3,4,6,7,8-HxCDF	57		28 - 136	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,7,8,9-HxCDF	58		29 - 147	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,4,6,7,8-HpCDF	51		28 - 143	02/16/18 10:10	02/22/18 08:36	1
13C-1,2,3,4,7,8,9-HpCDF	59		26 - 138	02/16/18 10:10	02/22/18 08:36	1
13C-OCDF	61		17 - 157	02/16/18 10:10	02/22/18 08:36	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	73		35 - 197	02/16/18 10:10	02/22/18 08:36	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.9		1.2	0.43	mg/Kg	☼	02/13/18 14:50	02/14/18 14:05	1
Barium	57		1.2	0.14	mg/Kg	☼	02/13/18 14:50	02/14/18 14:05	1
Cadmium	0.23	J B	0.25	0.045	mg/Kg	☼	02/13/18 14:50	02/14/18 14:05	1
Chromium	17		1.2	0.62	mg/Kg	☼	02/13/18 14:50	02/14/18 14:05	1
Lead	77	^	0.62	0.29	mg/Kg	☼	02/13/18 14:50	02/14/18 14:05	1
Selenium	<0.73		1.2	0.73	mg/Kg	☼	02/13/18 14:50	02/14/18 14:05	1
Silver	<0.16		0.62	0.16	mg/Kg	☼	02/13/18 14:50	02/14/18 14:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.023	0.0078	mg/Kg	☼	02/14/18 14:00	02/15/18 12:25	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417010

Lab Sample ID: 500-140832-10

Date Collected: 02/09/18 15:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<38		82	38	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,1,1-Trichloroethane	<31		82	31	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,1,1,2,2-Tetrachloroethane	<33		82	33	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,1,2-Trichloroethane	<29		82	29	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,1-Dichloroethane	<34		82	34	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,1-Dichloroethene	<32		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,1-Dichloropropene	<25		82	25	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2,3-Trichlorobenzene	<38		82	38	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2,3-Trichloropropane	<34		82	34	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2,4-Trichlorobenzene	<28		82	28	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2,4-Trimethylbenzene	3200		82	30	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2-Dibromo-3-Chloropropane	<160		410	160	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2-Dibromoethane	<32		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2-Dichlorobenzene	<28		82	28	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2-Dichloroethane	<32		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,2-Dichloropropane	<35		82	35	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,3,5-Trimethylbenzene	970		82	31	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,3-Dichlorobenzene	<33		82	33	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,3-Dichloropropane	<30		82	30	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
1,4-Dichlorobenzene	<30		82	30	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
2,2-Dichloropropane	<37		82	37	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
2-Butanone (MEK)	<170		410	170	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
2-Chlorotoluene	<26		82	26	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
4-Chlorotoluene	<29		82	29	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Benzene	4600		21	12	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Bromobenzene	<29		82	29	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Bromochloromethane	<35		82	35	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Bromodichloromethane	<31		82	31	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Bromoform	<40		82	40	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Bromomethane	<66 *		160	66	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Carbon tetrachloride	<32		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Chlorobenzene	<32		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Chloroethane	<42		82	42	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Chloroform	<31		160	31	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Chloromethane	<26		82	26	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
cis-1,2-Dichloroethene	<34		82	34	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
cis-1,3-Dichloropropene	<34		82	34	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Dibromochloromethane	<40		82	40	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Dibromomethane	<22		82	22	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Dichlorodifluoromethane	<56		160	56	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Ethylbenzene	13000		21	15	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Hexachlorobutadiene	<37		82	37	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Hexane	<41		82	41	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Isopropyl ether	<23		82	23	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Isopropylbenzene	660		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Methyl tert-butyl ether	<32		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Methylene Chloride	<130		410	130	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
n-Butylbenzene	<32		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
N-Propylbenzene	120		82	34	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417010

Lab Sample ID: 500-140832-10

Date Collected: 02/09/18 15:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	610		82	30	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
sec-Butylbenzene	<33		82	33	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Styrene	<32		82	32	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
tert-Butylbenzene	<33		82	33	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Tetrachloroethene	<31		82	31	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Toluene	8000		21	12	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
trans-1,2-Dichloroethene	<29		82	29	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
trans-1,3-Dichloropropene	<30		82	30	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Trichloroethene	<14		41	14	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Trichlorofluoromethane	<35		82	35	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Vinyl chloride	<22		41	22	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Xylenes, Total	12000		41	18	ug/Kg	☼	02/09/18 15:00	02/22/18 15:15	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 126				02/09/18 15:00	02/22/18 15:15	50
4-Bromofluorobenzene (Surr)	93		72 - 124				02/09/18 15:00	02/22/18 15:15	50
Dibromofluoromethane	87		75 - 120				02/09/18 15:00	02/22/18 15:15	50
Toluene-d8 (Surr)	102		75 - 120				02/09/18 15:00	02/22/18 15:15	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126				02/09/18 15:00	02/22/18 15:43	500
4-Bromofluorobenzene (Surr)	98		72 - 124				02/09/18 15:00	02/22/18 15:43	500
Dibromofluoromethane	85		75 - 120				02/09/18 15:00	02/22/18 15:43	500
Toluene-d8 (Surr)	103		75 - 120				02/09/18 15:00	02/22/18 15:43	500

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<230		1100	230	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
1,2-Dichlorobenzene	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
1,3-Dichlorobenzene	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
1,4-Dichlorobenzene	<270		1100	270	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2,2'-oxybis[1-chloropropane]	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2,4,5-Trichlorophenol	<480		2100	480	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2,4,6-Trichlorophenol	<720		2100	720	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2,4-Dichlorophenol	<500		2100	500	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2,4-Dimethylphenol	<800		2100	800	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2,4-Dinitrophenol	<3700		4200	3700	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2,4-Dinitrotoluene	<330		1100	330	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2,6-Dinitrotoluene	<410		1100	410	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2-Chloronaphthalene	<230		1100	230	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2-Chlorophenol	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2-Methylphenol	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2-Nitroaniline	<280		1100	280	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
2-Nitrophenol	<500		2100	500	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
3 & 4 Methylphenol	<350		1100	350	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
3,3'-Dichlorobenzidine	<290		1100	290	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
3-Nitroaniline	<650		2100	650	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
4,6-Dinitro-2-methylphenol	<1700		4200	1700	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
4-Bromophenyl phenyl ether	<280		1100	280	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417010

Lab Sample ID: 500-140832-10

Date Collected: 02/09/18 15:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	<710		2100	710	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
4-Chloroaniline	<980		4200	980	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
4-Chlorophenyl phenyl ether	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
4-Nitroaniline	<880		2100	880	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
4-Nitrophenol	<2000		4200	2000	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Acenaphthene	8600		210	38	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Acenaphthylene	11000		210	28	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Anthracene	6700		210	35	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Benzo[a]anthracene	2300		210	28	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Benzo[a]pyrene	2000		210	41	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Benzo[b]fluoranthene	1700		210	45	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Benzo[g,h,i]perylene	710		210	68	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Benzo[k]fluoranthene	600		210	62	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Benzoic acid	<2100		11000	2100	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Benzyl alcohol	<2100		4200	2100	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Bis(2-chloroethoxy)methane	<210		1100	210	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Bis(2-chloroethyl)ether	<310		1100	310	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Bis(2-ethylhexyl) phthalate	<380		1100	380	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Butyl benzyl phthalate	<400		1100	400	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Carbazole	800 J		1100	520	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Chrysene	2200		210	57	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Dibenz(a,h)anthracene	<41		210	41	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Dibenzofuran	1700		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Diethyl phthalate	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Dimethyl phthalate	<270		1100	270	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Di-n-butyl phthalate	<320		1100	320	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Di-n-octyl phthalate	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Fluoranthene	6000		210	39	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Fluorene	7600		210	29	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Hexachlorobenzene	<49		420	49	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Hexachlorobutadiene	<330		1100	330	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Hexachlorocyclopentadiene	<1200		4200	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Hexachloroethane	<320		1100	320	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Indeno[1,2,3-cd]pyrene	560		210	54	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Isophorone	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Nitrobenzene	<52		210	52	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
N-Nitrosodi-n-propylamine	<260		420	260	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
N-Nitrosodiphenylamine	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Pentachlorophenol	<3400		4200	3400	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Phenol	<470		1100	470	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5
Pyrene	6800		210	42	ug/Kg	☼	02/13/18 17:39	02/14/18 12:52	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	120		25 - 139	02/13/18 17:39	02/14/18 12:52	5
2-Fluorobiphenyl (Surr)	86		44 - 121	02/13/18 17:39	02/14/18 12:52	5
2-Fluorophenol (Surr)	89		46 - 133	02/13/18 17:39	02/14/18 12:52	5
Nitrobenzene-d5 (Surr)	63		41 - 120	02/13/18 17:39	02/14/18 12:52	5
Phenol-d5 (Surr)	85		46 - 125	02/13/18 17:39	02/14/18 12:52	5
Terphenyl-d14 (Surr)	93		35 - 160	02/13/18 17:39	02/14/18 12:52	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417010

Lab Sample ID: 500-140832-10

Date Collected: 02/09/18 15:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	33000		4200	510	ug/Kg	☼	02/13/18 17:39	02/16/18 18:26	50
2-Methylnaphthalene	50000		4200	390	ug/Kg	☼	02/13/18 17:39	02/16/18 18:26	50
Naphthalene	96000		2100	320	ug/Kg	☼	02/13/18 17:39	02/16/18 18:26	50
Phenanthrene	25000		2100	290	ug/Kg	☼	02/13/18 17:39	02/16/18 18:26	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<77		220	77	ug/Kg	☼	02/13/18 16:24	02/14/18 12:50	10
PCB-1221	<96		220	96	ug/Kg	☼	02/13/18 16:24	02/14/18 12:50	10
PCB-1232	<95		220	95	ug/Kg	☼	02/13/18 16:24	02/14/18 12:50	10
PCB-1242	<72		220	72	ug/Kg	☼	02/13/18 16:24	02/14/18 12:50	10
PCB-1248	<86		220	86	ug/Kg	☼	02/13/18 16:24	02/14/18 12:50	10
PCB-1254	<47		220	47	ug/Kg	☼	02/13/18 16:24	02/14/18 12:50	10
PCB-1260	<110		220	110	ug/Kg	☼	02/13/18 16:24	02/14/18 12:50	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	02/13/18 16:24	02/14/18 12:50	10
DCB Decachlorobiphenyl	103		37 - 121	02/13/18 16:24	02/14/18 12:50	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.16		4.9	0.16	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,7,8-PeCDD	0.24	J q	24	0.13	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,4,7,8-HxCDD	<0.14		24	0.14	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,6,7,8-HxCDD	<0.12		24	0.12	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,7,8,9-HxCDD	<0.12		24	0.12	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,4,6,7,8-HpCDD	0.36	J q	24	0.17	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
OCDD	3.9	J B	49	0.13	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
2,3,7,8-TCDF	<0.11		4.9	0.11	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,7,8-PeCDF	<0.15		24	0.15	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
2,3,4,7,8-PeCDF	<0.13		24	0.13	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,4,7,8-HxCDF	<0.15		24	0.15	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,6,7,8-HxCDF	<0.16		24	0.16	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
2,3,4,6,7,8-HxCDF	<0.17		24	0.17	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,7,8,9-HxCDF	<0.19		24	0.19	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,4,6,7,8-HpCDF	0.41	J B q	24	0.10	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
1,2,3,4,7,8,9-HpCDF	<0.16		24	0.16	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5
OCDF	0.37	J B	49	0.089	pg/g	☼	02/16/18 10:10	02/22/18 15:35	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	71		25 - 164	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,7,8-PeCDD	98		25 - 181	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,4,7,8-HxCDD	73		32 - 141	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,6,7,8-HxCDD	68		28 - 130	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,4,6,7,8-HpCDD	82		23 - 140	02/16/18 10:10	02/22/18 15:35	5
13C-OCDD	84		17 - 157	02/16/18 10:10	02/22/18 15:35	5
13C-2,3,7,8-TCDF	62		24 - 169	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,7,8-PeCDF	84		24 - 185	02/16/18 10:10	02/22/18 15:35	5
13C-2,3,4,7,8-PeCDF	83		21 - 178	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,4,7,8-HxCDF	61		26 - 152	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,6,7,8-HxCDF	57		26 - 123	02/16/18 10:10	02/22/18 15:35	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417010

Lab Sample ID: 500-140832-10

Date Collected: 02/09/18 15:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.0

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C-2,3,4,6,7,8-HxCDF	63		28 - 136	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,7,8,9-HxCDF	60		29 - 147	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,4,6,7,8-HpCDF	63		28 - 143	02/16/18 10:10	02/22/18 15:35	5
13C-1,2,3,4,7,8,9-HpCDF	65		26 - 138	02/16/18 10:10	02/22/18 15:35	5
13C-OCDF	73		17 - 157	02/16/18 10:10	02/22/18 15:35	5
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
37Cl4-2,3,7,8-TCDD	80		35 - 197	02/16/18 10:10	02/22/18 15:35	5

Method: 6010C - Metals (ICP)

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Arsenic	3.1		1.2	0.42	mg/Kg	☼	02/13/18 14:50	02/14/18 14:09	1
Barium	88		1.2	0.14	mg/Kg	☼	02/13/18 14:50	02/14/18 14:09	1
Cadmium	<0.044		0.24	0.044	mg/Kg	☼	02/13/18 14:50	02/14/18 14:09	1
Chromium	27		1.2	0.61	mg/Kg	☼	02/13/18 14:50	02/14/18 14:09	1
Lead	7.0	^	0.61	0.28	mg/Kg	☼	02/13/18 14:50	02/14/18 14:09	1
Selenium	0.74	J	1.2	0.72	mg/Kg	☼	02/13/18 14:50	02/14/18 14:09	1
Silver	<0.16		0.61	0.16	mg/Kg	☼	02/13/18 14:50	02/14/18 14:09	1

Method: 7471B - Mercury (CVAA)

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Mercury	0.017	J	0.020	0.0065	mg/Kg	☼	02/14/18 14:00	02/15/18 12:27	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Date Collected: 02/09/18 15:04

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 75.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<38		83	38	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,1,1-Trichloroethane	<32		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,1,2,2-Tetrachloroethane	<33		83	33	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,1,2-Trichloroethane	<29		83	29	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,1-Dichloroethane	<34		83	34	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,1-Dichloroethene	<32		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,1-Dichloropropene	<25		83	25	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2,3-Trichlorobenzene	<38		83	38	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2,3-Trichloropropane	<34		83	34	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2,4-Trichlorobenzene	<28		83	28	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2,4-Trimethylbenzene	<30		83	30	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2-Dibromo-3-Chloropropane	<170		420	170	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2-Dibromoethane	<32		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2-Dichlorobenzene	<28		83	28	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2-Dichloroethane	<33		83	33	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,2-Dichloropropane	<36		83	36	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,3,5-Trimethylbenzene	<32		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,3-Dichlorobenzene	<33		83	33	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,3-Dichloropropane	<30		83	30	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
1,4-Dichlorobenzene	<30		83	30	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
2,2-Dichloropropane	<37		83	37	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
2-Butanone (MEK)	<180		420	180	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
2-Chlorotoluene	<26		83	26	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
4-Chlorotoluene	<29		83	29	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Benzene	190		21	12	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Bromobenzene	<30		83	30	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Bromochloromethane	<36		83	36	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Bromodichloromethane	<31		83	31	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Bromoform	<40		83	40	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Bromomethane	<66 *		170	66	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Carbon tetrachloride	<32		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Chlorobenzene	<32		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Chloroethane	<42		83	42	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Chloroform	<31		170	31	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Chloromethane	<27		83	27	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
cis-1,2-Dichloroethene	<34		83	34	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
cis-1,3-Dichloropropene	<35		83	35	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Dibromochloromethane	<41		83	41	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Dibromomethane	<22		83	22	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Dichlorodifluoromethane	<56		170	56	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Ethylbenzene	77		21	15	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Hexachlorobutadiene	<37		83	37	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Hexane	<41		83	41	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Isopropyl ether	<23		83	23	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Isopropylbenzene	250		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Methyl tert-butyl ether	<33		83	33	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Methylene Chloride	<140		420	140	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
n-Butylbenzene	<32		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
N-Propylbenzene	<34		83	34	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Date Collected: 02/09/18 15:04

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 75.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<30		83	30	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
sec-Butylbenzene	<33		83	33	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Styrene	<32		83	32	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
tert-Butylbenzene	<33		83	33	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Tetrachloroethene	<31		83	31	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Toluene	470		21	12	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
trans-1,2-Dichloroethene	<29		83	29	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
trans-1,3-Dichloropropene	<30		83	30	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Trichloroethene	<14		42	14	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Trichlorofluoromethane	<36		83	36	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Vinyl chloride	<22		42	22	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Xylenes, Total	130		42	18	ug/Kg	☼	02/09/18 15:04	02/22/18 16:10	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 126				02/09/18 15:04	02/22/18 16:10	50
4-Bromofluorobenzene (Surr)	97		72 - 124				02/09/18 15:04	02/22/18 16:10	50
Dibromofluoromethane	86		75 - 120				02/09/18 15:04	02/22/18 16:10	50
Toluene-d8 (Surr)	101		75 - 120				02/09/18 15:04	02/22/18 16:10	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<230		1100	230	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
1,2-Dichlorobenzene	<260		1100	260	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
1,3-Dichlorobenzene	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
1,4-Dichlorobenzene	<280		1100	280	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
1-Methylnaphthalene	1700		430	53	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2,2'-oxybis[1-chloropropane]	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2,4,5-Trichlorophenol	<490		2100	490	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2,4,6-Trichlorophenol	<740		2100	740	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2,4-Dichlorophenol	<510		2100	510	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2,4-Dimethylphenol	<820		2100	820	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2,4-Dinitrophenol	<3800		4300	3800	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2,4-Dinitrotoluene	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2,6-Dinitrotoluene	<420		1100	420	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2-Chloronaphthalene	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2-Chlorophenol	<370		1100	370	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2-Methylnaphthalene	990		430	40	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2-Methylphenol	<350		1100	350	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2-Nitroaniline	<290		1100	290	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
2-Nitrophenol	<510		2100	510	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
3 & 4 Methylphenol	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
3,3'-Dichlorobenzidine	<300		1100	300	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
3-Nitroaniline	<670		2100	670	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
4,6-Dinitro-2-methylphenol	<1700		4300	1700	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
4-Bromophenyl phenyl ether	<280		1100	280	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
4-Chloro-3-methylphenol	<730		2100	730	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
4-Chloroaniline	<1000		4300	1000	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
4-Chlorophenyl phenyl ether	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
4-Nitroaniline	<900		2100	900	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
4-Nitrophenol	<2000		4300	2000	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Date Collected: 02/09/18 15:04

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 75.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	2200		210	39	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Acenaphthylene	480		210	28	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Anthracene	2400		210	36	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Benzo[a]anthracene	2900		210	29	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Benzo[a]pyrene	3200		210	42	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Benzo[b]fluoranthene	3500		210	46	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Benzo[g,h,i]perylene	1300		210	69	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Benzo[k]fluoranthene	1700		210	63	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Benzoic acid	<2100		11000	2100	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Benzyl alcohol	<2100		4300	2100	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Bis(2-chloroethoxy)methane	<220		1100	220	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Bis(2-chloroethyl)ether	<320		1100	320	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Bis(2-ethylhexyl) phthalate	<390		1100	390	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Butyl benzyl phthalate	<410		1100	410	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Carbazole	<540		1100	540	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Chrysene	2800		210	59	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Dibenz(a,h)anthracene	300		210	42	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Dibenzofuran	610 J		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Diethyl phthalate	<360		1100	360	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Dimethyl phthalate	<280		1100	280	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Di-n-butyl phthalate	<330		1100	330	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Di-n-octyl phthalate	<350		1100	350	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Fluoranthene	6600		210	40	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Fluorene	1500		210	30	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Hexachlorobenzene	<50		430	50	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Hexachlorobutadiene	<340		1100	340	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Hexachlorocyclopentadiene	<1200		4300	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Hexachloroethane	<330		1100	330	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Indeno[1,2,3-cd]pyrene	1300		210	56	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Isophorone	<240		1100	240	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Naphthalene	1400		210	33	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Nitrobenzene	<54		210	54	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
N-Nitrosodi-n-propylamine	<260		430	260	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
N-Nitrosodiphenylamine	<250		1100	250	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Pentachlorophenol	<3500		4300	3500	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Phenanthrene	8100		210	30	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Phenol	<480		1100	480	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5
Pyrene	5200		210	43	ug/Kg	☼	02/13/18 17:39	02/14/18 13:46	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	128		25 - 139	02/13/18 17:39	02/14/18 13:46	5
2-Fluorobiphenyl (Surr)	74		44 - 121	02/13/18 17:39	02/14/18 13:46	5
2-Fluorophenol (Surr)	77		46 - 133	02/13/18 17:39	02/14/18 13:46	5
Nitrobenzene-d5 (Surr)	49		41 - 120	02/13/18 17:39	02/14/18 13:46	5
Phenol-d5 (Surr)	66		46 - 125	02/13/18 17:39	02/14/18 13:46	5
Terphenyl-d14 (Surr)	87		35 - 160	02/13/18 17:39	02/14/18 13:46	5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<78		220	78	ug/Kg	☼	02/13/18 16:24	02/14/18 13:05	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Date Collected: 02/09/18 15:04

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 75.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	<97		220	97	ug/Kg	☼	02/13/18 16:24	02/14/18 13:05	10
PCB-1232	<96		220	96	ug/Kg	☼	02/13/18 16:24	02/14/18 13:05	10
PCB-1242	910		220	72	ug/Kg	☼	02/13/18 16:24	02/14/18 13:05	10
PCB-1248	<87		220	87	ug/Kg	☼	02/13/18 16:24	02/14/18 13:05	10
PCB-1254	460		220	47	ug/Kg	☼	02/13/18 16:24	02/14/18 13:05	10
PCB-1260	<110		220	110	ug/Kg	☼	02/13/18 16:24	02/14/18 13:05	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	118		49 - 129	02/13/18 16:24	02/14/18 13:05	10
DCB Decachlorobiphenyl	114		37 - 121	02/13/18 16:24	02/14/18 13:05	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	1.6	J	4.9	0.22	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,7,8-PeCDD	1.7	J q	24	0.22	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,4,7,8-HxCDD	5.7	J	24	0.30	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,6,7,8-HxCDD	30		24	0.27	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,7,8,9-HxCDD	9.8	J	24	0.27	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,4,6,7,8-HpCDD	920		24	0.20	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
OCDD	13000	B	49	1.0	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
2,3,7,8-TCDF	13	q	4.9	0.57	pg/g	☼	02/16/18 10:10	02/23/18 05:18	5
1,2,3,7,8-PeCDF	3.0	J q	24	0.35	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
2,3,4,7,8-PeCDF	2.5	J	24	0.32	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,4,7,8-HxCDF	7.4	J	24	0.31	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,6,7,8-HxCDF	10	J	24	0.31	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
2,3,4,6,7,8-HxCDF	1.7	J	24	0.32	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,7,8,9-HxCDF	<0.39		24	0.39	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,4,6,7,8-HpCDF	270	B	24	0.33	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
1,2,3,4,7,8,9-HpCDF	14	J	24	0.48	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5
OCDF	1100	B	49	0.21	pg/g	☼	02/16/18 10:10	02/22/18 16:37	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>13C-2,3,7,8-TCDD</i>	66		25 - 164	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,7,8-PeCDD</i>	95		25 - 181	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,4,7,8-HxCDD</i>	66		32 - 141	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,6,7,8-HxCDD</i>	64		28 - 130	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,4,6,7,8-HpCDD</i>	85		23 - 140	02/16/18 10:10	02/22/18 16:37	5
<i>13C-OCDD</i>	93		17 - 157	02/16/18 10:10	02/22/18 16:37	5
<i>13C-2,3,7,8-TCDF</i>	54		24 - 169	02/16/18 10:10	02/22/18 16:37	5
<i>13C-2,3,7,8-TCDF</i>	65		24 - 169	02/16/18 10:10	02/23/18 05:18	5
<i>13C-1,2,3,7,8-PeCDF</i>	73		24 - 185	02/16/18 10:10	02/22/18 16:37	5
<i>13C-2,3,4,7,8-PeCDF</i>	75		21 - 178	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,4,7,8-HxCDF</i>	55		26 - 152	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,6,7,8-HxCDF</i>	52		26 - 123	02/16/18 10:10	02/22/18 16:37	5
<i>13C-2,3,4,6,7,8-HxCDF</i>	57		28 - 136	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,7,8,9-HxCDF</i>	57		29 - 147	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,4,6,7,8-HpCDF</i>	61		28 - 143	02/16/18 10:10	02/22/18 16:37	5
<i>13C-1,2,3,4,7,8,9-HpCDF</i>	65		26 - 138	02/16/18 10:10	02/22/18 16:37	5
<i>13C-OCDF</i>	83		17 - 157	02/16/18 10:10	02/22/18 16:37	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Date Collected: 02/09/18 15:04

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 75.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	73		35 - 197	02/16/18 10:10	02/22/18 16:37	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.1		1.3	0.43	mg/Kg	☼	02/13/18 14:50	02/14/18 14:13	1
Barium	150		1.3	0.14	mg/Kg	☼	02/13/18 14:50	02/14/18 14:13	1
Cadmium	0.69	B	0.25	0.045	mg/Kg	☼	02/13/18 14:50	02/14/18 14:13	1
Chromium	13		1.3	0.62	mg/Kg	☼	02/13/18 14:50	02/14/18 14:13	1
Lead	84	^	0.63	0.29	mg/Kg	☼	02/13/18 14:50	02/14/18 14:13	1
Selenium	<0.74		1.3	0.74	mg/Kg	☼	02/13/18 14:50	02/14/18 14:13	1
Silver	0.75		0.63	0.16	mg/Kg	☼	02/13/18 14:50	02/14/18 14:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.0		0.39	0.13	mg/Kg	☼	02/14/18 14:00	02/15/18 13:47	20

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417012

Lab Sample ID: 500-140832-12

Date Collected: 02/09/18 15:10

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1800		3800	1800	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,1,1-Trichloroethane	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,1,2,2-Tetrachloroethane	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,1,2-Trichloroethane	<1300		3800	1300	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,1-Dichloroethane	<1600		3800	1600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,1-Dichloroethene	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,1-Dichloropropene	<1100		3800	1100	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2,3-Trichlorobenzene	<1700		3800	1700	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2,3-Trichloropropane	<1600		3800	1600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2,4-Trichlorobenzene	<1300		3800	1300	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2,4-Trimethylbenzene	130000		3800	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2-Dibromo-3-Chloropropane	<7600		19000	7600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2-Dibromoethane	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2-Dichlorobenzene	<1300		3800	1300	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2-Dichloroethane	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,2-Dichloropropane	<1600		3800	1600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,3,5-Trimethylbenzene	39000		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,3-Dichlorobenzene	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,3-Dichloropropane	<1400		3800	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
1,4-Dichlorobenzene	<1400		3800	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
2,2-Dichloropropane	<1700		3800	1700	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
2-Butanone (MEK)	<8100		19000	8100	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
2-Chlorotoluene	<1200		3800	1200	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
4-Chlorotoluene	<1300		3800	1300	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Benzene	200000		950	560	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Bromobenzene	<1400		3800	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Bromochloromethane	<1600		3800	1600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Bromodichloromethane	<1400		3800	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Bromoform	<1800		3800	1800	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Bromomethane	<3000 *		7600	3000	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Carbon tetrachloride	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Chlorobenzene	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Chloroethane	<1900		3800	1900	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Chloroform	<1400		7600	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Chloromethane	<1200		3800	1200	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
cis-1,2-Dichloroethene	<1600		3800	1600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
cis-1,3-Dichloropropene	<1600		3800	1600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Dibromochloromethane	<1900		3800	1900	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Dibromomethane	<1000		3800	1000	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Dichlorodifluoromethane	<2600		7600	2600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Ethylbenzene	520000		950	700	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Hexachlorobutadiene	<1700		3800	1700	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Hexane	<1900		3800	1900	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Isopropyl ether	<1100		3800	1100	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Isopropylbenzene	32000		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Methyl tert-butyl ether	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Methylene Chloride	<6200		19000	6200	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
n-Butylbenzene	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
N-Propylbenzene	5300		3800	1600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417012

Lab Sample ID: 500-140832-12

Date Collected: 02/09/18 15:10

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	28000		3800	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
sec-Butylbenzene	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Styrene	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
tert-Butylbenzene	<1500		3800	1500	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Tetrachloroethene	<1400		3800	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Toluene	280000		950	560	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
trans-1,2-Dichloroethene	<1300		3800	1300	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
trans-1,3-Dichloropropene	<1400		3800	1400	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Trichloroethene	<630		1900	630	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Trichlorofluoromethane	<1600		3800	1600	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Vinyl chloride	<1000		1900	1000	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Xylenes, Total	470000		1900	840	ug/Kg	☼	02/09/18 15:10	02/22/18 16:38	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		75 - 126				02/09/18 15:10	02/22/18 16:38	1000
4-Bromofluorobenzene (Surr)	97		72 - 124				02/09/18 15:10	02/22/18 16:38	1000
Dibromofluoromethane	87		75 - 120				02/09/18 15:10	02/22/18 16:38	1000
Toluene-d8 (Surr)	103		75 - 120				02/09/18 15:10	02/22/18 16:38	1000

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 126				02/09/18 15:10	02/22/18 17:05	10000
4-Bromofluorobenzene (Surr)	100		72 - 124				02/09/18 15:10	02/22/18 17:05	10000
Dibromofluoromethane	86		75 - 120				02/09/18 15:10	02/22/18 17:05	10000
Toluene-d8 (Surr)	102		75 - 120				02/09/18 15:10	02/22/18 17:05	10000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<340		1600	340	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
1,2-Dichlorobenzene	<380		1600	380	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
1,3-Dichlorobenzene	<360		1600	360	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
1,4-Dichlorobenzene	<400		1600	400	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2,2'-oxybis[1-chloropropane]	<370		1600	370	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2,4,5-Trichlorophenol	<720		3100	720	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2,4,6-Trichlorophenol	<1100		3100	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2,4-Dichlorophenol	<750		3100	750	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2,4-Dimethylphenol	<1200		3100	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2,4-Dinitrophenol	<5600		6400	5600	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2,4-Dinitrotoluene	<500		1600	500	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2,6-Dinitrotoluene	<620		1600	620	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2-Chloronaphthalene	<350		1600	350	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2-Chlorophenol	<540		1600	540	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2-Methylphenol	<510		1600	510	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2-Nitroaniline	<420		1600	420	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
2-Nitrophenol	<750		3100	750	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
3 & 4 Methylphenol	630 J		1600	530	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
3,3'-Dichlorobenzidine	<440		1600	440	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
3-Nitroaniline	<980		3100	980	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
4,6-Dinitro-2-methylphenol	<2500		6400	2500	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
4-Bromophenyl phenyl ether	<420		1600	420	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417012

Lab Sample ID: 500-140832-12

Date Collected: 02/09/18 15:10

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	<1100		3100	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
4-Chloroaniline	<1500		6400	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
4-Chlorophenyl phenyl ether	<370		1600	370	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
4-Nitroaniline	<1300		3100	1300	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
4-Nitrophenol	<3000		6400	3000	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Acenaphthylene	9300		310	42	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Benzo[a]anthracene	18000		310	42	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Benzo[a]pyrene	16000		310	61	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Benzo[b]fluoranthene	15000		310	68	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Benzo[g,h,i]perylene	4700		310	100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Benzo[k]fluoranthene	5200		310	93	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Benzoic acid	<3100		16000	3100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Benzyl alcohol	<3100		6400	3100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Bis(2-chloroethoxy)methane	<320		1600	320	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Bis(2-chloroethyl)ether	<470		1600	470	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Bis(2-ethylhexyl) phthalate	<580		1600	580	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Butyl benzyl phthalate	<600		1600	600	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Carbazole	4000		1600	790	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Chrysene	15000		310	86	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Dibenz(a,h)anthracene	1400		310	61	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Dibenzofuran	8300		1600	370	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Diethyl phthalate	<540		1600	540	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Dimethyl phthalate	<410		1600	410	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Di-n-butyl phthalate	<480		1600	480	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Di-n-octyl phthalate	<520		1600	520	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Hexachlorobenzene	<73		640	73	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Hexachlorobutadiene	<500		1600	500	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Hexachlorocyclopentadiene	<1800		6400	1800	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Hexachloroethane	<480		1600	480	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Indeno[1,2,3-cd]pyrene	4300		310	82	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Isophorone	<350		1600	350	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Nitrobenzene	<79		310	79	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
N-Nitrosodi-n-propylamine	<390		640	390	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
N-Nitrosodiphenylamine	<370		1600	370	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Pentachlorophenol	<5100		6400	5100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5
Phenol	<700		1600	700	ug/Kg	☼	02/13/18 17:39	02/14/18 14:12	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	113		25 - 139	02/13/18 17:39	02/14/18 14:12	5
2-Fluorobiphenyl (Surr)	76		44 - 121	02/13/18 17:39	02/14/18 14:12	5
2-Fluorophenol (Surr)	77		46 - 133	02/13/18 17:39	02/14/18 14:12	5
Nitrobenzene-d5 (Surr)	63		41 - 120	02/13/18 17:39	02/14/18 14:12	5
Phenol-d5 (Surr)	75		46 - 125	02/13/18 17:39	02/14/18 14:12	5
Terphenyl-d14 (Surr)	88		35 - 160	02/13/18 17:39	02/14/18 14:12	5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	100000		1600	280	ug/Kg	☼	02/13/18 17:39	02/16/18 18:52	25
Anthracene	42000		1600	260	ug/Kg	☼	02/13/18 17:39	02/16/18 18:52	25
Fluoranthene	46000		1600	290	ug/Kg	☼	02/13/18 17:39	02/16/18 18:52	25

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417012

Lab Sample ID: 500-140832-12

Date Collected: 02/09/18 15:10

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	55000		1600	220	ug/Kg	☼	02/13/18 17:39	02/16/18 18:52	25
Pyrene	45000		1600	310	ug/Kg	☼	02/13/18 17:39	02/16/18 18:52	25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	180000		13000	1500	ug/Kg	☼	02/13/18 17:39	02/16/18 19:19	100
2-Methylnaphthalene	260000		13000	1200	ug/Kg	☼	02/13/18 17:39	02/16/18 19:19	100
Phenanthrene	160000		6300	880	ug/Kg	☼	02/13/18 17:39	02/16/18 19:19	100

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	490000		13000	1900	ug/Kg	☼	02/13/18 17:39	02/16/18 20:38	200

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<110		320	110	ug/Kg	☼	02/13/18 16:24	02/14/18 13:21	10
PCB-1221	<140		320	140	ug/Kg	☼	02/13/18 16:24	02/14/18 13:21	10
PCB-1232	<140		320	140	ug/Kg	☼	02/13/18 16:24	02/14/18 13:21	10
PCB-1242	<110		320	110	ug/Kg	☼	02/13/18 16:24	02/14/18 13:21	10
PCB-1248	<130		320	130	ug/Kg	☼	02/13/18 16:24	02/14/18 13:21	10
PCB-1254	<69		320	69	ug/Kg	☼	02/13/18 16:24	02/14/18 13:21	10
PCB-1260	<160		320	160	ug/Kg	☼	02/13/18 16:24	02/14/18 13:21	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		49 - 129	02/13/18 16:24	02/14/18 13:21	10
DCB Decachlorobiphenyl	91		37 - 121	02/13/18 16:24	02/14/18 13:21	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.31		9.6	0.31	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,7,8-PeCDD	<0.31		48	0.31	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,4,7,8-HxCDD	<0.24		48	0.24	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,6,7,8-HxCDD	0.74	J q	48	0.23	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,7,8,9-HxCDD	<0.22		48	0.22	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,4,6,7,8-HpCDD	8.4	J	48	0.49	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
OCDD	84	J B	96	0.42	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
2,3,7,8-TCDF	1.9	J	9.6	0.32	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,7,8-PeCDF	<0.25		48	0.25	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
2,3,4,7,8-PeCDF	<0.33		48	0.33	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,4,7,8-HxCDF	<0.46		48	0.46	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,6,7,8-HxCDF	<0.47		48	0.47	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
2,3,4,6,7,8-HxCDF	<0.51		48	0.51	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,7,8,9-HxCDF	<0.63		48	0.63	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,4,6,7,8-HpCDF	3.4	J B	48	0.25	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
1,2,3,4,7,8,9-HpCDF	<0.43		48	0.43	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10
OCDF	7.7	J B	96	0.30	pg/g	☼	02/16/18 10:10	02/22/18 14:33	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	58		25 - 164	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,7,8-PeCDD	76		25 - 181	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,4,7,8-HxCDD	53	q	32 - 141	02/16/18 10:10	02/22/18 14:33	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417012

Lab Sample ID: 500-140832-12

Date Collected: 02/09/18 15:10

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.9

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C-1,2,3,6,7,8-HxCDD	58		28 - 130	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,4,6,7,8-HpCDD	57		23 - 140	02/16/18 10:10	02/22/18 14:33	10
13C-OCDD	52		17 - 157	02/16/18 10:10	02/22/18 14:33	10
13C-2,3,7,8-TCDF	54		24 - 169	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,7,8-PeCDF	67		24 - 185	02/16/18 10:10	02/22/18 14:33	10
13C-2,3,4,7,8-PeCDF	61		21 - 178	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,4,7,8-HxCDF	51		26 - 152	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,6,7,8-HxCDF	45		26 - 123	02/16/18 10:10	02/22/18 14:33	10
13C-2,3,4,6,7,8-HxCDF	47		28 - 136	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,7,8,9-HxCDF	43		29 - 147	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,4,6,7,8-HpCDF	44		28 - 143	02/16/18 10:10	02/22/18 14:33	10
13C-1,2,3,4,7,8,9-HpCDF	41		26 - 138	02/16/18 10:10	02/22/18 14:33	10
13C-OCDF	41		17 - 157	02/16/18 10:10	02/22/18 14:33	10
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	68		35 - 197	02/16/18 10:10	02/22/18 14:33	10

Method: 6010C - Metals (ICP)

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Arsenic	3.7		1.9	0.66	mg/Kg	☼	02/13/18 14:50	02/14/18 14:17	1
Barium	76		1.9	0.22	mg/Kg	☼	02/13/18 14:50	02/14/18 14:17	1
Cadmium	0.36	J B	0.38	0.069	mg/Kg	☼	02/13/18 14:50	02/14/18 14:17	1
Chromium	26		1.9	0.95	mg/Kg	☼	02/13/18 14:50	02/14/18 14:17	1
Lead	43	^	0.96	0.44	mg/Kg	☼	02/13/18 14:50	02/14/18 14:17	1
Selenium	<1.1		1.9	1.1	mg/Kg	☼	02/13/18 14:50	02/14/18 14:17	1
Silver	0.50	J	0.96	0.25	mg/Kg	☼	02/13/18 14:50	02/14/18 14:17	1

Method: 7471B - Mercury (CVAA)

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Mercury	0.60		0.032	0.011	mg/Kg	☼	02/14/18 14:00	02/15/18 12:44	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617013

Lab Sample ID: 500-140832-13

Date Collected: 02/09/18 12:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<36		79	36	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,1,1-Trichloroethane	<30		79	30	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,1,2,2-Tetrachloroethane	<31		79	31	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,1,2-Trichloroethane	<28		79	28	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,1-Dichloroethane	<32		79	32	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,1-Dichloroethene	<31		79	31	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,1-Dichloropropene	<23		79	23	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2,3-Trichlorobenzene	<36		79	36	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2,3-Trichloropropane	<33		79	33	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2,4-Trichlorobenzene	<27		79	27	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2,4-Trimethylbenzene	<28		79	28	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2-Dibromo-3-Chloropropane	<160		390	160	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2-Dibromoethane	<30		79	30	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2-Dichlorobenzene	<26		79	26	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2-Dichloroethane	<31		79	31	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,2-Dichloropropane	<34		79	34	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,3,5-Trimethylbenzene	<30		79	30	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,3-Dichlorobenzene	<31		79	31	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,3-Dichloropropane	<28		79	28	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
1,4-Dichlorobenzene	<29		79	29	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
2,2-Dichloropropane	<35		79	35	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
2-Butanone (MEK)	<170		390	170	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
2-Chlorotoluene	<25		79	25	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
4-Chlorotoluene	<28		79	28	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Benzene	<11		20	11	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Bromobenzene	<28		79	28	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Bromochloromethane	<34		79	34	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Bromodichloromethane	<29		79	29	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Bromoform	<38		79	38	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Bromomethane	<63		160	63	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Carbon tetrachloride	<30		79	30	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Chlorobenzene	<30		79	30	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Chloroethane	<40		79	40	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Chloroform	<29		160	29	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Chloromethane	<25		79	25	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
cis-1,2-Dichloroethene	<32		79	32	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
cis-1,3-Dichloropropene	<33		79	33	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Dibromochloromethane	<38		79	38	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Dibromomethane	<21		79	21	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Dichlorodifluoromethane	<53		160	53	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Ethylbenzene	<14		20	14	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Hexachlorobutadiene	<35		79	35	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Hexane	64 J		79	39	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Isopropyl ether	<22		79	22	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Isopropylbenzene	<30		79	30	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Methyl tert-butyl ether	<31		79	31	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Methylene Chloride	<130		390	130	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
n-Butylbenzene	<31		79	31	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
N-Propylbenzene	<33		79	33	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617013

Lab Sample ID: 500-140832-13

Date Collected: 02/09/18 12:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<28		79	28	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
sec-Butylbenzene	<31		79	31	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Styrene	<30		79	30	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
tert-Butylbenzene	<31		79	31	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Tetrachloroethene	<29		79	29	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Toluene	23		20	12	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
trans-1,2-Dichloroethene	<28		79	28	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
trans-1,3-Dichloropropene	<28		79	28	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Trichloroethene	<13		39	13	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Trichlorofluoromethane	<34		79	34	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Vinyl chloride	<21		39	21	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50
Xylenes, Total	<17		39	17	ug/Kg	☼	02/09/18 12:00	02/23/18 13:29	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		75 - 126	02/09/18 12:00	02/23/18 13:29	50
4-Bromofluorobenzene (Surr)	98		72 - 124	02/09/18 12:00	02/23/18 13:29	50
Dibromofluoromethane	98		75 - 120	02/09/18 12:00	02/23/18 13:29	50
Toluene-d8 (Surr)	102		75 - 120	02/09/18 12:00	02/23/18 13:29	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<45		210	45	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
1,2-Dichlorobenzene	<49		210	49	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
1,3-Dichlorobenzene	<47		210	47	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
1,4-Dichlorobenzene	<53		210	53	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
1-Methylnaphthalene	83 J		84	10	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2,2'-oxybis[1-chloropropane]	<48		210	48	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2,4,5-Trichlorophenol	<94		410	94	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2,4,6-Trichlorophenol	<140		410	140	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2,4-Dichlorophenol	<98		410	98	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2,4-Dimethylphenol	<160		410	160	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2,4-Dinitrophenol	<730		840	730	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2,4-Dinitrotoluene	<66		210	66	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2,6-Dinitrotoluene	<81		210	81	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2-Chloronaphthalene	<46		210	46	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2-Chlorophenol	<71		210	71	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2-Methylnaphthalene	130		84	7.6	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2-Methylphenol	<66		210	66	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2-Nitroaniline	<56		210	56	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
2-Nitrophenol	<98		410	98	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
3 & 4 Methylphenol	<69		210	69	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
3,3'-Dichlorobenzidine	<58		210	58	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
3-Nitroaniline	<130		410	130	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
4,6-Dinitro-2-methylphenol	<330		840	330	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
4-Bromophenyl phenyl ether	<55		210	55	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
4-Chloro-3-methylphenol	<140		410	140	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
4-Chloroaniline	<190		840	190	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
4-Chlorophenyl phenyl ether	<48		210	48	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
4-Nitroaniline	<170		410	170	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
4-Nitrophenol	<390		840	390	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617013

Lab Sample ID: 500-140832-13

Date Collected: 02/09/18 12:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	69		41	7.4	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Acenaphthylene	9.5	J	41	5.5	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Anthracene	27	J	41	6.9	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Benzo[a]anthracene	21	J	41	5.6	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Benzo[a]pyrene	15	J	41	8.0	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Benzo[b]fluoranthene	13	J	41	8.9	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Benzo[g,h,i]perylene	<13		41	13	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Benzo[k]fluoranthene	<12		41	12	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Benzoic acid	690	J	2100	410	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Benzyl alcohol	<410		840	410	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Bis(2-chloroethoxy)methane	<42		210	42	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Bis(2-chloroethyl)ether	<62		210	62	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Bis(2-ethylhexyl) phthalate	<76		210	76	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Butyl benzyl phthalate	<79		210	79	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Carbazole	<100		210	100	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Chrysene	16	J	41	11	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Dibenz(a,h)anthracene	<8.0		41	8.0	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Dibenzofuran	<48		210	48	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Diethyl phthalate	<70		210	70	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Dimethyl phthalate	<54		210	54	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Di-n-butyl phthalate	<63		210	63	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Di-n-octyl phthalate	<68		210	68	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Fluoranthene	35	J	41	7.7	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Fluorene	33	J	41	5.8	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Hexachlorobenzene	<9.6		84	9.6	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Hexachlorobutadiene	<65		210	65	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Hexachlorocyclopentadiene	<240		840	240	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Hexachloroethane	<63		210	63	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Indeno[1,2,3-cd]pyrene	<11		41	11	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Isophorone	<46		210	46	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Naphthalene	250		41	6.4	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Nitrobenzene	<10		41	10	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
N-Nitrosodi-n-propylamine	<51		84	51	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
N-Nitrosodiphenylamine	<49		210	49	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Pentachlorophenol	<660		840	660	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Phenanthrene	96		41	5.8	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Phenol	<92		210	92	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1
Pyrene	45		41	8.2	ug/Kg	☼	02/13/18 17:39	02/14/18 10:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	94		25 - 139	02/13/18 17:39	02/14/18 10:58	1
2-Fluorobiphenyl (Surr)	66		44 - 121	02/13/18 17:39	02/14/18 10:58	1
2-Fluorophenol (Surr)	73		46 - 133	02/13/18 17:39	02/14/18 10:58	1
Nitrobenzene-d5 (Surr)	60		41 - 120	02/13/18 17:39	02/14/18 10:58	1
Phenol-d5 (Surr)	76		46 - 125	02/13/18 17:39	02/14/18 10:58	1
Terphenyl-d14 (Surr)	75		35 - 160	02/13/18 17:39	02/14/18 10:58	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.0	J	1.2	0.42	mg/Kg	☼	02/13/18 14:55	02/14/18 16:21	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617013

Lab Sample ID: 500-140832-13

Date Collected: 02/09/18 12:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.2

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	22	V	1.2	0.14	mg/Kg	☼	02/13/18 14:55	02/14/18 16:21	1
Cadmium	0.12	J B	0.25	0.044	mg/Kg	☼	02/13/18 14:55	02/14/18 16:21	1
Chromium	8.9		1.2	0.61	mg/Kg	☼	02/13/18 14:55	02/14/18 16:21	1
Lead	2.4	^	0.61	0.28	mg/Kg	☼	02/13/18 14:55	02/14/18 16:21	1
Selenium	<0.72		1.2	0.72	mg/Kg	☼	02/13/18 14:55	02/14/18 16:21	1
Silver	<0.16		0.61	0.16	mg/Kg	☼	02/13/18 14:55	02/14/18 16:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.019	0.0064	mg/Kg	☼	02/14/18 14:00	02/15/18 12:46	1



Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617014

Lab Sample ID: 500-140832-14

Date Collected: 02/09/18 13:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 51.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<300		640	300	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,1,1-Trichloroethane	<240		640	240	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,1,2,2-Tetrachloroethane	<260		640	260	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,1,2-Trichloroethane	<230		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,1-Dichloroethane	<260		640	260	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,1-Dichloroethene	<250		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,1-Dichloropropene	<190		640	190	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2,3-Trichlorobenzene	<290		640	290	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2,3-Trichloropropane	<270		640	270	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2,4-Trichlorobenzene	<220		640	220	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2,4-Trimethylbenzene	30000		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2-Dibromo-3-Chloropropane	<1300		3200	1300	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2-Dibromoethane	<250		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2-Dichlorobenzene	<210		640	210	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2-Dichloroethane	<250		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,2-Dichloropropane	<280		640	280	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,3,5-Trimethylbenzene	7900		640	240	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,3-Dichlorobenzene	<260		640	260	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,3-Dichloropropane	<230		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
1,4-Dichlorobenzene	<230		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
2,2-Dichloropropane	<290		640	290	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
2-Butanone (MEK)	<1400		3200	1400	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
2-Chlorotoluene	<200		640	200	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
4-Chlorotoluene	<230		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Benzene	750		160	94	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Bromobenzene	<230		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Bromochloromethane	<280		640	280	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Bromodichloromethane	<240		640	240	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Bromoform	<310		640	310	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Bromomethane	<510		1300	510	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Carbon tetrachloride	<250		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Chlorobenzene	<250		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Chloroethane	<320		640	320	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Chloroform	<240		1300	240	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Chloromethane	<210		640	210	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
cis-1,2-Dichloroethene	<260		640	260	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
cis-1,3-Dichloropropene	<270		640	270	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Dibromochloromethane	<310		640	310	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Dibromomethane	<170		640	170	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Dichlorodifluoromethane	<430		1300	430	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Ethylbenzene	21000		160	120	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Hexachlorobutadiene	<290		640	290	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Hexane	<320		640	320	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Isopropyl ether	<180		640	180	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Isopropylbenzene	5500		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Methyl tert-butyl ether	<250		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Methylene Chloride	<1000		3200	1000	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
n-Butylbenzene	2600		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
N-Propylbenzene	1300		640	270	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617014

Lab Sample ID: 500-140832-14

Date Collected: 02/09/18 13:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 51.2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	2700		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
sec-Butylbenzene	<260		640	260	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Styrene	<250		640	250	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
tert-Butylbenzene	<260		640	260	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Tetrachloroethene	<240		640	240	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Toluene	320		160	95	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
trans-1,2-Dichloroethene	<230		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
trans-1,3-Dichloropropene	<230		640	230	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Trichloroethene	<110		320	110	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Trichlorofluoromethane	<280		640	280	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Vinyl chloride	<170		320	170	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Xylenes, Total	8800		320	140	ug/Kg	☼	02/09/18 13:00	02/22/18 13:03	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		75 - 126				02/09/18 13:00	02/22/18 13:03	200
4-Bromofluorobenzene (Surr)	96		72 - 124				02/09/18 13:00	02/22/18 13:03	200
Dibromofluoromethane	99		75 - 120				02/09/18 13:00	02/22/18 13:03	200
Toluene-d8 (Surr)	102		75 - 120				02/09/18 13:00	02/22/18 13:03	200

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		75 - 126	02/09/18 13:00	02/22/18 13:29	2000
4-Bromofluorobenzene (Surr)	100		72 - 124	02/09/18 13:00	02/22/18 13:29	2000
Dibromofluoromethane	98		75 - 120	02/09/18 13:00	02/22/18 13:29	2000
Toluene-d8 (Surr)	104		75 - 120	02/09/18 13:00	02/22/18 13:29	2000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<350		1600	350	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
1,2-Dichlorobenzene	<390		1600	390	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
1,3-Dichlorobenzene	<360		1600	360	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
1,4-Dichlorobenzene	<410		1600	410	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
1-Methylnaphthalene	10000		650	79	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2,2'-oxybis[1-chloropropane]	<370		1600	370	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2,4,5-Trichlorophenol	<740		3200	740	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2,4,6-Trichlorophenol	<1100		3200	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2,4-Dichlorophenol	<770		3200	770	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2,4-Dimethylphenol	<1200		3200	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2,4-Dinitrophenol	<5700		6500	5700	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2,4-Dinitrotoluene	<510		1600	510	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2,6-Dinitrotoluene	<640		1600	640	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2-Chloronaphthalene	<360		1600	360	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2-Chlorophenol	<550		1600	550	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2-Methylnaphthalene	13000		650	59	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2-Methylphenol	<520		1600	520	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2-Nitroaniline	<430		1600	430	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
2-Nitrophenol	<760		3200	760	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
3 & 4 Methylphenol	1300 J		1600	540	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
3,3'-Dichlorobenzidine	<450		1600	450	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
3-Nitroaniline	<1000		3200	1000	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617014

Lab Sample ID: 500-140832-14

Date Collected: 02/09/18 13:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 51.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	<2600		6500	2600	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
4-Bromophenyl phenyl ether	<430		1600	430	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
4-Chloro-3-methylphenol	<1100		3200	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
4-Chloroaniline	<1500		6500	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
4-Chlorophenyl phenyl ether	<380		1600	380	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
4-Nitroaniline	<1400		3200	1400	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
4-Nitrophenol	<3100		6500	3100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Acenaphthene	11000		320	58	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Acenaphthylene	1400		320	43	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Anthracene	6300		320	54	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Benzo[a]anthracene	5200		320	43	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Benzo[a]pyrene	5500		320	63	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Benzo[b]fluoranthene	6900		320	70	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Benzo[g,h,i]perylene	2400		320	100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Benzo[k]fluoranthene	2300		320	95	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Benzoic acid	<3200		16000	3200	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Benzyl alcohol	<3200		6500	3200	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Bis(2-chloroethoxy)methane	<330		1600	330	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Bis(2-chloroethyl)ether	<480		1600	480	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Bis(2-ethylhexyl) phthalate	<590		1600	590	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Butyl benzyl phthalate	<620		1600	620	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Carbazole	<810		1600	810	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Chrysene	5400		320	88	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Dibenz(a,h)anthracene	630		320	62	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Dibenzofuran	1600		1600	380	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Diethyl phthalate	<550		1600	550	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Dimethyl phthalate	<420		1600	420	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Di-n-butyl phthalate	<490		1600	490	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Di-n-octyl phthalate	<530		1600	530	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Fluoranthene	13000		320	60	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Fluorene	5700		320	45	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Hexachlorobenzene	<75		650	75	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Hexachlorobutadiene	<510		1600	510	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Hexachlorocyclopentadiene	<1900		6500	1900	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Hexachloroethane	<490		1600	490	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Indeno[1,2,3-cd]pyrene	2100		320	84	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Isophorone	<360		1600	360	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Naphthalene	14000		320	50	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Nitrobenzene	<81		320	81	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
N-Nitrosodi-n-propylamine	<400		650	400	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
N-Nitrosodiphenylamine	<380		1600	380	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Pentachlorophenol	<5200		6500	5200	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Phenanthrene	20000		320	45	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Phenol	<720		1600	720	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5
Pyrene	11000		320	64	ug/Kg	☼	02/13/18 17:39	02/14/18 14:39	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	120		25 - 139	02/13/18 17:39	02/14/18 14:39	5
2-Fluorobiphenyl (Surr)	76		44 - 121	02/13/18 17:39	02/14/18 14:39	5
2-Fluorophenol (Surr)	87		46 - 133	02/13/18 17:39	02/14/18 14:39	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617014

Lab Sample ID: 500-140832-14

Date Collected: 02/09/18 13:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 51.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	57		41 - 120	02/13/18 17:39	02/14/18 14:39	5
Phenol-d5 (Surr)	73		46 - 125	02/13/18 17:39	02/14/18 14:39	5
Terphenyl-d14 (Surr)	85		35 - 160	02/13/18 17:39	02/14/18 14:39	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		1.8	0.62	mg/Kg	☼	02/13/18 14:55	02/14/18 16:49	1
Barium	55		1.8	0.21	mg/Kg	☼	02/13/18 14:55	02/14/18 16:49	1
Cadmium	0.37	B	0.36	0.065	mg/Kg	☼	02/13/18 14:55	02/14/18 16:49	1
Chromium	23		1.8	0.90	mg/Kg	☼	02/13/18 14:55	02/14/18 16:49	1
Lead	34	^	0.91	0.42	mg/Kg	☼	02/13/18 14:55	02/14/18 16:49	1
Selenium	<1.1		1.8	1.1	mg/Kg	☼	02/13/18 14:55	02/14/18 16:49	1
Silver	<0.23		0.91	0.23	mg/Kg	☼	02/13/18 14:55	02/14/18 16:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.029	0.0095	mg/Kg	☼	02/14/18 14:00	02/15/18 12:48	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617015

Lab Sample ID: 500-140832-15

Date Collected: 02/09/18 13:03

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 81.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<34		73	34	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,1,1-Trichloroethane	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,1,2,2-Tetrachloroethane	<29		73	29	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,1,2-Trichloroethane	<26		73	26	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,1-Dichloroethane	<30		73	30	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,1-Dichloroethene	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,1-Dichloropropene	<22		73	22	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2,3-Trichlorobenzene	<33		73	33	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2,3-Trichloropropane	<30		73	30	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2,4-Trichlorobenzene	<25		73	25	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2,4-Trimethylbenzene	<26		73	26	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2-Dibromo-3-Chloropropane	<140		360	140	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2-Dibromoethane	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2-Dichlorobenzene	<24		73	24	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2-Dichloroethane	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,2-Dichloropropane	<31		73	31	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,3,5-Trimethylbenzene	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,3-Dichlorobenzene	<29		73	29	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,3-Dichloropropane	<26		73	26	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
1,4-Dichlorobenzene	<26		73	26	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
2,2-Dichloropropane	<32		73	32	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
2-Butanone (MEK)	<150		360	150	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
2-Chlorotoluene	<23		73	23	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
4-Chlorotoluene	<25		73	25	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Benzene	58		18	11	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Bromobenzene	<26		73	26	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Bromochloromethane	<31		73	31	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Bromodichloromethane	<27		73	27	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Bromoform	<35		73	35	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Bromomethane	<58		150	58	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Carbon tetrachloride	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Chlorobenzene	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Chloroethane	<37		73	37	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Chloroform	<27		150	27	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Chloromethane	<23		73	23	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
cis-1,2-Dichloroethene	<30		73	30	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
cis-1,3-Dichloropropene	<30		73	30	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Dibromochloromethane	<35		73	35	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Dibromomethane	<20		73	20	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Dichlorodifluoromethane	<49		150	49	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Ethylbenzene	65		18	13	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Hexachlorobutadiene	<32		73	32	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Hexane	<36		73	36	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Isopropyl ether	<20		73	20	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Isopropylbenzene	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Methyl tert-butyl ether	<29		73	29	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Methylene Chloride	<120		360	120	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
n-Butylbenzene	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
N-Propylbenzene	<30		73	30	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617015

Lab Sample ID: 500-140832-15

Date Collected: 02/09/18 13:03

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 81.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<26		73	26	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
sec-Butylbenzene	<29		73	29	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Styrene	<28		73	28	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
tert-Butylbenzene	<29		73	29	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Tetrachloroethene	<27		73	27	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Toluene	120		18	11	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
trans-1,2-Dichloroethene	<25		73	25	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
trans-1,3-Dichloropropene	<26		73	26	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Trichloroethene	<12		36	12	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Trichlorofluoromethane	<31	F2 F1	73	31	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Vinyl chloride	<19		36	19	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Xylenes, Total	130		36	16	ug/Kg	☼	02/09/18 13:03	02/22/18 13:56	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 126				02/09/18 13:03	02/22/18 13:56	50
4-Bromofluorobenzene (Surr)	100		72 - 124				02/09/18 13:03	02/22/18 13:56	50
Dibromofluoromethane	98		75 - 120				02/09/18 13:03	02/22/18 13:56	50
Toluene-d8 (Surr)	103		75 - 120				02/09/18 13:03	02/22/18 13:56	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<43		200	43	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
1,2-Dichlorobenzene	<48		200	48	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
1,3-Dichlorobenzene	<45		200	45	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
1,4-Dichlorobenzene	<52		200	52	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
1-Methylnaphthalene	55 J		81	9.8	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2,2'-oxybis[1-chloropropane]	<47		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2,4,5-Trichlorophenol	<92		400	92	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2,4,6-Trichlorophenol	<140		400	140	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2,4-Dichlorophenol	<96		400	96	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2,4-Dimethylphenol	<150		400	150	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2,4-Dinitrophenol	<710		810	710	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2,4-Dinitrotoluene	<64		200	64	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2,6-Dinitrotoluene	<79		200	79	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2-Chloronaphthalene	<44		200	44	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2-Chlorophenol	<69		200	69	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2-Methylnaphthalene	84		81	7.4	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2-Methylphenol	<65		200	65	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2-Nitroaniline	<54		200	54	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
2-Nitrophenol	<95		400	95	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
3 & 4 Methylphenol	<67		200	67	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
3,3'-Dichlorobenzidine	<56		200	56	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
3-Nitroaniline	<120		400	120	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
4,6-Dinitro-2-methylphenol	<320		810	320	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
4-Bromophenyl phenyl ether	<53		200	53	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
4-Chloro-3-methylphenol	<140		400	140	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
4-Chloroaniline	<190		810	190	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
4-Chlorophenyl phenyl ether	<47		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
4-Nitroaniline	<170		400	170	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
4-Nitrophenol	<380		810	380	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617015

Lab Sample ID: 500-140832-15

Date Collected: 02/09/18 13:03

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 81.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	40		40	7.2	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Acenaphthylene	8.5	J	40	5.3	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Anthracene	22	J	40	6.7	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Benzo[a]anthracene	15	J	40	5.4	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Benzo[a]pyrene	18	J	40	7.8	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Benzo[b]fluoranthene	13	J	40	8.7	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Benzo[g,h,i]perylene	48		40	13	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Benzo[k]fluoranthene	<12		40	12	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Benzoic acid	<400		2000	400	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Benzyl alcohol	<400		810	400	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Bis(2-chloroethoxy)methane	<41		200	41	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Bis(2-chloroethyl)ether	<60		200	60	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Bis(2-ethylhexyl) phthalate	<74		200	74	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Butyl benzyl phthalate	<77		200	77	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Carbazole	<100		200	100	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Chrysene	34	J	40	11	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Dibenz(a,h)anthracene	<7.8		40	7.8	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Dibenzofuran	<47		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Diethyl phthalate	<68		200	68	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Dimethyl phthalate	<53		200	53	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Di-n-butyl phthalate	<61		200	61	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Di-n-octyl phthalate	<66		200	66	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Fluoranthene	32	J	40	7.5	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Fluorene	24	J	40	5.7	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Hexachlorobenzene	<9.3		81	9.3	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Hexachlorobutadiene	<63		200	63	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Hexachlorocyclopentadiene	<230		810	230	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Hexachloroethane	<61		200	61	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Indeno[1,2,3-cd]pyrene	<10		40	10	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Isophorone	<45		200	45	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Naphthalene	170		40	6.2	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Nitrobenzene	<10		40	10	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
N-Nitrosodi-n-propylamine	<49		81	49	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
N-Nitrosodiphenylamine	<48		200	48	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Pentachlorophenol	<650		810	650	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Phenanthrene	90		40	5.6	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Phenol	<89		200	89	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1
Pyrene	42		40	8.0	ug/Kg	☼	02/13/18 17:39	02/14/18 11:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	101		25 - 139	02/13/18 17:39	02/14/18 11:25	1
2-Fluorobiphenyl (Surr)	81		44 - 121	02/13/18 17:39	02/14/18 11:25	1
2-Fluorophenol (Surr)	82		46 - 133	02/13/18 17:39	02/14/18 11:25	1
Nitrobenzene-d5 (Surr)	73		41 - 120	02/13/18 17:39	02/14/18 11:25	1
Phenol-d5 (Surr)	82		46 - 125	02/13/18 17:39	02/14/18 11:25	1
Terphenyl-d14 (Surr)	83		35 - 160	02/13/18 17:39	02/14/18 11:25	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		1.1	0.37	mg/Kg	☼	02/13/18 14:55	02/14/18 16:52	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617015

Lab Sample ID: 500-140832-15

Date Collected: 02/09/18 13:03

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 81.5

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	76		1.1	0.12	mg/Kg	☼	02/13/18 14:55	02/14/18 16:52	1
Cadmium	<0.039		0.22	0.039	mg/Kg	☼	02/13/18 14:55	02/14/18 16:52	1
Chromium	22		1.1	0.54	mg/Kg	☼	02/13/18 14:55	02/14/18 16:52	1
Lead	6.7	^	0.55	0.25	mg/Kg	☼	02/13/18 14:55	02/14/18 16:52	1
Selenium	<0.64		1.1	0.64	mg/Kg	☼	02/13/18 14:55	02/14/18 16:52	1
Silver	<0.14		0.55	0.14	mg/Kg	☼	02/13/18 14:55	02/14/18 16:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.018	0.0061	mg/Kg	☼	02/14/18 14:00	02/15/18 12:51	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717016

Lab Sample ID: 500-140832-16

Date Collected: 02/09/18 13:05

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<33		70	33	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,1,1-Trichloroethane	<27		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,1,2,2-Tetrachloroethane	<28		70	28	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,1,2-Trichloroethane	<25		70	25	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,1-Dichloroethane	<29		70	29	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,1-Dichloroethene	<27		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,1-Dichloropropene	<21		70	21	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2,3-Trichlorobenzene	<32		70	32	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2,3-Trichloropropane	<29		70	29	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2,4-Trichlorobenzene	<24		70	24	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2,4-Trimethylbenzene	1900		70	25	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2-Dibromo-3-Chloropropane	<140		350	140	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2-Dibromoethane	<27		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2-Dichlorobenzene	<24		70	24	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2-Dichloroethane	<28		70	28	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,2-Dichloropropane	<30		70	30	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,3,5-Trimethylbenzene	600		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,3-Dichlorobenzene	<28		70	28	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,3-Dichloropropane	<26		70	26	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
1,4-Dichlorobenzene	<26		70	26	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
2,2-Dichloropropane	<31		70	31	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
2-Butanone (MEK)	<150		350	150	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
2-Chlorotoluene	<22		70	22	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
4-Chlorotoluene	<25		70	25	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Benzene	120		18	10	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Bromobenzene	<25		70	25	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Bromochloromethane	<30		70	30	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Bromodichloromethane	<26		70	26	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Bromoform	<34		70	34	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Bromomethane	<56		140	56	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Carbon tetrachloride	<27		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Chlorobenzene	<27		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Chloroethane	<36		70	36	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Chloroform	<26		140	26	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Chloromethane	<23		70	23	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
cis-1,2-Dichloroethene	<29		70	29	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
cis-1,3-Dichloropropene	<29		70	29	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Dibromochloromethane	<34		70	34	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Dibromomethane	<19		70	19	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Dichlorodifluoromethane	<47		140	47	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Ethylbenzene	3100		18	13	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Hexachlorobutadiene	<31		70	31	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Hexane	<35		70	35	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Isopropyl ether	<19		70	19	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Isopropylbenzene	360		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Methyl tert-butyl ether	<28		70	28	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Methylene Chloride	<110		350	110	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
n-Butylbenzene	<27		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
N-Propylbenzene	68 J		70	29	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717016

Lab Sample ID: 500-140832-16

Date Collected: 02/09/18 13:05

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	140		70	26	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
sec-Butylbenzene	<28		70	28	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Styrene	<27		70	27	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
tert-Butylbenzene	<28		70	28	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Tetrachloroethene	<26		70	26	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Toluene	230		18	10	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
trans-1,2-Dichloroethene	<25		70	25	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
trans-1,3-Dichloropropene	<26		70	26	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Trichloroethene	<12		35	12	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Trichlorofluoromethane	<30		70	30	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Vinyl chloride	<18		35	18	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Xylenes, Total	2500		35	15	ug/Kg	☼	02/09/18 13:05	02/22/18 14:23	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 126				02/09/18 13:05	02/22/18 14:23	50
4-Bromofluorobenzene (Surr)	93		72 - 124				02/09/18 13:05	02/22/18 14:23	50
Dibromofluoromethane	100		75 - 120				02/09/18 13:05	02/22/18 14:23	50
Toluene-d8 (Surr)	101		75 - 120				02/09/18 13:05	02/22/18 14:23	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		75 - 126				02/09/18 13:05	02/22/18 14:49	500
4-Bromofluorobenzene (Surr)	102		72 - 124				02/09/18 13:05	02/22/18 14:49	500
Dibromofluoromethane	100		75 - 120				02/09/18 13:05	02/22/18 14:49	500
Toluene-d8 (Surr)	103		75 - 120				02/09/18 13:05	02/22/18 14:49	500

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<200		940	200	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
1,2-Dichlorobenzene	<220		940	220	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
1,3-Dichlorobenzene	<210		940	210	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
1,4-Dichlorobenzene	<240		940	240	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2,2'-oxybis[1-chloropropane]	<220		940	220	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2,4,5-Trichlorophenol	<430		1900	430	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2,4,6-Trichlorophenol	<640		1900	640	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2,4-Dichlorophenol	<450		1900	450	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2,4-Dimethylphenol	<710		1900	710	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2,4-Dinitrophenol	<3300		3800	3300	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2,4-Dinitrotoluene	<300		940	300	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2,6-Dinitrotoluene	<370		940	370	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2-Chloronaphthalene	<210		940	210	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2-Chlorophenol	<320		940	320	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2-Methylphenol	<300		940	300	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2-Nitroaniline	<250		940	250	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
2-Nitrophenol	<440		1900	440	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
3 & 4 Methylphenol	<310		940	310	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
3,3'-Dichlorobenzidine	<260		940	260	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
3-Nitroaniline	<580		1900	580	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
4,6-Dinitro-2-methylphenol	<1500		3800	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
4-Bromophenyl phenyl ether	<250		940	250	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717016

Lab Sample ID: 500-140832-16

Date Collected: 02/09/18 13:05

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	<640		1900	640	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
4-Chloroaniline	<880		3800	880	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
4-Chlorophenyl phenyl ether	<220		940	220	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
4-Nitroaniline	<790		1900	790	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
4-Nitrophenol	<1800		3800	1800	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Acenaphthylene	1900		190	25	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Anthracene	5600		190	31	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Benzo[a]anthracene	4000		190	25	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Benzo[a]pyrene	3400		190	36	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Benzo[b]fluoranthene	3000		190	41	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Benzo[g,h,i]perylene	1300		190	61	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Benzo[k]fluoranthene	1200		190	55	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Benzoic acid	<1900		9400	1900	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Benzyl alcohol	<1900		3800	1900	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Bis(2-chloroethoxy)methane	<190		940	190	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Bis(2-chloroethyl)ether	<280		940	280	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Bis(2-ethylhexyl) phthalate	<340		940	340	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Butyl benzyl phthalate	<360		940	360	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Carbazole	1300		940	470	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Chrysene	3600		190	51	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Dibenz(a,h)anthracene	330		190	36	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Dibenzofuran	2300		940	220	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Diethyl phthalate	<320		940	320	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Dimethyl phthalate	<250		940	250	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Di-n-butyl phthalate	<290		940	290	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Di-n-octyl phthalate	<310		940	310	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Fluoranthene	9400		190	35	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Fluorene	6800		190	26	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Hexachlorobenzene	<44		380	44	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Hexachlorobutadiene	<300		940	300	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Hexachlorocyclopentadiene	<1100		3800	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Hexachloroethane	<290		940	290	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Indeno[1,2,3-cd]pyrene	1300		190	49	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Isophorone	<210		940	210	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Nitrobenzene	<47		190	47	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
N-Nitrosodi-n-propylamine	<230		380	230	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
N-Nitrosodiphenylamine	<220		940	220	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Pentachlorophenol	<3000		3800	3000	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Phenol	<420		940	420	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5
Pyrene	8800		190	37	ug/Kg	☼	02/13/18 17:39	02/14/18 14:59	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	96		25 - 139	02/13/18 17:39	02/14/18 14:59	5
2-Fluorobiphenyl (Surr)	101		44 - 121	02/13/18 17:39	02/14/18 14:59	5
2-Fluorophenol (Surr)	98		46 - 133	02/13/18 17:39	02/14/18 14:59	5
Nitrobenzene-d5 (Surr)	89		41 - 120	02/13/18 17:39	02/14/18 14:59	5
Phenol-d5 (Surr)	98		46 - 125	02/13/18 17:39	02/14/18 14:59	5
Terphenyl-d14 (Surr)	92		35 - 160	02/13/18 17:39	02/14/18 14:59	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717016

Lab Sample ID: 500-140832-16

Date Collected: 02/09/18 13:05

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	17000		1900	230	ug/Kg	☼	02/13/18 17:39	02/15/18 01:39	25
2-Methylnaphthalene	27000		1900	170	ug/Kg	☼	02/13/18 17:39	02/15/18 01:39	25
Acenaphthene	17000		930	170	ug/Kg	☼	02/13/18 17:39	02/15/18 01:39	25
Naphthalene	52000		930	140	ug/Kg	☼	02/13/18 17:39	02/15/18 01:39	25
Phenanthrene	23000		930	130	ug/Kg	☼	02/13/18 17:39	02/15/18 01:39	25

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		1.0	0.34	mg/Kg	☼	02/13/18 14:55	02/14/18 16:57	1
Barium	45		1.0	0.11	mg/Kg	☼	02/13/18 14:55	02/14/18 16:57	1
Cadmium	<0.036		0.20	0.036	mg/Kg	☼	02/13/18 14:55	02/14/18 16:57	1
Chromium	25		1.0	0.50	mg/Kg	☼	02/13/18 14:55	02/14/18 16:57	1
Lead	7.2	^	0.50	0.23	mg/Kg	☼	02/13/18 14:55	02/14/18 16:57	1
Selenium	0.61	J	1.0	0.59	mg/Kg	☼	02/13/18 14:55	02/14/18 16:57	1
Silver	<0.13		0.50	0.13	mg/Kg	☼	02/13/18 14:55	02/14/18 16:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.018	0.0060	mg/Kg	☼	02/14/18 14:00	02/15/18 12:53	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717017

Lab Sample ID: 500-140832-17

Date Collected: 02/09/18 13:08

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 82.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<33		72	33	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,1,1-Trichloroethane	<27		72	27	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,1,2,2-Tetrachloroethane	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,1,2-Trichloroethane	<25		72	25	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,1-Dichloroethane	<29		72	29	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,1-Dichloroethene	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,1-Dichloropropene	<21		72	21	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2,3-Trichlorobenzene	<33		72	33	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2,3-Trichloropropane	<30		72	30	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2,4-Trichlorobenzene	<24		72	24	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2,4-Trimethylbenzene	<26		72	26	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2-Dibromo-3-Chloropropane	<140		360	140	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2-Dibromoethane	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2-Dichlorobenzene	<24		72	24	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2-Dichloroethane	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,2-Dichloropropane	<31		72	31	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,3,5-Trimethylbenzene	<27		72	27	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,3-Dichlorobenzene	<29		72	29	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,3-Dichloropropane	<26		72	26	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
1,4-Dichlorobenzene	<26		72	26	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
2,2-Dichloropropane	<32		72	32	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
2-Butanone (MEK)	<150		360	150	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
2-Chlorotoluene	<22		72	22	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
4-Chlorotoluene	<25		72	25	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Benzene	26		18	10	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Bromobenzene	<25		72	25	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Bromochloromethane	<31		72	31	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Bromodichloromethane	<27		72	27	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Bromoform	<35		72	35	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Bromomethane	<57		140	57	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Carbon tetrachloride	<27		72	27	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Chlorobenzene	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Chloroethane	<36		72	36	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Chloroform	<26		140	26	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Chloromethane	<23		72	23	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
cis-1,2-Dichloroethene	<29		72	29	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
cis-1,3-Dichloropropene	<30		72	30	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Dibromochloromethane	<35		72	35	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Dibromomethane	<19		72	19	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Dichlorodifluoromethane	<48		140	48	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Ethylbenzene	35		18	13	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Hexachlorobutadiene	<32		72	32	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Hexane	<35		72	35	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Isopropyl ether	<20		72	20	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Isopropylbenzene	<27		72	27	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Methyl tert-butyl ether	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Methylene Chloride	<120		360	120	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
n-Butylbenzene	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
N-Propylbenzene	<30		72	30	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717017

Lab Sample ID: 500-140832-17

Date Collected: 02/09/18 13:08

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 82.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<26		72	26	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
sec-Butylbenzene	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Styrene	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
tert-Butylbenzene	<28		72	28	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Tetrachloroethene	<26		72	26	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Toluene	130		18	11	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
trans-1,2-Dichloroethene	<25		72	25	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
trans-1,3-Dichloropropene	<26		72	26	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Trichloroethene	<12		36	12	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Trichlorofluoromethane	<31		72	31	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Vinyl chloride	<19		36	19	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Xylenes, Total	73		36	16	ug/Kg	☼	02/09/18 13:08	02/22/18 15:16	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		75 - 126				02/09/18 13:08	02/22/18 15:16	50
4-Bromofluorobenzene (Surr)	98		72 - 124				02/09/18 13:08	02/22/18 15:16	50
Dibromofluoromethane	100		75 - 120				02/09/18 13:08	02/22/18 15:16	50
Toluene-d8 (Surr)	101		75 - 120				02/09/18 13:08	02/22/18 15:16	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<43		200	43	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
1,2-Dichlorobenzene	<48		200	48	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
1,3-Dichlorobenzene	<45		200	45	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
1,4-Dichlorobenzene	<52		200	52	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
1-Methylnaphthalene	78 J		81	9.8	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2,2'-oxybis[1-chloropropane]	<47		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2,4,5-Trichlorophenol	<92		400	92	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2,4,6-Trichlorophenol	<140		400	140	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2,4-Dichlorophenol	<96		400	96	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2,4-Dimethylphenol	<150		400	150	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2,4-Dinitrophenol	<710		810	710	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2,4-Dinitrotoluene	<64		200	64	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2,6-Dinitrotoluene	<79		200	79	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2-Chloronaphthalene	<44		200	44	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2-Chlorophenol	<69		200	69	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2-Methylnaphthalene	120		81	7.4	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2-Methylphenol	<65		200	65	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2-Nitroaniline	<54		200	54	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
2-Nitrophenol	<95		400	95	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
3 & 4 Methylphenol	<67		200	67	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
3,3'-Dichlorobenzidine	<56		200	56	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
3-Nitroaniline	<120		400	120	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
4,6-Dinitro-2-methylphenol	<320		810	320	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
4-Bromophenyl phenyl ether	<53		200	53	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
4-Chloro-3-methylphenol	<140		400	140	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
4-Chloroaniline	<190		810	190	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
4-Chlorophenyl phenyl ether	<47		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
4-Nitroaniline	<170		400	170	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
4-Nitrophenol	<380		810	380	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717017

Lab Sample ID: 500-140832-17

Date Collected: 02/09/18 13:08

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 82.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	400		40	7.2	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Acenaphthylene	64		40	5.3	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Anthracene	450		40	6.7	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Benzo[a]anthracene	750		40	5.4	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Benzo[a]pyrene	710		40	7.8	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Benzo[b]fluoranthene	970		40	8.7	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Benzo[g,h,i]perylene	460		40	13	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Benzo[k]fluoranthene	320		40	12	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Benzoic acid	550	J	2000	400	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Benzyl alcohol	<400		810	400	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Bis(2-chloroethoxy)methane	<41		200	41	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Bis(2-chloroethyl)ether	<60		200	60	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Bis(2-ethylhexyl) phthalate	600		200	74	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Butyl benzyl phthalate	<77		200	77	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Carbazole	110	J	200	100	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Chrysene	770		40	11	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Dibenz(a,h)anthracene	100		40	7.8	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Dibenzofuran	77	J	200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Diethyl phthalate	<68		200	68	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Dimethyl phthalate	<53		200	53	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Di-n-butyl phthalate	<61		200	61	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Di-n-octyl phthalate	<66		200	66	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Fluoranthene	1700		40	7.5	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Fluorene	270		40	5.7	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Hexachlorobenzene	<9.3		81	9.3	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Hexachlorobutadiene	<63		200	63	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Hexachlorocyclopentadiene	<230		810	230	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Hexachloroethane	<61		200	61	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Indeno[1,2,3-cd]pyrene	440		40	10	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Isophorone	<45		200	45	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Naphthalene	200		40	6.2	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Nitrobenzene	<10		40	10	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
N-Nitrosodi-n-propylamine	<49		81	49	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
N-Nitrosodiphenylamine	<47		200	47	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Pentachlorophenol	<650		810	650	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Phenanthrene	1500		40	5.6	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Phenol	<89		200	89	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1
Pyrene	1400		40	8.0	ug/Kg	☼	02/13/18 17:39	02/14/18 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	98		25 - 139	02/13/18 17:39	02/14/18 12:18	1
2-Fluorobiphenyl (Surr)	82		44 - 121	02/13/18 17:39	02/14/18 12:18	1
2-Fluorophenol (Surr)	85		46 - 133	02/13/18 17:39	02/14/18 12:18	1
Nitrobenzene-d5 (Surr)	75		41 - 120	02/13/18 17:39	02/14/18 12:18	1
Phenol-d5 (Surr)	86		46 - 125	02/13/18 17:39	02/14/18 12:18	1
Terphenyl-d14 (Surr)	80		35 - 160	02/13/18 17:39	02/14/18 12:18	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		1.1	0.37	mg/Kg	☼	02/13/18 14:55	02/14/18 17:01	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717017

Lab Sample ID: 500-140832-17

Date Collected: 02/09/18 13:08

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 82.3

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	17		1.1	0.12	mg/Kg	☼	02/13/18 14:55	02/14/18 17:01	1
Cadmium	0.15	J B	0.22	0.039	mg/Kg	☼	02/13/18 14:55	02/14/18 17:01	1
Chromium	5.7		1.1	0.54	mg/Kg	☼	02/13/18 14:55	02/14/18 17:01	1
Lead	25	^	0.54	0.25	mg/Kg	☼	02/13/18 14:55	02/14/18 17:01	1
Selenium	<0.64		1.1	0.64	mg/Kg	☼	02/13/18 14:55	02/14/18 17:01	1
Silver	0.21	J	0.54	0.14	mg/Kg	☼	02/13/18 14:55	02/14/18 17:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.66		0.096	0.032	mg/Kg	☼	02/14/18 14:00	02/15/18 13:49	5



Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717018

Lab Sample ID: 500-140832-18

Date Collected: 02/09/18 13:11

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 85.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<31		67	31	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,1,1-Trichloroethane	<26		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,1,2,2-Tetrachloroethane	<27		67	27	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,1,2-Trichloroethane	<24		67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,1-Dichloroethane	<28		67	28	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,1-Dichloroethene	<26		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,1-Dichloropropene	<20		67	20	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2,3-Trichlorobenzene	<31		67	31	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2,3-Trichloropropane	<28		67	28	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2,4-Trichlorobenzene	<23		67	23	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2,4-Trimethylbenzene	510		67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2-Dibromo-3-Chloropropane	<130		340	130	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2-Dibromoethane	<26		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2-Dichlorobenzene	<22		67	22	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2-Dichloroethane	<26		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,2-Dichloropropane	<29		67	29	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,3,5-Trimethylbenzene	200		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,3-Dichlorobenzene	<27		67	27	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,3-Dichloropropane	<24		67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
1,4-Dichlorobenzene	<24		67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
2,2-Dichloropropane	<30		67	30	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
2-Butanone (MEK)	<140		340	140	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
2-Chlorotoluene	<21		67	21	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
4-Chlorotoluene	<24		67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Benzene	170		17	9.8	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Bromobenzene	<24		67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Bromochloromethane	<29		67	29	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Bromodichloromethane	<25		67	25	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Bromoform	<33		67	33	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Bromomethane	<54		130	54	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Carbon tetrachloride	<26		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Chlorobenzene	<26		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Chloroethane	<34		67	34	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Chloroform	<25		130	25	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Chloromethane	<22		67	22	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
cis-1,2-Dichloroethene	<27		67	27	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
cis-1,3-Dichloropropene	<28		67	28	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Dibromochloromethane	<33		67	33	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Dibromomethane	<18		67	18	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Dichlorodifluoromethane	<45		130	45	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Ethylbenzene	730		17	12	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Hexachlorobutadiene	<30		67	30	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Hexane	<33		67	33	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Isopropyl ether	<19		67	19	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Isopropylbenzene	83		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Methyl tert-butyl ether	<27		67	27	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Methylene Chloride	<110		340	110	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
n-Butylbenzene	<26		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
N-Propylbenzene	<28		67	28	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717018

Lab Sample ID: 500-140832-18

Date Collected: 02/09/18 13:11

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 85.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	36	J	67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
sec-Butylbenzene	<27		67	27	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Styrene	<26		67	26	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
tert-Butylbenzene	<27		67	27	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Tetrachloroethene	<25		67	25	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Toluene	170		17	9.9	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
trans-1,2-Dichloroethene	<24		67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
trans-1,3-Dichloropropene	<24		67	24	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Trichloroethene	<11		34	11	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Trichlorofluoromethane	<29		67	29	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Vinyl chloride	<18		34	18	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50
Xylenes, Total	1300		34	15	ug/Kg	☼	02/09/18 13:11	02/22/18 15:43	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		75 - 126	02/09/18 13:11	02/22/18 15:43	50
1,2-Dichloroethane-d4 (Surr)	98		75 - 126	02/09/18 13:11	02/23/18 12:04	500
4-Bromofluorobenzene (Surr)	97		72 - 124	02/09/18 13:11	02/22/18 15:43	50
4-Bromofluorobenzene (Surr)	92		72 - 124	02/09/18 13:11	02/23/18 12:04	500
Dibromofluoromethane	100		75 - 120	02/09/18 13:11	02/22/18 15:43	50
Dibromofluoromethane	88		75 - 120	02/09/18 13:11	02/23/18 12:04	500
Toluene-d8 (Surr)	103		75 - 120	02/09/18 13:11	02/22/18 15:43	50
Toluene-d8 (Surr)	94		75 - 120	02/09/18 13:11	02/23/18 12:04	500

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<41		190	41	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
1,2-Dichlorobenzene	<45		190	45	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
1,3-Dichlorobenzene	<43		190	43	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
1,4-Dichlorobenzene	<49		190	49	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
1-Methylnaphthalene	1100		77	9.3	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2,2'-oxybis[1-chloropropane]	<44		190	44	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2,4,5-Trichlorophenol	<87		380	87	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2,4,6-Trichlorophenol	<130		380	130	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2,4-Dichlorophenol	<90		380	90	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2,4-Dimethylphenol	650		380	140	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2,4-Dinitrophenol	<670		770	670	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2,4-Dinitrotoluene	<60		190	60	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2,6-Dinitrotoluene	<75		190	75	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2-Chloronaphthalene	<42		190	42	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2-Chlorophenol	<65		190	65	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2-Methylnaphthalene	1800		77	7.0	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2-Methylphenol	<61		190	61	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2-Nitroaniline	<51		190	51	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
2-Nitrophenol	<90		380	90	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
3 & 4 Methylphenol	<63		190	63	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
3,3'-Dichlorobenzidine	<53		190	53	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
3-Nitroaniline	<120		380	120	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
4,6-Dinitro-2-methylphenol	<310		770	310	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
4-Bromophenyl phenyl ether	<50		190	50	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
4-Chloro-3-methylphenol	<130		380	130	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717018

Lab Sample ID: 500-140832-18

Date Collected: 02/09/18 13:11

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 85.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	<180		770	180	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
4-Chlorophenyl phenyl ether	<44		190	44	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
4-Nitroaniline	<160		380	160	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
4-Nitrophenol	<360		770	360	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Acenaphthene	1100		38	6.8	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Acenaphthylene	210		38	5.0	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Anthracene	510		38	6.3	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Benzo[a]anthracene	320		38	5.1	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Benzo[a]pyrene	270		38	7.4	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Benzo[b]fluoranthene	310		38	8.2	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Benzo[g,h,i]perylene	150		38	12	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Benzo[k]fluoranthene	110		38	11	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Benzoic acid	1600	J	1900	380	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Benzyl alcohol	<380		770	380	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Bis(2-chloroethoxy)methane	<39		190	39	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Bis(2-chloroethyl)ether	<57		190	57	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Bis(2-ethylhexyl) phthalate	<69		190	69	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Butyl benzyl phthalate	<72		190	72	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Carbazole	540		190	95	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Chrysene	270		38	10	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Dibenz(a,h)anthracene	28	J	38	7.3	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Dibenzofuran	460		190	44	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Diethyl phthalate	<64		190	64	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Dimethyl phthalate	<50		190	50	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Di-n-butyl phthalate	<58		190	58	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Di-n-octyl phthalate	<62		190	62	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Fluoranthene	920		38	7.0	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Fluorene	540		38	5.3	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Hexachlorobenzene	<8.8		77	8.8	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Hexachlorobutadiene	<60		190	60	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Hexachlorocyclopentadiene	<220		770	220	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Hexachloroethane	<58		190	58	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Indeno[1,2,3-cd]pyrene	140		38	9.8	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Isophorone	<43		190	43	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Nitrobenzene	<9.5		38	9.5	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
N-Nitrosodi-n-propylamine	<46		77	46	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
N-Nitrosodiphenylamine	<45		190	45	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Pentachlorophenol	<610		770	610	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Phenanthrene	1700		38	5.3	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Phenol	<84		190	84	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1
Pyrene	730		38	7.5	ug/Kg	☼	02/13/18 17:39	02/14/18 11:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	108		25 - 139	02/13/18 17:39	02/14/18 11:52	1
2-Fluorobiphenyl (Surr)	100		44 - 121	02/13/18 17:39	02/14/18 11:52	1
2-Fluorophenol (Surr)	108		46 - 133	02/13/18 17:39	02/14/18 11:52	1
Nitrobenzene-d5 (Surr)	99		41 - 120	02/13/18 17:39	02/14/18 11:52	1
Phenol-d5 (Surr)	107		46 - 125	02/13/18 17:39	02/14/18 11:52	1
Terphenyl-d14 (Surr)	89		35 - 160	02/13/18 17:39	02/14/18 11:52	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717018

Lab Sample ID: 500-140832-18

Date Collected: 02/09/18 13:11

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 85.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	20000		380	58	ug/Kg	☼	02/13/18 17:39	02/15/18 02:05	10

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.6		1.2	0.40	mg/Kg	☼	02/13/18 14:55	02/14/18 17:04	1
Barium	70		1.2	0.13	mg/Kg	☼	02/13/18 14:55	02/14/18 17:04	1
Cadmium	<0.042		0.23	0.042	mg/Kg	☼	02/13/18 14:55	02/14/18 17:04	1
Chromium	23		1.2	0.58	mg/Kg	☼	02/13/18 14:55	02/14/18 17:04	1
Lead	7.7	^	0.59	0.27	mg/Kg	☼	02/13/18 14:55	02/14/18 17:04	1
Selenium	<0.69		1.2	0.69	mg/Kg	☼	02/13/18 14:55	02/14/18 17:04	1
Silver	<0.15		0.59	0.15	mg/Kg	☼	02/13/18 14:55	02/14/18 17:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0061	mg/Kg	☼	02/14/18 14:00	02/15/18 13:02	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717019

Lab Sample ID: 500-140832-19

Date Collected: 02/09/18 13:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<36		78	36	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,1,1-Trichloroethane	<30		78	30	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,1,2,2-Tetrachloroethane	<31		78	31	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,1,2-Trichloroethane	<28		78	28	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,1-Dichloroethane	<32		78	32	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,1-Dichloroethene	<31		78	31	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,1-Dichloropropene	<23		78	23	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2,3-Trichlorobenzene	<36		78	36	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2,3-Trichloropropane	<32		78	32	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2,4-Trichlorobenzene	<27		78	27	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2,4-Trimethylbenzene	49	J	78	28	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2-Dibromo-3-Chloropropane	<160		390	160	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2-Dibromoethane	<30		78	30	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2-Dichlorobenzene	<26		78	26	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2-Dichloroethane	<31		78	31	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,2-Dichloropropane	<34		78	34	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,3,5-Trimethylbenzene	<30		78	30	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,3-Dichlorobenzene	<31		78	31	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,3-Dichloropropane	<28		78	28	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
1,4-Dichlorobenzene	<29		78	29	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
2,2-Dichloropropane	<35		78	35	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
2-Butanone (MEK)	<170		390	170	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
2-Chlorotoluene	<25		78	25	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
4-Chlorotoluene	<27		78	27	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Benzene	6000		20	11	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Bromobenzene	<28		78	28	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Bromochloromethane	<34		78	34	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Bromodichloromethane	<29		78	29	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Bromoform	<38		78	38	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Bromomethane	<62		160	62	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Carbon tetrachloride	<30		78	30	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Chlorobenzene	<30		78	30	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Chloroethane	<39		78	39	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Chloroform	<29		160	29	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Chloromethane	<25		78	25	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
cis-1,2-Dichloroethene	<32		78	32	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
cis-1,3-Dichloropropene	<33		78	33	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Dibromochloromethane	<38		78	38	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Dibromomethane	<21		78	21	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Dichlorodifluoromethane	<53		160	53	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Ethylbenzene	160		20	14	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Hexachlorobutadiene	<35		78	35	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Hexane	<39		78	39	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Isopropyl ether	<22		78	22	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Isopropylbenzene	<30		78	30	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Methyl tert-butyl ether	<31		78	31	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Methylene Chloride	<130		390	130	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
n-Butylbenzene	<30		78	30	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
N-Propylbenzene	<32		78	32	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717019

Lab Sample ID: 500-140832-19

Date Collected: 02/09/18 13:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<28		78	28	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
sec-Butylbenzene	<31		78	31	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Styrene	<30		78	30	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
tert-Butylbenzene	<31		78	31	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Tetrachloroethene	<29		78	29	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Toluene	130		20	12	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
trans-1,2-Dichloroethene	<27		78	27	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
trans-1,3-Dichloropropene	<28		78	28	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Trichloroethene	<13		39	13	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Trichlorofluoromethane	<34		78	34	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Vinyl chloride	<21		39	21	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Xylenes, Total	420		39	17	ug/Kg	☼	02/09/18 13:15	02/22/18 16:10	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 126				02/09/18 13:15	02/22/18 16:10	50
4-Bromofluorobenzene (Surr)	96		72 - 124				02/09/18 13:15	02/22/18 16:10	50
Dibromofluoromethane	98		75 - 120				02/09/18 13:15	02/22/18 16:10	50
Toluene-d8 (Surr)	104		75 - 120				02/09/18 13:15	02/22/18 16:10	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<46		210	46	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
1,2-Dichlorobenzene	<51		210	51	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
1,3-Dichlorobenzene	<48		210	48	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
1,4-Dichlorobenzene	<55		210	55	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
1-Methylnaphthalene	1200		86	10	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2,2'-oxybis[1-chloropropane]	<49		210	49	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2,4,5-Trichlorophenol	<97		420	97	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2,4,6-Trichlorophenol	<150		420	150	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2,4-Dichlorophenol	<100		420	100	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2,4-Dimethylphenol	<160		420	160	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2,4-Dinitrophenol	<750		860	750	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2,4-Dinitrotoluene	<68		210	68	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2,6-Dinitrotoluene	<84		210	84	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2-Chloronaphthalene	<47		210	47	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2-Chlorophenol	<73		210	73	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2-Methylnaphthalene	2000		86	7.8	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2-Methylphenol	140 J		210	68	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2-Nitroaniline	<57		210	57	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
2-Nitrophenol	<100		420	100	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
3 & 4 Methylphenol	570		210	71	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
3,3'-Dichlorobenzidine	<60		210	60	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
3-Nitroaniline	<130		420	130	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
4,6-Dinitro-2-methylphenol	<340		860	340	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
4-Bromophenyl phenyl ether	<56		210	56	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
4-Chloro-3-methylphenol	<140		420	140	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
4-Chloroaniline	<200		860	200	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
4-Chlorophenyl phenyl ether	<50		210	50	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
4-Nitroaniline	<180		420	180	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
4-Nitrophenol	<400		860	400	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717019

Lab Sample ID: 500-140832-19

Date Collected: 02/09/18 13:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1900		42	7.6	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Acenaphthylene	340		42	5.6	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Anthracene	1500		42	7.1	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Benzo[a]anthracene	1100		42	5.7	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Benzo[a]pyrene	950		42	8.2	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Benzo[b]fluoranthene	1000		42	9.2	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Benzo[g,h,i]perylene	520		42	14	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Benzo[k]fluoranthene	380		42	13	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Benzoic acid	<420		2100	420	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Benzyl alcohol	<420		860	420	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Bis(2-chloroethoxy)methane	<43		210	43	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Bis(2-chloroethyl)ether	<64		210	64	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Bis(2-ethylhexyl) phthalate	<78		210	78	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Butyl benzyl phthalate	<81		210	81	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Carbazole	620		210	110	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Chrysene	920		42	12	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Dibenz(a,h)anthracene	130		42	8.2	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Dibenzofuran	1100		210	50	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Diethyl phthalate	<72		210	72	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Dimethyl phthalate	<56		210	56	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Di-n-butyl phthalate	<65		210	65	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Di-n-octyl phthalate	<69		210	69	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Fluoranthene	2900		42	7.9	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Fluorene	1400		42	6.0	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Hexachlorobenzene	<9.9		86	9.9	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Hexachlorobutadiene	<67		210	67	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Hexachlorocyclopentadiene	<240		860	240	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Hexachloroethane	<65		210	65	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Indeno[1,2,3-cd]pyrene	500		42	11	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Isophorone	<48		210	48	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Nitrobenzene	<11		42	11	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
N-Nitrosodi-n-propylamine	<52		86	52	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
N-Nitrosodiphenylamine	<50		210	50	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Pentachlorophenol	<680		860	680	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Phenol	<95		210	95	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1
Pyrene	2300		42	8.5	ug/Kg	☼	02/13/18 17:39	02/14/18 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	101		25 - 139	02/13/18 17:39	02/14/18 12:45	1
2-Fluorobiphenyl (Surr)	84		44 - 121	02/13/18 17:39	02/14/18 12:45	1
2-Fluorophenol (Surr)	76		46 - 133	02/13/18 17:39	02/14/18 12:45	1
Nitrobenzene-d5 (Surr)	67		41 - 120	02/13/18 17:39	02/14/18 12:45	1
Phenol-d5 (Surr)	81		46 - 125	02/13/18 17:39	02/14/18 12:45	1
Terphenyl-d14 (Surr)	87		35 - 160	02/13/18 17:39	02/14/18 12:45	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6500		210	33	ug/Kg	☼	02/13/18 17:39	02/15/18 02:31	5
Phenanthrene	5500		210	30	ug/Kg	☼	02/13/18 17:39	02/15/18 02:31	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717019

Lab Sample ID: 500-140832-19

Date Collected: 02/09/18 13:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		1.2	0.42	mg/Kg	☼	02/13/18 14:55	02/14/18 17:08	1
Barium	66		1.2	0.14	mg/Kg	☼	02/13/18 14:55	02/14/18 17:08	1
Cadmium	0.051	J B	0.24	0.044	mg/Kg	☼	02/13/18 14:55	02/14/18 17:08	1
Chromium	22		1.2	0.61	mg/Kg	☼	02/13/18 14:55	02/14/18 17:08	1
Lead	6.2	^	0.61	0.28	mg/Kg	☼	02/13/18 14:55	02/14/18 17:08	1
Selenium	<0.72		1.2	0.72	mg/Kg	☼	02/13/18 14:55	02/14/18 17:08	1
Silver	<0.16		0.61	0.16	mg/Kg	☼	02/13/18 14:55	02/14/18 17:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.019	0.0064	mg/Kg	☼	02/14/18 14:00	02/15/18 13:04	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717020

Lab Sample ID: 500-140832-20

Date Collected: 02/09/18 13:20

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<83		180	83	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,1,1-Trichloroethane	<69		180	69	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,1,1,2,2-Tetrachloroethane	<72		180	72	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,1,2-Trichloroethane	<63		180	63	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,1-Dichloroethane	<74		180	74	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,1-Dichloroethene	<70		180	70	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,1-Dichloropropene	<54		180	54	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,2,3-Trichlorobenzene	<83		180	83	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,2,3-Trichloropropane	<75		180	75	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,2,4-Trichlorobenzene	<62		180	62	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,2-Dibromo-3-Chloropropane	<360		900	360	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,2-Dibromoethane	<70		180	70	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,2-Dichlorobenzene	<60		180	60	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,2-Dichloroethane	<71		180	71	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,2-Dichloropropane	<77		180	77	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,3,5-Trimethylbenzene	30000		180	69	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,3-Dichlorobenzene	<72		180	72	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,3-Dichloropropane	<65		180	65	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
1,4-Dichlorobenzene	<66		180	66	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
2,2-Dichloropropane	<80		180	80	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
2-Butanone (MEK)	<380		900	380	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
2-Chlorotoluene	<57		180	57	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
4-Chlorotoluene	<63		180	63	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Bromobenzene	<64		180	64	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Bromochloromethane	<77		180	77	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Bromodichloromethane	<67		180	67	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Bromoform	<87		180	87	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Bromomethane	<140		360	140	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Carbon tetrachloride	<69		180	69	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Chlorobenzene	<70		180	70	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Chloroethane	<91		180	91	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Chloroform	<67		360	67	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Chloromethane	<58		180	58	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
cis-1,2-Dichloroethene	<74		180	74	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
cis-1,3-Dichloropropene	<75		180	75	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Dibromochloromethane	<88		180	88	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Dibromomethane	<49		180	49	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Dichlorodifluoromethane	<120		360	120	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Hexachlorobutadiene	<80		180	80	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Hexane	200		180	89	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Isopropyl ether	<50		180	50	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Isopropylbenzene	8600		180	69	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Methyl tert-butyl ether	<71		180	71	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Methylene Chloride	<290		900	290	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
n-Butylbenzene	<70		180	70	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
N-Propylbenzene	1200		180	75	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
p-Isopropyltoluene	3100		180	65	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
sec-Butylbenzene	150 J		180	72	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Styrene	<70		180	70	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717020

Lab Sample ID: 500-140832-20

Date Collected: 02/09/18 13:20

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	<72		180	72	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Tetrachloroethene	<67		180	67	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
trans-1,2-Dichloroethene	<63		180	63	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
trans-1,3-Dichloropropene	<65		180	65	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Trichloroethene	<30		90	30	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Trichlorofluoromethane	<77		180	77	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100
Vinyl chloride	<47		90	47	ug/Kg	☼	02/09/18 13:20	02/23/18 16:09	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		75 - 126	02/09/18 13:20	02/23/18 16:09	100
4-Bromofluorobenzene (Surr)	97		72 - 124	02/09/18 13:20	02/23/18 16:09	100
Dibromofluoromethane	99		75 - 120	02/09/18 13:20	02/23/18 16:09	100
Toluene-d8 (Surr)	102		75 - 120	02/09/18 13:20	02/23/18 16:09	100

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	73000		1800	650	ug/Kg	☼	02/09/18 13:20	02/23/18 16:35	1000
Benzene	57000		450	260	ug/Kg	☼	02/09/18 13:20	02/23/18 16:35	1000
Ethylbenzene	93000		450	330	ug/Kg	☼	02/09/18 13:20	02/23/18 16:35	1000
Toluene	80000		450	270	ug/Kg	☼	02/09/18 13:20	02/23/18 16:35	1000
Xylenes, Total	190000		900	400	ug/Kg	☼	02/09/18 13:20	02/23/18 16:35	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 126	02/09/18 13:20	02/23/18 16:35	1000
4-Bromofluorobenzene (Surr)	100		72 - 124	02/09/18 13:20	02/23/18 16:35	1000
Dibromofluoromethane	98		75 - 120	02/09/18 13:20	02/23/18 16:35	1000
Toluene-d8 (Surr)	104		75 - 120	02/09/18 13:20	02/23/18 16:35	1000

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126	02/09/18 13:20	02/23/18 18:21	20000
4-Bromofluorobenzene (Surr)	94		72 - 124	02/09/18 13:20	02/23/18 18:21	20000
Dibromofluoromethane	86		75 - 120	02/09/18 13:20	02/23/18 18:21	20000
Toluene-d8 (Surr)	93		75 - 120	02/09/18 13:20	02/23/18 18:21	20000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<5100		24000	5100	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
1,2-Dichlorobenzene	<5600		24000	5600	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
1,3-Dichlorobenzene	<5300		24000	5300	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
1,4-Dichlorobenzene	<6100		24000	6100	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2,2'-oxybis[1-chloropropane]	<5500		24000	5500	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2,4,5-Trichlorophenol	<11000		47000	11000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2,4,6-Trichlorophenol	<16000		47000	16000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2,4-Dichlorophenol	<11000		47000	11000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2,4-Dimethylphenol	28000 J		47000	18000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2,4-Dinitrophenol	<83000		95000	83000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2,4-Dinitrotoluene	<7500		24000	7500	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2,6-Dinitrotoluene	<9300		24000	9300	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2-Chloronaphthalene	<5200		24000	5200	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717020

Lab Sample ID: 500-140832-20

Date Collected: 02/09/18 13:20

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	<8100		24000	8100	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2-Methylphenol	<7600		24000	7600	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2-Nitroaniline	<6400		24000	6400	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
2-Nitrophenol	<11000		47000	11000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
3 & 4 Methylphenol	<7900		24000	7900	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
3,3'-Dichlorobenzidine	<6600		24000	6600	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
3-Nitroaniline	<15000		47000	15000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
4,6-Dinitro-2-methylphenol	<38000		95000	38000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
4-Bromophenyl phenyl ether	<6200		24000	6200	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
4-Chloro-3-methylphenol	<16000		47000	16000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
4-Chloroaniline	<22000		95000	22000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
4-Chlorophenyl phenyl ether	<5500		24000	5500	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
4-Nitroaniline	<20000		47000	20000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
4-Nitrophenol	<45000		95000	45000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Acenaphthylene	270000		4700	620	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Benzo[g,h,i]perylene	140000		4700	1500	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Benzo[k]fluoranthene	160000		4700	1400	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Benzoic acid	<47000		240000	47000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Benzyl alcohol	<47000		95000	47000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Bis(2-chloroethoxy)methane	<4800		24000	4800	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Bis(2-chloroethyl)ether	<7100		24000	7100	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Bis(2-ethylhexyl) phthalate	<8600		24000	8600	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Butyl benzyl phthalate	<9000		24000	9000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Dibenz(a,h)anthracene	35000		4700	910	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Diethyl phthalate	<8000		24000	8000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Dimethyl phthalate	<6200		24000	6200	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Di-n-butyl phthalate	<7200		24000	7200	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Di-n-octyl phthalate	<7700		24000	7700	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Hexachlorobenzene	<1100		9500	1100	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Hexachlorobutadiene	<7400		24000	7400	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Hexachlorocyclopentadiene	<27000		95000	27000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Hexachloroethane	<7200		24000	7200	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Indeno[1,2,3-cd]pyrene	140000		4700	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Isophorone	<5300		24000	5300	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Nitrobenzene	<1200		4700	1200	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
N-Nitrosodi-n-propylamine	<5800		9500	5800	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
N-Nitrosodiphenylamine	<5600		24000	5600	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Pentachlorophenol	<76000		95000	76000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100
Phenol	<10000		24000	10000	ug/Kg	☼	02/13/18 17:39	02/14/18 16:26	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	D	25 - 139	02/13/18 17:39	02/14/18 16:26	100
2-Fluorobiphenyl (Surr)	0	D	44 - 121	02/13/18 17:39	02/14/18 16:26	100
2-Fluorophenol (Surr)	0	D	46 - 133	02/13/18 17:39	02/14/18 16:26	100
Nitrobenzene-d5 (Surr)	0	D	41 - 120	02/13/18 17:39	02/14/18 16:26	100
Phenol-d5 (Surr)	0	D	46 - 125	02/13/18 17:39	02/14/18 16:26	100
Terphenyl-d14 (Surr)	0	D	35 - 160	02/13/18 17:39	02/14/18 16:26	100

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717020

Lab Sample ID: 500-140832-20

Date Collected: 02/09/18 13:20

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	610000		48000	5800	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
2-Methylnaphthalene	1100000		48000	4300	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Acenaphthene	700000		23000	4200	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Anthracene	1400000		23000	3900	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Benzo[a]anthracene	460000		23000	3200	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Benzo[a]pyrene	480000		23000	4600	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Benzo[b]fluoranthene	490000		23000	5100	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Carbazole	570000		120000	59000	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Chrysene	450000		23000	6400	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Dibenzofuran	570000		120000	28000	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Fluoranthene	1500000		23000	4400	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Fluorene	700000		23000	3300	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500
Pyrene	970000		23000	4700	ug/Kg	☼	02/13/18 17:39	02/16/18 19:45	500

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6300000		94000	15000	ug/Kg	☼	02/13/18 17:39	02/16/18 20:12	2000
Phenanthrene	2900000		94000	13000	ug/Kg	☼	02/13/18 17:39	02/16/18 20:12	2000

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		1.2	0.42	mg/Kg	☼	02/13/18 14:55	02/14/18 17:13	1
Barium	71		1.2	0.14	mg/Kg	☼	02/13/18 14:55	02/14/18 17:13	1
Cadmium	0.13	J B	0.25	0.044	mg/Kg	☼	02/13/18 14:55	02/14/18 17:13	1
Chromium	21		1.2	0.61	mg/Kg	☼	02/13/18 14:55	02/14/18 17:13	1
Lead	17	^	0.62	0.28	mg/Kg	☼	02/13/18 14:55	02/14/18 17:13	1
Selenium	0.80	J	1.2	0.72	mg/Kg	☼	02/13/18 14:55	02/14/18 17:13	1
Silver	<0.16		0.62	0.16	mg/Kg	☼	02/13/18 14:55	02/14/18 17:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.089		0.023	0.0078	mg/Kg	☼	02/14/18 14:00	02/15/18 13:07	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717021

Lab Sample ID: 500-140832-21

Date Collected: 02/09/18 13:23

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<37		80	37	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,1,1-Trichloroethane	<30		80	30	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,1,1,2,2-Tetrachloroethane	<32		80	32	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,1,2-Trichloroethane	<28		80	28	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,1-Dichloroethane	<33		80	33	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,1-Dichloroethene	<31		80	31	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,1-Dichloropropene	<24		80	24	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2,3-Trichlorobenzene	<37		80	37	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2,3-Trichloropropane	<33		80	33	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2,4-Trichlorobenzene	<27		80	27	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2,4-Trimethylbenzene	5300		80	29	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2-Dibromo-3-Chloropropane	<160		400	160	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2-Dibromoethane	<31		80	31	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2-Dichlorobenzene	<27		80	27	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2-Dichloroethane	<31		80	31	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,2-Dichloropropane	<34		80	34	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,3,5-Trimethylbenzene	2200		80	30	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,3-Dichlorobenzene	<32		80	32	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,3-Dichloropropane	<29		80	29	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
1,4-Dichlorobenzene	<29		80	29	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
2,2-Dichloropropane	<36		80	36	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
2-Butanone (MEK)	<170		400	170	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
2-Chlorotoluene	<25		80	25	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
4-Chlorotoluene	<28		80	28	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Benzene	2800		20	12	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Bromobenzene	<28		80	28	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Bromochloromethane	<34		80	34	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Bromodichloromethane	<30		80	30	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Bromoform	<39		80	39	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Bromomethane	<64		160	64	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Carbon tetrachloride	<31		80	31	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Chlorobenzene	<31		80	31	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Chloroethane	<40		80	40	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Chloroform	<30		160	30	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Chloromethane	<26		80	26	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
cis-1,2-Dichloroethene	<33		80	33	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
cis-1,3-Dichloropropene	<33		80	33	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Dibromochloromethane	<39		80	39	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Dibromomethane	<22		80	22	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Dichlorodifluoromethane	<54		160	54	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Ethylbenzene	7500		20	15	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Hexachlorobutadiene	<36		80	36	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Hexane	70 J		80	39	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Isopropyl ether	<22		80	22	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Isopropylbenzene	470		80	31	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Methyl tert-butyl ether	<32		80	32	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Methylene Chloride	<130		400	130	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
n-Butylbenzene	<31		80	31	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
N-Propylbenzene	110		80	33	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717021

Lab Sample ID: 500-140832-21

Date Collected: 02/09/18 13:23

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	240		80	29	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
sec-Butylbenzene	<32		80	32	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Styrene	<31		80	31	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
tert-Butylbenzene	<32		80	32	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Tetrachloroethene	<30		80	30	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Toluene	5000		20	12	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
trans-1,2-Dichloroethene	<28		80	28	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
trans-1,3-Dichloropropene	<29		80	29	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Trichloroethene	<13		40	13	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Trichlorofluoromethane	<34		80	34	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Vinyl chloride	<21		40	21	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Xylenes, Total	13000		40	18	ug/Kg	☼	02/09/18 13:23	02/23/18 13:56	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 126				02/09/18 13:23	02/23/18 13:56	50
4-Bromofluorobenzene (Surr)	97		72 - 124				02/09/18 13:23	02/23/18 13:56	50
Dibromofluoromethane	98		75 - 120				02/09/18 13:23	02/23/18 13:56	50
Toluene-d8 (Surr)	101		75 - 120				02/09/18 13:23	02/23/18 13:56	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 126	02/09/18 13:23	02/23/18 15:00	2000
4-Bromofluorobenzene (Surr)	92		72 - 124	02/09/18 13:23	02/23/18 15:00	2000
Dibromofluoromethane	86		75 - 120	02/09/18 13:23	02/23/18 15:00	2000
Toluene-d8 (Surr)	96		75 - 120	02/09/18 13:23	02/23/18 15:00	2000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<460		2100	460	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
1,2-Dichlorobenzene	<510		2100	510	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
1,3-Dichlorobenzene	<480		2100	480	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
1,4-Dichlorobenzene	<550		2100	550	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
1-Methylnaphthalene	17000		860	100	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2,2'-oxybis[1-chloropropane]	<490		2100	490	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2,4,5-Trichlorophenol	<970		4200	970	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2,4,6-Trichlorophenol	<1500		4200	1500	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2,4-Dichlorophenol	<1000		4200	1000	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2,4-Dimethylphenol	2700 J		4200	1600	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2,4-Dinitrophenol	<7500		8600	7500	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2,4-Dinitrotoluene	<680		2100	680	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2,6-Dinitrotoluene	<840		2100	840	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2-Chloronaphthalene	<470		2100	470	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2-Chlorophenol	<730		2100	730	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2-Methylnaphthalene	29000		860	78	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2-Methylphenol	<680		2100	680	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2-Nitroaniline	<570		2100	570	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
2-Nitrophenol	<1000		4200	1000	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
3 & 4 Methylphenol	<710		2100	710	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
3,3'-Dichlorobenzidine	<600		2100	600	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
3-Nitroaniline	<1300		4200	1300	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717021

Lab Sample ID: 500-140832-21

Date Collected: 02/09/18 13:23

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	<3400		8600	3400	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
4-Bromophenyl phenyl ether	<560		2100	560	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
4-Chloro-3-methylphenol	<1400		4200	1400	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
4-Chloroaniline	<2000		8600	2000	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
4-Chlorophenyl phenyl ether	<500		2100	500	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
4-Nitroaniline	<1800		4200	1800	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
4-Nitrophenol	<4000		8600	4000	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Acenaphthene	9200		420	76	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Acenaphthylene	11000		420	56	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Anthracene	1500		420	71	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Benzo[a]anthracene	580		420	57	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Benzo[a]pyrene	760		420	82	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Benzo[b]fluoranthene	770		420	92	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Benzo[g,h,i]perylene	340 J		420	140	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Benzo[k]fluoranthene	270 J		420	130	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Benzoic acid	5400 J		21000	4200	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Benzyl alcohol	<4200		8600	4200	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Bis(2-chloroethoxy)methane	<430		2100	430	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Bis(2-chloroethyl)ether	<640		2100	640	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Bis(2-ethylhexyl) phthalate	<780		2100	780	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Butyl benzyl phthalate	<810		2100	810	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Carbazole	13000		2100	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Chrysene	530		420	120	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Dibenz(a,h)anthracene	<82		420	82	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Dibenzofuran	6900		2100	500	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Diethyl phthalate	<720		2100	720	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Dimethyl phthalate	<560		2100	560	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Di-n-butyl phthalate	<650		2100	650	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Di-n-octyl phthalate	<690		2100	690	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Fluoranthene	1600		420	79	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Fluorene	5800		420	60	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Hexachlorobenzene	<99		860	99	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Hexachlorobutadiene	<670		2100	670	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Hexachlorocyclopentadiene	<2400		8600	2400	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Hexachloroethane	<650		2100	650	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Indeno[1,2,3-cd]pyrene	390 J		420	110	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Isophorone	<480		2100	480	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Nitrobenzene	<110		420	110	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
N-Nitrosodi-n-propylamine	<520		860	520	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
N-Nitrosodiphenylamine	<500		2100	500	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Pentachlorophenol	<6800		8600	6800	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Phenanthrene	5000		420	59	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Phenol	<950		2100	950	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10
Pyrene	2000		420	85	ug/Kg	☼	02/14/18 07:33	02/15/18 22:42	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		25 - 139	02/14/18 07:33	02/15/18 22:42	10
2-Fluorobiphenyl (Surr)	114		44 - 121	02/14/18 07:33	02/15/18 22:42	10
2-Fluorophenol (Surr)	114		46 - 133	02/14/18 07:33	02/15/18 22:42	10
Nitrobenzene-d5 (Surr)	115		41 - 120	02/14/18 07:33	02/15/18 22:42	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717021

Lab Sample ID: 500-140832-21

Date Collected: 02/09/18 13:23

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	120		46 - 125	02/14/18 07:33	02/15/18 22:42	10
Terphenyl-d14 (Surr)	153		35 - 160	02/14/18 07:33	02/15/18 22:42	10

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	250000		4200	650	ug/Kg	☼	02/14/18 07:33	02/15/18 23:07	100

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		1.2	0.40	mg/Kg	☼	02/13/18 14:55	02/14/18 17:17	1
Barium	70		1.2	0.13	mg/Kg	☼	02/13/18 14:55	02/14/18 17:17	1
Cadmium	<0.042		0.23	0.042	mg/Kg	☼	02/13/18 14:55	02/14/18 17:17	1
Chromium	24		1.2	0.58	mg/Kg	☼	02/13/18 14:55	02/14/18 17:17	1
Lead	8.0 ^		0.59	0.27	mg/Kg	☼	02/13/18 14:55	02/14/18 17:17	1
Selenium	<0.69		1.2	0.69	mg/Kg	☼	02/13/18 14:55	02/14/18 17:17	1
Silver	<0.15		0.59	0.15	mg/Kg	☼	02/13/18 14:55	02/14/18 17:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.021	0.0071	mg/Kg	☼	02/14/18 14:00	02/15/18 10:06	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717023

Lab Sample ID: 500-140832-22

Date Collected: 02/09/18 15:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<45		96	45	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,1,1-Trichloroethane	<37		96	37	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,1,2,2-Tetrachloroethane	<38		96	38	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,1,2-Trichloroethane	<34		96	34	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,1-Dichloroethane	<40		96	40	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,1-Dichloroethene	<38		96	38	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,1-Dichloropropene	<29		96	29	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2,3-Trichlorobenzene	<44		96	44	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2,3-Trichloropropane	<40		96	40	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2,4-Trichlorobenzene	<33		96	33	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2,4-Trimethylbenzene	2100		96	35	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2-Dibromo-3-Chloropropane	<190		480	190	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2-Dibromoethane	<37		96	37	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2-Dichlorobenzene	<32		96	32	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2-Dichloroethane	<38		96	38	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,2-Dichloropropane	<41		96	41	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,3,5-Trimethylbenzene	690		96	37	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,3-Dichlorobenzene	<39		96	39	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,3-Dichloropropane	<35		96	35	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
1,4-Dichlorobenzene	<35		96	35	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
2,2-Dichloropropane	<43		96	43	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
2-Butanone (MEK)	<200		480	200	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
2-Chlorotoluene	<30		96	30	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
4-Chlorotoluene	<34		96	34	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Benzene	440		24	14	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Bromobenzene	<34		96	34	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Bromochloromethane	<41		96	41	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Bromodichloromethane	<36		96	36	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Bromoform	<47		96	47	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Bromomethane	<77		190	77	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Carbon tetrachloride	<37		96	37	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Chlorobenzene	<37		96	37	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Chloroethane	<49		96	49	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Chloroform	<36		190	36	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Chloromethane	<31		96	31	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
cis-1,2-Dichloroethene	<39		96	39	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
cis-1,3-Dichloropropene	<40		96	40	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Dibromochloromethane	<47		96	47	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Dibromomethane	<26		96	26	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Dichlorodifluoromethane	<65		190	65	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Ethylbenzene	4500		24	18	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Hexachlorobutadiene	<43		96	43	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Hexane	74 J		96	47	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Isopropyl ether	<27		96	27	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Isopropylbenzene	390		96	37	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Methyl tert-butyl ether	<38		96	38	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Methylene Chloride	<160		480	160	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
n-Butylbenzene	<37		96	37	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
N-Propylbenzene	130		96	40	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717023

Lab Sample ID: 500-140832-22

Date Collected: 02/09/18 15:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	670		96	35	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
sec-Butylbenzene	<38		96	38	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Styrene	<37		96	37	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
tert-Butylbenzene	<38		96	38	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Tetrachloroethene	<36		96	36	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Toluene	110		24	14	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
trans-1,2-Dichloroethene	<34		96	34	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
trans-1,3-Dichloropropene	<35		96	35	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Trichloroethene	<16		48	16	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Trichlorofluoromethane	<41		96	41	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Vinyl chloride	<25		48	25	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Xylenes, Total	4200		48	21	ug/Kg	☼	02/09/18 15:15	02/23/18 14:22	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 126				02/09/18 15:15	02/23/18 14:22	50
4-Bromofluorobenzene (Surr)	100		72 - 124				02/09/18 15:15	02/23/18 14:22	50
Dibromofluoromethane	98		75 - 120				02/09/18 15:15	02/23/18 14:22	50
Toluene-d8 (Surr)	103		75 - 120				02/09/18 15:15	02/23/18 14:22	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 126				02/09/18 15:15	02/23/18 15:25	1000
4-Bromofluorobenzene (Surr)	94		72 - 124				02/09/18 15:15	02/23/18 15:25	1000
Dibromofluoromethane	87		75 - 120				02/09/18 15:15	02/23/18 15:25	1000
Toluene-d8 (Surr)	95		75 - 120				02/09/18 15:15	02/23/18 15:25	1000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1000		4700	1000	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
1,2-Dichlorobenzene	<1100		4700	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
1,3-Dichlorobenzene	<1100		4700	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
1,4-Dichlorobenzene	<1200		4700	1200	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
1-Methylnaphthalene	23000		1900	230	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2,2'-oxybis[1-chloropropane]	<1100		4700	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2,4,5-Trichlorophenol	<2100		9300	2100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2,4,6-Trichlorophenol	<3200		9300	3200	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2,4-Dichlorophenol	<2200		9300	2200	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2,4-Dimethylphenol	<3600		9300	3600	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2,4-Dinitrophenol	<17000		19000	17000	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2,4-Dinitrotoluene	<1500		4700	1500	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2,6-Dinitrotoluene	<1800		4700	1800	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2-Chloronaphthalene	<1000		4700	1000	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2-Chlorophenol	<1600		4700	1600	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2-Methylnaphthalene	37000		1900	170	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2-Methylphenol	<1500		4700	1500	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2-Nitroaniline	<1300		4700	1300	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
2-Nitrophenol	<2200		9300	2200	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
3 & 4 Methylphenol	<1600		4700	1600	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
3,3'-Dichlorobenzidine	<1300		4700	1300	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
3-Nitroaniline	<2900		9300	2900	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717023

Lab Sample ID: 500-140832-22

Date Collected: 02/09/18 15:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	<7600		19000	7600	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
4-Bromophenyl phenyl ether	<1200		4700	1200	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
4-Chloro-3-methylphenol	<3200		9300	3200	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
4-Chloroaniline	<4400		19000	4400	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
4-Chlorophenyl phenyl ether	<1100		4700	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
4-Nitroaniline	<3900		9300	3900	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
4-Nitrophenol	<8900		19000	8900	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Acenaphthene	20000		930	170	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Acenaphthylene	3200		930	120	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Anthracene	8300		930	160	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Benzo[a]anthracene	8500		930	130	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Benzo[a]pyrene	8000		930	180	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Benzo[b]fluoranthene	11000		930	200	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Benzo[g,h,i]perylene	2500		930	300	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Benzo[k]fluoranthene	3900		930	280	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Benzoic acid	<9300		47000	9300	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Benzyl alcohol	<9300		19000	9300	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Bis(2-chloroethoxy)methane	<960		4700	960	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Bis(2-chloroethyl)ether	<1400		4700	1400	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Bis(2-ethylhexyl) phthalate	<1700		4700	1700	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Butyl benzyl phthalate	<1800		4700	1800	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Carbazole	<2300		4700	2300	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Chrysene	7100		930	260	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Dibenz(a,h)anthracene	1100		930	180	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Dibenzofuran	4400 J		4700	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Diethyl phthalate	<1600		4700	1600	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Dimethyl phthalate	<1200		4700	1200	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Di-n-butyl phthalate	<1400		4700	1400	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Di-n-octyl phthalate	<1500		4700	1500	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Fluoranthene	17000		930	170	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Fluorene	10000		930	130	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Hexachlorobenzene	<220		1900	220	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Hexachlorobutadiene	<1500		4700	1500	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Hexachlorocyclopentadiene	<5400		19000	5400	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Hexachloroethane	<1400		4700	1400	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Indeno[1,2,3-cd]pyrene	2600		930	240	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Isophorone	<1100		4700	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Nitrobenzene	<230		930	230	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
N-Nitrosodi-n-propylamine	<1100		1900	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
N-Nitrosodiphenylamine	<1100		4700	1100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Pentachlorophenol	<15000		19000	15000	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Phenanthrene	28000		930	130	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Phenol	<2100		4700	2100	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20
Pyrene	25000		930	190	ug/Kg	☼	02/14/18 07:33	02/15/18 23:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	D	25 - 139	02/14/18 07:33	02/15/18 23:33	20
2-Fluorobiphenyl (Surr)	0	D	44 - 121	02/14/18 07:33	02/15/18 23:33	20
2-Fluorophenol (Surr)	0	D	46 - 133	02/14/18 07:33	02/15/18 23:33	20
Nitrobenzene-d5 (Surr)	0	D	41 - 120	02/14/18 07:33	02/15/18 23:33	20

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717023

Lab Sample ID: 500-140832-22

Date Collected: 02/09/18 15:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	0	D	46 - 125	02/14/18 07:33	02/15/18 23:33	20
Terphenyl-d14 (Surr)	0	D	35 - 160	02/14/18 07:33	02/15/18 23:33	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	130000		2300	360	ug/Kg	☼	02/14/18 07:33	02/16/18 16:14	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<86		240	86	ug/Kg	☼	02/13/18 16:24	02/14/18 13:36	10
PCB-1221	<110		240	110	ug/Kg	☼	02/13/18 16:24	02/14/18 13:36	10
PCB-1232	<110		240	110	ug/Kg	☼	02/13/18 16:24	02/14/18 13:36	10
PCB-1242	<80		240	80	ug/Kg	☼	02/13/18 16:24	02/14/18 13:36	10
PCB-1248	<96		240	96	ug/Kg	☼	02/13/18 16:24	02/14/18 13:36	10
PCB-1254	<52		240	52	ug/Kg	☼	02/13/18 16:24	02/14/18 13:36	10
PCB-1260	<120		240	120	ug/Kg	☼	02/13/18 16:24	02/14/18 13:36	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	105		49 - 129	02/13/18 16:24	02/14/18 13:36	10
DCB Decachlorobiphenyl	101		37 - 121	02/13/18 16:24	02/14/18 13:36	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.095	J	1.0	0.035	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,7,8-PeCDD	0.15	J q	5.0	0.021	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,4,7,8-HxCDD	<0.027		5.0	0.027	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,6,7,8-HxCDD	0.11	J	5.0	0.027	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,7,8,9-HxCDD	0.13	J	5.0	0.025	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,4,6,7,8-HpCDD	0.81	J	5.0	0.029	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
OCDD	10	B	10	0.043	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
2,3,7,8-TCDF	0.19	J	1.0	0.021	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,7,8-PeCDF	0.069	J q	5.0	0.029	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
2,3,4,7,8-PeCDF	<0.025		5.0	0.025	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,4,7,8-HxCDF	<0.033		5.0	0.033	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,6,7,8-HxCDF	0.077	J q	5.0	0.032	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
2,3,4,6,7,8-HxCDF	<0.031		5.0	0.031	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,7,8,9-HxCDF	<0.036		5.0	0.036	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,4,6,7,8-HpCDF	0.55	J B	5.0	0.046	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
1,2,3,4,7,8,9-HpCDF	<0.062		5.0	0.062	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1
OCDF	0.67	J B	10	0.026	pg/g	☼	02/16/18 10:10	02/22/18 17:39	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	67		25 - 164	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,7,8-PeCDD	91		25 - 181	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,4,7,8-HxCDD	65		32 - 141	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,6,7,8-HxCDD	65		28 - 130	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,4,6,7,8-HpCDD	82		23 - 140	02/16/18 10:10	02/22/18 17:39	1
13C-OCDD	86		17 - 157	02/16/18 10:10	02/22/18 17:39	1
13C-2,3,7,8-TCDF	60		24 - 169	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,7,8-PeCDF	79		24 - 185	02/16/18 10:10	02/22/18 17:39	1
13C-2,3,4,7,8-PeCDF	79		21 - 178	02/16/18 10:10	02/22/18 17:39	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717023

Lab Sample ID: 500-140832-22

Date Collected: 02/09/18 15:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDF	57		26 - 152	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,6,7,8-HxCDF	52		26 - 123	02/16/18 10:10	02/22/18 17:39	1
13C-2,3,4,6,7,8-HxCDF	60		28 - 136	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,7,8,9-HxCDF	62		29 - 147	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,4,6,7,8-HpCDF	56		28 - 143	02/16/18 10:10	02/22/18 17:39	1
13C-1,2,3,4,7,8,9-HpCDF	67		26 - 138	02/16/18 10:10	02/22/18 17:39	1
13C-OCDF	77		17 - 157	02/16/18 10:10	02/22/18 17:39	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	76		35 - 197	02/16/18 10:10	02/22/18 17:39	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.0		1.4	0.46	mg/Kg	☼	02/13/18 14:55	02/14/18 17:29	1
Barium	53		1.4	0.15	mg/Kg	☼	02/13/18 14:55	02/14/18 17:29	1
Cadmium	0.27	B	0.27	0.049	mg/Kg	☼	02/13/18 14:55	02/14/18 17:29	1
Chromium	16		1.4	0.67	mg/Kg	☼	02/13/18 14:55	02/14/18 17:29	1
Lead	60	^	0.68	0.31	mg/Kg	☼	02/13/18 14:55	02/14/18 17:29	1
Selenium	<0.80		1.4	0.80	mg/Kg	☼	02/13/18 14:55	02/14/18 17:29	1
Silver	<0.18	^	0.68	0.18	mg/Kg	☼	02/13/18 14:55	02/14/18 17:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.022	0.0072	mg/Kg	☼	02/14/18 14:00	02/15/18 10:08	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717025

Lab Sample ID: 500-140832-23

Date Collected: 02/09/18 15:13

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<390		840	390	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,1,1-Trichloroethane	<320		840	320	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,1,2,2-Tetrachloroethane	<340		840	340	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,1,2-Trichloroethane	<300		840	300	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,1-Dichloroethane	<350		840	350	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,1-Dichloroethene	<330		840	330	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,1-Dichloropropene	<250		840	250	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2,3-Trichlorobenzene	<390		840	390	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2,3-Trichloropropane	<350		840	350	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2,4-Trichlorobenzene	<290		840	290	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2,4-Trimethylbenzene	50000		840	300	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2-Dibromo-3-Chloropropane	<1700		4200	1700	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2-Dibromoethane	<330		840	330	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2-Dichlorobenzene	<280		840	280	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2-Dichloroethane	<330		840	330	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,2-Dichloropropane	<360		840	360	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,3,5-Trimethylbenzene	15000		840	320	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,3-Dichlorobenzene	<340		840	340	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,3-Dichloropropane	<310		840	310	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
1,4-Dichlorobenzene	<310		840	310	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
2,2-Dichloropropane	<370		840	370	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
2-Butanone (MEK)	<1800		4200	1800	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
2-Chlorotoluene	<260		840	260	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
4-Chlorotoluene	<300		840	300	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Benzene	11000		210	120	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Bromobenzene	<300		840	300	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Bromochloromethane	<360		840	360	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Bromodichloromethane	<310		840	310	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Bromoform	<410		840	410	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Bromomethane	<670 *		1700	670	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Carbon tetrachloride	<320		840	320	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Chlorobenzene	<330		840	330	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Chloroethane	<430		840	430	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Chloroform	<310		1700	310	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Chloromethane	<270		840	270	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
cis-1,2-Dichloroethene	<340		840	340	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
cis-1,3-Dichloropropene	<350		840	350	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Dibromochloromethane	<410		840	410	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Dibromomethane	<230		840	230	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Dichlorodifluoromethane	<570		1700	570	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Ethylbenzene	140000		210	150	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Hexachlorobutadiene	<380		840	380	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Hexane	<420		840	420	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Isopropyl ether	<230		840	230	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Isopropylbenzene	9300		840	320	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Methyl tert-butyl ether	<330		840	330	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Methylene Chloride	<1400		4200	1400	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
n-Butylbenzene	<330		840	330	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
N-Propylbenzene	2600		840	350	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717025

Lab Sample ID: 500-140832-23

Date Collected: 02/09/18 15:13

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	9300		840	310	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
sec-Butylbenzene	<340		840	340	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Styrene	<330		840	330	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
tert-Butylbenzene	<340		840	340	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Tetrachloroethene	<310		840	310	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Toluene	8700		210	120	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
trans-1,2-Dichloroethene	<300		840	300	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
trans-1,3-Dichloropropene	<310		840	310	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Trichloroethene	<140		420	140	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Trichlorofluoromethane	<360		840	360	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Vinyl chloride	<220		420	220	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Xylenes, Total	120000		420	190	ug/Kg	☼	02/09/18 15:13	02/22/18 13:48	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 126				02/09/18 15:13	02/22/18 13:48	500
4-Bromofluorobenzene (Surr)	88		72 - 124				02/09/18 15:13	02/22/18 13:48	500
Dibromofluoromethane	97		75 - 120				02/09/18 15:13	02/22/18 13:48	500
Toluene-d8 (Surr)	94		75 - 120				02/09/18 15:13	02/22/18 13:48	500

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		75 - 126	02/09/18 15:13	02/23/18 12:30	20000
4-Bromofluorobenzene (Surr)	94		72 - 124	02/09/18 15:13	02/23/18 12:30	20000
Dibromofluoromethane	88		75 - 120	02/09/18 15:13	02/23/18 12:30	20000
Toluene-d8 (Surr)	93		75 - 120	02/09/18 15:13	02/23/18 12:30	20000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<46		210	46	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
1,2-Dichlorobenzene	<51		210	51	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
1,3-Dichlorobenzene	<48		210	48	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
1,4-Dichlorobenzene	<55		210	55	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
1-Methylnaphthalene	780		86	10	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2,2'-oxybis[1-chloropropane]	<50		210	50	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2,4,5-Trichlorophenol	<97		420	97	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2,4,6-Trichlorophenol	<150		420	150	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2,4-Dichlorophenol	<100		420	100	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2,4-Dimethylphenol	<160		420	160	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2,4-Dinitrophenol	<750		860	750	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2,4-Dinitrotoluene	<68		210	68	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2,6-Dinitrotoluene	<84		210	84	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2-Chloronaphthalene	<47		210	47	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2-Chlorophenol	<73		210	73	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2-Methylnaphthalene	1200		86	7.9	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2-Methylphenol	<69		210	69	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2-Nitroaniline	<57		210	57	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
2-Nitrophenol	<100		420	100	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
3 & 4 Methylphenol	150 J		210	71	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
3,3'-Dichlorobenzidine	<60		210	60	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
3-Nitroaniline	<130		420	130	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717025

Lab Sample ID: 500-140832-23

Date Collected: 02/09/18 15:13

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	<340		860	340	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
4-Bromophenyl phenyl ether	<56		210	56	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
4-Chloro-3-methylphenol	<150		420	150	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
4-Chloroaniline	<200		860	200	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
4-Chlorophenyl phenyl ether	<50		210	50	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
4-Nitroaniline	<180		420	180	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
4-Nitrophenol	<410		860	410	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Acenaphthene	510		42	7.7	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Acenaphthylene	89		42	5.6	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Anthracene	150		42	7.1	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Benzo[a]anthracene	69		42	5.7	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Benzo[a]pyrene	74		42	8.3	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Benzo[b]fluoranthene	64		42	9.2	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Benzo[g,h,i]perylene	50		42	14	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Benzo[k]fluoranthene	26 J		42	13	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Benzoic acid	<420		2100	420	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Benzyl alcohol	<420		860	420	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Bis(2-chloroethoxy)methane	<44		210	44	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Bis(2-chloroethyl)ether	<64		210	64	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Bis(2-ethylhexyl) phthalate	<78		210	78	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Butyl benzyl phthalate	<81		210	81	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Carbazole	<110		210	110	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Chrysene	71		42	12	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Dibenz(a,h)anthracene	<8.3		42	8.3	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Dibenzofuran	<50		210	50	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Diethyl phthalate	<72		210	72	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Dimethyl phthalate	<56		210	56	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Di-n-butyl phthalate	<65		210	65	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Di-n-octyl phthalate	<70		210	70	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Fluoranthene	120		42	7.9	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Fluorene	210		42	6.0	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Hexachlorobenzene	<9.9		86	9.9	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Hexachlorobutadiene	<67		210	67	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Hexachlorocyclopentadiene	<250		860	250	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Hexachloroethane	<65		210	65	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Indeno[1,2,3-cd]pyrene	49		42	11	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Isophorone	<48		210	48	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Nitrobenzene	<11		42	11	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
N-Nitrosodi-n-propylamine	<52		86	52	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
N-Nitrosodiphenylamine	<50		210	50	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Pentachlorophenol	<690		860	690	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Phenanthrene	470		42	6.0	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Phenol	500		210	95	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1
Pyrene	280		42	8.5	ug/Kg	☼	02/14/18 07:33	02/15/18 03:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	86		25 - 139	02/14/18 07:33	02/15/18 03:48	1
2-Fluorobiphenyl (Surr)	94		44 - 121	02/14/18 07:33	02/15/18 03:48	1
2-Fluorophenol (Surr)	115		46 - 133	02/14/18 07:33	02/15/18 03:48	1
Nitrobenzene-d5 (Surr)	89		41 - 120	02/14/18 07:33	02/15/18 03:48	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717025

Lab Sample ID: 500-140832-23

Date Collected: 02/09/18 15:13

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	116		46 - 125	02/14/18 07:33	02/15/18 03:48	1
Terphenyl-d14 (Surr)	130		35 - 160	02/14/18 07:33	02/15/18 03:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	21000		420	66	ug/Kg	☼	02/14/18 07:33	02/15/18 23:58	10

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<75	F1	210	75	ug/Kg	☼	02/13/18 16:24	02/14/18 13:52	10
PCB-1221	<94		210	94	ug/Kg	☼	02/13/18 16:24	02/14/18 13:52	10
PCB-1232	<93		210	93	ug/Kg	☼	02/13/18 16:24	02/14/18 13:52	10
PCB-1242	<70		210	70	ug/Kg	☼	02/13/18 16:24	02/14/18 13:52	10
PCB-1248	<84		210	84	ug/Kg	☼	02/13/18 16:24	02/14/18 13:52	10
PCB-1254	<46		210	46	ug/Kg	☼	02/13/18 16:24	02/14/18 13:52	10
PCB-1260	<100		210	100	ug/Kg	☼	02/13/18 16:24	02/14/18 13:52	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		49 - 129	02/13/18 16:24	02/14/18 13:52	10
DCB Decachlorobiphenyl	105		37 - 121	02/13/18 16:24	02/14/18 13:52	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.041	q	1.0	0.041	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,7,8-PeCDD	0.080	J q	5.0	0.020	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,4,7,8-HxCDD	<0.048		5.0	0.048	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,6,7,8-HxCDD	0.17	J q	5.0	0.050	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,7,8,9-HxCDD	0.20	J	5.0	0.046	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,4,6,7,8-HpCDD	5.0		5.0	0.055	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
OCDD	64	B	10	0.063	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
2,3,7,8-TCDF	0.32	J	1.0	0.022	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,7,8-PeCDF	<0.044		5.0	0.044	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
2,3,4,7,8-PeCDF	<0.036		5.0	0.036	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,4,7,8-HxCDF	0.17	J q	5.0	0.029	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,6,7,8-HxCDF	0.12	J I	5.0	0.030	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
2,3,4,6,7,8-HxCDF	0.044	J	5.0	0.028	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,7,8,9-HxCDF	<0.033		5.0	0.033	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,4,6,7,8-HpCDF	1.6	J B	5.0	0.035	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
1,2,3,4,7,8,9-HpCDF	<0.043		5.0	0.043	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1
OCDF	5.7	J B	10	0.056	pg/g	☼	02/16/18 10:10	02/22/18 18:40	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	70		25 - 164	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,7,8-PeCDD	91		25 - 181	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,4,7,8-HxCDD	69		32 - 141	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,6,7,8-HxCDD	68		28 - 130	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,4,6,7,8-HpCDD	87		23 - 140	02/16/18 10:10	02/22/18 18:40	1
13C-OCDD	94		17 - 157	02/16/18 10:10	02/22/18 18:40	1
13C-2,3,7,8-TCDF	65		24 - 169	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,7,8-PeCDF	82		24 - 185	02/16/18 10:10	02/22/18 18:40	1
13C-2,3,4,7,8-PeCDF	82		21 - 178	02/16/18 10:10	02/22/18 18:40	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717025

Lab Sample ID: 500-140832-23

Date Collected: 02/09/18 15:13

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C-1,2,3,4,7,8-HxCDF	59		26 - 152	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,6,7,8-HxCDF	56		26 - 123	02/16/18 10:10	02/22/18 18:40	1
13C-2,3,4,6,7,8-HxCDF	63		28 - 136	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,7,8,9-HxCDF	66		29 - 147	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,4,6,7,8-HpCDF	61		28 - 143	02/16/18 10:10	02/22/18 18:40	1
13C-1,2,3,4,7,8,9-HpCDF	73		26 - 138	02/16/18 10:10	02/22/18 18:40	1
13C-OCDF	83		17 - 157	02/16/18 10:10	02/22/18 18:40	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	78		35 - 197	02/16/18 10:10	02/22/18 18:40	1

Method: 6010C - Metals (ICP)

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Arsenic	3.4		1.1	0.38	mg/Kg	☼	02/13/18 14:55	02/14/18 17:33	1
Barium	93		1.1	0.13	mg/Kg	☼	02/13/18 14:55	02/14/18 17:33	1
Cadmium	<0.040		0.22	0.040	mg/Kg	☼	02/13/18 14:55	02/14/18 17:33	1
Chromium	25		1.1	0.55	mg/Kg	☼	02/13/18 14:55	02/14/18 17:33	1
Lead	7.7	^	0.55	0.26	mg/Kg	☼	02/13/18 14:55	02/14/18 17:33	1
Selenium	<0.65		1.1	0.65	mg/Kg	☼	02/13/18 14:55	02/14/18 17:33	1
Silver	<0.14	^	0.55	0.14	mg/Kg	☼	02/13/18 14:55	02/14/18 17:33	1

Method: 7471B - Mercury (CVAA)

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Mercury	0.019		0.019	0.0065	mg/Kg	☼	02/14/18 14:00	02/15/18 10:15	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817027

Lab Sample ID: 500-140832-24

Date Collected: 02/09/18 15:18

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 45.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<77		170	77	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,1,1-Trichloroethane	<64		170	64	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,1,1,2,2-Tetrachloroethane	<67		170	67	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,1,2-Trichloroethane	<59		170	59	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,1-Dichloroethane	<69		170	69	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,1-Dichloroethene	<65		170	65	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,1-Dichloropropene	<50		170	50	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,2,3-Trichlorobenzene	<77		170	77	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,2,3-Trichloropropane	<69		170	69	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,2,4-Trichlorobenzene	<57		170	57	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,2-Dibromo-3-Chloropropane	<330		840	330	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,2-Dibromoethane	<65		170	65	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,2-Dichlorobenzene	<56		170	56	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,2-Dichloroethane	<66		170	66	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,2-Dichloropropane	<72		170	72	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,3,5-Trimethylbenzene	4800		170	64	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,3-Dichlorobenzene	<67		170	67	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,3-Dichloropropane	<61		170	61	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
1,4-Dichlorobenzene	<61		170	61	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
2,2-Dichloropropane	<74		170	74	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
2-Butanone (MEK)	<360		840	360	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
2-Chlorotoluene	<53		170	53	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
4-Chlorotoluene	<59		170	59	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Benzene	160		42	24	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Bromobenzene	<60		170	60	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Bromochloromethane	<72		170	72	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Bromodichloromethane	<62		170	62	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Bromoform	<81		170	81	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Bromomethane	<130		340	130	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Carbon tetrachloride	<64		170	64	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Chlorobenzene	<65		170	65	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Chloroethane	<84		170	84	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Chloroform	<62		340	62	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Chloromethane	<54		170	54	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
cis-1,2-Dichloroethene	<68		170	68	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
cis-1,3-Dichloropropene	<70		170	70	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Dibromochloromethane	<82		170	82	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Dibromomethane	<45		170	45	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Dichlorodifluoromethane	<110		340	110	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Ethylbenzene	200		42	31	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Hexachlorobutadiene	<75		170	75	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Hexane	120 J		170	82	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Isopropyl ether	<46		170	46	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Isopropylbenzene	1600		170	64	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Methyl tert-butyl ether	<66		170	66	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Methylene Chloride	<270		840	270	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
n-Butylbenzene	<65		170	65	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
N-Propylbenzene	2400		170	69	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
p-Isopropyltoluene	2400		170	61	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817027

Lab Sample ID: 500-140832-24

Date Collected: 02/09/18 15:18

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 45.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	3100		170	67	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Styrene	<65		170	65	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
tert-Butylbenzene	420		170	67	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Tetrachloroethene	<62		170	62	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Toluene	330		42	25	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
trans-1,2-Dichloroethene	<59		170	59	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
trans-1,3-Dichloropropene	<61		170	61	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Trichloroethene	<27		84	27	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Trichlorofluoromethane	<72		170	72	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Vinyl chloride	<44		84	44	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50
Xylenes, Total	<37		84	37	ug/Kg	☼	02/09/18 15:18	02/23/18 14:49	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		75 - 126	02/09/18 15:18	02/23/18 14:49	50
4-Bromofluorobenzene (Surr)	97		72 - 124	02/09/18 15:18	02/23/18 14:49	50
Dibromofluoromethane	101		75 - 120	02/09/18 15:18	02/23/18 14:49	50
Toluene-d8 (Surr)	103		75 - 120	02/09/18 15:18	02/23/18 14:49	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	30000		340	120	ug/Kg	☼	02/09/18 15:18	02/23/18 15:50	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126	02/09/18 15:18	02/23/18 15:50	100
4-Bromofluorobenzene (Surr)	91		72 - 124	02/09/18 15:18	02/23/18 15:50	100
Dibromofluoromethane	86		75 - 120	02/09/18 15:18	02/23/18 15:50	100
Toluene-d8 (Surr)	95		75 - 120	02/09/18 15:18	02/23/18 15:50	100

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<790		3700	790	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
1,2-Dichlorobenzene	<870		3700	870	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
1,3-Dichlorobenzene	<820		3700	820	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
1,4-Dichlorobenzene	<940		3700	940	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
1-Methylnaphthalene	9300		1500	180	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2,2'-oxybis[1-chloropropane]	<850		3700	850	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2,4,5-Trichlorophenol	<1700		7300	1700	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2,4,6-Trichlorophenol	<2500		7300	2500	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2,4-Dichlorophenol	<1700		7300	1700	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2,4-Dimethylphenol	<2800		7300	2800	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2,4-Dinitrophenol	<13000		15000	13000	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2,4-Dinitrotoluene	<1200		3700	1200	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2,6-Dinitrotoluene	<1400		3700	1400	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2-Chloronaphthalene	<810		3700	810	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2-Chlorophenol	<1200		3700	1200	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2-Methylnaphthalene	12000		1500	130	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2-Methylphenol	<1200		3700	1200	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2-Nitroaniline	<980		3700	980	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
2-Nitrophenol	<1700		7300	1700	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
3 & 4 Methylphenol	<1200		3700	1200	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817027

Lab Sample ID: 500-140832-24

Date Collected: 02/09/18 15:18

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 45.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<1000		3700	1000	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
3-Nitroaniline	<2300		7300	2300	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
4,6-Dinitro-2-methylphenol	<5900		15000	5900	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
4-Bromophenyl phenyl ether	<960		3700	960	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
4-Chloro-3-methylphenol	<2500		7300	2500	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
4-Chloroaniline	<3400		15000	3400	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
4-Chlorophenyl phenyl ether	<850		3700	850	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
4-Nitroaniline	<3100		7300	3100	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
4-Nitrophenol	<6900		15000	6900	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Acenaphthene	3100		730	130	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Acenaphthylene	1100		730	96	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Anthracene	2500		730	120	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Benzo[a]anthracene	3800		730	98	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Benzo[a]pyrene	2800		730	140	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Benzo[b]fluoranthene	4700		730	160	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Benzo[g,h,i]perylene	930		730	240	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Benzo[k]fluoranthene	1500		730	220	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Benzoic acid	<7300		37000	7300	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Benzyl alcohol	<7300		15000	7300	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Bis(2-chloroethoxy)methane	<740		3700	740	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Bis(2-chloroethyl)ether	<1100		3700	1100	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Bis(2-ethylhexyl) phthalate	<1300		3700	1300	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Butyl benzyl phthalate	<1400		3700	1400	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Carbazole	<1800		3700	1800	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Chrysene	4100		730	200	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Dibenz(a,h)anthracene	740		730	140	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Dibenzofuran	970 J		3700	850	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Diethyl phthalate	<1200		3700	1200	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Dimethyl phthalate	<950		3700	950	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Di-n-butyl phthalate	<1100		3700	1100	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Di-n-octyl phthalate	<1200		3700	1200	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Fluoranthene	7000		730	140	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Fluorene	2800		730	100	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Hexachlorobenzene	<170		1500	170	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Hexachlorobutadiene	<1100		3700	1100	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Hexachlorocyclopentadiene	<4200		15000	4200	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Hexachloroethane	<1100		3700	1100	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Indeno[1,2,3-cd]pyrene	1100		730	190	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Isophorone	<820		3700	820	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Naphthalene	15000		730	110	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Nitrobenzene	<180		730	180	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
N-Nitrosodi-n-propylamine	<890		1500	890	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
N-Nitrosodiphenylamine	<860		3700	860	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Pentachlorophenol	<12000		15000	12000	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Phenanthrene	11000		730	100	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Phenol	<1600		3700	1600	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10
Pyrene	11000		730	150	ug/Kg	☼	02/14/18 07:33	02/16/18 00:24	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		25 - 139	02/14/18 07:33	02/16/18 00:24	10

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817027

Lab Sample ID: 500-140832-24

Date Collected: 02/09/18 15:18

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 45.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	118		44 - 121	02/14/18 07:33	02/16/18 00:24	10
2-Fluorophenol (Surr)	147	X	46 - 133	02/14/18 07:33	02/16/18 00:24	10
Nitrobenzene-d5 (Surr)	250	X	41 - 120	02/14/18 07:33	02/16/18 00:24	10
Phenol-d5 (Surr)	20	X	46 - 125	02/14/18 07:33	02/16/18 00:24	10
Terphenyl-d14 (Surr)	147		35 - 160	02/14/18 07:33	02/16/18 00:24	10

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<120		350	120	ug/Kg	☼	02/13/18 16:24	02/14/18 15:45	10
PCB-1221	<150		350	150	ug/Kg	☼	02/13/18 16:24	02/14/18 15:45	10
PCB-1232	<150		350	150	ug/Kg	☼	02/13/18 16:24	02/14/18 15:45	10
PCB-1242	<120		350	120	ug/Kg	☼	02/13/18 16:24	02/14/18 15:45	10
PCB-1248	<140		350	140	ug/Kg	☼	02/13/18 16:24	02/14/18 15:45	10
PCB-1254	<76		350	76	ug/Kg	☼	02/13/18 16:24	02/14/18 15:45	10
PCB-1260	<170		350	170	ug/Kg	☼	02/13/18 16:24	02/14/18 15:45	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	99		49 - 129	02/13/18 16:24	02/14/18 15:45	10
DCB Decachlorobiphenyl	119		37 - 121	02/13/18 16:24	02/14/18 15:45	10

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	2.3	J q	5.5	0.28	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,7,8-PeCDD	4.3	J	27	0.18	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,4,7,8-HxCDD	4.7	J	27	0.24	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,6,7,8-HxCDD	86		27	0.25	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,7,8,9-HxCDD	18	J	27	0.23	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,4,6,7,8-HpCDD	1700		27	0.28	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
OCDD	20000	B	55	3.5	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
2,3,7,8-TCDF	280		5.5	0.62	pg/g	☼	02/16/18 10:10	02/23/18 05:54	5
1,2,3,7,8-PeCDF	16	J	27	0.26	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
2,3,4,7,8-PeCDF	18	J	27	0.24	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,4,7,8-HxCDF	35	I	27	1.8	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,6,7,8-HxCDF	23	J	27	1.9	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
2,3,4,6,7,8-HxCDF	8.4	J I	27	2.0	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,7,8,9-HxCDF	<2.2		27	2.2	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,4,6,7,8-HpCDF	1000	B	27	0.26	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
1,2,3,4,7,8,9-HpCDF	25	J	27	0.39	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5
OCDF	1200	B	55	0.30	pg/g	☼	02/16/18 10:10	02/22/18 19:42	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	58		25 - 164	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,7,8-PeCDD	73		25 - 181	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,4,7,8-HxCDD	65		32 - 141	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,6,7,8-HxCDD	63		28 - 130	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,4,6,7,8-HpCDD	87		23 - 140	02/16/18 10:10	02/22/18 19:42	5
13C-OCDD	83		17 - 157	02/16/18 10:10	02/22/18 19:42	5
13C-2,3,7,8-TCDF	56		24 - 169	02/16/18 10:10	02/22/18 19:42	5
13C-2,3,7,8-TCDF	71		24 - 169	02/16/18 10:10	02/23/18 05:54	5
13C-1,2,3,7,8-PeCDF	65		24 - 185	02/16/18 10:10	02/22/18 19:42	5

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817027

Lab Sample ID: 500-140832-24

Date Collected: 02/09/18 15:18

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 45.3

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,4,7,8-PeCDF	69		21 - 178	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,4,7,8-HxCDF	62		26 - 152	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,6,7,8-HxCDF	55		26 - 123	02/16/18 10:10	02/22/18 19:42	5
13C-2,3,4,6,7,8-HxCDF	58		28 - 136	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,7,8,9-HxCDF	60		29 - 147	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,4,6,7,8-HpCDF	69		28 - 143	02/16/18 10:10	02/22/18 19:42	5
13C-1,2,3,4,7,8,9-HpCDF	72		26 - 138	02/16/18 10:10	02/22/18 19:42	5
13C-OCDF	79		17 - 157	02/16/18 10:10	02/22/18 19:42	5
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	67		35 - 197	02/16/18 10:10	02/22/18 19:42	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.8		2.1	0.71	mg/Kg	☼	02/13/18 14:55	02/14/18 17:37	1
Barium	760		2.1	0.24	mg/Kg	☼	02/13/18 14:55	02/14/18 17:37	1
Cadmium	4.7	B	0.42	0.075	mg/Kg	☼	02/13/18 14:55	02/14/18 17:37	1
Chromium	56		2.1	1.0	mg/Kg	☼	02/13/18 14:55	02/14/18 17:37	1
Lead	1500	^	1.0	0.48	mg/Kg	☼	02/13/18 14:55	02/14/18 17:37	1
Selenium	1.6	J	2.1	1.2	mg/Kg	☼	02/13/18 14:55	02/14/18 17:37	1
Silver	1.2		1.0	0.27	mg/Kg	☼	02/13/18 14:55	02/15/18 17:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.4		0.18	0.059	mg/Kg	☼	02/14/18 14:00	02/15/18 13:15	5

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817028

Lab Sample ID: 500-140832-25

Date Collected: 02/09/18 13:35

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 67.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<45		96	45	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,1,1-Trichloroethane	<37		96	37	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,1,2,2-Tetrachloroethane	<38		96	38	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,1,2-Trichloroethane	<34		96	34	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,1-Dichloroethane	<40		96	40	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,1-Dichloroethene	<38		96	38	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,1-Dichloropropene	<29		96	29	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2,3-Trichlorobenzene	<44		96	44	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2,3-Trichloropropane	<40		96	40	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2,4-Trichlorobenzene	<33		96	33	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2,4-Trimethylbenzene	62	J	96	35	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2-Dibromo-3-Chloropropane	<190		480	190	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2-Dibromoethane	<37		96	37	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2-Dichlorobenzene	<32		96	32	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2-Dichloroethane	<38		96	38	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,2-Dichloropropane	<41		96	41	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,3,5-Trimethylbenzene	<37		96	37	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,3-Dichlorobenzene	<39		96	39	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,3-Dichloropropane	<35		96	35	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
1,4-Dichlorobenzene	<35		96	35	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
2,2-Dichloropropane	<43		96	43	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
2-Butanone (MEK)	<200		480	200	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
2-Chlorotoluene	<30		96	30	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
4-Chlorotoluene	<34		96	34	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Benzene	27		24	14	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Bromobenzene	<34		96	34	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Bromochloromethane	<41		96	41	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Bromodichloromethane	<36		96	36	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Bromoform	<47		96	47	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Bromomethane	<77		190	77	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Carbon tetrachloride	<37		96	37	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Chlorobenzene	<37		96	37	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Chloroethane	<49		96	49	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Chloroform	<36		190	36	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Chloromethane	<31		96	31	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
cis-1,2-Dichloroethene	<39		96	39	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
cis-1,3-Dichloropropene	<40		96	40	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Dibromochloromethane	<47		96	47	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Dibromomethane	<26		96	26	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Dichlorodifluoromethane	<65		190	65	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Ethylbenzene	30		24	18	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Hexachlorobutadiene	<43		96	43	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Hexane	66	J	96	47	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Isopropyl ether	<27		96	27	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Isopropylbenzene	<37		96	37	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Methyl tert-butyl ether	<38		96	38	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Methylene Chloride	<160		480	160	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
n-Butylbenzene	<37		96	37	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
N-Propylbenzene	<40		96	40	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817028

Lab Sample ID: 500-140832-25

Date Collected: 02/09/18 13:35

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 67.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<35		96	35	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
sec-Butylbenzene	<38		96	38	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Styrene	<37		96	37	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
tert-Butylbenzene	<38		96	38	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Tetrachloroethene	<36		96	36	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Toluene	40		24	14	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
trans-1,2-Dichloroethene	<34		96	34	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
trans-1,3-Dichloropropene	<35		96	35	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Trichloroethene	<16		48	16	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Trichlorofluoromethane	<41		96	41	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Vinyl chloride	<25		48	25	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50
Xylenes, Total	99		48	21	ug/Kg	☼	02/09/18 13:35	02/23/18 15:15	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 126	02/09/18 13:35	02/23/18 15:15	50
4-Bromofluorobenzene (Surr)	102		72 - 124	02/09/18 13:35	02/23/18 15:15	50
Dibromofluoromethane	98		75 - 120	02/09/18 13:35	02/23/18 15:15	50
Toluene-d8 (Surr)	101		75 - 120	02/09/18 13:35	02/23/18 15:15	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<51		240	51	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
1,2-Dichlorobenzene	<57		240	57	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
1,3-Dichlorobenzene	<53		240	53	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
1,4-Dichlorobenzene	<61		240	61	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
1-Methylnaphthalene	<12		96	12	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2,2'-oxybis[1-chloropropane]	<55		240	55	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2,4,5-Trichlorophenol	<110		470	110	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2,4,6-Trichlorophenol	<160		470	160	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2,4-Dichlorophenol	<110		470	110	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2,4-Dimethylphenol	<180		470	180	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2,4-Dinitrophenol	<830		960	830	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2,4-Dinitrotoluene	<75		240	75	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2,6-Dinitrotoluene	<93		240	93	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2-Chloronaphthalene	<52		240	52	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2-Chlorophenol	<81		240	81	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2-Methylnaphthalene	11 J		96	8.7	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2-Methylphenol	<76		240	76	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2-Nitroaniline	<64		240	64	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
2-Nitrophenol	<110		470	110	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
3 & 4 Methylphenol	<79		240	79	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
3,3'-Dichlorobenzidine	<66		240	66	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
3-Nitroaniline	<150		470	150	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
4,6-Dinitro-2-methylphenol	<380		960	380	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
4-Bromophenyl phenyl ether	<63		240	63	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
4-Chloro-3-methylphenol	<160		470	160	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
4-Chloroaniline	<220		960	220	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
4-Chlorophenyl phenyl ether	<55		240	55	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
4-Nitroaniline	<200		470	200	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
4-Nitrophenol	<450		960	450	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817028

Lab Sample ID: 500-140832-25

Date Collected: 02/09/18 13:35

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 67.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<8.5		47	8.5	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Acenaphthylene	11	J	47	6.3	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Anthracene	12	J	47	7.9	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Benzo[a]anthracene	11	J	47	6.4	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Benzo[a]pyrene	<9.2		47	9.2	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Benzo[b]fluoranthene	24	J	47	10	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Benzo[g,h,i]perylene	<15		47	15	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Benzo[k]fluoranthene	<14		47	14	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Benzoic acid	<470		2400	470	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Benzyl alcohol	<470		960	470	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Bis(2-chloroethoxy)methane	<48		240	48	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Bis(2-chloroethyl)ether	<71		240	71	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Bis(2-ethylhexyl) phthalate	160	J	240	87	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Butyl benzyl phthalate	<90		240	90	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Carbazole	<120		240	120	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Chrysene	<13		47	13	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Dibenz(a,h)anthracene	<9.2		47	9.2	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Dibenzofuran	<56		240	56	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Diethyl phthalate	<80		240	80	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Dimethyl phthalate	<62		240	62	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Di-n-butyl phthalate	<72		240	72	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Di-n-octyl phthalate	<77		240	77	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Fluoranthene	20	J	47	8.8	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Fluorene	<6.7		47	6.7	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Hexachlorobenzene	<11		96	11	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Hexachlorobutadiene	<74		240	74	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Hexachlorocyclopentadiene	<270		960	270	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Hexachloroethane	<72		240	72	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Indeno[1,2,3-cd]pyrene	<12		47	12	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Isophorone	<53		240	53	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Naphthalene	50		47	7.3	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Nitrobenzene	<12		47	12	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
N-Nitrosodi-n-propylamine	<58		96	58	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
N-Nitrosodiphenylamine	<56		240	56	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Pentachlorophenol	<760		960	760	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Phenanthrene	28	J	47	6.6	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Phenol	<110		240	110	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1
Pyrene	32	J	47	9.4	ug/Kg	☼	02/14/18 07:33	02/15/18 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	75		25 - 139	02/14/18 07:33	02/15/18 22:16	1
2-Fluorobiphenyl (Surr)	91		44 - 121	02/14/18 07:33	02/15/18 22:16	1
2-Fluorophenol (Surr)	110		46 - 133	02/14/18 07:33	02/15/18 22:16	1
Nitrobenzene-d5 (Surr)	75		41 - 120	02/14/18 07:33	02/15/18 22:16	1
Phenol-d5 (Surr)	109		46 - 125	02/14/18 07:33	02/15/18 22:16	1
Terphenyl-d14 (Surr)	122		35 - 160	02/14/18 07:33	02/15/18 22:16	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.5		1.3	0.45	mg/Kg	☼	02/13/18 14:55	02/14/18 17:41	1

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817028

Lab Sample ID: 500-140832-25

Date Collected: 02/09/18 13:35

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 67.9

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	25		1.3	0.15	mg/Kg	☼	02/13/18 14:55	02/14/18 17:41	1
Cadmium	0.16	J B	0.26	0.047	mg/Kg	☼	02/13/18 14:55	02/14/18 17:41	1
Chromium	13		1.3	0.65	mg/Kg	☼	02/13/18 14:55	02/14/18 17:41	1
Lead	3.6	^	0.66	0.30	mg/Kg	☼	02/13/18 14:55	02/14/18 17:41	1
Selenium	<0.77		1.3	0.77	mg/Kg	☼	02/13/18 14:55	02/14/18 17:41	1
Silver	<0.17	^	0.66	0.17	mg/Kg	☼	02/13/18 14:55	02/14/18 17:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0076		0.023	0.0076	mg/Kg	☼	02/14/18 14:00	02/15/18 10:20	1



Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817029

Lab Sample ID: 500-140832-26

Date Collected: 02/09/18 13:38

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 66.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<910		2000	910	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,1,1-Trichloroethane	<750		2000	750	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,1,1,2,2-Tetrachloroethane	<790		2000	790	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,1,2-Trichloroethane	<700		2000	700	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,1-Dichloroethane	<810		2000	810	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,1-Dichloroethene	<770		2000	770	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,1-Dichloropropene	<590		2000	590	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2,3-Trichlorobenzene	<910		2000	910	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2,3-Trichloropropane	<820		2000	820	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2,4-Trichlorobenzene	<680		2000	680	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2,4-Trimethylbenzene	150000		2000	710	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2-Dibromo-3-Chloropropane	<3900		9900	3900	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2-Dibromoethane	<760		2000	760	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2-Dichlorobenzene	<660		2000	660	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2-Dichloroethane	<780		2000	780	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,2-Dichloropropane	<850		2000	850	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,3,5-Trimethylbenzene	47000		2000	750	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,3-Dichlorobenzene	<790		2000	790	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,3-Dichloropropane	<720		2000	720	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
1,4-Dichlorobenzene	<720		2000	720	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
2,2-Dichloropropane	<880		2000	880	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
2-Butanone (MEK)	<4200		9900	4200	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
2-Chlorotoluene	<620		2000	620	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
4-Chlorotoluene	<690		2000	690	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Benzene	32000		500	290	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Bromobenzene	<710		2000	710	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Bromochloromethane	<850		2000	850	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Bromodichloromethane	<740		2000	740	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Bromoform	<960		2000	960	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Bromomethane	<1600 *		4000	1600	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Carbon tetrachloride	<760		2000	760	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Chlorobenzene	<760		2000	760	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Chloroethane	<1000		2000	1000	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Chloroform	<730		4000	730	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Chloromethane	<630		2000	630	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
cis-1,2-Dichloroethene	<810		2000	810	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
cis-1,3-Dichloropropene	<820		2000	820	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Dibromochloromethane	<970		2000	970	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Dibromomethane	<530		2000	530	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Dichlorodifluoromethane	<1300		4000	1300	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Ethylbenzene	250000		500	360	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Hexachlorobutadiene	<880		2000	880	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Hexane	<970		2000	970	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Isopropyl ether	<550		2000	550	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Isopropylbenzene	29000		2000	760	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Methyl tert-butyl ether	<780		2000	780	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Methylene Chloride	<3200		9900	3200	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
n-Butylbenzene	<770		2000	770	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
N-Propylbenzene	13000		2000	820	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817029

Lab Sample ID: 500-140832-26

Date Collected: 02/09/18 13:38

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 66.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	8700		2000	720	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
sec-Butylbenzene	<790		2000	790	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Styrene	<760		2000	760	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
tert-Butylbenzene	<790		2000	790	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Tetrachloroethene	<730		2000	730	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Toluene	16000		500	290	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
trans-1,2-Dichloroethene	<690		2000	690	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
trans-1,3-Dichloropropene	<720		2000	720	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Trichloroethene	<320		990	320	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Trichlorofluoromethane	<850		2000	850	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Vinyl chloride	<520		990	520	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Xylenes, Total	420000		990	440	ug/Kg	☼	02/09/18 13:38	02/22/18 14:48	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 126				02/09/18 13:38	02/22/18 14:48	1000
4-Bromofluorobenzene (Surr)	92		72 - 124				02/09/18 13:38	02/22/18 14:48	1000
Dibromofluoromethane	96		75 - 120				02/09/18 13:38	02/22/18 14:48	1000
Toluene-d8 (Surr)	94		75 - 120				02/09/18 13:38	02/22/18 14:48	1000

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 126	02/09/18 13:38	02/23/18 12:55	10000
4-Bromofluorobenzene (Surr)	93		72 - 124	02/09/18 13:38	02/23/18 12:55	10000
Dibromofluoromethane	89		75 - 120	02/09/18 13:38	02/23/18 12:55	10000
Toluene-d8 (Surr)	92		75 - 120	02/09/18 13:38	02/23/18 12:55	10000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<5300		25000	5300	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
1,2-Dichlorobenzene	<5900		25000	5900	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
1,3-Dichlorobenzene	<5600		25000	5600	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
1,4-Dichlorobenzene	<6300		25000	6300	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2,2'-oxybis[1-chloropropane]	<5700		25000	5700	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2,4,5-Trichlorophenol	<11000		49000	11000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2,4,6-Trichlorophenol	<17000		49000	17000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2,4-Dichlorophenol	<12000		49000	12000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2,4-Dimethylphenol	<19000		49000	19000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2,4-Dinitrophenol	<87000		99000	87000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2,4-Dinitrotoluene	<7800		25000	7800	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2,6-Dinitrotoluene	<9700		25000	9700	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2-Chloronaphthalene	<5400		25000	5400	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2-Chlorophenol	<8400		25000	8400	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2-Methylphenol	<7900		25000	7900	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2-Nitroaniline	<6600		25000	6600	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
2-Nitrophenol	<12000		49000	12000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
3 & 4 Methylphenol	<8200		25000	8200	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
3,3'-Dichlorobenzidine	<6900		25000	6900	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
3-Nitroaniline	<15000		49000	15000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
4,6-Dinitro-2-methylphenol	<40000		99000	40000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
4-Bromophenyl phenyl ether	<6500		25000	6500	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817029

Lab Sample ID: 500-140832-26

Date Collected: 02/09/18 13:38

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 66.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	<17000		49000	17000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
4-Chloroaniline	<23000		99000	23000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
4-Chlorophenyl phenyl ether	<5800		25000	5800	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
4-Nitroaniline	<21000		49000	21000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
4-Nitrophenol	<47000		99000	47000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Acenaphthylene	65000		4900	650	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Anthracene	200000		4900	820	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Benzo[a]anthracene	150000		4900	660	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Benzo[a]pyrene	110000		4900	950	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Benzo[b]fluoranthene	140000		4900	1100	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Benzo[g,h,i]perylene	26000		4900	1600	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Benzo[k]fluoranthene	53000		4900	1500	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Benzoic acid	<49000		250000	49000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Benzyl alcohol	<49000		99000	49000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Bis(2-chloroethoxy)methane	<5000		25000	5000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Bis(2-chloroethyl)ether	<7400		25000	7400	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Bis(2-ethylhexyl) phthalate	<9000		25000	9000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Butyl benzyl phthalate	<9400		25000	9400	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Carbazole	31000		25000	12000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Chrysene	130000		4900	1300	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Dibenz(a,h)anthracene	9500		4900	950	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Dibenzofuran	69000		25000	5800	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Diethyl phthalate	<8400		25000	8400	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Dimethyl phthalate	<6400		25000	6400	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Di-n-butyl phthalate	<7500		25000	7500	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Di-n-octyl phthalate	<8000		25000	8000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Fluoranthene	290000		4900	910	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Fluorene	220000		4900	690	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Hexachlorobenzene	<1100		9900	1100	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Hexachlorobutadiene	<7700		25000	7700	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Hexachlorocyclopentadiene	<28000		99000	28000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Hexachloroethane	<7500		25000	7500	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Indeno[1,2,3-cd]pyrene	25000		4900	1300	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Isophorone	<5500		25000	5500	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Nitrobenzene	<1200		4900	1200	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
N-Nitrosodi-n-propylamine	<6000		9900	6000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
N-Nitrosodiphenylamine	<5800		25000	5800	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Pentachlorophenol	<79000		99000	79000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100
Phenol	<11000		25000	11000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:15	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	D	25 - 139	02/14/18 07:33	02/16/18 01:15	100
2-Fluorobiphenyl (Surr)	0	D	44 - 121	02/14/18 07:33	02/16/18 01:15	100
2-Fluorophenol (Surr)	0	D	46 - 133	02/14/18 07:33	02/16/18 01:15	100
Nitrobenzene-d5 (Surr)	0	D	41 - 120	02/14/18 07:33	02/16/18 01:15	100
Phenol-d5 (Surr)	0	D	46 - 125	02/14/18 07:33	02/16/18 01:15	100
Terphenyl-d14 (Surr)	0	D	35 - 160	02/14/18 07:33	02/16/18 01:15	100

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817029

Lab Sample ID: 500-140832-26

Date Collected: 02/09/18 13:38

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 66.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	520000		20000	2400	ug/Kg	☼	02/14/18 07:33	02/16/18 01:41	200
Acenaphthene	440000		9800	1800	ug/Kg	☼	02/14/18 07:33	02/16/18 01:41	200
Pyrene	490000		9800	2000	ug/Kg	☼	02/14/18 07:33	02/16/18 01:41	200

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	890000		99000	9100	ug/Kg	☼	02/14/18 07:33	02/16/18 16:40	1000
Naphthalene	2600000		49000	7600	ug/Kg	☼	02/14/18 07:33	02/16/18 16:40	1000
Phenanthrene	1000000		49000	6900	ug/Kg	☼	02/14/18 07:33	02/16/18 16:40	1000

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.6		1.3	0.46	mg/Kg	☼	02/13/18 14:55	02/14/18 17:44	1
Barium	77		1.3	0.15	mg/Kg	☼	02/13/18 14:55	02/14/18 17:44	1
Cadmium	0.31	B	0.27	0.048	mg/Kg	☼	02/13/18 14:55	02/14/18 17:44	1
Chromium	21		1.3	0.66	mg/Kg	☼	02/13/18 14:55	02/14/18 17:44	1
Lead	53	^	0.67	0.31	mg/Kg	☼	02/13/18 14:55	02/14/18 17:44	1
Selenium	0.91	J	1.3	0.79	mg/Kg	☼	02/13/18 14:55	02/14/18 17:44	1
Silver	<0.17	^	0.67	0.17	mg/Kg	☼	02/13/18 14:55	02/14/18 17:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.31		0.023	0.0078	mg/Kg	☼	02/14/18 14:00	02/15/18 10:22	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817030

Lab Sample ID: 500-140832-27

Date Collected: 02/09/18 13:40

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1300		2800	1300	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,1,1-Trichloroethane	<1000		2800	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,1,2,2-Tetrachloroethane	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,1,2-Trichloroethane	<970		2800	970	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,1-Dichloroethane	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,1-Dichloroethene	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,1-Dichloropropene	<820		2800	820	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2,3-Trichlorobenzene	<1300		2800	1300	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2,3-Trichloropropane	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2,4-Trichlorobenzene	<940		2800	940	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2,4-Trimethylbenzene	460000		2800	990	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2-Dibromo-3-Chloropropane	<5500		14000	5500	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2-Dibromoethane	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2-Dichlorobenzene	<920		2800	920	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2-Dichloroethane	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,2-Dichloropropane	<1200		2800	1200	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,3,5-Trimethylbenzene	140000		2800	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,3-Dichlorobenzene	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,3-Dichloropropane	<1000		2800	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
1,4-Dichlorobenzene	<1000		2800	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
2,2-Dichloropropane	<1200		2800	1200	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
2-Butanone (MEK)	<5800		14000	5800	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
2-Chlorotoluene	41000		2800	870	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
4-Chlorotoluene	<970		2800	970	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Benzene	270000		690	400	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Bromobenzene	<980		2800	980	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Bromochloromethane	<1200		2800	1200	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Bromodichloromethane	<1000		2800	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Bromoform	<1300		2800	1300	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Bromomethane	<2200		5500	2200	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Carbon tetrachloride	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Chlorobenzene	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Chloroethane	<1400		2800	1400	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Chloroform	<1000		5500	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Chloromethane	<880		2800	880	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
cis-1,2-Dichloroethene	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
cis-1,3-Dichloropropene	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Dibromochloromethane	<1300		2800	1300	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Dibromomethane	<740		2800	740	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Dichlorodifluoromethane	<1900		5500	1900	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Ethylbenzene	250000		690	500	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Hexachlorobutadiene	<1200		2800	1200	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Hexane	<1400		2800	1400	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Isopropyl ether	<760		2800	760	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Isopropylbenzene	29000		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Methyl tert-butyl ether	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Methylene Chloride	<4500		14000	4500	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
n-Butylbenzene	21000		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
N-Propylbenzene	29000		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817030

Lab Sample ID: 500-140832-27

Date Collected: 02/09/18 13:40

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	16000		2800	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
sec-Butylbenzene	2100	J	2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Styrene	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
tert-Butylbenzene	<1100		2800	1100	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Tetrachloroethene	<1000		2800	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Toluene	130000		690	410	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
trans-1,2-Dichloroethene	<970		2800	970	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
trans-1,3-Dichloropropene	<1000		2800	1000	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Trichloroethene	<450		1400	450	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Trichlorofluoromethane	<1200		2800	1200	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Vinyl chloride	<720		1400	720	ug/Kg	☼	02/09/18 13:40	02/22/18 15:49	2000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126				02/09/18 13:40	02/22/18 15:49	2000
4-Bromofluorobenzene (Surr)	91		72 - 124				02/09/18 13:40	02/22/18 15:49	2000
Dibromofluoromethane	95		75 - 120				02/09/18 13:40	02/22/18 15:49	2000
Toluene-d8 (Surr)	93		75 - 120				02/09/18 13:40	02/22/18 15:49	2000

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	680000		14000	6100	ug/Kg	☼	02/09/18 13:40	02/23/18 14:10	20000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126				02/09/18 13:40	02/23/18 14:10	20000
4-Bromofluorobenzene (Surr)	89		72 - 124				02/09/18 13:40	02/23/18 14:10	20000
Dibromofluoromethane	87		75 - 120				02/09/18 13:40	02/23/18 14:10	20000
Toluene-d8 (Surr)	95		75 - 120				02/09/18 13:40	02/23/18 14:10	20000

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		75 - 126	02/09/18 13:40	02/23/18 13:20	200000
4-Bromofluorobenzene (Surr)	95		72 - 124	02/09/18 13:40	02/23/18 13:20	200000
Dibromofluoromethane	88		75 - 120	02/09/18 13:40	02/23/18 13:20	200000
Toluene-d8 (Surr)	94		75 - 120	02/09/18 13:40	02/23/18 13:20	200000

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<21000		96000	21000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
1,2-Dichlorobenzene	<23000		96000	23000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
1,3-Dichlorobenzene	<22000		96000	22000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
1,4-Dichlorobenzene	<25000		96000	25000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2,2'-oxybis[1-chloropropane]	<22000		96000	22000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2,4,5-Trichlorophenol	<44000		190000	44000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2,4,6-Trichlorophenol	<66000		190000	66000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2,4-Dichlorophenol	<46000		190000	46000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2,4-Dimethylphenol	<73000		190000	73000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2,4-Dinitrophenol	<340000		390000	340000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2,4-Dinitrotoluene	<30000		96000	30000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2,6-Dinitrotoluene	<38000		96000	38000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2-Chloronaphthalene	<21000		96000	21000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817030

Lab Sample ID: 500-140832-27

Date Collected: 02/09/18 13:40

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	<33000		96000	33000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2-Methylphenol	<31000		96000	31000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2-Nitroaniline	<26000		96000	26000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
2-Nitrophenol	<45000		190000	45000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
3 & 4 Methylphenol	<32000		96000	32000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
3,3'-Dichlorobenzidine	<27000		96000	27000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
3-Nitroaniline	<59000		190000	59000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
4,6-Dinitro-2-methylphenol	<150000		390000	150000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
4-Bromophenyl phenyl ether	<25000		96000	25000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
4-Chloro-3-methylphenol	<65000		190000	65000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
4-Chloroaniline	<90000		390000	90000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
4-Chlorophenyl phenyl ether	<22000		96000	22000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
4-Nitroaniline	<80000		190000	80000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
4-Nitrophenol	<180000		390000	180000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Acenaphthene	780000		19000	3400	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Acenaphthylene	310000		19000	2500	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Anthracene	800000		19000	3200	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Benzo[a]anthracene	490000		19000	2600	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Benzo[a]pyrene	360000		19000	3700	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Benzo[b]fluoranthene	470000		19000	4100	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Benzo[g,h,i]perylene	83000		19000	6200	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Benzo[k]fluoranthene	150000		19000	5600	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Benzoic acid	<190000		960000	190000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Benzyl alcohol	<190000		390000	190000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Bis(2-chloroethoxy)methane	<20000		96000	20000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Bis(2-chloroethyl)ether	<29000		96000	29000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Bis(2-ethylhexyl) phthalate	<35000		96000	35000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Butyl benzyl phthalate	<36000		96000	36000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Carbazole	120000		96000	48000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Chrysene	420000		19000	5200	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Dibenz(a,h)anthracene	33000		19000	3700	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Dibenzofuran	280000		96000	22000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Diethyl phthalate	<32000		96000	32000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Dimethyl phthalate	<25000		96000	25000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Di-n-butyl phthalate	<29000		96000	29000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Di-n-octyl phthalate	<31000		96000	31000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Fluoranthene	970000		19000	3600	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Fluorene	810000		19000	2700	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Hexachlorobenzene	<4400		39000	4400	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Hexachlorobutadiene	<30000		96000	30000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Hexachlorocyclopentadiene	<110000		390000	110000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Hexachloroethane	<29000		96000	29000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Indeno[1,2,3-cd]pyrene	80000		19000	5000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Isophorone	<22000		96000	22000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Nitrobenzene	<4800		19000	4800	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
N-Nitrosodi-n-propylamine	<23000		39000	23000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
N-Nitrosodiphenylamine	<23000		96000	23000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Pentachlorophenol	<310000		390000	310000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500
Phenol	<43000		96000	43000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:07	500

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817030

Lab Sample ID: 500-140832-27

Date Collected: 02/09/18 13:40

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	D	25 - 139	02/14/18 07:33	02/16/18 02:07	500
2-Fluorobiphenyl (Surr)	0	D	44 - 121	02/14/18 07:33	02/16/18 02:07	500
2-Fluorophenol (Surr)	0	D	46 - 133	02/14/18 07:33	02/16/18 02:07	500
Nitrobenzene-d5 (Surr)	0	D	41 - 120	02/14/18 07:33	02/16/18 02:07	500
Phenol-d5 (Surr)	0	D	46 - 125	02/14/18 07:33	02/16/18 02:07	500
Terphenyl-d14 (Surr)	0	D	35 - 160	02/14/18 07:33	02/16/18 02:07	500

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	2200000		150000	19000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:32	2000
2-Methylnaphthalene	3100000		150000	14000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:32	2000
Phenanthrene	3000000		76000	11000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:32	2000
Pyrene	1900000		76000	15000	ug/Kg	☼	02/14/18 07:33	02/16/18 02:32	2000

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	8000000		190000	29000	ug/Kg	☼	02/14/18 07:33	02/16/18 17:06	5000

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		1.1	0.39	mg/Kg	☼	02/13/18 14:55	02/14/18 17:48	1
Barium	29		1.1	0.13	mg/Kg	☼	02/13/18 14:55	02/14/18 17:48	1
Cadmium	0.45	B	0.23	0.041	mg/Kg	☼	02/13/18 14:55	02/14/18 17:48	1
Chromium	11		1.1	0.56	mg/Kg	☼	02/13/18 14:55	02/14/18 17:48	1
Lead	34	^	0.56	0.26	mg/Kg	☼	02/13/18 14:55	02/14/18 17:48	1
Selenium	0.77	J	1.1	0.66	mg/Kg	☼	02/13/18 14:55	02/14/18 17:48	1
Silver	0.18	J ^	0.56	0.15	mg/Kg	☼	02/13/18 14:55	02/14/18 17:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.019	0.0062	mg/Kg	☼	02/14/18 14:00	02/15/18 10:24	1

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-140832-28

Date Collected: 02/09/18 00:00

Matrix: Solid

Date Received: 02/13/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,1-Dichloroethane	<21		50	21	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,1-Dichloroethene	<20		50	20	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,1-Dichloropropene	<15		50	15	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2,3-Trichloropropane	<21		50	21	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2-Dibromoethane	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2-Dichloroethane	<20		50	20	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,2-Dichloropropane	<21		50	21	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,3-Dichloropropane	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
2,2-Dichloropropane	<22		50	22	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
2-Butanone (MEK)	<110		250	110	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
2-Chlorotoluene	<16		50	16	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
4-Chlorotoluene	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Benzene	<7.3		13	7.3	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Bromobenzene	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Bromochloromethane	<21		50	21	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Bromodichloromethane	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Bromoform	<24		50	24	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Bromomethane	<40		100	40	ug/Kg		02/09/18 00:00	02/23/18 15:42	50
Carbon tetrachloride	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Chlorobenzene	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Chloroethane	<25		50	25	ug/Kg		02/09/18 00:00	02/23/18 15:42	50
Chloroform	<19		100	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Chloromethane	<16		50	16	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Dibromochloromethane	<24		50	24	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Dibromomethane	<14		50	14	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Dichlorodifluoromethane	<34		100	34	ug/Kg		02/09/18 00:00	02/23/18 15:42	50
Ethylbenzene	<9.2		13	9.2	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Hexachlorobutadiene	<22		50	22	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Hexane	<25		50	25	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Isopropyl ether	<14		50	14	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Isopropylbenzene	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Methyl tert-butyl ether	<20		50	20	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Methylene Chloride	<82		250	82	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Naphthalene	<17		50	17	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
n-Butylbenzene	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50

TestAmerica Chicago

Client Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-140832-28

Date Collected: 02/09/18 00:00

Matrix: Solid

Date Received: 02/13/18 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	<21		50	21	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
p-Isopropyltoluene	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
sec-Butylbenzene	<20		50	20	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Styrene	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
tert-Butylbenzene	<20		50	20	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Tetrachloroethene	<19		50	19	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Toluene	<7.4		13	7.4	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Trichloroethene	<8.2		25	8.2	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Trichlorofluoromethane	<21		50	21	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Vinyl chloride	<13		25	13	ug/Kg		02/09/18 00:00	02/23/18 15:42	50
Xylenes, Total	<11		25	11	ug/Kg		02/09/18 00:00	02/23/18 18:46	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 126				02/09/18 00:00	02/23/18 15:42	50
1,2-Dichloroethane-d4 (Surr)	93		75 - 126				02/09/18 00:00	02/23/18 18:46	50
4-Bromofluorobenzene (Surr)	100		72 - 124				02/09/18 00:00	02/23/18 15:42	50
4-Bromofluorobenzene (Surr)	92		72 - 124				02/09/18 00:00	02/23/18 18:46	50
Dibromofluoromethane	97		75 - 120				02/09/18 00:00	02/23/18 15:42	50
Dibromofluoromethane	85		75 - 120				02/09/18 00:00	02/23/18 18:46	50
Toluene-d8 (Surr)	104		75 - 120				02/09/18 00:00	02/23/18 15:42	50
Toluene-d8 (Surr)	93		75 - 120				02/09/18 00:00	02/23/18 18:46	50

Definitions/Glossary

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits
*	ISTD response or retention time outside acceptable limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
I	Value is EMPC (estimated maximum possible concentration).
E	Result exceeded calibration range.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
S	Ion suppression

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)

TestAmerica Chicago

Definitions/Glossary

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

GC/MS VOA

Prep Batch: 420032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	5035	
500-140832-2	111417002	Total/NA	Solid	5035	
500-140832-2 - DL	111417002	Total/NA	Solid	5035	
500-140832-3	111417003	Total/NA	Solid	5035	
500-140832-4	111417004	Total/NA	Solid	5035	
500-140832-4 - DL	111417004	Total/NA	Solid	5035	
500-140832-5	111417005	Total/NA	Solid	5035	
500-140832-6 - DL	111417006	Total/NA	Solid	5035	
500-140832-6	111417006	Total/NA	Solid	5035	
500-140832-7	111417007	Total/NA	Solid	5035	
500-140832-8	111417008	Total/NA	Solid	5035	
500-140832-9	111417009	Total/NA	Solid	5035	
500-140832-9 - DL	111417009	Total/NA	Solid	5035	
500-140832-10	111417010	Total/NA	Solid	5035	
500-140832-10 - DL	111417010	Total/NA	Solid	5035	
500-140832-11	111417011	Total/NA	Solid	5035	
500-140832-12 - DL	111417012	Total/NA	Solid	5035	
500-140832-12	111417012	Total/NA	Solid	5035	
500-140832-13	111617013	Total/NA	Solid	5035	
LB3 500-420032/21-A	Method Blank	Total/NA	Solid	5035	
LCS 500-420032/22-A	Lab Control Sample	Total/NA	Solid	5035	

Prep Batch: 420033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-14 - DL	111617014	Total/NA	Solid	5035	
500-140832-14	111617014	Total/NA	Solid	5035	
500-140832-15	111617015	Total/NA	Solid	5035	
500-140832-16	111717016	Total/NA	Solid	5035	
500-140832-16 - DL	111717016	Total/NA	Solid	5035	
500-140832-17	111717017	Total/NA	Solid	5035	
500-140832-18	111717018	Total/NA	Solid	5035	
500-140832-19	111717019	Total/NA	Solid	5035	
500-140832-20 - DL2	111717020	Total/NA	Solid	5035	
500-140832-20 - DL	111717020	Total/NA	Solid	5035	
500-140832-20	111717020	Total/NA	Solid	5035	
500-140832-21 - DL	111717021	Total/NA	Solid	5035	
500-140832-21	111717021	Total/NA	Solid	5035	
500-140832-22 - DL	111717023	Total/NA	Solid	5035	
500-140832-22	111717023	Total/NA	Solid	5035	
500-140832-23 - DL	111717025	Total/NA	Solid	5035	
500-140832-23	111717025	Total/NA	Solid	5035	
500-140832-24 - DL	111817027	Total/NA	Solid	5035	
500-140832-24	111817027	Total/NA	Solid	5035	
500-140832-25	111817028	Total/NA	Solid	5035	
500-140832-26 - DL	111817029	Total/NA	Solid	5035	
500-140832-26	111817029	Total/NA	Solid	5035	
500-140832-27 - DL	111817030	Total/NA	Solid	5035	
500-140832-27 - DL2	111817030	Total/NA	Solid	5035	
500-140832-27	111817030	Total/NA	Solid	5035	
500-140832-28	Trip Blank	Total/NA	Solid	5035	
500-140832-28	Trip Blank	Total/NA	Solid	5035	

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

GC/MS VOA (Continued)

Prep Batch: 420033 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB3 500-420033/17-A	Method Blank	Total/NA	Solid	5035	
LCS 500-420033/18-A	Lab Control Sample	Total/NA	Solid	5035	
500-140832-15 MS	111617015	Total/NA	Solid	5035	
500-140832-15 MSD	111617015	Total/NA	Solid	5035	

Analysis Batch: 420368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB3 500-420032/21-A	Method Blank	Total/NA	Solid	8260B	420032
MB 500-420368/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-420032/22-A	Lab Control Sample	Total/NA	Solid	8260B	420032
LCS 500-420368/5	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 421025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	8260B	420032
500-140832-2	111417002	Total/NA	Solid	8260B	420032
500-140832-2 - DL	111417002	Total/NA	Solid	8260B	420032
500-140832-3	111417003	Total/NA	Solid	8260B	420032
500-140832-4	111417004	Total/NA	Solid	8260B	420032
500-140832-4 - DL	111417004	Total/NA	Solid	8260B	420032
500-140832-5	111417005	Total/NA	Solid	8260B	420032
500-140832-6	111417006	Total/NA	Solid	8260B	420032
500-140832-6 - DL	111417006	Total/NA	Solid	8260B	420032
500-140832-7	111417007	Total/NA	Solid	8260B	420032
500-140832-8	111417008	Total/NA	Solid	8260B	420032
500-140832-9	111417009	Total/NA	Solid	8260B	420032
500-140832-9 - DL	111417009	Total/NA	Solid	8260B	420032
500-140832-10	111417010	Total/NA	Solid	8260B	420032
500-140832-10 - DL	111417010	Total/NA	Solid	8260B	420032
500-140832-11	111417011	Total/NA	Solid	8260B	420032
500-140832-12	111417012	Total/NA	Solid	8260B	420032
500-140832-12 - DL	111417012	Total/NA	Solid	8260B	420032
MB 500-421025/5	Method Blank	Total/NA	Solid	8260B	
LCS 500-421025/4	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 421029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-14	111617014	Total/NA	Solid	8260B	420033
500-140832-14 - DL	111617014	Total/NA	Solid	8260B	420033
500-140832-15	111617015	Total/NA	Solid	8260B	420033
500-140832-16	111717016	Total/NA	Solid	8260B	420033
500-140832-16 - DL	111717016	Total/NA	Solid	8260B	420033
500-140832-17	111717017	Total/NA	Solid	8260B	420033
500-140832-18	111717018	Total/NA	Solid	8260B	420033
500-140832-19	111717019	Total/NA	Solid	8260B	420033
LB3 500-420033/17-A	Method Blank	Total/NA	Solid	8260B	420033
MB 500-421029/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-420033/18-A	Lab Control Sample	Total/NA	Solid	8260B	420033
500-140832-15 MS	111617015	Total/NA	Solid	8260B	420033
500-140832-15 MSD	111617015	Total/NA	Solid	8260B	420033

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QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

GC/MS VOA (Continued)

Analysis Batch: 421034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-23	111717025	Total/NA	Solid	8260B	420033
500-140832-26	111817029	Total/NA	Solid	8260B	420033
500-140832-27	111817030	Total/NA	Solid	8260B	420033
MB 500-421034/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-421034/24	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 421197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-18	111717018	Total/NA	Solid	8260B	420033
500-140832-20 - DL2	111717020	Total/NA	Solid	8260B	420033
500-140832-21 - DL	111717021	Total/NA	Solid	8260B	420033
500-140832-22 - DL	111717023	Total/NA	Solid	8260B	420033
500-140832-23 - DL	111717025	Total/NA	Solid	8260B	420033
500-140832-24 - DL	111817027	Total/NA	Solid	8260B	420033
500-140832-26 - DL	111817029	Total/NA	Solid	8260B	420033
500-140832-27 - DL2	111817030	Total/NA	Solid	8260B	420033
500-140832-27 - DL	111817030	Total/NA	Solid	8260B	420033
500-140832-28	Trip Blank	Total/NA	Solid	8260B	420033
MB 500-421197/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-421197/4	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 421207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-13	111617013	Total/NA	Solid	8260B	420032
500-140832-20	111717020	Total/NA	Solid	8260B	420033
500-140832-20 - DL	111717020	Total/NA	Solid	8260B	420033
500-140832-21	111717021	Total/NA	Solid	8260B	420033
500-140832-22	111717023	Total/NA	Solid	8260B	420033
500-140832-24	111817027	Total/NA	Solid	8260B	420033
500-140832-25	111817028	Total/NA	Solid	8260B	420033
500-140832-28	Trip Blank	Total/NA	Solid	8260B	420033
MB 500-421207/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-421207/5	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 420017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	3541	
500-140832-2 - DL2	111417002	Total/NA	Solid	3541	
500-140832-2	111417002	Total/NA	Solid	3541	
500-140832-2 - DL	111417002	Total/NA	Solid	3541	
500-140832-3	111417003	Total/NA	Solid	3541	
500-140832-3 - DL	111417003	Total/NA	Solid	3541	
500-140832-4 - DL2	111417004	Total/NA	Solid	3541	
500-140832-4	111417004	Total/NA	Solid	3541	
500-140832-4 - DL	111417004	Total/NA	Solid	3541	
500-140832-5	111417005	Total/NA	Solid	3541	
500-140832-6	111417006	Total/NA	Solid	3541	
500-140832-6 - DL	111417006	Total/NA	Solid	3541	

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QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

GC/MS Semi VOA (Continued)

Prep Batch: 420017 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-7	111417007	Total/NA	Solid	3541	
500-140832-7 - DL	111417007	Total/NA	Solid	3541	
500-140832-8	111417008	Total/NA	Solid	3541	
500-140832-8 - DL	111417008	Total/NA	Solid	3541	
500-140832-9 - DL	111417009	Total/NA	Solid	3541	
500-140832-9	111417009	Total/NA	Solid	3541	
500-140832-9 - DL2	111417009	Total/NA	Solid	3541	
500-140832-10 - DL	111417010	Total/NA	Solid	3541	
500-140832-10	111417010	Total/NA	Solid	3541	
500-140832-11	111417011	Total/NA	Solid	3541	
500-140832-12 - DL2	111417012	Total/NA	Solid	3541	
500-140832-12 - DL	111417012	Total/NA	Solid	3541	
500-140832-12	111417012	Total/NA	Solid	3541	
500-140832-12 - DL3	111417012	Total/NA	Solid	3541	
500-140832-13	111617013	Total/NA	Solid	3541	
500-140832-14	111617014	Total/NA	Solid	3541	
500-140832-15	111617015	Total/NA	Solid	3541	
500-140832-16	111717016	Total/NA	Solid	3541	
500-140832-16 - DL	111717016	Total/NA	Solid	3541	
500-140832-17	111717017	Total/NA	Solid	3541	
500-140832-18	111717018	Total/NA	Solid	3541	
500-140832-18 - DL	111717018	Total/NA	Solid	3541	
500-140832-19	111717019	Total/NA	Solid	3541	
500-140832-19 - DL	111717019	Total/NA	Solid	3541	
500-140832-20	111717020	Total/NA	Solid	3541	
500-140832-20 - DL2	111717020	Total/NA	Solid	3541	
500-140832-20 - DL	111717020	Total/NA	Solid	3541	
MB 500-420017/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-420017/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-140832-1 MS	111417001	Total/NA	Solid	3541	
500-140832-1 MSD	111417001	Total/NA	Solid	3541	

Prep Batch: 420052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-21	111717021	Total/NA	Solid	3541	
500-140832-21 - DL	111717021	Total/NA	Solid	3541	
500-140832-22 - DL	111717023	Total/NA	Solid	3541	
500-140832-22	111717023	Total/NA	Solid	3541	
500-140832-23	111717025	Total/NA	Solid	3541	
500-140832-23 - DL	111717025	Total/NA	Solid	3541	
500-140832-24	111817027	Total/NA	Solid	3541	
500-140832-25	111817028	Total/NA	Solid	3541	
500-140832-26 - DL2	111817029	Total/NA	Solid	3541	
500-140832-26 - DL	111817029	Total/NA	Solid	3541	
500-140832-26	111817029	Total/NA	Solid	3541	
500-140832-27 - DL2	111817030	Total/NA	Solid	3541	
500-140832-27	111817030	Total/NA	Solid	3541	
500-140832-27 - DL	111817030	Total/NA	Solid	3541	
MB 500-420052/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-420052/2-A	Lab Control Sample	Total/NA	Solid	3541	

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

GC/MS Semi VOA (Continued)

Analysis Batch: 420063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-6	111417006	Total/NA	Solid	8270D	420017
500-140832-7	111417007	Total/NA	Solid	8270D	420017
500-140832-8	111417008	Total/NA	Solid	8270D	420017
500-140832-13	111617013	Total/NA	Solid	8270D	420017
500-140832-15	111617015	Total/NA	Solid	8270D	420017
500-140832-16	111717016	Total/NA	Solid	8270D	420017
500-140832-17	111717017	Total/NA	Solid	8270D	420017
500-140832-18	111717018	Total/NA	Solid	8270D	420017
500-140832-19	111717019	Total/NA	Solid	8270D	420017
MB 500-420017/1-A	Method Blank	Total/NA	Solid	8270D	420017
LCS 500-420017/2-A	Lab Control Sample	Total/NA	Solid	8270D	420017

Analysis Batch: 420068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	8270D	420017
500-140832-3	111417003	Total/NA	Solid	8270D	420017
500-140832-4	111417004	Total/NA	Solid	8270D	420017
500-140832-5	111417005	Total/NA	Solid	8270D	420017
500-140832-9	111417009	Total/NA	Solid	8270D	420017
500-140832-10	111417010	Total/NA	Solid	8270D	420017
500-140832-11	111417011	Total/NA	Solid	8270D	420017
500-140832-12	111417012	Total/NA	Solid	8270D	420017
500-140832-14	111617014	Total/NA	Solid	8270D	420017
500-140832-20	111717020	Total/NA	Solid	8270D	420017
500-140832-1 MS	111417001	Total/NA	Solid	8270D	420017
500-140832-1 MSD	111417001	Total/NA	Solid	8270D	420017

Analysis Batch: 420138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-6 - DL	111417006	Total/NA	Solid	8270D	420017
500-140832-7 - DL	111417007	Total/NA	Solid	8270D	420017
500-140832-8 - DL	111417008	Total/NA	Solid	8270D	420017
500-140832-16 - DL	111717016	Total/NA	Solid	8270D	420017
500-140832-18 - DL	111717018	Total/NA	Solid	8270D	420017
500-140832-19 - DL	111717019	Total/NA	Solid	8270D	420017
500-140832-23	111717025	Total/NA	Solid	8270D	420052
MB 500-420052/1-A	Method Blank	Total/NA	Solid	8270D	420052
LCS 500-420052/2-A	Lab Control Sample	Total/NA	Solid	8270D	420052

Analysis Batch: 420318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-2	111417002	Total/NA	Solid	8270D	420017
500-140832-2 - DL	111417002	Total/NA	Solid	8270D	420017
500-140832-4 - DL	111417004	Total/NA	Solid	8270D	420017
500-140832-21	111717021	Total/NA	Solid	8270D	420052
500-140832-21 - DL	111717021	Total/NA	Solid	8270D	420052
500-140832-22	111717023	Total/NA	Solid	8270D	420052
500-140832-23 - DL	111717025	Total/NA	Solid	8270D	420052
500-140832-24	111817027	Total/NA	Solid	8270D	420052
500-140832-25	111817028	Total/NA	Solid	8270D	420052
500-140832-26	111817029	Total/NA	Solid	8270D	420052

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

GC/MS Semi VOA (Continued)

Analysis Batch: 420318 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-26 - DL	111817029	Total/NA	Solid	8270D	420052
500-140832-27	111817030	Total/NA	Solid	8270D	420052
500-140832-27 - DL	111817030	Total/NA	Solid	8270D	420052

Analysis Batch: 420420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-2 - DL2	111417002	Total/NA	Solid	8270D	420017
500-140832-3 - DL	111417003	Total/NA	Solid	8270D	420017
500-140832-4 - DL2	111417004	Total/NA	Solid	8270D	420017
500-140832-9 - DL	111417009	Total/NA	Solid	8270D	420017
500-140832-9 - DL2	111417009	Total/NA	Solid	8270D	420017
500-140832-10 - DL	111417010	Total/NA	Solid	8270D	420017
500-140832-12 - DL	111417012	Total/NA	Solid	8270D	420017
500-140832-12 - DL2	111417012	Total/NA	Solid	8270D	420017
500-140832-12 - DL3	111417012	Total/NA	Solid	8270D	420017
500-140832-20 - DL	111717020	Total/NA	Solid	8270D	420017
500-140832-20 - DL2	111717020	Total/NA	Solid	8270D	420017
500-140832-22 - DL	111717023	Total/NA	Solid	8270D	420052
500-140832-26 - DL2	111817029	Total/NA	Solid	8270D	420052
500-140832-27 - DL2	111817030	Total/NA	Solid	8270D	420052

GC Semi VOA

Prep Batch: 420013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	3541	
500-140832-2	111417002	Total/NA	Solid	3541	
500-140832-3	111417003	Total/NA	Solid	3541	
500-140832-4	111417004	Total/NA	Solid	3541	
500-140832-5	111417005	Total/NA	Solid	3541	
500-140832-6	111417006	Total/NA	Solid	3541	
500-140832-7	111417007	Total/NA	Solid	3541	
500-140832-8	111417008	Total/NA	Solid	3541	
500-140832-9	111417009	Total/NA	Solid	3541	
500-140832-10	111417010	Total/NA	Solid	3541	
500-140832-11	111417011	Total/NA	Solid	3541	
500-140832-12	111417012	Total/NA	Solid	3541	
500-140832-22	111717023	Total/NA	Solid	3541	
500-140832-23	111717025	Total/NA	Solid	3541	
500-140832-24	111817027	Total/NA	Solid	3541	
MB 500-420013/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-420013/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-140832-23 MS	111717025	Total/NA	Solid	3541	
500-140832-23 MSD	111717025	Total/NA	Solid	3541	

Analysis Batch: 420079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	8082A	420013
500-140832-2	111417002	Total/NA	Solid	8082A	420013
500-140832-3	111417003	Total/NA	Solid	8082A	420013

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

GC Semi VOA (Continued)

Analysis Batch: 420079 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-4	111417004	Total/NA	Solid	8082A	420013
500-140832-5	111417005	Total/NA	Solid	8082A	420013
500-140832-6	111417006	Total/NA	Solid	8082A	420013
500-140832-7	111417007	Total/NA	Solid	8082A	420013
500-140832-8	111417008	Total/NA	Solid	8082A	420013
500-140832-9	111417009	Total/NA	Solid	8082A	420013
500-140832-10	111417010	Total/NA	Solid	8082A	420013
500-140832-11	111417011	Total/NA	Solid	8082A	420013
500-140832-12	111417012	Total/NA	Solid	8082A	420013
500-140832-22	111717023	Total/NA	Solid	8082A	420013
500-140832-23	111717025	Total/NA	Solid	8082A	420013
500-140832-24	111817027	Total/NA	Solid	8082A	420013
MB 500-420013/1-A	Method Blank	Total/NA	Solid	8082A	420013
LCS 500-420013/2-A	Lab Control Sample	Total/NA	Solid	8082A	420013
500-140832-23 MS	111717025	Total/NA	Solid	8082A	420013
500-140832-23 MSD	111717025	Total/NA	Solid	8082A	420013

Specialty Organics

Prep Batch: 18224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	HRMS-Sox	
500-140832-2	111417002	Total/NA	Solid	HRMS-Sox	
500-140832-3	111417003	Total/NA	Solid	HRMS-Sox	
500-140832-4	111417004	Total/NA	Solid	HRMS-Sox	
500-140832-5	111417005	Total/NA	Solid	HRMS-Sox	
500-140832-6	111417006	Total/NA	Solid	HRMS-Sox	
500-140832-7	111417007	Total/NA	Solid	HRMS-Sox	
500-140832-8	111417008	Total/NA	Solid	HRMS-Sox	
500-140832-9	111417009	Total/NA	Solid	HRMS-Sox	
500-140832-10	111417010	Total/NA	Solid	HRMS-Sox	
500-140832-11	111417011	Total/NA	Solid	HRMS-Sox	
500-140832-12	111417012	Total/NA	Solid	HRMS-Sox	
500-140832-22	111717023	Total/NA	Solid	HRMS-Sox	
500-140832-23	111717025	Total/NA	Solid	HRMS-Sox	
500-140832-24	111817027	Total/NA	Solid	HRMS-Sox	
MB 140-18224/19-A	Method Blank	Total/NA	Solid	HRMS-Sox	
LCS 140-18224/20-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	

Analysis Batch: 18362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-4	111417004	Total/NA	Solid	1613B	18224
MB 140-18224/19-A	Method Blank	Total/NA	Solid	1613B	18224
LCS 140-18224/20-A	Lab Control Sample	Total/NA	Solid	1613B	18224

Analysis Batch: 18372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	1613B	18224
500-140832-3	111417003	Total/NA	Solid	1613B	18224
500-140832-5	111417005	Total/NA	Solid	1613B	18224

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Specialty Organics (Continued)

Analysis Batch: 18372 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-6	111417006	Total/NA	Solid	1613B	18224
500-140832-7	111417007	Total/NA	Solid	1613B	18224
500-140832-8	111417008	Total/NA	Solid	1613B	18224
500-140832-9	111417009	Total/NA	Solid	1613B	18224

Analysis Batch: 18382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-2	111417002	Total/NA	Solid	1613B	18224
500-140832-10	111417010	Total/NA	Solid	1613B	18224
500-140832-11	111417011	Total/NA	Solid	1613B	18224
500-140832-12	111417012	Total/NA	Solid	1613B	18224
500-140832-22	111717023	Total/NA	Solid	1613B	18224
500-140832-23	111717025	Total/NA	Solid	1613B	18224
500-140832-24	111817027	Total/NA	Solid	1613B	18224

Analysis Batch: 18402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	1613B	18224
500-140832-3	111417003	Total/NA	Solid	1613B	18224
500-140832-5	111417005	Total/NA	Solid	1613B	18224
500-140832-8	111417008	Total/NA	Solid	1613B	18224
500-140832-11	111417011	Total/NA	Solid	1613B	18224
500-140832-24	111817027	Total/NA	Solid	1613B	18224

Metals

Prep Batch: 419991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	3050B	
500-140832-2	111417002	Total/NA	Solid	3050B	
500-140832-3	111417003	Total/NA	Solid	3050B	
500-140832-4	111417004	Total/NA	Solid	3050B	
500-140832-5	111417005	Total/NA	Solid	3050B	
500-140832-6	111417006	Total/NA	Solid	3050B	
500-140832-7	111417007	Total/NA	Solid	3050B	
500-140832-8	111417008	Total/NA	Solid	3050B	
500-140832-9	111417009	Total/NA	Solid	3050B	
500-140832-10	111417010	Total/NA	Solid	3050B	
500-140832-11	111417011	Total/NA	Solid	3050B	
500-140832-12	111417012	Total/NA	Solid	3050B	
MB 500-419991/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-419991/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 419995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-13	111617013	Total/NA	Solid	3050B	
500-140832-14	111617014	Total/NA	Solid	3050B	
500-140832-15	111617015	Total/NA	Solid	3050B	
500-140832-16	111717016	Total/NA	Solid	3050B	
500-140832-17	111717017	Total/NA	Solid	3050B	

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Metals (Continued)

Prep Batch: 419995 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-18	111717018	Total/NA	Solid	3050B	
500-140832-19	111717019	Total/NA	Solid	3050B	
500-140832-20	111717020	Total/NA	Solid	3050B	
500-140832-21	111717021	Total/NA	Solid	3050B	
500-140832-22	111717023	Total/NA	Solid	3050B	
500-140832-23	111717025	Total/NA	Solid	3050B	
500-140832-24	111817027	Total/NA	Solid	3050B	
500-140832-25	111817028	Total/NA	Solid	3050B	
500-140832-26	111817029	Total/NA	Solid	3050B	
500-140832-27	111817030	Total/NA	Solid	3050B	
MB 500-419995/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-419995/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-140832-13 MS	111617013	Total/NA	Solid	3050B	
500-140832-13 MSD	111617013	Total/NA	Solid	3050B	
500-140832-13 DU	111617013	Total/NA	Solid	3050B	

Prep Batch: 420120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	7471B	
500-140832-2	111417002	Total/NA	Solid	7471B	
500-140832-3	111417003	Total/NA	Solid	7471B	
500-140832-4	111417004	Total/NA	Solid	7471B	
500-140832-5	111417005	Total/NA	Solid	7471B	
500-140832-6	111417006	Total/NA	Solid	7471B	
500-140832-7	111417007	Total/NA	Solid	7471B	
500-140832-8	111417008	Total/NA	Solid	7471B	
500-140832-9	111417009	Total/NA	Solid	7471B	
500-140832-10	111417010	Total/NA	Solid	7471B	
500-140832-11	111417011	Total/NA	Solid	7471B	
500-140832-12	111417012	Total/NA	Solid	7471B	
500-140832-13	111617013	Total/NA	Solid	7471B	
500-140832-14	111617014	Total/NA	Solid	7471B	
500-140832-15	111617015	Total/NA	Solid	7471B	
500-140832-16	111717016	Total/NA	Solid	7471B	
500-140832-17	111717017	Total/NA	Solid	7471B	
500-140832-18	111717018	Total/NA	Solid	7471B	
500-140832-19	111717019	Total/NA	Solid	7471B	
500-140832-20	111717020	Total/NA	Solid	7471B	
MB 500-420120/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-420120/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-140832-10 MS	111417010	Total/NA	Solid	7471B	
500-140832-10 MSD	111417010	Total/NA	Solid	7471B	
500-140832-10 DU	111417010	Total/NA	Solid	7471B	

Prep Batch: 420125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-21	111717021	Total/NA	Solid	7471B	
500-140832-22	111717023	Total/NA	Solid	7471B	
500-140832-23	111717025	Total/NA	Solid	7471B	
500-140832-24	111817027	Total/NA	Solid	7471B	
500-140832-25	111817028	Total/NA	Solid	7471B	

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Metals (Continued)

Prep Batch: 420125 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-26	111817029	Total/NA	Solid	7471B	
500-140832-27	111817030	Total/NA	Solid	7471B	
MB 500-420125/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-420125/13-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 420206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	6010C	419991
500-140832-2	111417002	Total/NA	Solid	6010C	419991
500-140832-3	111417003	Total/NA	Solid	6010C	419991
500-140832-4	111417004	Total/NA	Solid	6010C	419991
500-140832-5	111417005	Total/NA	Solid	6010C	419991
500-140832-6	111417006	Total/NA	Solid	6010C	419991
500-140832-7	111417007	Total/NA	Solid	6010C	419991
500-140832-8	111417008	Total/NA	Solid	6010C	419991
500-140832-9	111417009	Total/NA	Solid	6010C	419991
500-140832-10	111417010	Total/NA	Solid	6010C	419991
500-140832-11	111417011	Total/NA	Solid	6010C	419991
500-140832-12	111417012	Total/NA	Solid	6010C	419991
500-140832-13	111617013	Total/NA	Solid	6010C	419995
500-140832-14	111617014	Total/NA	Solid	6010C	419995
500-140832-15	111617015	Total/NA	Solid	6010C	419995
500-140832-16	111717016	Total/NA	Solid	6010C	419995
500-140832-17	111717017	Total/NA	Solid	6010C	419995
500-140832-18	111717018	Total/NA	Solid	6010C	419995
500-140832-19	111717019	Total/NA	Solid	6010C	419995
500-140832-20	111717020	Total/NA	Solid	6010C	419995
500-140832-21	111717021	Total/NA	Solid	6010C	419995
500-140832-22	111717023	Total/NA	Solid	6010C	419995
500-140832-23	111717025	Total/NA	Solid	6010C	419995
500-140832-24	111817027	Total/NA	Solid	6010C	419995
500-140832-25	111817028	Total/NA	Solid	6010C	419995
500-140832-26	111817029	Total/NA	Solid	6010C	419995
500-140832-27	111817030	Total/NA	Solid	6010C	419995
MB 500-419991/1-A	Method Blank	Total/NA	Solid	6010C	419991
MB 500-419995/1-A	Method Blank	Total/NA	Solid	6010C	419995
LCS 500-419991/2-A	Lab Control Sample	Total/NA	Solid	6010C	419991
LCS 500-419995/2-A	Lab Control Sample	Total/NA	Solid	6010C	419995
500-140832-13 MS	111617013	Total/NA	Solid	6010C	419995
500-140832-13 MSD	111617013	Total/NA	Solid	6010C	419995
500-140832-13 DU	111617013	Total/NA	Solid	6010C	419995

Analysis Batch: 420294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	7471B	420120
500-140832-2	111417002	Total/NA	Solid	7471B	420120
500-140832-3	111417003	Total/NA	Solid	7471B	420120
500-140832-4	111417004	Total/NA	Solid	7471B	420120
500-140832-5	111417005	Total/NA	Solid	7471B	420120
500-140832-6	111417006	Total/NA	Solid	7471B	420120
500-140832-7	111417007	Total/NA	Solid	7471B	420120

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Metals (Continued)

Analysis Batch: 420294 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-8	111417008	Total/NA	Solid	7471B	420120
500-140832-9	111417009	Total/NA	Solid	7471B	420120
500-140832-10	111417010	Total/NA	Solid	7471B	420120
500-140832-11	111417011	Total/NA	Solid	7471B	420120
500-140832-12	111417012	Total/NA	Solid	7471B	420120
500-140832-13	111617013	Total/NA	Solid	7471B	420120
500-140832-14	111617014	Total/NA	Solid	7471B	420120
500-140832-15	111617015	Total/NA	Solid	7471B	420120
500-140832-16	111717016	Total/NA	Solid	7471B	420120
500-140832-17	111717017	Total/NA	Solid	7471B	420120
500-140832-18	111717018	Total/NA	Solid	7471B	420120
500-140832-19	111717019	Total/NA	Solid	7471B	420120
500-140832-20	111717020	Total/NA	Solid	7471B	420120
500-140832-21	111717021	Total/NA	Solid	7471B	420125
500-140832-22	111717023	Total/NA	Solid	7471B	420125
500-140832-23	111717025	Total/NA	Solid	7471B	420125
500-140832-24	111817027	Total/NA	Solid	7471B	420125
500-140832-25	111817028	Total/NA	Solid	7471B	420125
500-140832-26	111817029	Total/NA	Solid	7471B	420125
500-140832-27	111817030	Total/NA	Solid	7471B	420125
MB 500-420120/12-A	Method Blank	Total/NA	Solid	7471B	420120
MB 500-420125/12-A	Method Blank	Total/NA	Solid	7471B	420125
LCS 500-420120/13-A	Lab Control Sample	Total/NA	Solid	7471B	420120
LCS 500-420125/13-A	Lab Control Sample	Total/NA	Solid	7471B	420125
500-140832-10 MS	111417010	Total/NA	Solid	7471B	420120
500-140832-10 MSD	111417010	Total/NA	Solid	7471B	420120
500-140832-10 DU	111417010	Total/NA	Solid	7471B	420120

Analysis Batch: 420387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-24	111817027	Total/NA	Solid	6010C	419995

General Chemistry

Analysis Batch: 420047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-1	111417001	Total/NA	Solid	Moisture	
500-140832-2	111417002	Total/NA	Solid	Moisture	
500-140832-3	111417003	Total/NA	Solid	Moisture	
500-140832-4	111417004	Total/NA	Solid	Moisture	
500-140832-5	111417005	Total/NA	Solid	Moisture	
500-140832-6	111417006	Total/NA	Solid	Moisture	
500-140832-7	111417007	Total/NA	Solid	Moisture	
500-140832-8	111417008	Total/NA	Solid	Moisture	
500-140832-9	111417009	Total/NA	Solid	Moisture	
500-140832-10	111417010	Total/NA	Solid	Moisture	
500-140832-11	111417011	Total/NA	Solid	Moisture	
500-140832-12	111417012	Total/NA	Solid	Moisture	
500-140832-13	111617013	Total/NA	Solid	Moisture	
500-140832-14	111617014	Total/NA	Solid	Moisture	

TestAmerica Chicago

QC Association Summary

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

General Chemistry (Continued)

Analysis Batch: 420047 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-15	111617015	Total/NA	Solid	Moisture	
500-140832-16	111717016	Total/NA	Solid	Moisture	
500-140832-17	111717017	Total/NA	Solid	Moisture	
500-140832-18	111717018	Total/NA	Solid	Moisture	
500-140832-19	111717019	Total/NA	Solid	Moisture	
500-140832-20	111717020	Total/NA	Solid	Moisture	
500-140832-4 DU	111417004	Total/NA	Solid	Moisture	

Analysis Batch: 420051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-140832-21	111717021	Total/NA	Solid	Moisture	
500-140832-22	111717023	Total/NA	Solid	Moisture	
500-140832-23	111717025	Total/NA	Solid	Moisture	
500-140832-24	111817027	Total/NA	Solid	Moisture	
500-140832-25	111817028	Total/NA	Solid	Moisture	
500-140832-26	111817029	Total/NA	Solid	Moisture	
500-140832-27	111817030	Total/NA	Solid	Moisture	
500-140832-26 DU	111817029	Total/NA	Solid	Moisture	

Surrogate Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)							
		DCA (75-126)	DCA (75-126)	DCA (75-126)	DCA (75-126)	BFB (72-124)	BFB (72-124)	BFB (72-124)	BFB (72-124)
500-140832-1	111417001	91	91	91	91	99	99	99	99
500-140832-2	111417002	90	90	90	90	94	94	94	94
500-140832-2 - DL	111417002	92	92	92	92	102	102	102	102
500-140832-3	111417003	93	93	93	93	99	99	99	99
500-140832-4	111417004	91	91	91	91	96	96	96	96
500-140832-4 - DL	111417004	94	94	94	94	103	103	103	103
500-140832-5	111417005	94	94	94	94	96	96	96	96
500-140832-6	111417006	93	93	93	93	96	96	96	96
500-140832-6 - DL	111417006	94	94	94	94	100	100	100	100
500-140832-7	111417007	93	93	93	93	98	98	98	98
500-140832-8	111417008	95	95	95	95	98	98	98	98
500-140832-9	111417009	93	93	93	93	96	96	96	96
500-140832-9 - DL	111417009	93	93	93	93	102	102	102	102
500-140832-10	111417010	93	93	93	93	93	93	93	93
500-140832-10 - DL	111417010	94	94	94	94	98	98	98	98
500-140832-11	111417011	93	93	93	93	97	97	97	97
500-140832-12	111417012	96	96	96	96	97	97	97	97
500-140832-12 - DL	111417012	95	95	95	95	100	100	100	100
500-140832-13	111617013	111	111	111	111	98	98	98	98
500-140832-14	111617014	114	114	114	114	96	96	96	96
500-140832-14 - DL	111617014	113	113	113	113	100	100	100	100
500-140832-15	111617015	112	112	112	112	100	100	100	100
500-140832-15 MS	111617015	110	110	110	110	99	99	99	99
500-140832-15 MSD	111617015	110	110	110	110	99	99	99	99
500-140832-16	111717016	112	112	112	112	93	93	93	93
500-140832-16 - DL	111717016	113	113	113	113	102	102	102	102
500-140832-17	111717017	113	113	113	113	98	98	98	98
500-140832-18	111717018	113	113	113	113	97	97	97	97
500-140832-18	111717018	98	98	98	98	92	92	92	92
500-140832-19	111717019	109	109	109	109	96	96	96	96
500-140832-20 - DL2	111717020	94	94	94	94	94	94	94	94
500-140832-20	111717020	116	116	116	116	97	97	97	97
500-140832-20 - DL	111717020	110	110	110	110	100	100	100	100
500-140832-21 - DL	111717021	95	95	95	95	92	92	92	92
500-140832-21	111717021	112	112	112	112	97	97	97	97
500-140832-22 - DL	111717023	95	95	95	95	94	94	94	94
500-140832-22	111717023	112	112	112	112	100	100	100	100
500-140832-23	111717025	97	97	97	97	88	88	88	88
500-140832-23 - DL	111717025	98	98	98	98	94	94	94	94
500-140832-24 - DL	111817027	94	94	94	94	91	91	91	91
500-140832-24	111817027	116	116	116	116	97	97	97	97
500-140832-25	111817028	112	112	112	112	102	102	102	102
500-140832-26	111817029	95	95	95	95	92	92	92	92
500-140832-26 - DL	111817029	97	97	97	97	93	93	93	93
500-140832-27	111817030	94	94	94	94	91	91	91	91
500-140832-27 - DL2	111817030	98	98	98	98	95	95	95	95
500-140832-27 - DL	111817030	94	94	94	94	89	89	89	89
500-140832-28	Trip Blank	93	93	93	93	92	92	92	92
500-140832-28	Trip Blank	110	110	110	110	100	100	100	100

TestAmerica Chicago

Surrogate Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	DCA	DCA	DCA	BFB	BFB	BFB	BFB
		(75-126)	(75-126)	(75-126)	(75-126)	(72-124)	(72-124)	(72-124)	(72-124)
LB3 500-420032/21-A	Method Blank	87	87	87	87	89	89	89	89
LCS 500-420032/22-A	Lab Control Sample	91	91	91	91	89	89	89	89
LCS 500-420033/18-A	Lab Control Sample	109	109	109	109	97	97	97	97
LCS 500-420368/5	Lab Control Sample	87	87	87	87	87	87	87	87
LCS 500-421025/4	Lab Control Sample	90	90	90	90	94	94	94	94
LCS 500-421034/24	Lab Control Sample	89	89	89	89	93	93	93	93
LCS 500-421197/4	Lab Control Sample	97	97	97	97	91	91	91	91
LCS 500-421207/5	Lab Control Sample	109	109	109	109	100	100	100	100
MB 500-420368/6	Method Blank	92	92	92	92	91	91	91	91
MB 500-421025/5	Method Blank	94	94	94	94	100	100	100	100
MB 500-421029/6	Method Blank	113	113	113	113	103	103	103	103
MB 500-421034/6	Method Blank	99	99	99	99	96	96	96	96
MB 500-421197/6	Method Blank	96	96	96	96	96	96	96	96
MB 500-421207/7	Method Blank	113	113	113	113	101	101	101	101

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBFM	DBFM	DBFM	DBFM	TOL	TOL	TOL	TOL
		(75-120)	(75-120)	(75-120)	(75-120)	(75-120)	(75-120)	(75-120)	(75-120)
500-140832-1	111417001	84	84	84	84	103	103	103	103
500-140832-2	111417002	84	84	84	84	103	103	103	103
500-140832-2 - DL	111417002	84	84	84	84	104	104	104	104
500-140832-3	111417003	84	84	84	84	104	104	104	104
500-140832-4	111417004	84	84	84	84	102	102	102	102
500-140832-4 - DL	111417004	85	85	85	85	102	102	102	102
500-140832-5	111417005	85	85	85	85	102	102	102	102
500-140832-6	111417006	83	83	83	83	104	104	104	104
500-140832-6 - DL	111417006	86	86	86	86	102	102	102	102
500-140832-7	111417007	84	84	84	84	103	103	103	103
500-140832-8	111417008	84	84	84	84	102	102	102	102
500-140832-9	111417009	86	86	86	86	104	104	104	104
500-140832-9 - DL	111417009	84	84	84	84	103	103	103	103
500-140832-10	111417010	87	87	87	87	102	102	102	102
500-140832-10 - DL	111417010	85	85	85	85	103	103	103	103
500-140832-11	111417011	86	86	86	86	101	101	101	101
500-140832-12	111417012	87	87	87	87	103	103	103	103
500-140832-12 - DL	111417012	86	86	86	86	102	102	102	102
500-140832-13	111617013	98	98	98	98	102	102	102	102
500-140832-14	111617014	99	99	99	99	102	102	102	102
500-140832-14 - DL	111617014	98	98	98	98	104	104	104	104
500-140832-15	111617015	98	98	98	98	103	103	103	103
500-140832-15 MS	111617015	100	100	100	100	102	102	102	102
500-140832-15 MSD	111617015	98	98	98	98	103	103	103	103
500-140832-16	111717016	100	100	100	100	101	101	101	101
500-140832-16 - DL	111717016	100	100	100	100	103	103	103	103
500-140832-17	111717017	100	100	100	100	101	101	101	101
500-140832-18	111717018	100	100	100	100	103	103	103	103
500-140832-18	111717018	88	88	88	88	94	94	94	94
500-140832-19	111717019	98	98	98	98	104	104	104	104
500-140832-20 - DL2	111717020	86	86	86	86	93	93	93	93
500-140832-20	111717020	99	99	99	99	102	102	102	102

TestAmerica Chicago

Surrogate Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)							
		DBFM (75-120)	DBFM (75-120)	DBFM (75-120)	DBFM (75-120)	TOL (75-120)	TOL (75-120)	TOL (75-120)	TOL (75-120)
500-140832-20 - DL	111717020	98	98	98	98	104	104	104	104
500-140832-21 - DL	111717021	86	86	86	86	96	96	96	96
500-140832-21	111717021	98	98	98	98	101	101	101	101
500-140832-22 - DL	111717023	87	87	87	87	95	95	95	95
500-140832-22	111717023	98	98	98	98	103	103	103	103
500-140832-23	111717025	97	97	97	97	94	94	94	94
500-140832-23 - DL	111717025	88	88	88	88	93	93	93	93
500-140832-24 - DL	111817027	86	86	86	86	95	95	95	95
500-140832-24	111817027	101	101	101	101	103	103	103	103
500-140832-25	111817028	98	98	98	98	101	101	101	101
500-140832-26	111817029	96	96	96	96	94	94	94	94
500-140832-26 - DL	111817029	89	89	89	89	92	92	92	92
500-140832-27	111817030	95	95	95	95	93	93	93	93
500-140832-27 - DL2	111817030	88	88	88	88	94	94	94	94
500-140832-27 - DL	111817030	87	87	87	87	95	95	95	95
500-140832-28	Trip Blank	85	85	85	85	93	93	93	93
500-140832-28	Trip Blank	97	97	97	97	104	104	104	104
LB3 500-420032/21-A	Method Blank	85	85	85	85	98	98	98	98
LCS 500-420032/22-A	Lab Control Sample	93	93	93	93	98	98	98	98
LCS 500-420033/18-A	Lab Control Sample	97	97	97	97	103	103	103	103
LCS 500-420368/5	Lab Control Sample	90	90	90	90	101	101	101	101
LCS 500-421025/4	Lab Control Sample	87	87	87	87	105	105	105	105
LCS 500-421034/24	Lab Control Sample	93	93	93	93	96	96	96	96
LCS 500-421197/4	Lab Control Sample	91	91	91	91	95	95	95	95
LCS 500-421207/5	Lab Control Sample	96	96	96	96	104	104	104	104
MB 500-420368/6	Method Blank	89	89	89	89	98	98	98	98
MB 500-421025/5	Method Blank	87	87	87	87	102	102	102	102
MB 500-421029/6	Method Blank	100	100	100	100	104	104	104	104
MB 500-421034/6	Method Blank	100	100	100	100	94	94	94	94
MB 500-421197/6	Method Blank	88	88	88	88	94	94	94	94
MB 500-421207/7	Method Blank	98	98	98	98	101	101	101	101

Surrogate Legend

- DCA = 1,2-Dichloroethane-d4 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane
- TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)							
		DCA (75-126)	DCA (75-126)	BFB (72-124)	BFB (72-124)	DBFM (75-120)	DBFM (75-120)	TOL (75-120)	TOL (75-120)
LB3 500-420033/17-A	Method Blank	111	111	101	101	98	98	103	103

Surrogate Legend

- DCA = 1,2-Dichloroethane-d4 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane

TestAmerica Chicago

Surrogate Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B
 TOL = Toluene-d8 (Surr)

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP	FBP	2FP	NBZ	PHL	TPHL
		(25-139)	(44-121)	(46-133)	(41-120)	(46-125)	(35-160)
500-140832-1	111417001	115	78	97	112	92	75
500-140832-1 MS	111417001	130	88	103	99	73	104
500-140832-1 MSD	111417001	115	80	102	91	85	85
500-140832-2	111417002	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-2 - DL	111417002	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-2 - DL2	111417002	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-3	111417003	137	81	106	72	84	87
500-140832-3 - DL	111417003	145 X	95	105	72	79	82
500-140832-4	111417004	113	78	79	65	77	86
500-140832-4 - DL	111417004	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-4 - DL2	111417004	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-5	111417005	143 X	93	87	70	84	91
500-140832-6	111417006	92	84	80	72	85	83
500-140832-6 - DL	111417006	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-7	111417007	102	101	99	89	101	94
500-140832-7 - DL	111417007	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-8	111417008	94	76	69	67	72	75
500-140832-8 - DL	111417008	62	78	76	63	75	119
500-140832-9	111417009	135	95	95	116	92	129
500-140832-9 - DL	111417009	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-9 - DL2	111417009	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-10	111417010	120	86	89	63	85	93
500-140832-10 - DL	111417010	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-11	111417011	128	74	77	49	66	87
500-140832-12	111417012	113	76	77	63	75	88
500-140832-12 - DL	111417012	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-12 - DL2	111417012	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-12 - DL3	111417012	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-13	111617013	94	66	73	60	76	75
500-140832-14	111617014	120	76	87	57	73	85
500-140832-15	111617015	101	81	82	73	82	83
500-140832-16	111717016	96	101	98	89	98	92
500-140832-16 - DL	111717016	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-17	111717017	98	82	85	75	86	80
500-140832-18	111717018	108	100	108	99	107	89
500-140832-18 - DL	111717018	76	126 X	117	120	144 X	151
500-140832-19	111717019	101	84	76	67	81	87
500-140832-19 - DL	111717019	74	96	90	76	97	138
500-140832-20	111717020	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-20 - DL	111717020	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-20 - DL2	111717020	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-21	111717021	91	114	114	115	120	153
500-140832-21 - DL	111717021	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-22	111717023	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-22 - DL	111717023	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-23	111717025	86	94	115	89	116	130
500-140832-23 - DL	111717025	83	118	56	69	148 X	149
500-140832-24	111817027	92	118	147 X	250 X	20 X	147

TestAmerica Chicago

Surrogate Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (25-139)	FBP (44-121)	2FP (46-133)	NBZ (41-120)	PHL (46-125)	TPHL (35-160)
500-140832-25	111817028	75	91	110	75	109	122
500-140832-26	111817029	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-26 - DL	111817029	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-26 - DL2	111817029	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-27	111817030	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-27 - DL	111817030	0 D	0 D	0 D	0 D	0 D	0 D
500-140832-27 - DL2	111817030	0 D	0 D	0 D	0 D	0 D	0 D
LCS 500-420017/2-A	Lab Control Sample	106	94	96	92	96	84
LCS 500-420052/2-A	Lab Control Sample	83	89	107	95	107	81
MB 500-420017/1-A	Method Blank	107	95	105	96	100	91
MB 500-420052/1-A	Method Blank	75	100	115	84	67	78

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPHL = Terphenyl-d14 (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (49-129)	DCBP1 (37-121)
500-140832-1	111417001	125	94
500-140832-2	111417002	70	97
500-140832-3	111417003	125	104
500-140832-4	111417004	93	105
500-140832-5	111417005	97	120
500-140832-6	111417006	92	105
500-140832-7	111417007	118	110
500-140832-8	111417008	115	136 X
500-140832-9	111417009	62	100
500-140832-10	111417010	72	103
500-140832-11	111417011	118	114
500-140832-12	111417012	93	91
500-140832-22	111717023	105	101
500-140832-23	111717025	95	105
500-140832-23 MS	111717025	102	111
500-140832-23 MSD	111717025	99	104
500-140832-24	111817027	99	119
LCS 500-420013/2-A	Lab Control Sample	82	91
MB 500-420013/1-A	Method Blank	78	81

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

TestAmerica Chicago

Surrogate Summary

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	37TCDD (35-197)
500-140832-1	111417001	63
500-140832-2	111417002	70
500-140832-3	111417003	65
500-140832-4	111417004	79
500-140832-5	111417005	74
500-140832-6	111417006	71
500-140832-7	111417007	74
500-140832-8	111417008	71
500-140832-9	111417009	73
500-140832-10	111417010	80
500-140832-11	111417011	73
500-140832-12	111417012	68
500-140832-22	111717023	76
500-140832-23	111717025	78
500-140832-24	111817027	67
MB 140-18224/19-A	Method Blank	76

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	37TCDD (31-191)
LCS 140-18224/20-A	Lab Control Sample	77

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LB3 500-420032/21-A

Matrix: Solid

Analysis Batch: 420368

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 420032

Analyte	LB3	LB3	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,1-Dichloroethane	<21		50	21	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,1-Dichloroethene	<20		50	20	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,1-Dichloropropene	<15		50	15	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2,3-Trichloropropane	<21		50	21	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2-Dibromoethane	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2-Dichloroethane	<20		50	20	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,2-Dichloropropane	<21		50	21	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,3-Dichloropropane	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
2,2-Dichloropropane	<22		50	22	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
2-Butanone (MEK)	<110		250	110	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
2-Chlorotoluene	<16		50	16	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
4-Chlorotoluene	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Benzene	<7.3		13	7.3	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Bromobenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Bromochloromethane	<21		50	21	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Bromodichloromethane	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Bromoform	<24		50	24	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Bromomethane	<40		100	40	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Carbon tetrachloride	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Chlorobenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Chloroethane	<25		50	25	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Chloroform	<19		100	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Chloromethane	<16		50	16	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Dibromochloromethane	<24		50	24	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Dibromomethane	<14		50	14	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Dichlorodifluoromethane	<34		100	34	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Ethylbenzene	<9.2		13	9.2	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Hexachlorobutadiene	<22		50	22	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Hexane	<25		50	25	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Isopropyl ether	<14		50	14	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Isopropylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Methyl tert-butyl ether	<20		50	20	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Methylene Chloride	<82		250	82	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Naphthalene	<17		50	17	ug/Kg		02/13/18 23:45	02/16/18 10:48	50

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB3 500-420032/21-A
Matrix: Solid
Analysis Batch: 420368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420032

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
N-Propylbenzene	<21		50	21	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
p-Isopropyltoluene	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
sec-Butylbenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Styrene	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
tert-Butylbenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Tetrachloroethene	<19		50	19	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Toluene	<7.4		13	7.4	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Trichloroethene	<8.2		25	8.2	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Trichlorofluoromethane	<21		50	21	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Vinyl chloride	<13		25	13	ug/Kg		02/13/18 23:45	02/16/18 10:48	50
Xylenes, Total	<11		25	11	ug/Kg		02/13/18 23:45	02/16/18 10:48	50

Surrogate	LB3 %Recovery	LB3 Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		75 - 126	02/13/18 23:45	02/16/18 10:48	50
4-Bromofluorobenzene (Surr)	89		72 - 124	02/13/18 23:45	02/16/18 10:48	50
Dibromofluoromethane	85		75 - 120	02/13/18 23:45	02/16/18 10:48	50
Toluene-d8 (Surr)	98		75 - 120	02/13/18 23:45	02/16/18 10:48	50

Lab Sample ID: LCS 500-420032/22-A
Matrix: Solid
Analysis Batch: 420368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	2500	2800		ug/Kg		112	70 - 125
1,1,1-Trichloroethane	2500	2780		ug/Kg		111	70 - 125
1,1,1,2,2-Tetrachloroethane	2500	2710		ug/Kg		108	67 - 127
1,1,1,2-Trichloroethane	2500	2870		ug/Kg		115	70 - 122
1,1-Dichloroethane	2500	2790		ug/Kg		112	70 - 125
1,1-Dichloroethene	2500	2530		ug/Kg		101	67 - 122
1,1-Dichloropropene	2500	2920		ug/Kg		117	70 - 121
1,2,3-Trichlorobenzene	2500	2660		ug/Kg		106	55 - 140
1,2,3-Trichloropropane	2500	2640		ug/Kg		106	50 - 133
1,2,4-Trichlorobenzene	2500	2650		ug/Kg		106	66 - 127
1,2,4-Trimethylbenzene	2500	2830		ug/Kg		113	70 - 123
1,2-Dibromo-3-Chloropropane	2500	2270		ug/Kg		91	56 - 123
1,2-Dibromoethane	2500	2870		ug/Kg		115	70 - 125
1,2-Dichlorobenzene	2500	2790		ug/Kg		111	70 - 125
1,2-Dichloroethane	2500	2710		ug/Kg		108	68 - 127
1,2-Dichloropropane	2500	2900		ug/Kg		116	67 - 130
1,3,5-Trimethylbenzene	2500	2880		ug/Kg		115	70 - 123
1,3-Dichlorobenzene	2500	2800		ug/Kg		112	70 - 125
1,3-Dichloropropane	2500	2950		ug/Kg		118	62 - 136
1,4-Dichlorobenzene	2500	2790		ug/Kg		112	70 - 120
2,2-Dichloropropane	2500	2980		ug/Kg		119	58 - 129
2-Butanone (MEK)	2500	2680		ug/Kg		107	53 - 141

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-420032/22-A
Matrix: Solid
Analysis Batch: 420368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2-Chlorotoluene	2500	2780		ug/Kg		111	70 - 125
4-Chlorotoluene	2500	2830		ug/Kg		113	68 - 124
Benzene	2500	2900		ug/Kg		116	70 - 120
Bromobenzene	2500	2830		ug/Kg		113	70 - 122
Bromochloromethane	2500	2740		ug/Kg		110	65 - 122
Bromodichloromethane	2500	2760		ug/Kg		110	69 - 120
Bromoform	2500	2680		ug/Kg		107	56 - 132
Bromomethane	2500	3760	*	ug/Kg		150	40 - 130
Carbon tetrachloride	2500	2840		ug/Kg		113	65 - 122
Chlorobenzene	2500	2800		ug/Kg		112	70 - 120
Chloroethane	2500	3080		ug/Kg		123	45 - 127
Chloroform	2500	2870		ug/Kg		115	70 - 120
Chloromethane	2500	2400		ug/Kg		96	54 - 147
cis-1,2-Dichloroethene	2500	2830		ug/Kg		113	70 - 125
cis-1,3-Dichloropropene	2500	2840		ug/Kg		113	64 - 127
Dibromochloromethane	2500	2790		ug/Kg		111	68 - 125
Dibromomethane	2500	2730		ug/Kg		109	70 - 120
Dichlorodifluoromethane	2500	1830		ug/Kg		73	40 - 150
Ethylbenzene	2500	2970		ug/Kg		119	70 - 120
Hexachlorobutadiene	2500	2650		ug/Kg		106	51 - 150
Hexane	2500	2710		ug/Kg		108	65 - 142
Isopropylbenzene	2500	2900		ug/Kg		116	70 - 126
Methyl tert-butyl ether	2500	2780		ug/Kg		111	70 - 120
Methylene Chloride	2500	2720		ug/Kg		109	69 - 125
Naphthalene	2500	2680		ug/Kg		107	59 - 130
n-Butylbenzene	2500	2810		ug/Kg		112	68 - 125
N-Propylbenzene	2500	2880		ug/Kg		115	69 - 127
p-Isopropyltoluene	2500	2880		ug/Kg		115	70 - 125
sec-Butylbenzene	2500	2880		ug/Kg		115	70 - 123
Styrene	2500	2900		ug/Kg		116	70 - 120
tert-Butylbenzene	2500	2910		ug/Kg		116	70 - 121
Tetrachloroethene	2500	2930		ug/Kg		117	70 - 128
Toluene	2500	2860		ug/Kg		114	70 - 125
trans-1,2-Dichloroethene	2500	2740		ug/Kg		110	70 - 125
trans-1,3-Dichloropropene	2500	2750		ug/Kg		110	62 - 128
Trichloroethene	2500	2890		ug/Kg		116	70 - 125
Trichlorofluoromethane	2500	2600		ug/Kg		104	70 - 126
Vinyl chloride	2500	2480		ug/Kg		99	64 - 126
Xylenes, Total	5000	5840		ug/Kg		117	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	91		75 - 126
4-Bromofluorobenzene (Surr)	89		72 - 124
Dibromofluoromethane	93		75 - 120
Toluene-d8 (Surr)	98		75 - 120

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB3 500-420033/17-A
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420033

Analyte	LB3		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1-Dichloroethane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1-Dichloroethane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1-Dichloroethene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1-Dichloroethene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1-Dichloropropene	<15		50	15	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,1-Dichloropropene	<15		50	15	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2,3-Trichloropropane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2,3-Trichloropropane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dibromoethane	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dibromoethane	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dichloroethane	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dichloroethane	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dichloropropane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,2-Dichloropropane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,3-Dichloropropane	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,3-Dichloropropane	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
2,2-Dichloropropane	<22		50	22	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
2,2-Dichloropropane	<22		50	22	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
2-Butanone (MEK)	<110		250	110	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
2-Butanone (MEK)	<110		250	110	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
2-Chlorotoluene	<16		50	16	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
2-Chlorotoluene	<16		50	16	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
4-Chlorotoluene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
4-Chlorotoluene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB3 500-420033/17-A
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420033

Analyte	LB3	LB3	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<7.3		13	7.3	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Benzene	<7.3		13	7.3	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromobenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromobenzene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromochloromethane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromochloromethane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromodichloromethane	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromodichloromethane	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromoform	<24		50	24	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromoform	<24		50	24	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromomethane	<40		100	40	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Bromomethane	<40		100	40	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Carbon tetrachloride	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Carbon tetrachloride	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Chlorobenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Chlorobenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Chloroethane	<25		50	25	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Chloroethane	<25		50	25	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Chloroform	<19		100	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Chloroform	<19		100	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Chloromethane	<16		50	16	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Chloromethane	<16		50	16	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Dibromochloromethane	<24		50	24	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Dibromochloromethane	<24		50	24	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Dibromomethane	<14		50	14	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Dibromomethane	<14		50	14	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Dichlorodifluoromethane	<34		100	34	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Dichlorodifluoromethane	<34		100	34	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Ethylbenzene	<9.2		13	9.2	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Ethylbenzene	<9.2		13	9.2	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Hexachlorobutadiene	<22		50	22	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Hexachlorobutadiene	<22		50	22	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Hexane	<25		50	25	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Hexane	<25		50	25	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Isopropyl ether	<14		50	14	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Isopropyl ether	<14		50	14	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Isopropylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Isopropylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Methyl tert-butyl ether	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Methyl tert-butyl ether	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Methylene Chloride	<82		250	82	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Methylene Chloride	<82		250	82	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Naphthalene	<17		50	17	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Naphthalene	<17		50	17	ug/Kg		02/13/18 23:45	02/22/18 12:36	50

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB3 500-420033/17-A
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420033

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
n-Butylbenzene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
N-Propylbenzene	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
N-Propylbenzene	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
p-Isopropyltoluene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
p-Isopropyltoluene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
sec-Butylbenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
sec-Butylbenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Styrene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Styrene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
tert-Butylbenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
tert-Butylbenzene	<20		50	20	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Tetrachloroethene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Tetrachloroethene	<19		50	19	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Toluene	<7.4		13	7.4	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Toluene	<7.4		13	7.4	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Trichloroethene	<8.2		25	8.2	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Trichloroethene	<8.2		25	8.2	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Trichlorofluoromethane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Trichlorofluoromethane	<21		50	21	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Vinyl chloride	<13		25	13	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Vinyl chloride	<13		25	13	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Xylenes, Total	<11		25	11	ug/Kg		02/13/18 23:45	02/22/18 12:36	50
Xylenes, Total	<11		25	11	ug/Kg		02/13/18 23:45	02/22/18 12:36	50

Surrogate	LB3 %Recovery	LB3 Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		75 - 126	02/13/18 23:45	02/22/18 12:36	50
1,2-Dichloroethane-d4 (Surr)	111		75 - 126	02/13/18 23:45	02/22/18 12:36	50
4-Bromofluorobenzene (Surr)	101		72 - 124	02/13/18 23:45	02/22/18 12:36	50
4-Bromofluorobenzene (Surr)	101		72 - 124	02/13/18 23:45	02/22/18 12:36	50
Dibromofluoromethane	98		75 - 120	02/13/18 23:45	02/22/18 12:36	50
Dibromofluoromethane	98		75 - 120	02/13/18 23:45	02/22/18 12:36	50
Toluene-d8 (Surr)	103		75 - 120	02/13/18 23:45	02/22/18 12:36	50
Toluene-d8 (Surr)	103		75 - 120	02/13/18 23:45	02/22/18 12:36	50

Lab Sample ID: LCS 500-420033/18-A
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420033

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	2500	2950		ug/Kg		118	70 - 125
1,1,1-Trichloroethane	2500	2880		ug/Kg		115	70 - 125
1,1,2,2-Tetrachloroethane	2500	2820		ug/Kg		113	67 - 127
1,1,2-Trichloroethane	2500	2870		ug/Kg		115	70 - 122

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-420033/18-A
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420033

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2500	3080		ug/Kg		123	70 - 125
1,1-Dichloroethene	2500	2630		ug/Kg		105	67 - 122
1,1-Dichloropropene	2500	2850		ug/Kg		114	70 - 121
1,2,3-Trichlorobenzene	2500	3030		ug/Kg		121	55 - 140
1,2,3-Trichloropropane	2500	2850		ug/Kg		114	50 - 133
1,2,4-Trichlorobenzene	2500	3090		ug/Kg		124	66 - 127
1,2,4-Trimethylbenzene	2500	2970		ug/Kg		119	70 - 123
1,2-Dibromo-3-Chloropropane	2500	3020		ug/Kg		121	56 - 123
1,2-Dibromoethane	2500	2940		ug/Kg		118	70 - 125
1,2-Dichlorobenzene	2500	2950		ug/Kg		118	70 - 125
1,2-Dichloroethane	2500	3310	*	ug/Kg		132	68 - 127
1,2-Dichloropropane	2500	3170		ug/Kg		127	67 - 130
1,3,5-Trimethylbenzene	2500	2970		ug/Kg		119	70 - 123
1,3-Dichlorobenzene	2500	2900		ug/Kg		116	70 - 125
1,3-Dichloropropane	2500	3030		ug/Kg		121	62 - 136
1,4-Dichlorobenzene	2500	2860		ug/Kg		115	70 - 120
2,2-Dichloropropane	2500	2870		ug/Kg		115	58 - 129
2-Butanone (MEK)	2500	3300		ug/Kg		132	53 - 141
2-Chlorotoluene	2500	2860		ug/Kg		114	70 - 125
4-Chlorotoluene	2500	2910		ug/Kg		116	68 - 124
Benzene	2500	2770		ug/Kg		111	70 - 120
Bromobenzene	2500	2830		ug/Kg		113	70 - 122
Bromochloromethane	2500	2560		ug/Kg		103	65 - 122
Bromodichloromethane	2500	2860		ug/Kg		114	69 - 120
Bromoform	2500	3080		ug/Kg		123	56 - 132
Bromomethane	2500	2290		ug/Kg		91	40 - 130
Carbon tetrachloride	2500	2960		ug/Kg		118	65 - 122
Chlorobenzene	2500	2920		ug/Kg		117	70 - 120
Chloroethane	2500	2740		ug/Kg		110	45 - 127
Chloroform	2500	2710		ug/Kg		108	70 - 120
Chloromethane	2500	2560		ug/Kg		102	54 - 147
cis-1,2-Dichloroethene	2500	2610		ug/Kg		104	70 - 125
cis-1,3-Dichloropropene	2500	3060		ug/Kg		122	64 - 127
Dibromochloromethane	2500	3070		ug/Kg		123	68 - 125
Dibromomethane	2500	2690		ug/Kg		108	70 - 120
Dichlorodifluoromethane	2500	1600		ug/Kg		64	40 - 150
Ethylbenzene	2500	2900		ug/Kg		116	70 - 120
Hexachlorobutadiene	2500	3110		ug/Kg		124	51 - 150
Hexane	2500	3410		ug/Kg		136	65 - 142
Isopropylbenzene	2500	2920		ug/Kg		117	70 - 126
Methyl tert-butyl ether	2500	2990		ug/Kg		119	70 - 120
Methylene Chloride	2500	2670		ug/Kg		107	69 - 125
Naphthalene	2500	3130		ug/Kg		125	59 - 130
n-Butylbenzene	2500	2890		ug/Kg		116	68 - 125
N-Propylbenzene	2500	2860		ug/Kg		114	69 - 127
p-Isopropyltoluene	2500	2990		ug/Kg		119	70 - 125
sec-Butylbenzene	2500	2930		ug/Kg		117	70 - 123
Styrene	2500	2940		ug/Kg		118	70 - 120

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-420033/18-A
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420033

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
tert-Butylbenzene	2500	2910		ug/Kg		116	70 - 121
Tetrachloroethene	2500	2980		ug/Kg		119	70 - 128
Toluene	2500	2950		ug/Kg		118	70 - 125
trans-1,2-Dichloroethene	2500	2720		ug/Kg		109	70 - 125
trans-1,3-Dichloropropene	2500	3100		ug/Kg		124	62 - 128
Trichloroethene	2500	2860		ug/Kg		114	70 - 125
Trichlorofluoromethane	2500	2690		ug/Kg		108	70 - 126
Vinyl chloride	2500	2490		ug/Kg		99	64 - 126
Xylenes, Total	5000	5970		ug/Kg		119	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		75 - 126
4-Bromofluorobenzene (Surr)	97		72 - 124
Dibromofluoromethane	97		75 - 120
Toluene-d8 (Surr)	103		75 - 120

Lab Sample ID: 500-140832-15 MS
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: 111617015
Prep Type: Total/NA
Prep Batch: 420033

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	<34		3630	3850		ug/Kg	☼	106	70 - 125
1,1,1,2-Tetrachloroethane	<34		3630	3850		ug/Kg	☼	106	70 - 125
1,1,1-Trichloroethane	<28		3630	3740		ug/Kg	☼	103	70 - 125
1,1,1-Trichloroethane	<28		3630	3740		ug/Kg	☼	103	70 - 125
1,1,2,2-Tetrachloroethane	<29		3630	3940		ug/Kg	☼	108	67 - 127
1,1,2,2-Tetrachloroethane	<29		3630	3940		ug/Kg	☼	108	67 - 127
1,1,2-Trichloroethane	<26		3630	3970		ug/Kg	☼	109	70 - 122
1,1,2-Trichloroethane	<26		3630	3970		ug/Kg	☼	109	70 - 122
1,1-Dichloroethane	<30		3630	4050		ug/Kg	☼	112	70 - 125
1,1-Dichloroethane	<30		3630	4050		ug/Kg	☼	112	70 - 125
1,1-Dichloroethene	<28		3630	3610		ug/Kg	☼	99	67 - 122
1,1-Dichloroethene	<28		3630	3610		ug/Kg	☼	99	67 - 122
1,1-Dichloropropene	<22		3630	3720		ug/Kg	☼	103	70 - 121
1,1-Dichloropropene	<22		3630	3720		ug/Kg	☼	103	70 - 121
1,2,3-Trichlorobenzene	<33		3630	4590		ug/Kg	☼	127	55 - 140
1,2,3-Trichlorobenzene	<33		3630	4590		ug/Kg	☼	127	55 - 140
1,2,3-Trichloropropane	<30		3630	3960		ug/Kg	☼	109	50 - 133
1,2,3-Trichloropropane	<30		3630	3960		ug/Kg	☼	109	50 - 133
1,2,4-Trichlorobenzene	<25		3630	4210		ug/Kg	☼	116	66 - 127
1,2,4-Trichlorobenzene	<25		3630	4210		ug/Kg	☼	116	66 - 127
1,2,4-Trimethylbenzene	<26		3630	3940		ug/Kg	☼	109	70 - 123
1,2,4-Trimethylbenzene	<26		3630	3940		ug/Kg	☼	109	70 - 123
1,2-Dibromo-3-Chloropropane	<140		3630	4150		ug/Kg	☼	114	56 - 123
1,2-Dibromo-3-Chloropropane	<140		3630	4150		ug/Kg	☼	114	56 - 123
1,2-Dibromoethane	<28		3630	3770		ug/Kg	☼	104	70 - 125
1,2-Dibromoethane	<28		3630	3770		ug/Kg	☼	104	70 - 125
1,2-Dichlorobenzene	<24		3630	3980		ug/Kg	☼	110	70 - 125

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-140832-15 MS

Matrix: Solid

Analysis Batch: 421029

Client Sample ID: 111617015

Prep Type: Total/NA

Prep Batch: 420033

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,2-Dichlorobenzene	<24		3630	3980		ug/Kg	☼	110	70 - 125
1,2-Dichloroethane	<28		3630	4440		ug/Kg	☼	122	68 - 127
1,2-Dichloroethane	<28		3630	4440		ug/Kg	☼	122	68 - 127
1,2-Dichloropropane	<31		3630	4140		ug/Kg	☼	114	67 - 130
1,2-Dichloropropane	<31		3630	4140		ug/Kg	☼	114	67 - 130
1,3,5-Trimethylbenzene	<28		3630	3930		ug/Kg	☼	108	70 - 123
1,3,5-Trimethylbenzene	<28		3630	3930		ug/Kg	☼	108	70 - 123
1,3-Dichlorobenzene	<29		3630	3870		ug/Kg	☼	107	70 - 125
1,3-Dichlorobenzene	<29		3630	3870		ug/Kg	☼	107	70 - 125
1,3-Dichloropropane	<26		3630	4000		ug/Kg	☼	110	62 - 136
1,3-Dichloropropane	<26		3630	4000		ug/Kg	☼	110	62 - 136
1,4-Dichlorobenzene	<26		3630	3820		ug/Kg	☼	105	70 - 120
1,4-Dichlorobenzene	<26		3630	3820		ug/Kg	☼	105	70 - 120
2,2-Dichloropropane	<32		3630	3650		ug/Kg	☼	101	58 - 129
2,2-Dichloropropane	<32		3630	3650		ug/Kg	☼	101	58 - 129
2-Butanone (MEK)	<150		3630	4210		ug/Kg	☼	116	53 - 141
2-Butanone (MEK)	<150		3630	4210		ug/Kg	☼	116	53 - 141
2-Chlorotoluene	<23		3630	3810		ug/Kg	☼	105	70 - 125
2-Chlorotoluene	<23		3630	3810		ug/Kg	☼	105	70 - 125
4-Chlorotoluene	<25		3630	3890		ug/Kg	☼	107	68 - 124
4-Chlorotoluene	<25		3630	3890		ug/Kg	☼	107	68 - 124
Benzene	58		3630	3690		ug/Kg	☼	100	70 - 120
Benzene	58		3630	3690		ug/Kg	☼	100	70 - 120
Bromobenzene	<26		3630	3860		ug/Kg	☼	106	70 - 122
Bromobenzene	<26		3630	3860		ug/Kg	☼	106	70 - 122
Bromochloromethane	<31		3630	3500		ug/Kg	☼	96	65 - 122
Bromochloromethane	<31		3630	3500		ug/Kg	☼	96	65 - 122
Bromodichloromethane	<27		3630	3860		ug/Kg	☼	106	69 - 120
Bromodichloromethane	<27		3630	3860		ug/Kg	☼	106	69 - 120
Bromoform	<35		3630	4050		ug/Kg	☼	111	56 - 132
Bromoform	<35		3630	4050		ug/Kg	☼	111	56 - 132
Bromomethane	<58		3630	3220		ug/Kg	☼	89	40 - 130
Bromomethane	<58		3630	3220		ug/Kg	☼	89	40 - 130
Carbon tetrachloride	<28		3630	3820		ug/Kg	☼	105	65 - 122
Carbon tetrachloride	<28		3630	3820		ug/Kg	☼	105	65 - 122
Chlorobenzene	<28		3630	3770		ug/Kg	☼	104	70 - 120
Chlorobenzene	<28		3630	3770		ug/Kg	☼	104	70 - 120
Chloroethane	<37		3630	3780		ug/Kg	☼	104	45 - 127
Chloroethane	<37		3630	3780		ug/Kg	☼	104	45 - 127
Chloroform	<27		3630	3590		ug/Kg	☼	99	70 - 120
Chloroform	<27		3630	3590		ug/Kg	☼	99	70 - 120
Chloromethane	<23		3630	4570		ug/Kg	☼	126	54 - 147
Chloromethane	<23		3630	4570		ug/Kg	☼	126	54 - 147
cis-1,2-Dichloroethene	<30		3630	3470		ug/Kg	☼	96	70 - 125
cis-1,2-Dichloroethene	<30		3630	3470		ug/Kg	☼	96	70 - 125
cis-1,3-Dichloropropene	<30		3630	4030		ug/Kg	☼	111	64 - 127
cis-1,3-Dichloropropene	<30		3630	4030		ug/Kg	☼	111	64 - 127
Dibromochloromethane	<35		3630	4050		ug/Kg	☼	112	68 - 125

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-140832-15 MS

Matrix: Solid

Analysis Batch: 421029

Client Sample ID: 111617015

Prep Type: Total/NA

Prep Batch: 420033

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec. Limits
	Result			Result					
Dibromochloromethane	<35		3630	4050		ug/Kg	☼	112	68 - 125
Dibromomethane	<20		3630	3620		ug/Kg	☼	100	70 - 120
Dibromomethane	<20		3630	3620		ug/Kg	☼	100	70 - 120
Dichlorodifluoromethane	<49		3630	4650		ug/Kg	☼	128	40 - 150
Dichlorodifluoromethane	<49		3630	4650		ug/Kg	☼	128	40 - 150
Ethylbenzene	65		3630	3740		ug/Kg	☼	101	70 - 120
Ethylbenzene	65		3630	3740		ug/Kg	☼	101	70 - 120
Hexachlorobutadiene	<32		3630	4120		ug/Kg	☼	114	51 - 150
Hexachlorobutadiene	<32		3630	4120		ug/Kg	☼	114	51 - 150
Hexane	<36		3630	4610		ug/Kg	☼	127	65 - 142
Hexane	<36		3630	4610		ug/Kg	☼	127	65 - 142
Isopropylbenzene	<28		3630	3870		ug/Kg	☼	107	70 - 126
Isopropylbenzene	<28		3630	3870		ug/Kg	☼	107	70 - 126
Methyl tert-butyl ether	<29		3630	3970		ug/Kg	☼	109	70 - 120
Methyl tert-butyl ether	<29		3630	3970		ug/Kg	☼	109	70 - 120
Methylene Chloride	<120		3630	3670		ug/Kg	☼	101	69 - 125
Methylene Chloride	<120		3630	3670		ug/Kg	☼	101	69 - 125
Naphthalene	470		3630	4780		ug/Kg	☼	119	59 - 130
Naphthalene	470		3630	4780		ug/Kg	☼	119	59 - 130
n-Butylbenzene	<28		3630	3750		ug/Kg	☼	103	68 - 125
n-Butylbenzene	<28		3630	3750		ug/Kg	☼	103	68 - 125
N-Propylbenzene	<30		3630	3790		ug/Kg	☼	104	69 - 127
N-Propylbenzene	<30		3630	3790		ug/Kg	☼	104	69 - 127
p-Isopropyltoluene	<26		3630	3920		ug/Kg	☼	108	70 - 125
p-Isopropyltoluene	<26		3630	3920		ug/Kg	☼	108	70 - 125
sec-Butylbenzene	<29		3630	3860		ug/Kg	☼	106	70 - 123
sec-Butylbenzene	<29		3630	3860		ug/Kg	☼	106	70 - 123
Styrene	<28		3630	3810		ug/Kg	☼	105	70 - 120
Styrene	<28		3630	3810		ug/Kg	☼	105	70 - 120
tert-Butylbenzene	<29		3630	3820		ug/Kg	☼	105	70 - 121
tert-Butylbenzene	<29		3630	3820		ug/Kg	☼	105	70 - 121
Tetrachloroethene	<27		3630	3770		ug/Kg	☼	104	70 - 128
Tetrachloroethene	<27		3630	3770		ug/Kg	☼	104	70 - 128
Toluene	120		3630	3970		ug/Kg	☼	106	70 - 125
Toluene	120		3630	3970		ug/Kg	☼	106	70 - 125
trans-1,2-Dichloroethene	<25		3630	3550		ug/Kg	☼	98	70 - 125
trans-1,2-Dichloroethene	<25		3630	3550		ug/Kg	☼	98	70 - 125
trans-1,3-Dichloropropene	<26		3630	4090		ug/Kg	☼	113	62 - 128
trans-1,3-Dichloropropene	<26		3630	4090		ug/Kg	☼	113	62 - 128
Trichloroethene	<12		3630	3750		ug/Kg	☼	103	70 - 125
Trichloroethene	<12		3630	3750		ug/Kg	☼	103	70 - 125
Trichlorofluoromethane	<31	F2 F1	3630	3570		ug/Kg	☼	98	70 - 126
Trichlorofluoromethane	<31	F2 F1	3630	3570		ug/Kg	☼	98	70 - 126
Vinyl chloride	<19		3630	3970		ug/Kg	☼	109	64 - 126
Vinyl chloride	<19		3630	3970		ug/Kg	☼	109	64 - 126
Xylenes, Total	130		7260	7830		ug/Kg	☼	106	70 - 125
Xylenes, Total	130		7260	7830		ug/Kg	☼	106	70 - 125

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-140832-15 MS
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: 111617015
Prep Type: Total/NA
Prep Batch: 420033

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		75 - 126
1,2-Dichloroethane-d4 (Surr)	110		75 - 126
4-Bromofluorobenzene (Surr)	99		72 - 124
4-Bromofluorobenzene (Surr)	99		72 - 124
Dibromofluoromethane	100		75 - 120
Dibromofluoromethane	100		75 - 120
Toluene-d8 (Surr)	102		75 - 120
Toluene-d8 (Surr)	102		75 - 120

Lab Sample ID: 500-140832-15 MSD
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: 111617015
Prep Type: Total/NA
Prep Batch: 420033

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<34		3630	3830		ug/Kg	☼	106	70 - 125	0	30
1,1,1-Trichloroethane	<28		3630	3560		ug/Kg	☼	98	70 - 125	5	30
1,1,1,2,2-Tetrachloroethane	<29		3630	3810		ug/Kg	☼	105	67 - 127	3	30
1,1,2-Trichloroethane	<26		3630	3840		ug/Kg	☼	106	70 - 122	3	30
1,1-Dichloroethane	<30		3630	3940		ug/Kg	☼	108	70 - 125	3	30
1,1-Dichloroethene	<28		3630	3470		ug/Kg	☼	95	67 - 122	4	30
1,1-Dichloropropene	<22		3630	3610		ug/Kg	☼	99	70 - 121	3	30
1,2,3-Trichlorobenzene	<33		3630	4380		ug/Kg	☼	121	55 - 140	5	30
1,2,3-Trichloropropane	<30		3630	3860		ug/Kg	☼	106	50 - 133	3	30
1,2,4-Trichlorobenzene	<25		3630	3970		ug/Kg	☼	109	66 - 127	6	30
1,2,4-Trimethylbenzene	<26		3630	3790		ug/Kg	☼	104	70 - 123	4	30
1,2-Dibromo-3-Chloropropane	<140		3630	4260		ug/Kg	☼	117	56 - 123	3	30
1,2-Dibromoethane	<28		3630	3750		ug/Kg	☼	103	70 - 125	0	30
1,2-Dichlorobenzene	<24		3630	3790		ug/Kg	☼	104	70 - 125	5	30
1,2-Dichloroethane	<28		3630	4200		ug/Kg	☼	116	68 - 127	6	30
1,2-Dichloropropane	<31		3630	4010		ug/Kg	☼	110	67 - 130	3	30
1,3,5-Trimethylbenzene	<28		3630	3790		ug/Kg	☼	105	70 - 123	4	30
1,3-Dichlorobenzene	<29		3630	3680		ug/Kg	☼	101	70 - 125	5	30
1,3-Dichloropropane	<26		3630	3890		ug/Kg	☼	107	62 - 136	3	30
1,4-Dichlorobenzene	<26		3630	3640		ug/Kg	☼	100	70 - 120	5	30
2,2-Dichloropropane	<32		3630	3490		ug/Kg	☼	96	58 - 129	5	30
2-Butanone (MEK)	<150		3630	4260		ug/Kg	☼	117	53 - 141	1	30
2-Chlorotoluene	<23		3630	3680		ug/Kg	☼	101	70 - 125	3	30
4-Chlorotoluene	<25		3630	3750		ug/Kg	☼	103	68 - 124	4	30
Benzene	58		3630	3540		ug/Kg	☼	96	70 - 120	4	30
Bromobenzene	<26		3630	3710		ug/Kg	☼	102	70 - 122	4	30
Bromochloromethane	<31		3630	3420		ug/Kg	☼	94	65 - 122	2	30
Bromodichloromethane	<27		3630	3700		ug/Kg	☼	102	69 - 120	4	30
Bromoform	<35		3630	3940		ug/Kg	☼	109	56 - 132	3	30
Bromomethane	<58		3630	3480		ug/Kg	☼	96	40 - 130	8	30
Carbon tetrachloride	<28		3630	3670		ug/Kg	☼	101	65 - 122	4	30
Chlorobenzene	<28		3630	3700		ug/Kg	☼	102	70 - 120	2	30
Chloroethane	<37		3630	4120		ug/Kg	☼	113	45 - 127	8	30
Chloroform	<27		3630	3520		ug/Kg	☼	97	70 - 120	2	30

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-140832-15 MSD

Matrix: Solid

Analysis Batch: 421029

Client Sample ID: 111617015

Prep Type: Total/NA

Prep Batch: 420033

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloromethane	<23		3630	4900		ug/Kg	☼	135	54 - 147	7	30
cis-1,2-Dichloroethene	<30		3630	3410		ug/Kg	☼	94	70 - 125	2	30
cis-1,3-Dichloropropene	<30		3630	3950		ug/Kg	☼	109	64 - 127	2	30
Dibromochloromethane	<35		3630	4020		ug/Kg	☼	111	68 - 125	1	30
Dibromomethane	<20		3630	3490		ug/Kg	☼	96	70 - 120	4	30
Dichlorodifluoromethane	<49		3630	4810		ug/Kg	☼	133	40 - 150	3	30
Ethylbenzene	65		3630	3690		ug/Kg	☼	100	70 - 120	1	30
Hexachlorobutadiene	<32		3630	3880		ug/Kg	☼	107	51 - 150	6	30
Hexane	<36		3630	4410		ug/Kg	☼	121	65 - 142	5	30
Isopropylbenzene	<28		3630	3750		ug/Kg	☼	103	70 - 126	3	30
Methyl tert-butyl ether	<29		3630	3860		ug/Kg	☼	106	70 - 120	3	30
Methylene Chloride	<120		3630	3500		ug/Kg	☼	96	69 - 125	5	30
Naphthalene	470		3630	4500		ug/Kg	☼	111	59 - 130	6	30
n-Butylbenzene	<28		3630	3590		ug/Kg	☼	99	68 - 125	4	30
N-Propylbenzene	<30		3630	3640		ug/Kg	☼	100	69 - 127	4	30
p-Isopropyltoluene	<26		3630	3710		ug/Kg	☼	102	70 - 125	5	30
sec-Butylbenzene	<29		3630	3700		ug/Kg	☼	102	70 - 123	4	30
Styrene	<28		3630	3740		ug/Kg	☼	103	70 - 120	2	30
tert-Butylbenzene	<29		3630	3710		ug/Kg	☼	102	70 - 121	3	30
Tetrachloroethene	<27		3630	3700		ug/Kg	☼	102	70 - 128	2	30
Toluene	120		3630	3840		ug/Kg	☼	102	70 - 125	3	30
trans-1,2-Dichloroethene	<25		3630	3460		ug/Kg	☼	95	70 - 125	3	30
trans-1,3-Dichloropropene	<26		3630	3960		ug/Kg	☼	109	62 - 128	3	30
Trichloroethene	<12		3630	3530		ug/Kg	☼	97	70 - 125	6	30
Trichlorofluoromethane	<31	F2 F1	3630	3740		ug/Kg	☼	103	70 - 126	5	30
Vinyl chloride	<19		3630	4210		ug/Kg	☼	116	64 - 126	6	30
Xylenes, Total	130		7260	7670		ug/Kg	☼	104	70 - 125	2	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	110		75 - 126
4-Bromofluorobenzene (Surr)	99		72 - 124
Dibromofluoromethane	98		75 - 120
Toluene-d8 (Surr)	103		75 - 120

Lab Sample ID: MB 500-420368/6

Matrix: Solid

Analysis Batch: 420368

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			02/16/18 10:20	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			02/16/18 10:20	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			02/16/18 10:20	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			02/16/18 10:20	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			02/16/18 10:20	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			02/16/18 10:20	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			02/16/18 10:20	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			02/16/18 10:20	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			02/16/18 10:20	1

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-420368/6
Matrix: Solid
Analysis Batch: 420368

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			02/16/18 10:20	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			02/16/18 10:20	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			02/16/18 10:20	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			02/16/18 10:20	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			02/16/18 10:20	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			02/16/18 10:20	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			02/16/18 10:20	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			02/16/18 10:20	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			02/16/18 10:20	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			02/16/18 10:20	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			02/16/18 10:20	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			02/16/18 10:20	1
2-Butanone (MEK)	<2.1		5.0	2.1	ug/Kg			02/16/18 10:20	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			02/16/18 10:20	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			02/16/18 10:20	1
Benzene	<0.15		0.25	0.15	ug/Kg			02/16/18 10:20	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			02/16/18 10:20	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			02/16/18 10:20	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			02/16/18 10:20	1
Bromoform	<0.48		1.0	0.48	ug/Kg			02/16/18 10:20	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			02/16/18 10:20	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			02/16/18 10:20	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			02/16/18 10:20	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			02/16/18 10:20	1
Chloroform	<0.37		2.0	0.37	ug/Kg			02/16/18 10:20	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			02/16/18 10:20	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			02/16/18 10:20	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			02/16/18 10:20	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			02/16/18 10:20	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			02/16/18 10:20	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			02/16/18 10:20	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			02/16/18 10:20	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			02/16/18 10:20	1
Hexane	<0.49		1.0	0.49	ug/Kg			02/16/18 10:20	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			02/16/18 10:20	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			02/16/18 10:20	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			02/16/18 10:20	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			02/16/18 10:20	1
Naphthalene	0.519	J	1.0	0.33	ug/Kg			02/16/18 10:20	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			02/16/18 10:20	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			02/16/18 10:20	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			02/16/18 10:20	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/16/18 10:20	1
Styrene	<0.39		1.0	0.39	ug/Kg			02/16/18 10:20	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/16/18 10:20	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			02/16/18 10:20	1
Toluene	<0.15		0.25	0.15	ug/Kg			02/16/18 10:20	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			02/16/18 10:20	1

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-420368/6
Matrix: Solid
Analysis Batch: 420368

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			02/16/18 10:20	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			02/16/18 10:20	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			02/16/18 10:20	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			02/16/18 10:20	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			02/16/18 10:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		75 - 126		02/16/18 10:20	1
4-Bromofluorobenzene (Surr)	91		72 - 124		02/16/18 10:20	1
Dibromofluoromethane	89		75 - 120		02/16/18 10:20	1
Toluene-d8 (Surr)	98		75 - 120		02/16/18 10:20	1

Lab Sample ID: LCS 500-420368/5
Matrix: Solid
Analysis Batch: 420368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	47.0		ug/Kg		94	70 - 125
1,1,1-Trichloroethane	50.0	47.8		ug/Kg		96	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	45.1		ug/Kg		90	67 - 127
1,1,1,2-Trichloroethane	50.0	48.6		ug/Kg		97	70 - 122
1,1-Dichloroethane	50.0	47.1		ug/Kg		94	70 - 125
1,1-Dichloroethene	50.0	47.6		ug/Kg		95	67 - 122
1,1-Dichloropropene	50.0	49.9		ug/Kg		100	70 - 121
1,2,3-Trichlorobenzene	50.0	45.8		ug/Kg		92	55 - 140
1,2,3-Trichloropropane	50.0	43.5		ug/Kg		87	50 - 133
1,2,4-Trichlorobenzene	50.0	47.8		ug/Kg		96	66 - 127
1,2,4-Trimethylbenzene	50.0	47.6		ug/Kg		95	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	40.4		ug/Kg		81	56 - 123
1,2-Dibromoethane	50.0	48.3		ug/Kg		97	70 - 125
1,2-Dichlorobenzene	50.0	46.7		ug/Kg		93	70 - 125
1,2-Dichloroethane	50.0	44.5		ug/Kg		89	68 - 127
1,2-Dichloropropane	50.0	46.2		ug/Kg		92	67 - 130
1,3,5-Trimethylbenzene	50.0	48.3		ug/Kg		97	70 - 123
1,3-Dichlorobenzene	50.0	47.1		ug/Kg		94	70 - 125
1,3-Dichloropropane	50.0	49.8		ug/Kg		100	62 - 136
1,4-Dichlorobenzene	50.0	47.2		ug/Kg		94	70 - 120
2,2-Dichloropropane	50.0	53.0		ug/Kg		106	58 - 129
2-Butanone (MEK)	50.0	42.3		ug/Kg		85	53 - 141
2-Chlorotoluene	50.0	46.3		ug/Kg		93	70 - 125
4-Chlorotoluene	50.0	47.5		ug/Kg		95	68 - 124
Benzene	50.0	48.6		ug/Kg		97	70 - 120
Bromobenzene	50.0	46.1		ug/Kg		92	70 - 122
Bromochloromethane	50.0	45.4		ug/Kg		91	65 - 122
Bromodichloromethane	50.0	44.9		ug/Kg		90	69 - 120
Bromoform	50.0	45.2		ug/Kg		90	56 - 132
Bromomethane	50.0	64.6		ug/Kg		129	40 - 130
Carbon tetrachloride	50.0	50.4		ug/Kg		101	65 - 122

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-420368/5
Matrix: Solid
Analysis Batch: 420368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	50.0	47.8		ug/Kg		96	70 - 120
Chloroethane	50.0	52.0		ug/Kg		104	45 - 127
Chloroform	50.0	47.3		ug/Kg		95	70 - 120
Chloromethane	50.0	45.9		ug/Kg		92	54 - 147
cis-1,2-Dichloroethene	50.0	47.1		ug/Kg		94	70 - 125
cis-1,3-Dichloropropene	50.0	49.2		ug/Kg		98	64 - 127
Dibromochloromethane	50.0	47.5		ug/Kg		95	68 - 125
Dibromomethane	50.0	44.4		ug/Kg		89	70 - 120
Dichlorodifluoromethane	50.0	47.2		ug/Kg		94	40 - 150
Ethylbenzene	50.0	50.6		ug/Kg		101	70 - 120
Hexachlorobutadiene	50.0	46.5		ug/Kg		93	51 - 150
Hexane	50.0	51.4		ug/Kg		103	65 - 142
Isopropylbenzene	50.0	48.9		ug/Kg		98	70 - 126
Methyl tert-butyl ether	50.0	47.0		ug/Kg		94	70 - 120
Methylene Chloride	50.0	46.1		ug/Kg		92	69 - 125
Naphthalene	50.0	45.5		ug/Kg		91	59 - 130
n-Butylbenzene	50.0	50.3		ug/Kg		101	68 - 125
N-Propylbenzene	50.0	49.0		ug/Kg		98	69 - 127
p-Isopropyltoluene	50.0	49.9		ug/Kg		100	70 - 125
sec-Butylbenzene	50.0	49.5		ug/Kg		99	70 - 123
Styrene	50.0	47.9		ug/Kg		96	70 - 120
tert-Butylbenzene	50.0	49.4		ug/Kg		99	70 - 121
Tetrachloroethene	50.0	52.3		ug/Kg		105	70 - 128
Toluene	50.0	50.2		ug/Kg		100	70 - 125
trans-1,2-Dichloroethene	50.0	48.0		ug/Kg		96	70 - 125
trans-1,3-Dichloropropene	50.0	47.4		ug/Kg		95	62 - 128
Trichloroethene	50.0	48.6		ug/Kg		97	70 - 125
Trichlorofluoromethane	50.0	45.5		ug/Kg		91	70 - 126
Vinyl chloride	50.0	47.4		ug/Kg		95	64 - 126
Xylenes, Total	100	100		ug/Kg		100	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		75 - 126
4-Bromofluorobenzene (Surr)	87		72 - 124
Dibromofluoromethane	90		75 - 120
Toluene-d8 (Surr)	101		75 - 120

Lab Sample ID: MB 500-421025/5
Matrix: Solid
Analysis Batch: 421025

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			02/22/18 08:51	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			02/22/18 08:51	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			02/22/18 08:51	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			02/22/18 08:51	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			02/22/18 08:51	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			02/22/18 08:51	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-421025/5

Matrix: Solid

Analysis Batch: 421025

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			02/22/18 08:51	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			02/22/18 08:51	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			02/22/18 08:51	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			02/22/18 08:51	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 08:51	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			02/22/18 08:51	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			02/22/18 08:51	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			02/22/18 08:51	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			02/22/18 08:51	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			02/22/18 08:51	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			02/22/18 08:51	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 08:51	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			02/22/18 08:51	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 08:51	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			02/22/18 08:51	1
2-Butanone (MEK)	<2.1		5.0	2.1	ug/Kg			02/22/18 08:51	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			02/22/18 08:51	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			02/22/18 08:51	1
Benzene	<0.15		0.25	0.15	ug/Kg			02/22/18 08:51	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 08:51	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			02/22/18 08:51	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			02/22/18 08:51	1
Bromoform	<0.48		1.0	0.48	ug/Kg			02/22/18 08:51	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			02/22/18 08:51	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			02/22/18 08:51	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			02/22/18 08:51	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			02/22/18 08:51	1
Chloroform	<0.37		2.0	0.37	ug/Kg			02/22/18 08:51	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			02/22/18 08:51	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			02/22/18 08:51	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			02/22/18 08:51	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			02/22/18 08:51	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			02/22/18 08:51	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			02/22/18 08:51	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			02/22/18 08:51	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			02/22/18 08:51	1
Hexane	<0.49		1.0	0.49	ug/Kg			02/22/18 08:51	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			02/22/18 08:51	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			02/22/18 08:51	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			02/22/18 08:51	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			02/22/18 08:51	1
Naphthalene	0.504	J	1.0	0.33	ug/Kg			02/22/18 08:51	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			02/22/18 08:51	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			02/22/18 08:51	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			02/22/18 08:51	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 08:51	1
Styrene	<0.39		1.0	0.39	ug/Kg			02/22/18 08:51	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 08:51	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-421025/5
Matrix: Solid
Analysis Batch: 421025

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			02/22/18 08:51	1
Toluene	<0.15		0.25	0.15	ug/Kg			02/22/18 08:51	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			02/22/18 08:51	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			02/22/18 08:51	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			02/22/18 08:51	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			02/22/18 08:51	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			02/22/18 08:51	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			02/22/18 08:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126		02/22/18 08:51	1
4-Bromofluorobenzene (Surr)	100		72 - 124		02/22/18 08:51	1
Dibromofluoromethane	87		75 - 120		02/22/18 08:51	1
Toluene-d8 (Surr)	102		75 - 120		02/22/18 08:51	1

Lab Sample ID: LCS 500-421025/4
Matrix: Solid
Analysis Batch: 421025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	55.9		ug/Kg		112	70 - 125
1,1,1-Trichloroethane	50.0	54.7		ug/Kg		109	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	52.9		ug/Kg		106	67 - 127
1,1,1,2-Trichloroethane	50.0	55.8		ug/Kg		112	70 - 122
1,1-Dichloroethane	50.0	54.3		ug/Kg		109	70 - 125
1,1-Dichloroethene	50.0	52.2		ug/Kg		104	67 - 122
1,1-Dichloropropene	50.0	58.9		ug/Kg		118	70 - 121
1,2,3-Trichlorobenzene	50.0	53.5		ug/Kg		107	55 - 140
1,2,3-Trichloropropane	50.0	53.4		ug/Kg		107	50 - 133
1,2,4-Trichlorobenzene	50.0	54.7		ug/Kg		109	66 - 127
1,2,4-Trimethylbenzene	50.0	56.4		ug/Kg		113	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	48.6		ug/Kg		97	56 - 123
1,2-Dibromoethane	50.0	55.0		ug/Kg		110	70 - 125
1,2-Dichlorobenzene	50.0	52.4		ug/Kg		105	70 - 125
1,2-Dichloroethane	50.0	52.2		ug/Kg		104	68 - 127
1,2-Dichloropropane	50.0	54.4		ug/Kg		109	67 - 130
1,3,5-Trimethylbenzene	50.0	57.5		ug/Kg		115	70 - 123
1,3-Dichlorobenzene	50.0	54.2		ug/Kg		108	70 - 125
1,3-Dichloropropane	50.0	59.9		ug/Kg		120	62 - 136
1,4-Dichlorobenzene	50.0	53.3		ug/Kg		107	70 - 120
2,2-Dichloropropane	50.0	62.8		ug/Kg		126	58 - 129
2-Butanone (MEK)	50.0	49.7		ug/Kg		99	53 - 141
2-Chlorotoluene	50.0	56.9		ug/Kg		114	70 - 125
4-Chlorotoluene	50.0	57.4		ug/Kg		115	68 - 124
Benzene	50.0	55.5		ug/Kg		111	70 - 120
Bromobenzene	50.0	55.1		ug/Kg		110	70 - 122
Bromochloromethane	50.0	45.6		ug/Kg		91	65 - 122
Bromodichloromethane	50.0	52.9		ug/Kg		106	69 - 120

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-421025/4
Matrix: Solid
Analysis Batch: 421025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	50.0	50.0		ug/Kg		100	56 - 132
Bromomethane	50.0	54.5		ug/Kg		109	40 - 130
Carbon tetrachloride	50.0	56.1		ug/Kg		112	65 - 122
Chlorobenzene	50.0	54.4		ug/Kg		109	70 - 120
Chloroethane	50.0	53.3		ug/Kg		107	45 - 127
Chloroform	50.0	53.5		ug/Kg		107	70 - 120
Chloromethane	50.0	47.1		ug/Kg		94	54 - 147
cis-1,2-Dichloroethene	50.0	51.1		ug/Kg		102	70 - 125
cis-1,3-Dichloropropene	50.0	60.7		ug/Kg		121	64 - 127
Dibromochloromethane	50.0	52.4		ug/Kg		105	68 - 125
Dibromomethane	50.0	48.9		ug/Kg		98	70 - 120
Dichlorodifluoromethane	50.0	42.9		ug/Kg		86	40 - 150
Ethylbenzene	50.0	58.3		ug/Kg		117	70 - 120
Hexachlorobutadiene	50.0	55.1		ug/Kg		110	51 - 150
Hexane	50.0	62.2		ug/Kg		124	65 - 142
Isopropylbenzene	50.0	59.0		ug/Kg		118	70 - 126
Methyl tert-butyl ether	50.0	52.2		ug/Kg		104	70 - 120
Methylene Chloride	50.0	50.4		ug/Kg		101	69 - 125
Naphthalene	50.0	49.5		ug/Kg		99	59 - 130
n-Butylbenzene	50.0	59.7		ug/Kg		119	68 - 125
N-Propylbenzene	50.0	59.4		ug/Kg		119	69 - 127
p-Isopropyltoluene	50.0	57.2		ug/Kg		114	70 - 125
sec-Butylbenzene	50.0	58.2		ug/Kg		116	70 - 123
Styrene	50.0	55.0		ug/Kg		110	70 - 120
tert-Butylbenzene	50.0	58.3		ug/Kg		117	70 - 121
Tetrachloroethene	50.0	59.0		ug/Kg		118	70 - 128
Toluene	50.0	59.6		ug/Kg		119	70 - 125
trans-1,2-Dichloroethene	50.0	51.7		ug/Kg		103	70 - 125
trans-1,3-Dichloropropene	50.0	58.1		ug/Kg		116	62 - 128
Trichloroethene	50.0	52.0		ug/Kg		104	70 - 125
Trichlorofluoromethane	50.0	50.9		ug/Kg		102	70 - 126
Vinyl chloride	50.0	45.7		ug/Kg		91	64 - 126
Xylenes, Total	100	119		ug/Kg		119	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		75 - 126
4-Bromofluorobenzene (Surr)	94		72 - 124
Dibromofluoromethane	87		75 - 120
Toluene-d8 (Surr)	105		75 - 120

Lab Sample ID: MB 500-421029/6
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			02/22/18 09:28	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			02/22/18 09:28	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			02/22/18 09:28	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-421029/6
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			02/22/18 09:28	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			02/22/18 09:28	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			02/22/18 09:28	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			02/22/18 09:28	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			02/22/18 09:28	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			02/22/18 09:28	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			02/22/18 09:28	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:28	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			02/22/18 09:28	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			02/22/18 09:28	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			02/22/18 09:28	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			02/22/18 09:28	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			02/22/18 09:28	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			02/22/18 09:28	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 09:28	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			02/22/18 09:28	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:28	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			02/22/18 09:28	1
2-Butanone (MEK)	<2.1		5.0	2.1	ug/Kg			02/22/18 09:28	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			02/22/18 09:28	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			02/22/18 09:28	1
Benzene	<0.15		0.25	0.15	ug/Kg			02/22/18 09:28	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:28	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			02/22/18 09:28	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			02/22/18 09:28	1
Bromoform	<0.48		1.0	0.48	ug/Kg			02/22/18 09:28	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			02/22/18 09:28	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			02/22/18 09:28	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			02/22/18 09:28	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			02/22/18 09:28	1
Chloroform	<0.37		2.0	0.37	ug/Kg			02/22/18 09:28	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			02/22/18 09:28	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			02/22/18 09:28	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			02/22/18 09:28	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			02/22/18 09:28	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			02/22/18 09:28	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			02/22/18 09:28	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			02/22/18 09:28	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			02/22/18 09:28	1
Hexane	<0.49		1.0	0.49	ug/Kg			02/22/18 09:28	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			02/22/18 09:28	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			02/22/18 09:28	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			02/22/18 09:28	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			02/22/18 09:28	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			02/22/18 09:28	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			02/22/18 09:28	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			02/22/18 09:28	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:28	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-421029/6
Matrix: Solid
Analysis Batch: 421029

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 09:28	1
Styrene	<0.39		1.0	0.39	ug/Kg			02/22/18 09:28	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 09:28	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			02/22/18 09:28	1
Toluene	<0.15		0.25	0.15	ug/Kg			02/22/18 09:28	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			02/22/18 09:28	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:28	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			02/22/18 09:28	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			02/22/18 09:28	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			02/22/18 09:28	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			02/22/18 09:28	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	113		75 - 126		02/22/18 09:28	1
4-Bromofluorobenzene (Surr)	103		72 - 124		02/22/18 09:28	1
Dibromofluoromethane	100		75 - 120		02/22/18 09:28	1
Toluene-d8 (Surr)	104		75 - 120		02/22/18 09:28	1

Lab Sample ID: MB 500-421034/6
Matrix: Solid
Analysis Batch: 421034

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			02/22/18 09:17	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			02/22/18 09:17	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			02/22/18 09:17	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			02/22/18 09:17	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			02/22/18 09:17	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			02/22/18 09:17	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			02/22/18 09:17	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			02/22/18 09:17	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			02/22/18 09:17	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			02/22/18 09:17	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:17	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			02/22/18 09:17	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			02/22/18 09:17	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			02/22/18 09:17	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			02/22/18 09:17	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			02/22/18 09:17	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			02/22/18 09:17	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 09:17	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			02/22/18 09:17	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:17	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			02/22/18 09:17	1
2-Butanone (MEK)	<2.1		5.0	2.1	ug/Kg			02/22/18 09:17	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			02/22/18 09:17	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			02/22/18 09:17	1
Benzene	<0.15		0.25	0.15	ug/Kg			02/22/18 09:17	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-421034/6
Matrix: Solid
Analysis Batch: 421034

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bromobenzene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:17	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			02/22/18 09:17	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			02/22/18 09:17	1
Bromoform	<0.48		1.0	0.48	ug/Kg			02/22/18 09:17	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			02/22/18 09:17	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			02/22/18 09:17	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			02/22/18 09:17	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			02/22/18 09:17	1
Chloroform	<0.37		2.0	0.37	ug/Kg			02/22/18 09:17	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			02/22/18 09:17	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			02/22/18 09:17	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			02/22/18 09:17	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			02/22/18 09:17	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			02/22/18 09:17	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			02/22/18 09:17	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			02/22/18 09:17	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			02/22/18 09:17	1
Hexane	<0.49		1.0	0.49	ug/Kg			02/22/18 09:17	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			02/22/18 09:17	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			02/22/18 09:17	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			02/22/18 09:17	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			02/22/18 09:17	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			02/22/18 09:17	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			02/22/18 09:17	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			02/22/18 09:17	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:17	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 09:17	1
Styrene	<0.39		1.0	0.39	ug/Kg			02/22/18 09:17	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/22/18 09:17	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			02/22/18 09:17	1
Toluene	<0.15		0.25	0.15	ug/Kg			02/22/18 09:17	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			02/22/18 09:17	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			02/22/18 09:17	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			02/22/18 09:17	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			02/22/18 09:17	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			02/22/18 09:17	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			02/22/18 09:17	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	99		75 - 126		02/22/18 09:17	1
4-Bromofluorobenzene (Surr)	96		72 - 124		02/22/18 09:17	1
Dibromofluoromethane	100		75 - 120		02/22/18 09:17	1
Toluene-d8 (Surr)	94		75 - 120		02/22/18 09:17	1

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-421034/24

Matrix: Solid

Analysis Batch: 421034

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	46.6		ug/Kg		93	70 - 125
1,1,1-Trichloroethane	50.0	44.5		ug/Kg		89	70 - 125
1,1,2,2-Tetrachloroethane	50.0	46.0		ug/Kg		92	67 - 127
1,1,2-Trichloroethane	50.0	47.3		ug/Kg		95	70 - 122
1,1-Dichloroethane	50.0	45.6		ug/Kg		91	70 - 125
1,1-Dichloroethene	50.0	50.0		ug/Kg		100	67 - 122
1,1-Dichloropropene	50.0	46.3		ug/Kg		93	70 - 121
1,2,3-Trichlorobenzene	50.0	46.8		ug/Kg		94	55 - 140
1,2,3-Trichloropropane	50.0	45.9		ug/Kg		92	50 - 133
1,2,4-Trichlorobenzene	50.0	47.0		ug/Kg		94	66 - 127
1,2,4-Trimethylbenzene	50.0	50.0		ug/Kg		100	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	43.4		ug/Kg		87	56 - 123
1,2-Dibromoethane	50.0	46.8		ug/Kg		94	70 - 125
1,2-Dichlorobenzene	50.0	47.2		ug/Kg		94	70 - 125
1,2-Dichloroethane	50.0	43.9		ug/Kg		88	68 - 127
1,2-Dichloropropane	50.0	46.1		ug/Kg		92	67 - 130
1,3,5-Trimethylbenzene	50.0	50.0		ug/Kg		100	70 - 123
1,3-Dichlorobenzene	50.0	47.8		ug/Kg		96	70 - 125
1,3-Dichloropropane	50.0	47.5		ug/Kg		95	62 - 136
1,4-Dichlorobenzene	50.0	47.1		ug/Kg		94	70 - 120
2,2-Dichloropropane	50.0	41.4		ug/Kg		83	58 - 129
2-Butanone (MEK)	50.0	43.9		ug/Kg		88	53 - 141
2-Chlorotoluene	50.0	48.6		ug/Kg		97	70 - 125
4-Chlorotoluene	50.0	48.8		ug/Kg		98	68 - 124
Benzene	50.0	46.5		ug/Kg		93	70 - 120
Bromobenzene	50.0	47.6		ug/Kg		95	70 - 122
Bromochloromethane	50.0	43.8		ug/Kg		88	65 - 122
Bromodichloromethane	50.0	44.4		ug/Kg		89	69 - 120
Bromoform	50.0	45.5		ug/Kg		91	56 - 132
Bromomethane	50.0	72.2	*	ug/Kg		144	40 - 130
Carbon tetrachloride	50.0	44.9		ug/Kg		90	65 - 122
Chlorobenzene	50.0	47.1		ug/Kg		94	70 - 120
Chloroethane	50.0	41.6		ug/Kg		83	45 - 127
Chloroform	50.0	44.2		ug/Kg		88	70 - 120
Chloromethane	50.0	59.0		ug/Kg		118	54 - 147
cis-1,2-Dichloroethene	50.0	46.4		ug/Kg		93	70 - 125
cis-1,3-Dichloropropane	50.0	47.9		ug/Kg		96	64 - 127
Dibromochloromethane	50.0	47.0		ug/Kg		94	68 - 125
Dibromomethane	50.0	44.0		ug/Kg		88	70 - 120
Dichlorodifluoromethane	50.0	55.4		ug/Kg		111	40 - 150
Ethylbenzene	50.0	49.6		ug/Kg		99	70 - 120
Hexachlorobutadiene	50.0	48.6		ug/Kg		97	51 - 150
Hexane	50.0	47.8		ug/Kg		96	65 - 142
Isopropylbenzene	50.0	49.8		ug/Kg		100	70 - 126
Methyl tert-butyl ether	50.0	44.5		ug/Kg		89	70 - 120
Methylene Chloride	50.0	46.6		ug/Kg		93	69 - 125
Naphthalene	50.0	67.1	*	ug/Kg		134	59 - 130
n-Butylbenzene	50.0	50.7		ug/Kg		101	68 - 125

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-421034/24
Matrix: Solid
Analysis Batch: 421034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	50.0	50.7		ug/Kg		101	69 - 127
p-Isopropyltoluene	50.0	50.1		ug/Kg		100	70 - 125
sec-Butylbenzene	50.0	50.6		ug/Kg		101	70 - 123
Styrene	50.0	49.8		ug/Kg		100	70 - 120
tert-Butylbenzene	50.0	49.8		ug/Kg		100	70 - 121
Tetrachloroethene	50.0	46.7		ug/Kg		93	70 - 128
Toluene	50.0	49.2		ug/Kg		98	70 - 125
trans-1,2-Dichloroethene	50.0	47.2		ug/Kg		94	70 - 125
trans-1,3-Dichloropropene	50.0	45.7		ug/Kg		91	62 - 128
Trichloroethene	50.0	45.3		ug/Kg		91	70 - 125
Trichlorofluoromethane	50.0	44.5		ug/Kg		89	70 - 126
Vinyl chloride	50.0	50.0		ug/Kg		100	64 - 126
Xylenes, Total	100	102		ug/Kg		102	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		75 - 126
4-Bromofluorobenzene (Surr)	93		72 - 124
Dibromofluoromethane	93		75 - 120
Toluene-d8 (Surr)	96		75 - 120

Lab Sample ID: MB 500-421197/6
Matrix: Solid
Analysis Batch: 421197

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			02/23/18 10:49	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			02/23/18 10:49	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			02/23/18 10:49	1
1,1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			02/23/18 10:49	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			02/23/18 10:49	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			02/23/18 10:49	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			02/23/18 10:49	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			02/23/18 10:49	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			02/23/18 10:49	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			02/23/18 10:49	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			02/23/18 10:49	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			02/23/18 10:49	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			02/23/18 10:49	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			02/23/18 10:49	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			02/23/18 10:49	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			02/23/18 10:49	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			02/23/18 10:49	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			02/23/18 10:49	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			02/23/18 10:49	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			02/23/18 10:49	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			02/23/18 10:49	1
2-Butanone (MEK)	<2.1		5.0	2.1	ug/Kg			02/23/18 10:49	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			02/23/18 10:49	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-421197/6
Matrix: Solid
Analysis Batch: 421197

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			02/23/18 10:49	1
Benzene	<0.15		0.25	0.15	ug/Kg			02/23/18 10:49	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			02/23/18 10:49	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			02/23/18 10:49	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			02/23/18 10:49	1
Bromoform	<0.48		1.0	0.48	ug/Kg			02/23/18 10:49	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			02/23/18 10:49	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			02/23/18 10:49	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			02/23/18 10:49	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			02/23/18 10:49	1
Chloroform	<0.37		2.0	0.37	ug/Kg			02/23/18 10:49	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			02/23/18 10:49	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			02/23/18 10:49	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			02/23/18 10:49	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			02/23/18 10:49	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			02/23/18 10:49	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			02/23/18 10:49	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			02/23/18 10:49	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			02/23/18 10:49	1
Hexane	<0.49		1.0	0.49	ug/Kg			02/23/18 10:49	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			02/23/18 10:49	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			02/23/18 10:49	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			02/23/18 10:49	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			02/23/18 10:49	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			02/23/18 10:49	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			02/23/18 10:49	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			02/23/18 10:49	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			02/23/18 10:49	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/23/18 10:49	1
Styrene	<0.39		1.0	0.39	ug/Kg			02/23/18 10:49	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/23/18 10:49	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			02/23/18 10:49	1
Toluene	<0.15		0.25	0.15	ug/Kg			02/23/18 10:49	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			02/23/18 10:49	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			02/23/18 10:49	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			02/23/18 10:49	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			02/23/18 10:49	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			02/23/18 10:49	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			02/23/18 10:49	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	96		75 - 126		02/23/18 10:49	1
4-Bromofluorobenzene (Surr)	96		72 - 124		02/23/18 10:49	1
Dibromofluoromethane	88		75 - 120		02/23/18 10:49	1
Toluene-d8 (Surr)	94		75 - 120		02/23/18 10:49	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-421197/4

Matrix: Solid

Analysis Batch: 421197

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	51.1		ug/Kg		102	70 - 125
1,1,1-Trichloroethane	50.0	49.7		ug/Kg		99	70 - 125
1,1,2,2-Tetrachloroethane	50.0	50.5		ug/Kg		101	67 - 127
1,1,2-Trichloroethane	50.0	53.3		ug/Kg		107	70 - 122
1,1-Dichloroethane	50.0	50.5		ug/Kg		101	70 - 125
1,1-Dichloroethene	50.0	50.3		ug/Kg		101	67 - 122
1,1-Dichloropropene	50.0	50.5		ug/Kg		101	70 - 121
1,2,3-Trichlorobenzene	50.0	60.0		ug/Kg		120	55 - 140
1,2,3-Trichloropropane	50.0	48.3		ug/Kg		97	50 - 133
1,2,4-Trichlorobenzene	50.0	56.8		ug/Kg		114	66 - 127
1,2,4-Trimethylbenzene	50.0	52.0		ug/Kg		104	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	46.1		ug/Kg		92	56 - 123
1,2-Dibromoethane	50.0	54.6		ug/Kg		109	70 - 125
1,2-Dichlorobenzene	50.0	53.3		ug/Kg		107	70 - 125
1,2-Dichloroethane	50.0	55.1		ug/Kg		110	68 - 127
1,2-Dichloropropane	50.0	55.2		ug/Kg		110	67 - 130
1,3,5-Trimethylbenzene	50.0	51.6		ug/Kg		103	70 - 123
1,3-Dichlorobenzene	50.0	52.6		ug/Kg		105	70 - 125
1,3-Dichloropropane	50.0	54.6		ug/Kg		109	62 - 136
1,4-Dichlorobenzene	50.0	51.9		ug/Kg		104	70 - 120
2,2-Dichloropropane	50.0	43.8		ug/Kg		88	58 - 129
2-Butanone (MEK)	50.0	56.4		ug/Kg		113	53 - 141
2-Chlorotoluene	50.0	50.1		ug/Kg		100	70 - 125
4-Chlorotoluene	50.0	51.1		ug/Kg		102	68 - 124
Benzene	50.0	51.2		ug/Kg		102	70 - 120
Bromobenzene	50.0	53.8		ug/Kg		108	70 - 122
Bromochloromethane	50.0	51.5		ug/Kg		103	65 - 122
Bromodichloromethane	50.0	50.4		ug/Kg		101	69 - 120
Bromoform	50.0	49.2		ug/Kg		98	56 - 132
Bromomethane	50.0	75.3	*	ug/Kg		151	40 - 130
Carbon tetrachloride	50.0	50.7		ug/Kg		101	65 - 122
Chlorobenzene	50.0	52.7		ug/Kg		105	70 - 120
Chloroethane	50.0	67.0	*	ug/Kg		134	45 - 127
Chloroform	50.0	46.6		ug/Kg		93	70 - 120
Chloromethane	50.0	69.0		ug/Kg		138	54 - 147
cis-1,2-Dichloroethene	50.0	49.2		ug/Kg		98	70 - 125
cis-1,3-Dichloropropane	50.0	50.8		ug/Kg		102	64 - 127
Dibromochloromethane	50.0	52.4		ug/Kg		105	68 - 125
Dibromomethane	50.0	53.6		ug/Kg		107	70 - 120
Dichlorodifluoromethane	50.0	87.6	*	ug/Kg		175	40 - 150
Ethylbenzene	50.0	53.0		ug/Kg		106	70 - 120
Hexachlorobutadiene	50.0	54.4		ug/Kg		109	51 - 150
Hexane	50.0	54.5		ug/Kg		109	65 - 142
Isopropylbenzene	50.0	52.7		ug/Kg		105	70 - 126
Methyl tert-butyl ether	50.0	49.5		ug/Kg		99	70 - 120
Methylene Chloride	50.0	47.2		ug/Kg		94	69 - 125
Naphthalene	50.0	57.2		ug/Kg		114	59 - 130
n-Butylbenzene	50.0	50.9		ug/Kg		102	68 - 125

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-421197/4
Matrix: Solid
Analysis Batch: 421197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	50.0	52.1		ug/Kg		104	69 - 127
p-Isopropyltoluene	50.0	52.5		ug/Kg		105	70 - 125
sec-Butylbenzene	50.0	52.0		ug/Kg		104	70 - 123
Styrene	50.0	53.1		ug/Kg		106	70 - 120
tert-Butylbenzene	50.0	52.3		ug/Kg		105	70 - 121
Tetrachloroethene	50.0	54.6		ug/Kg		109	70 - 128
Toluene	50.0	53.8		ug/Kg		108	70 - 125
trans-1,2-Dichloroethene	50.0	48.3		ug/Kg		97	70 - 125
trans-1,3-Dichloropropene	50.0	51.1		ug/Kg		102	62 - 128
Trichloroethene	50.0	53.8		ug/Kg		108	70 - 125
Trichlorofluoromethane	50.0	51.8		ug/Kg		104	70 - 126
Vinyl chloride	50.0	61.2		ug/Kg		122	64 - 126
Xylenes, Total	100	102		ug/Kg		102	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		75 - 126
4-Bromofluorobenzene (Surr)	91		72 - 124
Dibromofluoromethane	91		75 - 120
Toluene-d8 (Surr)	95		75 - 120

Lab Sample ID: MB 500-421207/7
Matrix: Solid
Analysis Batch: 421207

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			02/23/18 11:17	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			02/23/18 11:17	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			02/23/18 11:17	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			02/23/18 11:17	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			02/23/18 11:17	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			02/23/18 11:17	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			02/23/18 11:17	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			02/23/18 11:17	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			02/23/18 11:17	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			02/23/18 11:17	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			02/23/18 11:17	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			02/23/18 11:17	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			02/23/18 11:17	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			02/23/18 11:17	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			02/23/18 11:17	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			02/23/18 11:17	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			02/23/18 11:17	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			02/23/18 11:17	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			02/23/18 11:17	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			02/23/18 11:17	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			02/23/18 11:17	1
2-Butanone (MEK)	<2.1		5.0	2.1	ug/Kg			02/23/18 11:17	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			02/23/18 11:17	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-421207/7
Matrix: Solid
Analysis Batch: 421207

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			02/23/18 11:17	1
Benzene	<0.15		0.25	0.15	ug/Kg			02/23/18 11:17	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			02/23/18 11:17	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			02/23/18 11:17	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			02/23/18 11:17	1
Bromoform	<0.48		1.0	0.48	ug/Kg			02/23/18 11:17	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			02/23/18 11:17	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			02/23/18 11:17	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			02/23/18 11:17	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			02/23/18 11:17	1
Chloroform	<0.37		2.0	0.37	ug/Kg			02/23/18 11:17	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			02/23/18 11:17	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			02/23/18 11:17	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			02/23/18 11:17	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			02/23/18 11:17	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			02/23/18 11:17	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			02/23/18 11:17	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			02/23/18 11:17	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			02/23/18 11:17	1
Hexane	<0.49		1.0	0.49	ug/Kg			02/23/18 11:17	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			02/23/18 11:17	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			02/23/18 11:17	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			02/23/18 11:17	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			02/23/18 11:17	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			02/23/18 11:17	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			02/23/18 11:17	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			02/23/18 11:17	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			02/23/18 11:17	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/23/18 11:17	1
Styrene	<0.39		1.0	0.39	ug/Kg			02/23/18 11:17	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			02/23/18 11:17	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			02/23/18 11:17	1
Toluene	<0.15		0.25	0.15	ug/Kg			02/23/18 11:17	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			02/23/18 11:17	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			02/23/18 11:17	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			02/23/18 11:17	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			02/23/18 11:17	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			02/23/18 11:17	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			02/23/18 11:17	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	113		75 - 126		02/23/18 11:17	1
4-Bromofluorobenzene (Surr)	101		72 - 124		02/23/18 11:17	1
Dibromofluoromethane	98		75 - 120		02/23/18 11:17	1
Toluene-d8 (Surr)	101		75 - 120		02/23/18 11:17	1

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-421207/5

Matrix: Solid

Analysis Batch: 421207

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	43.2		ug/Kg		86	70 - 125
1,1,1-Trichloroethane	50.0	41.8		ug/Kg		84	70 - 125
1,1,2,2-Tetrachloroethane	50.0	42.7		ug/Kg		85	67 - 127
1,1,2-Trichloroethane	50.0	44.0		ug/Kg		88	70 - 122
1,1-Dichloroethane	50.0	45.0		ug/Kg		90	70 - 125
1,1-Dichloroethene	50.0	41.3		ug/Kg		83	67 - 122
1,1-Dichloropropene	50.0	42.3		ug/Kg		85	70 - 121
1,2,3-Trichlorobenzene	50.0	48.9		ug/Kg		98	55 - 140
1,2,3-Trichloropropane	50.0	43.9		ug/Kg		88	50 - 133
1,2,4-Trichlorobenzene	50.0	47.2		ug/Kg		94	66 - 127
1,2,4-Trimethylbenzene	50.0	44.1		ug/Kg		88	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	47.0		ug/Kg		94	56 - 123
1,2-Dibromoethane	50.0	43.0		ug/Kg		86	70 - 125
1,2-Dichlorobenzene	50.0	43.4		ug/Kg		87	70 - 125
1,2-Dichloroethane	50.0	49.6		ug/Kg		99	68 - 127
1,2-Dichloropropane	50.0	45.9		ug/Kg		92	67 - 130
1,3,5-Trimethylbenzene	50.0	44.5		ug/Kg		89	70 - 123
1,3-Dichlorobenzene	50.0	43.1		ug/Kg		86	70 - 125
1,3-Dichloropropane	50.0	45.3		ug/Kg		91	62 - 136
1,4-Dichlorobenzene	50.0	43.4		ug/Kg		87	70 - 120
2,2-Dichloropropane	50.0	44.5		ug/Kg		89	58 - 129
2-Butanone (MEK)	50.0	51.8		ug/Kg		104	53 - 141
2-Chlorotoluene	50.0	42.5		ug/Kg		85	70 - 125
4-Chlorotoluene	50.0	43.7		ug/Kg		87	68 - 124
Benzene	50.0	40.6		ug/Kg		81	70 - 120
Bromobenzene	50.0	43.7		ug/Kg		87	70 - 122
Bromochloromethane	50.0	39.3		ug/Kg		79	65 - 122
Bromodichloromethane	50.0	42.5		ug/Kg		85	69 - 120
Bromoform	50.0	44.9		ug/Kg		90	56 - 132
Bromomethane	50.0	45.2		ug/Kg		90	40 - 130
Carbon tetrachloride	50.0	43.8		ug/Kg		88	65 - 122
Chlorobenzene	50.0	42.4		ug/Kg		85	70 - 120
Chloroethane	50.0	45.8		ug/Kg		92	45 - 127
Chloroform	50.0	41.0		ug/Kg		82	70 - 120
Chloromethane	50.0	56.8		ug/Kg		114	54 - 147
cis-1,2-Dichloroethene	50.0	38.8		ug/Kg		78	70 - 125
cis-1,3-Dichloropropene	50.0	46.5		ug/Kg		93	64 - 127
Dibromochloromethane	50.0	45.9		ug/Kg		92	68 - 125
Dibromomethane	50.0	40.8		ug/Kg		82	70 - 120
Dichlorodifluoromethane	50.0	57.9		ug/Kg		116	40 - 150
Ethylbenzene	50.0	42.3		ug/Kg		85	70 - 120
Hexachlorobutadiene	50.0	45.3		ug/Kg		91	51 - 150
Hexane	50.0	53.0		ug/Kg		106	65 - 142
Isopropylbenzene	50.0	44.0		ug/Kg		88	70 - 126
Methyl tert-butyl ether	50.0	43.0		ug/Kg		86	70 - 120
Methylene Chloride	50.0	39.8		ug/Kg		80	69 - 125
Naphthalene	50.0	48.0		ug/Kg		96	59 - 130
n-Butylbenzene	50.0	44.1		ug/Kg		88	68 - 125

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-421207/5
Matrix: Solid
Analysis Batch: 421207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Propylbenzene	50.0	43.6		ug/Kg		87	69 - 127
p-Isopropyltoluene	50.0	44.5		ug/Kg		89	70 - 125
sec-Butylbenzene	50.0	43.7		ug/Kg		87	70 - 123
Styrene	50.0	42.7		ug/Kg		85	70 - 120
tert-Butylbenzene	50.0	43.1		ug/Kg		86	70 - 121
Tetrachloroethene	50.0	45.0		ug/Kg		90	70 - 128
Toluene	50.0	43.8		ug/Kg		88	70 - 125
trans-1,2-Dichloroethene	50.0	40.8		ug/Kg		82	70 - 125
trans-1,3-Dichloropropene	50.0	46.8		ug/Kg		94	62 - 128
Trichloroethene	50.0	42.5		ug/Kg		85	70 - 125
Trichlorofluoromethane	50.0	44.8		ug/Kg		90	70 - 126
Vinyl chloride	50.0	50.7		ug/Kg		101	64 - 126
Xylenes, Total	100	87.4		ug/Kg		87	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		75 - 126
4-Bromofluorobenzene (Surr)	100		72 - 124
Dibromofluoromethane	96		75 - 120
Toluene-d8 (Surr)	104		75 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-420017/1-A
Matrix: Solid
Analysis Batch: 420063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420017

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<36		170	36	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
1,2-Dichlorobenzene	<40		170	40	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
1,3-Dichlorobenzene	<37		170	37	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
1,4-Dichlorobenzene	<43		170	43	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
1-Methylnaphthalene	<8.1		67	8.1	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2,2'-oxybis[1-chloropropane]	<39		170	39	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2,4,5-Trichlorophenol	<76		330	76	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2,4,6-Trichlorophenol	<110		330	110	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2,4-Dichlorophenol	<79		330	79	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2,4-Dimethylphenol	<130		330	130	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2,4-Dinitrophenol	<590		670	590	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2,4-Dinitrotoluene	<53		170	53	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2,6-Dinitrotoluene	<65		170	65	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2-Chloronaphthalene	<37		170	37	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2-Chlorophenol	<57		170	57	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2-Methylnaphthalene	<6.1		67	6.1	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2-Methylphenol	<53		170	53	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2-Nitroaniline	<45		170	45	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
2-Nitrophenol	<79		330	79	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
3 & 4 Methylphenol	<55		170	55	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
3,3'-Dichlorobenzidine	<47		170	47	ug/Kg		02/13/18 17:39	02/14/18 10:31	1

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-420017/1-A
Matrix: Solid
Analysis Batch: 420063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420017

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	<100		330	100	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
4,6-Dinitro-2-methylphenol	<270		670	270	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
4-Bromophenyl phenyl ether	<44		170	44	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
4-Chloro-3-methylphenol	<110		330	110	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
4-Chloroaniline	<160		670	160	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
4-Chlorophenyl phenyl ether	<39		170	39	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
4-Nitroaniline	<140		330	140	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
4-Nitrophenol	<320		670	320	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Acenaphthene	<6.0		33	6.0	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Acenaphthylene	<4.4		33	4.4	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Anthracene	<5.6		33	5.6	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Benzo[a]anthracene	<4.5		33	4.5	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Benzo[a]pyrene	<6.4		33	6.4	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Benzo[b]fluoranthene	<7.2		33	7.2	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Benzo[k]fluoranthene	<9.8		33	9.8	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Benzoic acid	<330		1700	330	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Benzyl alcohol	<330		670	330	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Bis(2-chloroethoxy)methane	<34		170	34	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Bis(2-chloroethyl)ether	<50		170	50	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Bis(2-ethylhexyl) phthalate	<61		170	61	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Butyl benzyl phthalate	<63		170	63	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Carbazole	<83		170	83	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Chrysene	<9.1		33	9.1	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Dibenz(a,h)anthracene	<6.4		33	6.4	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Dibenzofuran	<39		170	39	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Diethyl phthalate	<56		170	56	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Dimethyl phthalate	<43		170	43	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Di-n-butyl phthalate	<51		170	51	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Di-n-octyl phthalate	<54		170	54	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Fluoranthene	<6.2		33	6.2	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Fluorene	<4.7		33	4.7	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Hexachlorobenzene	<7.7		67	7.7	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Hexachlorobutadiene	<52		170	52	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Hexachlorocyclopentadiene	<190		670	190	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Hexachloroethane	<51		170	51	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Indeno[1,2,3-cd]pyrene	<8.6		33	8.6	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Isophorone	<37		170	37	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Naphthalene	<5.1		33	5.1	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Nitrobenzene	<8.3		33	8.3	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
N-Nitrosodi-n-propylamine	<41		67	41	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
N-Nitrosodiphenylamine	<39		170	39	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Pentachlorophenol	<530		670	530	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Phenanthrene	<4.6		33	4.6	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Phenol	<74		170	74	ug/Kg		02/13/18 17:39	02/14/18 10:31	1
Pyrene	<6.6		33	6.6	ug/Kg		02/13/18 17:39	02/14/18 10:31	1

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-420017/1-A
Matrix: Solid
Analysis Batch: 420063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420017

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	107		25 - 139	02/13/18 17:39	02/14/18 10:31	1
2-Fluorobiphenyl (Surr)	95		44 - 121	02/13/18 17:39	02/14/18 10:31	1
2-Fluorophenol (Surr)	105		46 - 133	02/13/18 17:39	02/14/18 10:31	1
Nitrobenzene-d5 (Surr)	96		41 - 120	02/13/18 17:39	02/14/18 10:31	1
Phenol-d5 (Surr)	100		46 - 125	02/13/18 17:39	02/14/18 10:31	1
Terphenyl-d14 (Surr)	91		35 - 160	02/13/18 17:39	02/14/18 10:31	1

Lab Sample ID: LCS 500-420017/2-A
Matrix: Solid
Analysis Batch: 420063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420017

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,2-Dichlorobenzene	1330	1140		ug/Kg		85	62 - 110	
1,3-Dichlorobenzene	1330	1130		ug/Kg		84	60 - 110	
1,4-Dichlorobenzene	1330	1130		ug/Kg		85	61 - 110	
1-Methylnaphthalene	1330	1210		ug/Kg		91	61 - 110	
2,2'-oxybis[1-chloropropane]	1330	1180		ug/Kg		88	40 - 124	
2,4,5-Trichlorophenol	1330	1180		ug/Kg		88	50 - 120	
2,4,6-Trichlorophenol	1330	1260		ug/Kg		95	57 - 120	
2,4-Dichlorophenol	1330	1200		ug/Kg		90	58 - 120	
2,4-Dimethylphenol	1330	1210		ug/Kg		91	60 - 110	
2,4-Dinitrophenol	2670	612	J	ug/Kg		23	10 - 100	
2,4-Dinitrotoluene	1330	1200		ug/Kg		90	62 - 117	
2,6-Dinitrotoluene	1330	1210		ug/Kg		91	67 - 120	
2-Chloronaphthalene	1330	1210		ug/Kg		90	64 - 110	
2-Chlorophenol	1330	1180		ug/Kg		89	64 - 110	
2-Methylnaphthalene	1330	1210		ug/Kg		91	62 - 110	
2-Methylphenol	1330	1240		ug/Kg		93	60 - 120	
2-Nitroaniline	1330	1150		ug/Kg		87	57 - 124	
2-Nitrophenol	1330	1200		ug/Kg		90	60 - 120	
3 & 4 Methylphenol	1330	1240		ug/Kg		93	57 - 120	
3,3'-Dichlorobenzidine	1330	992		ug/Kg		74	49 - 112	
3-Nitroaniline	1330	921		ug/Kg		69	40 - 122	
4,6-Dinitro-2-methylphenol	2670	1250		ug/Kg		47	10 - 110	
4-Bromophenyl phenyl ether	1330	1240		ug/Kg		93	63 - 110	
4-Chloro-3-methylphenol	1330	1170		ug/Kg		88	61 - 114	
4-Chloroaniline	1330	1080		ug/Kg		81	30 - 150	
4-Chlorophenyl phenyl ether	1330	1160		ug/Kg		87	63 - 110	
4-Nitroaniline	1330	1000		ug/Kg		75	60 - 160	
4-Nitrophenol	2670	2550		ug/Kg		95	30 - 122	
Acenaphthene	1330	1200		ug/Kg		90	58 - 110	
Acenaphthylene	1330	1210		ug/Kg		91	60 - 110	
Anthracene	1330	1210		ug/Kg		91	63 - 110	
Benzo[a]anthracene	1330	1220		ug/Kg		91	63 - 110	
Benzo[a]pyrene	1330	1310		ug/Kg		99	61 - 120	
Benzo[b]fluoranthene	1330	1290		ug/Kg		97	62 - 120	
Benzo[g,h,i]perylene	1330	1280		ug/Kg		96	64 - 120	

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-420017/2-A
Matrix: Solid
Analysis Batch: 420063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420017

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[k]fluoranthene	1330	1260		ug/Kg		94	65 - 120
Benzoic acid	2670	1170	J	ug/Kg		44	10 - 100
Benzyl alcohol	1330	1210		ug/Kg		91	21 - 139
Bis(2-chloroethoxy)methane	1330	1190		ug/Kg		89	60 - 112
Bis(2-chloroethyl)ether	1330	1120		ug/Kg		84	55 - 111
Bis(2-ethylhexyl) phthalate	1330	1270		ug/Kg		96	63 - 118
Butyl benzyl phthalate	1330	1250		ug/Kg		94	61 - 116
Carbazole	1330	1190		ug/Kg		89	59 - 158
Chrysene	1330	1240		ug/Kg		93	63 - 120
Dibenz(a,h)anthracene	1330	1400		ug/Kg		105	64 - 119
Dibenzofuran	1330	1200		ug/Kg		90	64 - 110
Diethyl phthalate	1330	1200		ug/Kg		90	58 - 120
Dimethyl phthalate	1330	1170		ug/Kg		88	64 - 110
Di-n-butyl phthalate	1330	1230		ug/Kg		92	65 - 120
Di-n-octyl phthalate	1330	1410		ug/Kg		106	63 - 119
Fluoranthene	1330	1260		ug/Kg		94	62 - 120
Fluorene	1330	1200		ug/Kg		90	62 - 120
Hexachlorobenzene	1330	1290		ug/Kg		97	55 - 117
Hexachlorobutadiene	1330	1220		ug/Kg		91	56 - 120
Hexachlorocyclopentadiene	1330	1360		ug/Kg		102	10 - 106
Hexachloroethane	1330	1140		ug/Kg		86	61 - 110
Indeno[1,2,3-cd]pyrene	1330	1370		ug/Kg		102	57 - 127
Isophorone	1330	1130		ug/Kg		85	55 - 110
Naphthalene	1330	1190		ug/Kg		89	63 - 110
Nitrobenzene	1330	1170		ug/Kg		88	60 - 116
N-Nitrosodi-n-propylamine	1330	1190		ug/Kg		90	56 - 118
N-Nitrosodiphenylamine	1330	1190		ug/Kg		89	65 - 112
Pentachlorophenol	2670	2280		ug/Kg		86	13 - 112
Phenanthrene	1330	1210		ug/Kg		91	62 - 120
Phenol	1330	1140		ug/Kg		85	56 - 122
Pyrene	1330	1170		ug/Kg		88	63 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	106		25 - 139
2-Fluorobiphenyl (Surr)	94		44 - 121
2-Fluorophenol (Surr)	96		46 - 133
Nitrobenzene-d5 (Surr)	92		41 - 120
Phenol-d5 (Surr)	96		46 - 125
Terphenyl-d14 (Surr)	84		35 - 160

Lab Sample ID: 500-140832-1 MS
Matrix: Solid
Analysis Batch: 420068

Client Sample ID: 111417001
Prep Type: Total/NA
Prep Batch: 420017

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,2,4-Trichlorobenzene	<340		2610	2140		ug/Kg	☼	82	62 - 110
1,2-Dichlorobenzene	<380		2610	2130		ug/Kg	☼	82	62 - 110
1,3-Dichlorobenzene	<360		2610	1950		ug/Kg	☼	74	60 - 110

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-140832-1 MS

Matrix: Solid

Analysis Batch: 420068

Client Sample ID: 111417001

Prep Type: Total/NA

Prep Batch: 420017

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
1,4-Dichlorobenzene	<410		2610	1970		ug/Kg	☼	75	61 - 110
1-Methylnaphthalene	3900	F1	2610	6310		ug/Kg	☼	94	61 - 110
2,2'-oxybis[1-chloropropane]	<370		2610	2110		ug/Kg	☼	81	40 - 124
2,4,5-Trichlorophenol	<730		2610	2240	J	ug/Kg	☼	86	50 - 120
2,4,6-Trichlorophenol	<1100		2610	2260	J	ug/Kg	☼	87	57 - 120
2,4-Dichlorophenol	<760		2610	2500	J	ug/Kg	☼	96	58 - 120
2,4-Dimethylphenol	<1200		2610	2380	J	ug/Kg	☼	91	60 - 110
2,4-Dinitrophenol	<5600		5230	<5700		ug/Kg	☼	NC	10 - 100
2,4-Dinitrotoluene	<510		2610	2130		ug/Kg	☼	81	62 - 117
2,6-Dinitrotoluene	<630		2610	1930		ug/Kg	☼	74	67 - 120
2-Chloronaphthalene	<350		2610	2380		ug/Kg	☼	91	64 - 110
2-Chlorophenol	<550		2610	2260		ug/Kg	☼	87	64 - 110
2-Methylnaphthalene	5000	F1	2610	8790	F1	ug/Kg	☼	147	62 - 110
2-Methylphenol	<510		2610	2140		ug/Kg	☼	82	60 - 120
2-Nitroaniline	<430		2610	2330		ug/Kg	☼	89	57 - 124
2-Nitrophenol	<750		2610	2140	J	ug/Kg	☼	82	60 - 120
3 & 4 Methylphenol	1100	J	2610	3280		ug/Kg	☼	83	57 - 120
3,3'-Dichlorobenzidine	<450	F1	2610	<460	F1	ug/Kg	☼	0	49 - 112
3-Nitroaniline	<990	F1	2610	<1000	F1	ug/Kg	☼	0	40 - 122
4,6-Dinitro-2-methylphenol	<2600	F1	5230	<2600	F1	ug/Kg	☼	0	10 - 110
4-Bromophenyl phenyl ether	<420		2610	2680		ug/Kg	☼	103	63 - 110
4-Chloro-3-methylphenol	<1100		2610	2250	J	ug/Kg	☼	86	61 - 114
4-Chloroaniline	<1500	F1	2610	<1500	F1	ug/Kg	☼	0	30 - 150
4-Chlorophenyl phenyl ether	<370		2610	2170		ug/Kg	☼	83	63 - 110
4-Nitroaniline	<1300	F1	2610	1500	J F1	ug/Kg	☼	57	60 - 160
4-Nitrophenol	<3000		5230	3660	J	ug/Kg	☼	70	30 - 122
Acenaphthene	3600		2610	6160		ug/Kg	☼	98	58 - 110
Acenaphthylene	910		2610	2690		ug/Kg	☼	68	60 - 110
Anthracene	2100		2610	4980		ug/Kg	☼	108	63 - 110
Benzo[a]anthracene	2700		2610	4380		ug/Kg	☼	63	63 - 110
Benzo[a]pyrene	3400	F1	2610	4560	F1 *	ug/Kg	☼	44	61 - 120
Benzo[b]fluoranthene	4400		2610	6200	*	ug/Kg	☼	68	62 - 120
Benzo[g,h,i]perylene	1200	F1	2610	2090	F1 *	ug/Kg	☼	36	64 - 120
Benzo[k]fluoranthene	1600		2610	3730	*	ug/Kg	☼	80	65 - 120
Benzoic acid	<3200	F1	5230	<3200	F1	ug/Kg	☼	0	10 - 100
Benzyl alcohol	<3200		2610	<3200		ug/Kg	☼	NC	21 - 139
Bis(2-chloroethoxy)methane	<330		2610	2050		ug/Kg	☼	78	60 - 112
Bis(2-chloroethyl)ether	<480		2610	1590	J	ug/Kg	☼	61	55 - 111
Bis(2-ethylhexyl) phthalate	1300	J	2610	4160		ug/Kg	☼	109	63 - 118
Butyl benzyl phthalate	<610		2610	2740		ug/Kg	☼	105	61 - 116
Carbazole	<800		2610	3260		ug/Kg	☼	125	59 - 158
Chrysene	2800	F1	2610	4240	F1	ug/Kg	☼	56	63 - 120
Dibenz(a,h)anthracene	<62	F1	2610	1750	*	ug/Kg	☼	67	64 - 119
Dibenzofuran	950	J	2610	3340		ug/Kg	☼	92	64 - 110
Diethyl phthalate	<540		2610	2510		ug/Kg	☼	96	58 - 120
Dimethyl phthalate	<420		2610	2280		ug/Kg	☼	87	64 - 110
Di-n-butyl phthalate	<490		2610	2730		ug/Kg	☼	105	65 - 120
Di-n-octyl phthalate	<520		2610	2790		ug/Kg	☼	107	63 - 119

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-140832-1 MS

Matrix: Solid

Analysis Batch: 420068

Client Sample ID: 111417001

Prep Type: Total/NA

Prep Batch: 420017

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Fluoranthene	5900	F1	2610	9430	F1	ug/Kg	☼	135	62 - 120
Fluorene	2200		2610	4870		ug/Kg	☼	103	62 - 120
Hexachlorobenzene	<74	F1 F2	2610	3130	F1	ug/Kg	☼	120	55 - 117
Hexachlorobutadiene	<500		2610	1960		ug/Kg	☼	75	56 - 120
Hexachlorocyclopentadiene	<1800	F1	2610	<1900	F1	ug/Kg	☼	0	10 - 106
Hexachloroethane	<490	F1	2610	1130	J F1	ug/Kg	☼	43	61 - 110
Indeno[1,2,3-cd]pyrene	1100	F1	2610	2190	F1 *	ug/Kg	☼	40	57 - 127
Isophorone	<360		2610	2120		ug/Kg	☼	81	55 - 110
Naphthalene	2600	F1	2610	6370	F1	ug/Kg	☼	146	63 - 110
Nitrobenzene	<80		2610	2120		ug/Kg	☼	81	60 - 116
N-Nitrosodi-n-propylamine	<390	F1	2610	4870	F1	ug/Kg	☼	186	56 - 118
N-Nitrosodiphenylamine	<380	F1	2610	3200	F1	ug/Kg	☼	123	65 - 112
Pentachlorophenol	<5100	F1	5230	<5200	F1	ug/Kg	☼	0	13 - 112
Phenanthrene	9900	F1	2610	13400	F1	ug/Kg	☼	135	62 - 120
Phenol	<710		2610	2230		ug/Kg	☼	85	56 - 122
Pyrene	4900	F1	2610	8870	F1	ug/Kg	☼	151	63 - 120

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	130		25 - 139
2-Fluorobiphenyl (Surr)	88		44 - 121
2-Fluorophenol (Surr)	103		46 - 133
Nitrobenzene-d5 (Surr)	99		41 - 120
Phenol-d5 (Surr)	73		46 - 125
Terphenyl-d14 (Surr)	104		35 - 160

Lab Sample ID: 500-140832-1 MSD

Matrix: Solid

Analysis Batch: 420068

Client Sample ID: 111417001

Prep Type: Total/NA

Prep Batch: 420017

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,2,4-Trichlorobenzene	<340		2690	1900		ug/Kg	☼	70	62 - 110	12	30
1,2-Dichlorobenzene	<380		2690	2160		ug/Kg	☼	80	62 - 110	1	30
1,3-Dichlorobenzene	<360		2690	1890		ug/Kg	☼	70	60 - 110	3	30
1,4-Dichlorobenzene	<410		2690	1910		ug/Kg	☼	71	61 - 110	3	30
1-Methylnaphthalene	3900	F1	2690	5480	F1	ug/Kg	☼	60	61 - 110	14	30
2,2'-oxybis[1-chloropropane]	<370		2690	2340		ug/Kg	☼	87	40 - 124	10	30
2,4,5-Trichlorophenol	<730		2690	2000	J	ug/Kg	☼	74	50 - 120	11	30
2,4,6-Trichlorophenol	<1100		2690	1890	J	ug/Kg	☼	70	57 - 120	18	30
2,4-Dichlorophenol	<760		2690	2110	J	ug/Kg	☼	78	58 - 120	17	30
2,4-Dimethylphenol	<1200		2690	2390	J	ug/Kg	☼	89	60 - 110	1	30
2,4-Dinitrophenol	<5600		5380	<5900		ug/Kg	☼	NC	10 - 100	NC	30
2,4-Dinitrotoluene	<510		2690	1880		ug/Kg	☼	70	62 - 117	12	30
2,6-Dinitrotoluene	<630		2690	1840		ug/Kg	☼	68	67 - 120	5	30
2-Chloronaphthalene	<350		2690	2070		ug/Kg	☼	77	64 - 110	14	30
2-Chlorophenol	<550		2690	2420		ug/Kg	☼	90	64 - 110	7	30
2-Methylnaphthalene	5000	F1	2690	7070		ug/Kg	☼	78	62 - 110	22	30
2-Methylphenol	<510		2690	2070		ug/Kg	☼	77	60 - 120	3	30
2-Nitroaniline	<430		2690	2190		ug/Kg	☼	81	57 - 124	6	30

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-140832-1 MSD

Matrix: Solid

Analysis Batch: 420068

Client Sample ID: 111417001

Prep Type: Total/NA

Prep Batch: 420017

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
2-Nitrophenol	<750		2690	2140	J	ug/Kg	☼	80	60 - 120	0	30
3 & 4 Methylphenol	1100	J	2690	2840		ug/Kg	☼	64	57 - 120	14	30
3,3'-Dichlorobenzidine	<450	F1	2690	<470	F1	ug/Kg	☼	0	49 - 112	NC	30
3-Nitroaniline	<990	F1	2690	<1000	F1	ug/Kg	☼	0	40 - 122	NC	30
4,6-Dinitro-2-methylphenol	<2600	F1	5380	<2700	F1	ug/Kg	☼	0	10 - 110	NC	30
4-Bromophenyl phenyl ether	<420		2690	2320		ug/Kg	☼	86	63 - 110	15	30
4-Chloro-3-methylphenol	<1100		2690	2170	J	ug/Kg	☼	81	61 - 114	3	30
4-Chloroaniline	<1500	F1	2690	<1600	F1	ug/Kg	☼	0	30 - 150	NC	30
4-Chlorophenyl phenyl ether	<370		2690	1890		ug/Kg	☼	70	63 - 110	14	30
4-Nitroaniline	<1300	F1	2690	1950	J	ug/Kg	☼	72	60 - 160	26	30
4-Nitrophenol	<3000		5380	3860	J	ug/Kg	☼	72	30 - 122	5	30
Acenaphthene	3600		2690	5210		ug/Kg	☼	59	58 - 110	17	30
Acenaphthylene	910		2690	2650		ug/Kg	☼	65	60 - 110	1	30
Anthracene	2100		2690	4240		ug/Kg	☼	78	63 - 110	16	30
Benzo[a]anthracene	2700		2690	4770		ug/Kg	☼	76	63 - 110	9	30
Benzo[a]pyrene	3400	F1	2690	5010	F1	ug/Kg	☼	59	61 - 120	9	30
Benzo[b]fluoranthene	4400		2690	6530		ug/Kg	☼	79	62 - 120	5	30
Benzo[g,h,i]perylene	1200	F1	2690	2050	F1	ug/Kg	☼	33	64 - 120	2	30
Benzo[k]fluoranthene	1600		2690	3950		ug/Kg	☼	86	65 - 120	6	30
Benzoic acid	<3200	F1	5380	<3300	F1	ug/Kg	☼	0	10 - 100	NC	30
Benzyl alcohol	<3200		2690	<3300		ug/Kg	☼	NC	21 - 139	NC	30
Bis(2-chloroethoxy)methane	<330		2690	2170		ug/Kg	☼	81	60 - 112	6	30
Bis(2-chloroethyl)ether	<480		2690	1620	J	ug/Kg	☼	60	55 - 111	2	30
Bis(2-ethylhexyl) phthalate	1300	J	2690	3590		ug/Kg	☼	84	63 - 118	15	30
Butyl benzyl phthalate	<610		2690	2520		ug/Kg	☼	94	61 - 116	8	30
Carbazole	<800		2690	3000		ug/Kg	☼	112	59 - 158	8	30
Chrysene	2800	F1	2690	4560		ug/Kg	☼	66	63 - 120	7	30
Dibenz(a,h)anthracene	<62	F1	2690	1630	F1	ug/Kg	☼	61	64 - 119	7	30
Dibenzofuran	950	J	2690	2880		ug/Kg	☼	72	64 - 110	15	30
Diethyl phthalate	<540		2690	2420		ug/Kg	☼	90	58 - 120	4	30
Dimethyl phthalate	<420		2690	2240		ug/Kg	☼	83	64 - 110	2	30
Di-n-butyl phthalate	<490		2690	2460		ug/Kg	☼	91	65 - 120	10	30
Di-n-octyl phthalate	<520		2690	2120		ug/Kg	☼	79	63 - 119	27	30
Fluoranthene	5900	F1	2690	8750		ug/Kg	☼	106	62 - 120	7	30
Fluorene	2200		2690	4130		ug/Kg	☼	72	62 - 120	17	30
Hexachlorobenzene	<74	F1 F2	2690	2030	F2	ug/Kg	☼	75	55 - 117	43	30
Hexachlorobutadiene	<500		2690	1570	J	ug/Kg	☼	58	56 - 120	22	30
Hexachlorocyclopentadiene	<1800	F1	2690	<1900	F1	ug/Kg	☼	0	10 - 106	NC	30
Hexachloroethane	<490	F1	2690	926	J F1	ug/Kg	☼	34	61 - 110	20	30
Indeno[1,2,3-cd]pyrene	1100	F1	2690	2130	F1	ug/Kg	☼	37	57 - 127	3	30
Isophorone	<360		2690	1960		ug/Kg	☼	73	55 - 110	7	30
Naphthalene	2600	F1	2690	4730		ug/Kg	☼	80	63 - 110	30	30
Nitrobenzene	<80		2690	2000		ug/Kg	☼	74	60 - 116	6	30
N-Nitrosodi-n-propylamine	<390	F1	2690	3850	F1	ug/Kg	☼	143	56 - 118	24	30
N-Nitrosodiphenylamine	<380	F1	2690	2860		ug/Kg	☼	106	65 - 112	11	30
Pentachlorophenol	<5100	F1	5380	<5400		ug/Kg	☼	NC	13 - 112	NC	30
Phenanthrene	9900	F1	2690	11100	F1	ug/Kg	☼	43	62 - 120	19	30
Phenol	<710		2690	2640		ug/Kg	☼	98	56 - 122	17	30

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-140832-1 MSD

Matrix: Solid

Analysis Batch: 420068

Client Sample ID: 111417001

Prep Type: Total/NA

Prep Batch: 420017

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pyrene	4900	F1	2690	8450	F1	ug/Kg	☒	131	63 - 120	5	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2,4,6-Tribromophenol (Surr)	115		25 - 139
2-Fluorobiphenyl (Surr)	80		44 - 121
2-Fluorophenol (Surr)	102		46 - 133
Nitrobenzene-d5 (Surr)	91		41 - 120
Phenol-d5 (Surr)	85		46 - 125
Terphenyl-d14 (Surr)	85		35 - 160

Lab Sample ID: MB 500-420052/1-A

Matrix: Solid

Analysis Batch: 420138

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 420052

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<36		170	36	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
1,2-Dichlorobenzene	<40		170	40	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
1,3-Dichlorobenzene	<37		170	37	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
1,4-Dichlorobenzene	<43		170	43	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
1-Methylnaphthalene	<8.1		67	8.1	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2,2'-oxybis[1-chloropropane]	<39		170	39	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2,4,5-Trichlorophenol	<76		330	76	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2,4,6-Trichlorophenol	<110		330	110	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2,4-Dichlorophenol	<79		330	79	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2,4-Dimethylphenol	<130		330	130	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2,4-Dinitrophenol	<590		670	590	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2,4-Dinitrotoluene	<53		170	53	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2,6-Dinitrotoluene	<65		170	65	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2-Chloronaphthalene	<37		170	37	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2-Chlorophenol	<57		170	57	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2-Methylnaphthalene	<6.1		67	6.1	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2-Methylphenol	<53		170	53	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2-Nitroaniline	<45		170	45	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
2-Nitrophenol	<79		330	79	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
3 & 4 Methylphenol	<55		170	55	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
3,3'-Dichlorobenzidine	<47		170	47	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
3-Nitroaniline	<100		330	100	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
4,6-Dinitro-2-methylphenol	<270		670	270	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
4-Bromophenyl phenyl ether	<44		170	44	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
4-Chloro-3-methylphenol	<110		330	110	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
4-Chloroaniline	<160		670	160	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
4-Chlorophenyl phenyl ether	<39		170	39	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
4-Nitroaniline	<140		330	140	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
4-Nitrophenol	<320		670	320	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Acenaphthene	<6.0		33	6.0	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Acenaphthylene	<4.4		33	4.4	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Anthracene	<5.6		33	5.6	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Benzo[a]anthracene	<4.5		33	4.5	ug/Kg		02/14/18 07:33	02/14/18 18:48	1

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-420052/1-A
Matrix: Solid
Analysis Batch: 420138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420052

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzo[a]pyrene	<6.4		33	6.4	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Benzo[b]fluoranthene	<7.2		33	7.2	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Benzo[k]fluoranthene	<9.8		33	9.8	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Benzoic acid	<330		1700	330	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Benzyl alcohol	<330		670	330	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Bis(2-chloroethoxy)methane	<34		170	34	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Bis(2-chloroethyl)ether	<50		170	50	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Bis(2-ethylhexyl) phthalate	<61		170	61	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Butyl benzyl phthalate	<63		170	63	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Carbazole	<83		170	83	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Chrysene	<9.1		33	9.1	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Dibenz(a,h)anthracene	<6.4		33	6.4	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Dibenzofuran	<39		170	39	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Diethyl phthalate	<56		170	56	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Dimethyl phthalate	<43		170	43	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Di-n-butyl phthalate	<51		170	51	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Di-n-octyl phthalate	<54		170	54	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Fluoranthene	<6.2		33	6.2	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Fluorene	<4.7		33	4.7	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Hexachlorobenzene	<7.7		67	7.7	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Hexachlorobutadiene	<52		170	52	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Hexachlorocyclopentadiene	<190		670	190	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Hexachloroethane	<51		170	51	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Indeno[1,2,3-cd]pyrene	<8.6		33	8.6	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Isophorone	<37		170	37	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Naphthalene	<5.1		33	5.1	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Nitrobenzene	<8.3		33	8.3	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
N-Nitrosodi-n-propylamine	<41		67	41	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
N-Nitrosodiphenylamine	<39		170	39	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Pentachlorophenol	<530		670	530	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Phenanthrene	<4.6		33	4.6	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Phenol	<74		170	74	ug/Kg		02/14/18 07:33	02/14/18 18:48	1
Pyrene	<6.6		33	6.6	ug/Kg		02/14/18 07:33	02/14/18 18:48	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	75		25 - 139	02/14/18 07:33	02/14/18 18:48	1
2-Fluorobiphenyl (Surr)	100		44 - 121	02/14/18 07:33	02/14/18 18:48	1
2-Fluorophenol (Surr)	115		46 - 133	02/14/18 07:33	02/14/18 18:48	1
Nitrobenzene-d5 (Surr)	84		41 - 120	02/14/18 07:33	02/14/18 18:48	1
Phenol-d5 (Surr)	67		46 - 125	02/14/18 07:33	02/14/18 18:48	1
Terphenyl-d14 (Surr)	78		35 - 160	02/14/18 07:33	02/14/18 18:48	1

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-420052/2-A

Matrix: Solid

Analysis Batch: 420138

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 420052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4-Trichlorobenzene	1330	1180		ug/Kg		89	62 - 110
1,2-Dichlorobenzene	1330	1150		ug/Kg		86	62 - 110
1,3-Dichlorobenzene	1330	1150		ug/Kg		86	60 - 110
1,4-Dichlorobenzene	1330	1170		ug/Kg		88	61 - 110
1-Methylnaphthalene	1330	1190		ug/Kg		89	61 - 110
2,2'-oxybis[1-chloropropane]	1330	1130		ug/Kg		85	40 - 124
2,4,5-Trichlorophenol	1330	1200		ug/Kg		90	50 - 120
2,4,6-Trichlorophenol	1330	1190		ug/Kg		90	57 - 120
2,4-Dichlorophenol	1330	1270		ug/Kg		95	58 - 120
2,4-Dimethylphenol	1330	1230		ug/Kg		92	60 - 110
2,4-Dinitrophenol	2670	874		ug/Kg		33	10 - 100
2,4-Dinitrotoluene	1330	1180		ug/Kg		88	62 - 117
2,6-Dinitrotoluene	1330	1250		ug/Kg		94	67 - 120
2-Chloronaphthalene	1330	1180		ug/Kg		89	64 - 110
2-Chlorophenol	1330	1220		ug/Kg		92	64 - 110
2-Methylnaphthalene	1330	1210		ug/Kg		91	62 - 110
2-Methylphenol	1330	1240		ug/Kg		93	60 - 120
2-Nitroaniline	1330	1350		ug/Kg		101	57 - 124
2-Nitrophenol	1330	1230		ug/Kg		92	60 - 120
3 & 4 Methylphenol	1330	1210		ug/Kg		91	57 - 120
3,3'-Dichlorobenzidine	1330	990		ug/Kg		74	49 - 112
3-Nitroaniline	1330	1050		ug/Kg		79	40 - 122
4,6-Dinitro-2-methylphenol	2670	1420		ug/Kg		53	10 - 110
4-Bromophenyl phenyl ether	1330	1190		ug/Kg		89	63 - 110
4-Chloro-3-methylphenol	1330	1350		ug/Kg		101	61 - 114
4-Chloroaniline	1330	1120		ug/Kg		84	30 - 150
4-Chlorophenyl phenyl ether	1330	1190		ug/Kg		89	63 - 110
4-Nitroaniline	1330	1250		ug/Kg		94	60 - 160
4-Nitrophenol	2670	1880		ug/Kg		71	30 - 122
Acenaphthene	1330	1210		ug/Kg		91	58 - 110
Acenaphthylene	1330	1240		ug/Kg		93	60 - 110
Anthracene	1330	1210		ug/Kg		91	63 - 110
Benzo[a]anthracene	1330	1260		ug/Kg		94	63 - 110
Benzo[a]pyrene	1330	1260		ug/Kg		95	61 - 120
Benzo[b]fluoranthene	1330	1500		ug/Kg		113	62 - 120
Benzo[g,h,i]perylene	1330	1270		ug/Kg		95	64 - 120
Benzo[k]fluoranthene	1330	1320		ug/Kg		99	65 - 120
Benzoic acid	2670	1050	J	ug/Kg		39	10 - 100
Benzyl alcohol	1330	997		ug/Kg		75	21 - 139
Bis(2-chloroethoxy)methane	1330	1300		ug/Kg		97	60 - 112
Bis(2-chloroethyl)ether	1330	1290		ug/Kg		97	55 - 111
Bis(2-ethylhexyl) phthalate	1330	1190		ug/Kg		90	63 - 118
Butyl benzyl phthalate	1330	1220		ug/Kg		92	61 - 116
Carbazole	1330	1400		ug/Kg		105	59 - 158
Chrysene	1330	1200		ug/Kg		90	63 - 120
Dibenz(a,h)anthracene	1330	1250		ug/Kg		94	64 - 119
Dibenzofuran	1330	1110		ug/Kg		84	64 - 110
Diethyl phthalate	1330	1150		ug/Kg		86	58 - 120

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-420052/2-A
Matrix: Solid
Analysis Batch: 420138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Dimethyl phthalate	1330	1190		ug/Kg		90	64 - 110
Di-n-butyl phthalate	1330	1290		ug/Kg		97	65 - 120
Di-n-octyl phthalate	1330	1370		ug/Kg		103	63 - 119
Fluoranthene	1330	1300		ug/Kg		98	62 - 120
Fluorene	1330	1200		ug/Kg		90	62 - 120
Hexachlorobenzene	1330	1110		ug/Kg		83	55 - 117
Hexachlorobutadiene	1330	1180		ug/Kg		88	56 - 120
Hexachlorocyclopentadiene	1330	530	J	ug/Kg		40	10 - 106
Hexachloroethane	1330	1150		ug/Kg		86	61 - 110
Indeno[1,2,3-cd]pyrene	1330	1250		ug/Kg		94	57 - 127
Isophorone	1330	1200		ug/Kg		90	55 - 110
Naphthalene	1330	1190		ug/Kg		89	63 - 110
Nitrobenzene	1330	1300		ug/Kg		98	60 - 116
N-Nitrosodi-n-propylamine	1330	1110		ug/Kg		83	56 - 118
N-Nitrosodiphenylamine	1330	1220		ug/Kg		91	65 - 112
Pentachlorophenol	2670	1580		ug/Kg		59	13 - 112
Phenanthrene	1330	1210		ug/Kg		90	62 - 120
Phenol	1330	1360		ug/Kg		102	56 - 122
Pyrene	1330	1230		ug/Kg		93	63 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	83		25 - 139
2-Fluorobiphenyl (Surr)	89		44 - 121
2-Fluorophenol (Surr)	107		46 - 133
Nitrobenzene-d5 (Surr)	95		41 - 120
Phenol-d5 (Surr)	107		46 - 125
Terphenyl-d14 (Surr)	81		35 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-420013/1-A
Matrix: Solid
Analysis Batch: 420079

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420013

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<5.9		17	5.9	ug/Kg		02/13/18 16:24	02/14/18 09:30	1
PCB-1221	<7.3		17	7.3	ug/Kg		02/13/18 16:24	02/14/18 09:30	1
PCB-1232	<7.3		17	7.3	ug/Kg		02/13/18 16:24	02/14/18 09:30	1
PCB-1242	<5.5		17	5.5	ug/Kg		02/13/18 16:24	02/14/18 09:30	1
PCB-1248	<6.6		17	6.6	ug/Kg		02/13/18 16:24	02/14/18 09:30	1
PCB-1254	<3.6		17	3.6	ug/Kg		02/13/18 16:24	02/14/18 09:30	1
PCB-1260	<8.2		17	8.2	ug/Kg		02/13/18 16:24	02/14/18 09:30	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	78		49 - 129	02/13/18 16:24	02/14/18 09:30	1
DCB Decachlorobiphenyl	81		37 - 121	02/13/18 16:24	02/14/18 09:30	1

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 500-420013/2-A
Matrix: Solid
Analysis Batch: 420079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420013

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	167	143		ug/Kg		86	57 - 120
PCB-1260	167	145		ug/Kg		87	61 - 125
Surrogate	LCS		Limits				
	%Recovery	Qualifier					
Tetrachloro-m-xylene	82		49 - 129				
DCB Decachlorobiphenyl	91		37 - 121				

Lab Sample ID: 500-140832-23 MS
Matrix: Solid
Analysis Batch: 420079

Client Sample ID: 111717025
Prep Type: Total/NA
Prep Batch: 420013

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<75	F1	212	271	F1	ug/Kg	☼	128	57 - 120
PCB-1260	<100		212	242		ug/Kg	☼	114	61 - 125
Surrogate	MS		Limits						
	%Recovery	Qualifier							
Tetrachloro-m-xylene	102		49 - 129						
DCB Decachlorobiphenyl	111		37 - 121						

Lab Sample ID: 500-140832-23 MSD
Matrix: Solid
Analysis Batch: 420079

Client Sample ID: 111717025
Prep Type: Total/NA
Prep Batch: 420013

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	Limits	RPD	RPD Limit
				Result	Qualifier						
PCB-1016	<75	F1	212	261	F1	ug/Kg	☼	123	57 - 120	4	30
PCB-1260	<100		212	220		ug/Kg	☼	104	61 - 125	10	30
Surrogate	MSD		Limits								
	%Recovery	Qualifier									
Tetrachloro-m-xylene	99		49 - 129								
DCB Decachlorobiphenyl	104		37 - 121								

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 140-18224/19-A
Matrix: Solid
Analysis Batch: 18362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18224

Analyte	MB		RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,3,7,8-TCDD	<0.053		1.0	0.053	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,7,8-PeCDD	<0.067		5.0	0.067	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,4,7,8-HxCDD	<0.10		5.0	0.10	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,6,7,8-HxCDD	<0.11		5.0	0.11	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,7,8,9-HxCDD	<0.099		5.0	0.099	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,4,6,7,8-HpCDD	<0.12		5.0	0.12	pg/g		02/16/18 10:10	02/21/18 19:00	1
OCDD	1.24	J	10	0.085	pg/g		02/16/18 10:10	02/21/18 19:00	1
2,3,7,8-TCDF	<0.072		1.0	0.072	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,7,8-PeCDF	<0.15		5.0	0.15	pg/g		02/16/18 10:10	02/21/18 19:00	1

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-18224/19-A
Matrix: Solid
Analysis Batch: 18362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18224

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,7,8-PeCDF	<0.14		5.0	0.14	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,4,7,8-HxCDF	<0.095		5.0	0.095	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,6,7,8-HxCDF	<0.094		5.0	0.094	pg/g		02/16/18 10:10	02/21/18 19:00	1
2,3,4,6,7,8-HxCDF	<0.098		5.0	0.098	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,7,8,9-HxCDF	<0.11		5.0	0.11	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,4,6,7,8-HpCDF	0.150	J q	5.0	0.057	pg/g		02/16/18 10:10	02/21/18 19:00	1
1,2,3,4,7,8,9-HpCDF	<0.088		5.0	0.088	pg/g		02/16/18 10:10	02/21/18 19:00	1
OCDF	0.421	J	10	0.066	pg/g		02/16/18 10:10	02/21/18 19:00	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	66		25 - 164	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,7,8-PeCDD	69		25 - 181	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,4,7,8-HxCDD	68		32 - 141	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,6,7,8-HxCDD	72		28 - 130	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,4,6,7,8-HpCDD	79		23 - 140	02/16/18 10:10	02/21/18 19:00	1
13C-OCDD	75		17 - 157	02/16/18 10:10	02/21/18 19:00	1
13C-2,3,7,8-TCDF	66		24 - 169	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,7,8-PeCDF	69		24 - 185	02/16/18 10:10	02/21/18 19:00	1
13C-2,3,4,7,8-PeCDF	67		21 - 178	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,4,7,8-HxCDF	68		26 - 152	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,6,7,8-HxCDF	66		26 - 123	02/16/18 10:10	02/21/18 19:00	1
13C-2,3,4,6,7,8-HxCDF	70		28 - 136	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,7,8,9-HxCDF	72		29 - 147	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,4,6,7,8-HpCDF	72		28 - 143	02/16/18 10:10	02/21/18 19:00	1
13C-1,2,3,4,7,8,9-HpCDF	73		26 - 138	02/16/18 10:10	02/21/18 19:00	1
13C-OCDF	74		17 - 157	02/16/18 10:10	02/21/18 19:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	76		35 - 197	02/16/18 10:10	02/21/18 19:00	1

Lab Sample ID: LCS 140-18224/20-A
Matrix: Solid
Analysis Batch: 18362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	20.0	21.5		pg/g		107	67 - 158
1,2,3,7,8-PeCDD	100	103		pg/g		103	70 - 142
1,2,3,4,7,8-HxCDD	100	104		pg/g		104	70 - 164
1,2,3,6,7,8-HxCDD	100	103		pg/g		103	76 - 134
1,2,3,7,8,9-HxCDD	100	104		pg/g		104	64 - 162
1,2,3,4,6,7,8-HpCDD	100	97.3		pg/g		97	70 - 140
OCDD	200	201		pg/g		100	78 - 144
2,3,7,8-TCDF	20.0	20.8		pg/g		104	75 - 158
1,2,3,7,8-PeCDF	100	95.7		pg/g		96	80 - 134
2,3,4,7,8-PeCDF	100	104		pg/g		104	68 - 160
1,2,3,4,7,8-HxCDF	100	101		pg/g		101	72 - 134
1,2,3,6,7,8-HxCDF	100	102		pg/g		102	84 - 130
2,3,4,6,7,8-HxCDF	100	103		pg/g		103	70 - 156

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 140-18224/20-A
Matrix: Solid
Analysis Batch: 18362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,7,8,9-HxCDF	100	101		pg/g		101	78 - 130
1,2,3,4,6,7,8-HpCDF	100	102		pg/g		102	82 - 122
1,2,3,4,7,8,9-HpCDF	100	103		pg/g		103	78 - 138
OCDF	200	167		pg/g		83	63 - 170

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C-2,3,7,8-TCDD	66		20 - 175
13C-1,2,3,7,8-PeCDD	85		21 - 227
13C-1,2,3,4,7,8-HxCDD	74		21 - 193
13C-1,2,3,6,7,8-HxCDD	73		25 - 163
13C-1,2,3,4,6,7,8-HpCDD	88		26 - 166
13C-OCDD	87		13 - 199
13C-2,3,7,8-TCDF	66		22 - 152
13C-1,2,3,7,8-PeCDF	75		21 - 192
13C-2,3,4,7,8-PeCDF	74		13 - 328
13C-1,2,3,4,7,8-HxCDF	70		19 - 202
13C-1,2,3,6,7,8-HxCDF	67		21 - 159
13C-2,3,4,6,7,8-HxCDF	75		22 - 176
13C-1,2,3,7,8,9-HxCDF	70		17 - 205
13C-1,2,3,4,6,7,8-HpCDF	77		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	78		20 - 186
13C-OCDF	85		13 - 199

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
37Cl4-2,3,7,8-TCDD	77		31 - 191

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-419991/1-A
Matrix: Solid
Analysis Batch: 420206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419991

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.34		1.0	0.34	mg/Kg		02/13/18 14:50	02/14/18 13:14	1
Barium	<0.11		1.0	0.11	mg/Kg		02/13/18 14:50	02/14/18 13:14	1
Cadmium	0.0683	J	0.20	0.036	mg/Kg		02/13/18 14:50	02/14/18 13:14	1
Chromium	<0.50		1.0	0.50	mg/Kg		02/13/18 14:50	02/14/18 13:14	1
Lead	<0.23	^	0.50	0.23	mg/Kg		02/13/18 14:50	02/14/18 13:14	1
Selenium	<0.59		1.0	0.59	mg/Kg		02/13/18 14:50	02/14/18 13:14	1
Silver	<0.13		0.50	0.13	mg/Kg		02/13/18 14:50	02/14/18 13:14	1

Lab Sample ID: LCS 500-419991/2-A
Matrix: Solid
Analysis Batch: 420206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419991

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	200	193		mg/Kg		97	80 - 120

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-419991/2-A
Matrix: Solid
Analysis Batch: 420206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419991
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cadmium	5.00	4.69		mg/Kg		94	80 - 120
Chromium	20.0	19.7		mg/Kg		99	80 - 120
Lead	10.0	9.27	^	mg/Kg		93	80 - 120
Selenium	10.0	8.24		mg/Kg		82	80 - 120
Silver	5.00	4.83		mg/Kg		97	80 - 120

Lab Sample ID: MB 500-419995/1-A
Matrix: Solid
Analysis Batch: 420206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419995

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.34		1.0	0.34	mg/Kg		02/13/18 14:55	02/14/18 16:13	1
Barium	<0.11		1.0	0.11	mg/Kg		02/13/18 14:55	02/14/18 16:13	1
Cadmium	0.0627	J	0.20	0.036	mg/Kg		02/13/18 14:55	02/14/18 16:13	1
Chromium	<0.50		1.0	0.50	mg/Kg		02/13/18 14:55	02/14/18 16:13	1
Lead	<0.23	^	0.50	0.23	mg/Kg		02/13/18 14:55	02/14/18 16:13	1
Selenium	<0.59		1.0	0.59	mg/Kg		02/13/18 14:55	02/14/18 16:13	1
Silver	<0.13		0.50	0.13	mg/Kg		02/13/18 14:55	02/14/18 16:13	1

Lab Sample ID: LCS 500-419995/2-A
Matrix: Solid
Analysis Batch: 420206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419995
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	10.0	9.37		mg/Kg		94	80 - 120
Barium	200	186		mg/Kg		93	80 - 120
Cadmium	5.00	4.68		mg/Kg		94	80 - 120
Chromium	20.0	18.9		mg/Kg		94	80 - 120
Lead	10.0	8.87	^	mg/Kg		89	80 - 120
Selenium	10.0	8.45		mg/Kg		85	80 - 120
Silver	5.00	4.99		mg/Kg		100	80 - 120

Lab Sample ID: 500-140832-13 MS
Matrix: Solid
Analysis Batch: 420206

Client Sample ID: 111617013
Prep Type: Total/NA
Prep Batch: 419995
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	1.0	J	12.5	12.2		mg/Kg	☼	89	75 - 125
Barium	22	V	250	250		mg/Kg	☼	91	75 - 125
Cadmium	0.12	J B	6.25	5.55		mg/Kg	☼	87	75 - 125
Chromium	8.9		25.0	31.6		mg/Kg	☼	91	75 - 125
Lead	2.4	^	12.5	14.5	^	mg/Kg	☼	96	75 - 125
Selenium	<0.72		12.5	9.79		mg/Kg	☼	78	75 - 125
Silver	<0.16		6.25	6.08		mg/Kg	☼	97	75 - 125

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QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 500-140832-13 MSD

Matrix: Solid
Analysis Batch: 420206

Client Sample ID: 111617013

Prep Type: Total/NA
Prep Batch: 419995

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	Limits	RPD	
	Result	Qualifier		Result	Qualifier					RPD	Limit
Arsenic	1.0	J	11.6	11.3		mg/Kg	☼	88	75 - 125	8	20
Barium	22	V	233	236		mg/Kg	☼	91	75 - 125	6	20
Cadmium	0.12	J B	5.82	5.20		mg/Kg	☼	87	75 - 125	6	20
Chromium	8.9		23.3	29.5		mg/Kg	☼	89	75 - 125	7	20
Lead	2.4	^	11.6	13.1	^	mg/Kg	☼	91	75 - 125	10	20
Selenium	<0.72		11.6	9.45		mg/Kg	☼	81	75 - 125	4	20
Silver	<0.16		5.82	5.63		mg/Kg	☼	97	75 - 125	8	20

Lab Sample ID: 500-140832-13 DU

Matrix: Solid
Analysis Batch: 420206

Client Sample ID: 111617013

Prep Type: Total/NA
Prep Batch: 419995

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Arsenic	1.0	J	0.971	J	mg/Kg	☼	8	20
Barium	22	V	22.6		mg/Kg	☼	0.5	20
Cadmium	0.12	J B	0.154	J F5	mg/Kg	☼	23	20
Chromium	8.9		8.94		mg/Kg	☼	0.5	20
Lead	2.4	^	2.38	^	mg/Kg	☼	2	20
Selenium	<0.72		<0.70		mg/Kg	☼	NC	20
Silver	<0.16		<0.15		mg/Kg	☼	NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-420120/12-A

Matrix: Solid
Analysis Batch: 420294

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 420120

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.0056		0.017	0.0056	mg/Kg		02/14/18 14:00	02/15/18 11:57	1

Lab Sample ID: LCS 500-420120/13-A

Matrix: Solid
Analysis Batch: 420294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 420120

Analyte	Spike	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Mercury	0.167	0.164		mg/Kg		98	80 - 120

Lab Sample ID: 500-140832-10 MS

Matrix: Solid
Analysis Batch: 420294

Client Sample ID: 111417010

Prep Type: Total/NA
Prep Batch: 420120

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Mercury	0.017	J	0.0963	0.115		mg/Kg	☼	101	75 - 125

TestAmerica Chicago

QC Sample Results

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 500-140832-10 MSD

Matrix: Solid
Analysis Batch: 420294

Client Sample ID: 111417010

Prep Type: Total/NA
Prep Batch: 420120

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.017	J	0.0974	0.116		mg/Kg	☼	102	75 - 125	1	20

Lab Sample ID: 500-140832-10 DU

Matrix: Solid
Analysis Batch: 420294

Client Sample ID: 111417010

Prep Type: Total/NA
Prep Batch: 420120

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.017	J	0.0183	J	mg/Kg	☼	8	20

Lab Sample ID: MB 500-420125/12-A

Matrix: Solid
Analysis Batch: 420294

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 420125

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0056		0.017	0.0056	mg/Kg		02/14/18 14:00	02/15/18 10:01	1

Lab Sample ID: LCS 500-420125/13-A

Matrix: Solid
Analysis Batch: 420294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 420125

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.167		mg/Kg		100	80 - 120

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417001

Date Collected: 02/09/18 14:32

Date Received: 02/13/18 10:30

Lab Sample ID: 500-140832-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417001

Date Collected: 02/09/18 14:32

Date Received: 02/13/18 10:30

Lab Sample ID: 500-140832-1

Matrix: Solid

Percent Solids: 49.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:32	WRE	TAL CHI
Total/NA	Analysis	8260B		500	421025	02/22/18 09:18	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420068	02/14/18 13:19	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 10:31	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18372	02/22/18 02:28	KLR	TAL KNX
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18402	02/23/18 02:52	LKM	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 13:26	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		20	420294	02/15/18 13:38	EEN	TAL CHI

Client Sample ID: 111417002

Date Collected: 02/09/18 14:39

Date Received: 02/13/18 10:30

Lab Sample ID: 500-140832-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417002

Date Collected: 02/09/18 14:39

Date Received: 02/13/18 10:30

Lab Sample ID: 500-140832-2

Matrix: Solid

Percent Solids: 49.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:39	WRE	TAL CHI
Total/NA	Analysis	8260B		500	421025	02/22/18 09:45	PMF	TAL CHI
Total/NA	Prep	5035	DL		420032	02/09/18 14:39	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	5000	421025	02/22/18 10:13	PMF	TAL CHI
Total/NA	Prep	3541	DL2		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL2	1000	420420	02/16/18 14:54	WDS	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		100	420318	02/16/18 03:24	WDS	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417002

Lab Sample ID: 500-140832-2

Date Collected: 02/09/18 14:39

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D	DL	500	420318	02/16/18 03:49	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 10:47	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		10	18382	02/22/18 13:32	KLR	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 13:30	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:09	EEN	TAL CHI

Client Sample ID: 111417003

Lab Sample ID: 500-140832-3

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417003

Lab Sample ID: 500-140832-3

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 61.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:43	WRE	TAL CHI
Total/NA	Analysis	8260B		500	421025	02/22/18 10:40	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		1	420068	02/14/18 11:59	WDS	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	5	420420	02/16/18 15:21	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 11:02	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		5	18372	02/22/18 03:28	KLR	TAL KNX
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		5	18402	02/23/18 03:28	LKM	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 13:34	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		20	420294	02/15/18 13:40	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417004

Lab Sample ID: 500-140832-4

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417004

Lab Sample ID: 500-140832-4

Date Collected: 02/09/18 14:43

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 73.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:43	WRE	TAL CHI
Total/NA	Analysis	8260B		200	421025	02/22/18 11:07	PMF	TAL CHI
Total/NA	Prep	5035	DL		420032	02/09/18 14:43	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	2000	421025	02/22/18 11:35	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420068	02/14/18 11:32	WDS	TAL CHI
Total/NA	Prep	3541	DL2		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL2	100	420420	02/16/18 15:47	WDS	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	50	420318	02/16/18 02:58	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 11:18	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18362	02/21/18 21:27	KLR	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 13:37	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 13:43	EEN	TAL CHI

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Date Collected: 02/09/18 14:48

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Date Collected: 02/09/18 14:48

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:48	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421025	02/22/18 12:03	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420068	02/14/18 12:25	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417005

Lab Sample ID: 500-140832-5

Date Collected: 02/09/18 14:48

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082A		10	420079	02/14/18 11:33	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18372	02/22/18 04:29	KLR	TAL KNX
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18402	02/23/18 04:05	LKM	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 13:41	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		5	420294	02/15/18 13:45	EEN	TAL CHI

Client Sample ID: 111417006

Lab Sample ID: 500-140832-6

Date Collected: 02/09/18 14:50

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417006

Lab Sample ID: 500-140832-6

Date Collected: 02/09/18 14:50

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:50	WRE	TAL CHI
Total/NA	Analysis	8260B		200	421025	02/22/18 12:30	PMF	TAL CHI
Total/NA	Prep	5035	DL		420032	02/09/18 14:50	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	2000	421025	02/22/18 12:58	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420063	02/14/18 13:12	AJD	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	25	420138	02/15/18 00:22	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 11:48	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18372	02/22/18 05:31	KLR	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 13:45	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:18	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417007

Lab Sample ID: 500-140832-7

Date Collected: 02/09/18 14:53

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417007

Lab Sample ID: 500-140832-7

Date Collected: 02/09/18 14:53

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 74.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:53	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421025	02/22/18 13:25	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420063	02/14/18 13:39	AJD	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	25	420138	02/15/18 00:48	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 12:04	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18372	02/22/18 06:33	KLR	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 13:49	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:21	EEN	TAL CHI

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Date Collected: 02/09/18 14:54

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Date Collected: 02/09/18 14:54

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:54	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421025	02/22/18 13:52	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		1	420063	02/14/18 14:32	AJD	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	5	420138	02/15/18 01:14	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 12:19	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417008

Lab Sample ID: 500-140832-8

Date Collected: 02/09/18 14:54

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	1613B		5	18372	02/22/18 07:34	KLR	TAL KNX
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		5	18402	02/23/18 04:41	LKM	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 14:01	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:23	EEN	TAL CHI

Client Sample ID: 111417009

Lab Sample ID: 500-140832-9

Date Collected: 02/09/18 14:58

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417009

Lab Sample ID: 500-140832-9

Date Collected: 02/09/18 14:58

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 14:58	WRE	TAL CHI
Total/NA	Analysis	8260B		500	421025	02/22/18 14:20	PMF	TAL CHI
Total/NA	Prep	5035	DL		420032	02/09/18 14:58	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	5000	421025	02/22/18 14:47	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		20	420068	02/14/18 15:33	WDS	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	100	420420	02/16/18 17:33	WDS	TAL CHI
Total/NA	Prep	3541	DL2		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL2	1000	420420	02/16/18 17:59	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 12:35	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18372	02/22/18 08:36	KLR	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 14:05	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:25	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417010

Lab Sample ID: 500-140832-10

Date Collected: 02/09/18 15:00

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417010

Lab Sample ID: 500-140832-10

Date Collected: 02/09/18 15:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 15:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421025	02/22/18 15:15	PMF	TAL CHI
Total/NA	Prep	5035	DL		420032	02/09/18 15:00	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	500	421025	02/22/18 15:43	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420068	02/14/18 12:52	WDS	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	50	420420	02/16/18 18:26	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 12:50	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		5	18382	02/22/18 15:35	KLR	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 14:09	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:27	EEN	TAL CHI

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Date Collected: 02/09/18 15:04

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Date Collected: 02/09/18 15:04

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 75.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 15:04	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421025	02/22/18 16:10	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420068	02/14/18 13:46	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 13:05	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111417011

Lab Sample ID: 500-140832-11

Date Collected: 02/09/18 15:04

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 75.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	1613B		5	18382	02/22/18 16:37	KLR	TAL KNX
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		5	18402	02/23/18 05:18	LKM	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 14:13	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		20	420294	02/15/18 13:47	EEN	TAL CHI

Client Sample ID: 111417012

Lab Sample ID: 500-140832-12

Date Collected: 02/09/18 15:10

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111417012

Lab Sample ID: 500-140832-12

Date Collected: 02/09/18 15:10

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 49.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 15:10	WRE	TAL CHI
Total/NA	Analysis	8260B		1000	421025	02/22/18 16:38	PMF	TAL CHI
Total/NA	Prep	5035	DL		420032	02/09/18 15:10	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	10000	421025	02/22/18 17:05	PMF	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420068	02/14/18 14:12	WDS	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	25	420420	02/16/18 18:52	WDS	TAL CHI
Total/NA	Prep	3541	DL2		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL2	100	420420	02/16/18 19:19	WDS	TAL CHI
Total/NA	Prep	3541	DL3		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL3	200	420420	02/16/18 20:38	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 13:21	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		10	18382	02/22/18 14:33	KLR	TAL KNX
Total/NA	Prep	3050B			419991	02/13/18 14:50	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 14:17	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:44	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617013

Lab Sample ID: 500-140832-13

Date Collected: 02/09/18 12:00

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111617013

Lab Sample ID: 500-140832-13

Date Collected: 02/09/18 12:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420032	02/09/18 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421207	02/23/18 13:29	JDD	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		1	420063	02/14/18 10:58	AJD	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 16:21	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:46	EEN	TAL CHI

Client Sample ID: 111617014

Lab Sample ID: 500-140832-14

Date Collected: 02/09/18 13:00

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111617014

Lab Sample ID: 500-140832-14

Date Collected: 02/09/18 13:00

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 51.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 13:00	WRE	TAL CHI
Total/NA	Analysis	8260B		200	421029	02/22/18 13:03	JDD	TAL CHI
Total/NA	Prep	5035	DL		420033	02/09/18 13:00	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	2000	421029	02/22/18 13:29	JDD	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420068	02/14/18 14:39	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 16:49	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:48	EEN	TAL CHI

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111617015

Lab Sample ID: 500-140832-15

Date Collected: 02/09/18 13:03

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111617015

Lab Sample ID: 500-140832-15

Date Collected: 02/09/18 13:03

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 13:03	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421029	02/22/18 13:56	JDD	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		1	420063	02/14/18 11:25	AJD	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 16:52	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:51	EEN	TAL CHI

Client Sample ID: 111717016

Lab Sample ID: 500-140832-16

Date Collected: 02/09/18 13:05

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111717016

Lab Sample ID: 500-140832-16

Date Collected: 02/09/18 13:05

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 13:05	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421029	02/22/18 14:23	JDD	TAL CHI
Total/NA	Prep	5035	DL		420033	02/09/18 13:05	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	500	421029	02/22/18 14:49	JDD	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		5	420063	02/14/18 14:59	AJD	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	25	420138	02/15/18 01:39	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 16:57	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 12:53	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717017

Lab Sample ID: 500-140832-17

Date Collected: 02/09/18 13:08

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111717017

Lab Sample ID: 500-140832-17

Date Collected: 02/09/18 13:08

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 13:08	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421029	02/22/18 15:16	JDD	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		1	420063	02/14/18 12:18	AJD	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:01	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		5	420294	02/15/18 13:49	EEN	TAL CHI

Client Sample ID: 111717018

Lab Sample ID: 500-140832-18

Date Collected: 02/09/18 13:11

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111717018

Lab Sample ID: 500-140832-18

Date Collected: 02/09/18 13:11

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 13:11	WRE	TAL CHI
Total/NA	Analysis	8260B		500	421197	02/23/18 12:04	PMF	TAL CHI
Total/NA	Prep	5035			420033	02/09/18 13:11	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421029	02/22/18 15:43	JDD	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		1	420063	02/14/18 11:52	AJD	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	10	420138	02/15/18 02:05	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:04	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 13:02	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717019

Lab Sample ID: 500-140832-19

Date Collected: 02/09/18 13:15

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111717019

Lab Sample ID: 500-140832-19

Date Collected: 02/09/18 13:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 13:15	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421029	02/22/18 16:10	JDD	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		1	420063	02/14/18 12:45	AJD	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	5	420138	02/15/18 02:31	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:08	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 13:04	EEN	TAL CHI

Client Sample ID: 111717020

Lab Sample ID: 500-140832-20

Date Collected: 02/09/18 13:20

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420047	02/14/18 07:13	LWN	TAL CHI

Client Sample ID: 111717020

Lab Sample ID: 500-140832-20

Date Collected: 02/09/18 13:20

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL2		420033	02/09/18 13:20	WRE	TAL CHI
Total/NA	Analysis	8260B	DL2	20000	421197	02/23/18 18:21	PMF	TAL CHI
Total/NA	Prep	5035			420033	02/09/18 13:20	WRE	TAL CHI
Total/NA	Analysis	8260B		100	421207	02/23/18 16:09	JDD	TAL CHI
Total/NA	Prep	5035	DL		420033	02/09/18 13:20	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	1000	421207	02/23/18 16:35	JDD	TAL CHI
Total/NA	Prep	3541			420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D		100	420068	02/14/18 16:26	WDS	TAL CHI
Total/NA	Prep	3541	DL		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	500	420420	02/16/18 19:45	WDS	TAL CHI
Total/NA	Prep	3541	DL2		420017	02/13/18 17:39	JP1	TAL CHI
Total/NA	Analysis	8270D	DL2	2000	420420	02/16/18 20:12	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111717020

Lab Sample ID: 500-140832-20

Date Collected: 02/09/18 13:20

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 70.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	420206	02/14/18 17:13	PJ1	TAL CHI
Total/NA	Prep	7471B			420120	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 13:07	EEN	TAL CHI

Client Sample ID: 111717021

Lab Sample ID: 500-140832-21

Date Collected: 02/09/18 13:23

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420051	02/14/18 07:27	LWN	TAL CHI

Client Sample ID: 111717021

Lab Sample ID: 500-140832-21

Date Collected: 02/09/18 13:23

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL		420033	02/09/18 13:23	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	2000	421197	02/23/18 15:00	PMF	TAL CHI
Total/NA	Prep	5035			420033	02/09/18 13:23	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421207	02/23/18 13:56	JDD	TAL CHI
Total/NA	Prep	3541			420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D		10	420318	02/15/18 22:42	WDS	TAL CHI
Total/NA	Prep	3541	DL		420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D	DL	100	420318	02/15/18 23:07	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:17	PJ1	TAL CHI
Total/NA	Prep	7471B			420125	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 10:06	EEN	TAL CHI

Client Sample ID: 111717023

Lab Sample ID: 500-140832-22

Date Collected: 02/09/18 15:15

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420051	02/14/18 07:27	LWN	TAL CHI

Client Sample ID: 111717023

Lab Sample ID: 500-140832-22

Date Collected: 02/09/18 15:15

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 68.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL		420033	02/09/18 15:15	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	1000	421197	02/23/18 15:25	PMF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 15:15	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421207	02/23/18 14:22	JDD	TAL CHI
Total/NA	Prep	3541	DL		420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D	DL	50	420420	02/16/18 16:14	WDS	TAL CHI
Total/NA	Prep	3541			420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D		20	420318	02/15/18 23:33	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 13:36	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18382	02/22/18 17:39	KLR	TAL KNX
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:29	PJ1	TAL CHI
Total/NA	Prep	7471B			420125	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 10:08	EEN	TAL CHI

Client Sample ID: 111717025

Lab Sample ID: 500-140832-23

Date Collected: 02/09/18 15:13

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420051	02/14/18 07:27	LWN	TAL CHI

Client Sample ID: 111717025

Lab Sample ID: 500-140832-23

Date Collected: 02/09/18 15:13

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL		420033	02/09/18 15:13	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	20000	421197	02/23/18 12:30	PMF	TAL CHI
Total/NA	Prep	5035			420033	02/09/18 15:13	WRE	TAL CHI
Total/NA	Analysis	8260B		500	421034	02/22/18 13:48	PMF	TAL CHI
Total/NA	Prep	3541			420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D		1	420138	02/15/18 03:48	WDS	TAL CHI
Total/NA	Prep	3541	DL		420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D	DL	10	420318	02/15/18 23:58	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 13:52	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		1	18382	02/22/18 18:40	KLR	TAL KNX
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:33	PJ1	TAL CHI
Total/NA	Prep	7471B			420125	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 10:15	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817027

Lab Sample ID: 500-140832-24

Date Collected: 02/09/18 15:18

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420051	02/14/18 07:27	LWN	TAL CHI

Client Sample ID: 111817027

Lab Sample ID: 500-140832-24

Date Collected: 02/09/18 15:18

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 45.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL		420033	02/09/18 15:18	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	100	421197	02/23/18 15:50	PMF	TAL CHI
Total/NA	Prep	5035			420033	02/09/18 15:18	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421207	02/23/18 14:49	JDD	TAL CHI
Total/NA	Prep	3541			420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D		10	420318	02/16/18 00:24	WDS	TAL CHI
Total/NA	Prep	3541			420013	02/13/18 16:24	NRJ	TAL CHI
Total/NA	Analysis	8082A		10	420079	02/14/18 15:45	BJH	TAL CHI
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		5	18382	02/22/18 19:42	KLR	TAL KNX
Total/NA	Prep	HRMS-Sox			18224	02/16/18 10:10	SSS	TAL KNX
Total/NA	Analysis	1613B		5	18402	02/23/18 05:54	LKM	TAL KNX
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:37	PJ1	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420387	02/15/18 17:40	PJ1	TAL CHI
Total/NA	Prep	7471B			420125	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		5	420294	02/15/18 13:15	EEN	TAL CHI

Client Sample ID: 111817028

Lab Sample ID: 500-140832-25

Date Collected: 02/09/18 13:35

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420051	02/14/18 07:27	LWN	TAL CHI

Client Sample ID: 111817028

Lab Sample ID: 500-140832-25

Date Collected: 02/09/18 13:35

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 67.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 13:35	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421207	02/23/18 15:15	JDD	TAL CHI
Total/NA	Prep	3541			420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D		1	420318	02/15/18 22:16	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817028

Lab Sample ID: 500-140832-25

Date Collected: 02/09/18 13:35

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 67.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	420206	02/14/18 17:41	PJ1	TAL CHI
Total/NA	Prep	7471B			420125	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 10:20	EEN	TAL CHI

Client Sample ID: 111817029

Lab Sample ID: 500-140832-26

Date Collected: 02/09/18 13:38

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420051	02/14/18 07:27	LWN	TAL CHI

Client Sample ID: 111817029

Lab Sample ID: 500-140832-26

Date Collected: 02/09/18 13:38

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 66.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL		420033	02/09/18 13:38	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	10000	421197	02/23/18 12:55	PMF	TAL CHI
Total/NA	Prep	5035			420033	02/09/18 13:38	WRE	TAL CHI
Total/NA	Analysis	8260B		1000	421034	02/22/18 14:48	PMF	TAL CHI
Total/NA	Prep	3541	DL2		420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D	DL2	1000	420420	02/16/18 16:40	WDS	TAL CHI
Total/NA	Prep	3541			420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D		100	420318	02/16/18 01:15	WDS	TAL CHI
Total/NA	Prep	3541	DL		420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D	DL	200	420318	02/16/18 01:41	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:44	PJ1	TAL CHI
Total/NA	Prep	7471B			420125	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 10:22	EEN	TAL CHI

Client Sample ID: 111817030

Lab Sample ID: 500-140832-27

Date Collected: 02/09/18 13:40

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	420051	02/14/18 07:27	LWN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Client Sample ID: 111817030

Lab Sample ID: 500-140832-27

Date Collected: 02/09/18 13:40

Matrix: Solid

Date Received: 02/13/18 10:30

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL2		420033	02/09/18 13:40	WRE	TAL CHI
Total/NA	Analysis	8260B	DL2	200000	421197	02/23/18 13:20	PMF	TAL CHI
Total/NA	Prep	5035	DL		420033	02/09/18 13:40	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	20000	421197	02/23/18 14:10	PMF	TAL CHI
Total/NA	Prep	5035			420033	02/09/18 13:40	WRE	TAL CHI
Total/NA	Analysis	8260B		2000	421034	02/22/18 15:49	PMF	TAL CHI
Total/NA	Prep	3541	DL2		420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D	DL2	5000	420420	02/16/18 17:06	WDS	TAL CHI
Total/NA	Prep	3541			420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D		500	420318	02/16/18 02:07	WDS	TAL CHI
Total/NA	Prep	3541	DL		420052	02/14/18 07:33	NKG	TAL CHI
Total/NA	Analysis	8270D	DL	2000	420318	02/16/18 02:32	WDS	TAL CHI
Total/NA	Prep	3050B			419995	02/13/18 14:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	420206	02/14/18 17:48	PJ1	TAL CHI
Total/NA	Prep	7471B			420125	02/14/18 14:00	EEN	TAL CHI
Total/NA	Analysis	7471B		1	420294	02/15/18 10:24	EEN	TAL CHI

Client Sample ID: Trip Blank

Lab Sample ID: 500-140832-28

Date Collected: 02/09/18 00:00

Matrix: Solid

Date Received: 02/13/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			420033	02/09/18 00:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421197	02/23/18 18:46	PMF	TAL CHI
Total/NA	Prep	5035			420033	02/09/18 00:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	421207	02/23/18 15:42	JDD	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: O'Brien & Gere Engineers, Inc.
Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

Laboratory: TestAmerica Knoxville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998044300	08-31-18

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.634.5200 Fax: 708.634.5211

Report To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# 500-140832 COC

Chain of Custody Record

Lab Job #: 500-140832

Chain of Custody Number: _____

Page 1 of 3

Temperature °C of Cooler: (5.9)(3.8)(5.3)(3.4)



Client		Client Project #		Preservative	Method								Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Lab Project #		Parameter											
Project Location/State		Lab PM													
Sampler															
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOC/METALS	PCBs	DIOXINS/FURANS					Comments
			Date	Time											
1		111417001	2/29/18	10:00 - 14:32	5	S	X	X	X	X					
2		111417002		10:00 - 14:39			X	X	X	X					
3		111417003		10:22 - 14:43			X	X	X	X					
4		111417004		10:25 - 14:43			X	X	X	X					
5		111417005		10:30 - 14:48			X	X	X	X					
6		111417006		10:35 - 14:50			X	X	X	X					
7		111417007		10:45 - 14:53			X	X	X	X					
8		111417008		10:50 - 14:54			X	X	X	X					
9		111417009		11:05 - 14:58			X	X	X	X					
10		111417010		11:10 - 15:00			X	X	X	X					

Turnaround Time Required (Business Days) _____
 Requested Due Date _____
 Sample Disposal: Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: <u>PTS Laboratories, Inc.</u> Date: <u>2/12/18</u> Time: <u>1430</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>02/13/18</u> Time: <u>1030</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: _____
 Shipped:
 Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO# / Reference# _____

Chain of Custody Record

Lab Job #: 500-140832

Chain of Custody Number: _____

Page 2 of 3

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Matrix		Parameter		Comments	
NRT		1584/14-3B		Manual							
Project Name		Lab Project #		# of Containers		Matrix		Parameter		Comments	
WBS - Green Bay former MGP		47430									
Project Location/State		Lab PM									
Sampler		RS									
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOCs	SVOC/METALS	PCBs	Dioxins/Furans	Comments
11		111417011	2/9/18	1117-1504	5	S	X	X	X	X	
12		111417012		1125-1510	5		X	X	X	X	
13		111617013		1127-1200	3		X	X			
14		111617014		1130-1300			X	X			
15		111617015		1135-1303			X	X			
16		111717016		1140-1305			X	X			
17		111717017		1145-1308			X	X			
18		111717018		1150-1311			X	X			
19		111717019		1155-1315			X	X			
20		111717020		1315-1320			X	X			

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <i>[Signature]</i>	Company: <u>PTS Laboratories, Inc</u>	Date: <u>2/12/18</u>	Time: <u>1430</u>	Received By: <i>[Signature]</i>	Company: <u>TA</u>	Date: <u>02/13/18</u>	Time: <u>1030</u>
Relinquished By:	Company:	Date:	Time:	Received By:	Company:	Date:	Time:
Relinquished By:	Company:	Date:	Time:	Received By:	Company:	Date:	Time:

Lab Courier: _____
Shipped: _____
Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-140832

Chain of Custody Number: _____

Page 3 of 3

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
NRT		1584/14-38		Methanol						Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Parameter		Matrix		Matrix		Comments	
WBS-Green Bay former MGP		47430				VOCs		SVOC/METALS			
Project Location/State		Lab PM		Parameter		Matrix		Matrix		Comments	
Sampler		Lab PM									
AO		RS									
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Matrix	Comments
21		111717021	2/8/18	1320 1323	3	S	X	X			
22		111717023		1325 1515	5		X	X	X	X	
23		111717025		1330 1513	1		X	X	X	X	
24		111817027		1335 1518	1		X	X	X	X	
25		111817028		1342 1335	3		X	X			
26		111817029		1350 1338	1		X	X			
27		111817030		1355 1340	1		X	X			
28		TRIP BLANK		-	4						

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Sample Disposal

Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	PTS Laboratories, Inc	2/12/18	1430	<i>[Signature]</i>	TA	02/13/18	1030
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: _____
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments

Lab Comments:

ORIGIN ID: LKSA (713) 316-1800
RICK SCHWEIZER
5730 CENTRALCREST ST
HOUSTON, TX 77092
UNITED STATES US

SHIP DATE: 12FEB18
ACTWGT: 16.20 LB
CAD: 6992495/SSF01822
DIMS: 24x13x13 IN
BILL RECIPIENT

Part # 190297-035 1/1/18

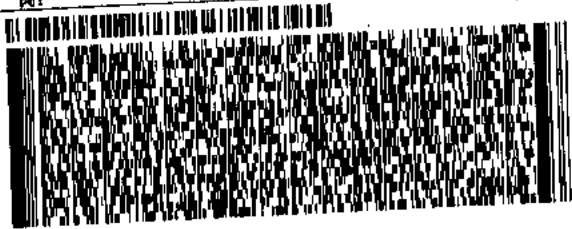
TO **SAMPLE RECIPT**
TEST AMERICA CHICAGO LAB
2417 BOND ST

UNIVERSITY PARK IL 60484

(708) 584-6200
INVT
PO:

REF:

DEPT:

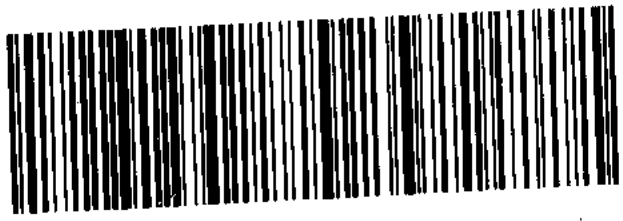


1 of 4
TRK# 7897 0728 3640
0201
MASTER

TUE - 13 FEB 10:30A
PRIORITY OVERNIGHT

AC JOTA

60484
IL-US ORD



48qt



500-140832 Waybill

316-1800

SHIP DATE: 12FEB18
ACTWGT: 17.50 LB
CAD: 6992495/SSF01822
DIMS: 24x13x13 IN
BILL RECIPIENT

Part # 190297-035 1/1/18

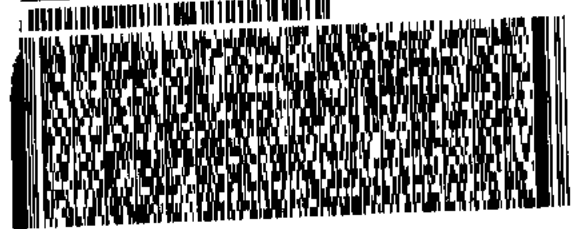
TO **SAMPLE RECIPT**
TEST AMERICA CHICAGO LAB
2417 BOND ST

UNIVERSITY PARK IL 60484

(708) 584-6200
INVT
PO:

REF:

DEPT:



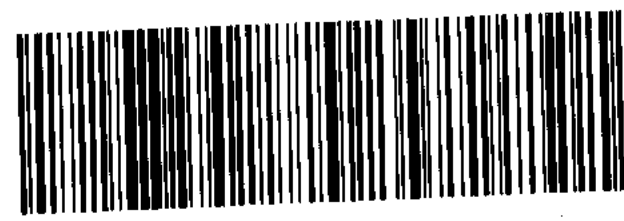
2 of 4
MPS# 7897 0728 3650
0263
Mstr# 7897 0728 3640

0201

TUE - 13 FEB 10:30A
PRIORITY OVERNIGHT

AC JOTA

60484
IL-US ORD



48qt.

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ORIGIN ID:LKSA (713) 316-1800
RICK SCHWEIZER
5730 CENTRALCREST ST
HOUSTON, TX 77092
UNITED STATES US

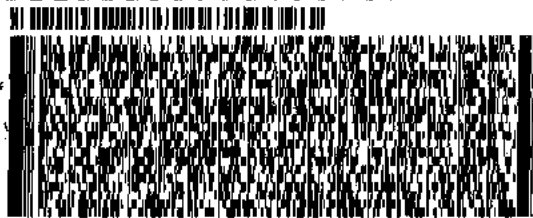
SHIP DATE: 12FEB18
ACTWGT: 29.70 LB
CAD: 6992495/99F01822
DIMS: 24x13x13 IN
BILL RECIPIENT

Part # 156927-282-9164-1629 11/18

TO **SAMPLE RECIEPT**
TEST AMERICA CHICAGO LAB
2417 BOND ST

UNIVERSITY PARK IL 60484

(708) 634-6200 REF: INVT: PD1: DEPT:



3 of 4
MPS# 7897 0728 3661
0263
Mstr# 7897 0728 3640 0201
AC JOTA 60484
IL-US ORD



48qt

ORIGIN ID:LKSA (713) 316-1800
RICK SCHWEIZER
5730 CENTRALCREST ST
HOUSTON, TX 77092
UNITED STATES US

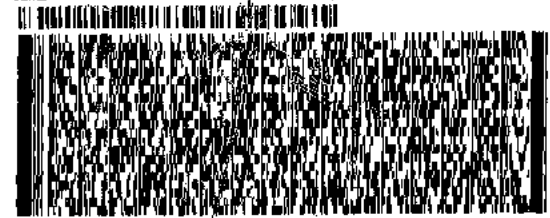
SHIP DATE: 12FEB18
ACTWGT: 35.40 LB
CAD: 6992495/99F01822
DIMS: 24x13x13 IN
BILL RECIPIENT

Part # 156927-282-9164-1629 11/18

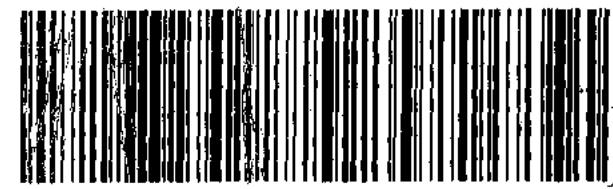
TO **SAMPLE RECIEPT**
TEST AMERICA CHICAGO LAB
2417 BOND ST

UNIVERSITY PARK IL 60484

(708) 634-6200 REF: INVT: PD1: DEPT:



4 of 4
MPS# 7897 0728 3672
0263
Mstr# 7897 0728 3640 0201
AC JOTA 60484
IL-US ORD



48qt

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TestAmerica Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:		Lab PMT: Fredrick, Sandie J		Carrier Tracking No(s):		COC No: 500-100656.1			
Client Contact: Shipping/Receiving		Phone:		E-Mail: sandie.fredrick@testamericainc.com		State of Origin: Wisconsin		Page: Page 1 of 2			
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note): State Program - Wisconsin				Job #: 500-140832-1			
Address: 5815 Middlebrook Pike, City: Knoxville State, Zip: TN, 37921 Phone: 865-291-3000(Tel) 865-584-4315(Fax) Email:		Due Date Requested: 2/23/2018 TAT Requested (days):		Analysis Requested						Preservation Codes:	
Project Name: WPSC Property - Green Bay Site:		Project #: 50013990 SSOW#:								A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA	
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Inorganic, Sulfid, Organotol, ET, Tissue, Air)	Field # (Lab ID)	Sample # (Lab ID)	Total Number of Samples	Special Instructions/Note:		
111417001 (500-140832-1)		2/9/18	14:32 Central	Solid		X			CUSTOM SEALS INTACT		
111417002 (500-140832-2)		2/9/18	14:39 Central	Solid		X			UNHELD AT RT 0.1/100°C		
111417003 (500-140832-3)		2/9/18	14:43 Central	Solid		X			REF 2-1478		
111417004 (500-140832-4)		2/9/18	14:43 Central	Solid		X			100% PAXA		
111417005 (500-140832-5)		2/9/18	14:48 Central	Solid		X			4059 7169 7834		
111417006 (500-140832-6)		2/9/18	14:50 Central	Solid		X					
111417007 (500-140832-7)		2/9/18	14:53 Central	Solid		X					
111417008 (500-140832-8)		2/9/18	14:54 Central	Solid		X					
111417009 (500-140832-9)		2/9/18	14:58 Central	Solid		X					

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be per Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.



500-140832 Chain of Custody

does not
merica

Possible Hazard Identification				Sample Disposal (A fee may be ass)			
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 02/13/18 @ 1630		Company: TA		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by:	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Page 246 of 251

2/28/2018



TestAmerica Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)				Sampler:			Lab PM: Fredrick, Sandie J			Carrier Tracking No(s):			COC No: 500-100656.2																																																											
Client Contact: Shipping/Receiving				Phone:			E-Mail: sandie.fredrick@testamericainc.com			State of Origin: Wisconsin			Page: Page 2 of 2																																																											
Company: TestAmerica Laboratories, Inc.						Accreditations Required (See note): State Program - Wisconsin						Job #: 500-140832-1																																																												
Address: 5815 Middlebrook Pike,				Due Date Requested: 2/23/2018			Analysis Requested						Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O+S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:																																																											
City: Knoxville				TAT Requested (days):																																																																				
State, Zip: TN, 37921				PO #:																																																																				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)				WO #:																																																																				
Email:				Project #: 50013990			1913B/1614B_P_Box/het Standard 17 Isomers Only (1913B/1614B_P_Box/het Standard 17 Isomers Only)			(1913B/1614B_P_Box/het Standard 17 Isomers Only)																																																														
Project Name: WPSC Property - Green Bay				Site: SSOW#:																																																																				
Sample Identification - Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, G=wastewater, ET=Tissue, AA=Air)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="7">Preservation Code</th> </tr> <tr> <td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> </table>						Preservation Code							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special Instructions/Note:		
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111417010 (500-140832-10)	2/9/18	15:00 Central	Solid			X																																																																		
111417011 (500-140832-11)	2/9/18	15:04 Central	Solid			X																																																																		
111417012 (500-140832-12)	2/9/18	15:10 Central	Solid			X																																																																		
111717023 (500-140832-22)	2/9/18	15:15 Central	Solid			X																																																																		
111717025 (500-140832-23)	2/9/18	15:13 Central	Solid			X																																																																		
111817027 (500-140832-24)	2/9/18	15:18 Central	Solid			X																																																																		

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. |

Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:			Date:			Time:			Method of Shipment:		
Relinquished by:			Date/Time: 02/13/18 @ 1630			Company: TA			Received by:		
Relinquished by:			Date/Time:			Company:			Received by:		
Relinquished by:			Date/Time:			Company:			Received by:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:					

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2/28/2018



TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			<input type="checkbox"/> Containers, Broken	
2. Were ambient air containers received intact?			/	<input type="checkbox"/> Checked in lab	
3. The coolers/containers custody seal if present, is it intact?	/			<input type="checkbox"/> Yes <input type="checkbox"/> NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID : <u>3667</u> Correction factor: <u>-0.1°C</u>	/			<input type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			<input type="checkbox"/> Containers, Broken	
6. Were samples received in appropriate containers?	/			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	/			<input type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			<input type="checkbox"/> COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC?	/		/	<input type="checkbox"/> Sampler Not Listed on COC	Labeling Verified by: _____ Date: _____
11. Is the client and project name/# identified?	/			<input type="checkbox"/> COC Incorrect/Incomplete	pH test strip lot number: _____
12. Are tests/parameters listed for each sample?	/			<input type="checkbox"/> COC No tests on COC	
13. Is the matrix of the samples noted?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			<input type="checkbox"/> COC Incorrect/Incomplete	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	/			<input type="checkbox"/> Holding Time - Receipt	Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?			/	<input type="checkbox"/> pH Adjusted, pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	Lot Number: _____
17. Were VOA samples received without headspace?			/	<input type="checkbox"/> Headspace (VOA only)	Exp Date: _____
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/	<input type="checkbox"/> Residual Chlorine	Analyst: _____
19. For 1613B water samples is pH<9?			/	<input type="checkbox"/> If no, lab will adjust	Date: _____
20. For rad samples was sample activity info. Provided?			/	<input type="checkbox"/> Project missing info	Time: _____
Project #: _____ PM Instructions: _____					

Sample Receiving Associate: [Signature] Date: 2-14-18

QA026R30.doc, 080916



Login Sample Receipt Checklist

Client: O'Brien & Gere Engineers, Inc.

Job Number: 500-140832-1

Login Number: 140832

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(5.9)(5.3)(3.8)(3.4)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Sample times on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		TCDD (25-164)	PeCDD (25-181)	HxCDD (32-141)	HxDD (28-130)	HpCDD (23-140)	OCDD (17-157)	TCDF (24-169)	PeCDF (24-185)
500-140832-1	111417001	67	58	57	58	52	22	60	56
500-140832-1	111417001							140	
500-140832-2	111417002	43	58	45	41	44	43	38	48
500-140832-3	111417003	55	66	55	48	55	35	49	54
500-140832-3	111417003							69	
500-140832-4	111417004	70	79	68	64	97	91	66	77
500-140832-5	111417005	65	85	65	63	83	84	57	61
500-140832-5	111417005							86	
500-140832-6	111417006	66	96	71	67	88	91	56	79
500-140832-7	111417007	69	96	70	67	84	87	57	79
500-140832-8	111417008	66	90	64	59	73	76	54	76
500-140832-8	111417008							70	
500-140832-9	111417009	63	76	65	59	72	71	59	48
500-140832-10	111417010	71	98	73	68	82	84	62	84
500-140832-11	111417011	66	95	66	64	85	93	54	73
500-140832-11	111417011							65	
500-140832-12	111417012	58	76	53 q	58	57	52	54	67
500-140832-22	111717023	67	91	65	65	82	86	60	79
500-140832-23	111717025	70	91	69	68	87	94	65	82
500-140832-24	111817027	58	73	65	63	87	83	56	65
500-140832-24	111817027							71	
MB 140-18224/19-A	Method Blank	66	69	68	72	79	75	66	69

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PeCF (21-178)	HxCDF (26-152)	HxDF (26-123)	13CHxCF (28-136)	HxCF (29-147)	HpCDF (28-143)	HpCDF2 (26-138)	13C-OCDF (17-157)
500-140832-1	111417001	53	58	53	56	49	41	43	22
500-140832-1	111417001								
500-140832-2	111417002	46	36	33	31	31	31	31	34
500-140832-3	111417003	56	45	40	41	43	39 q	40	34
500-140832-3	111417003								
500-140832-4	111417004	76	65	60	69	71	70	84	84
500-140832-5	111417005	73	55	51	59	59	55	63	70
500-140832-5	111417005								
500-140832-6	111417006	80	54	52	58	63	56	69	77
500-140832-7	111417007	79	56	51	56	59	57	64	74
500-140832-8	111417008	73	53	48	52	53	53	55	63
500-140832-8	111417008								
500-140832-9	111417009	60	55	50	57	58	51	59	61
500-140832-10	111417010	83	61	57	63	60	63	65	73
500-140832-11	111417011	75	55	52	57	57	61	65	83
500-140832-11	111417011								
500-140832-12	111417012	61	51	45	47	43	44	41	41
500-140832-22	111717023	79	57	52	60	62	56	67	77
500-140832-23	111717025	82	59	56	63	66	61	73	83
500-140832-24	111817027	69	62	55	58	60	69	72	79
500-140832-24	111817027								
MB 140-18224/19-A	Method Blank	67	68	66	70	72	72	73	74

Surrogate Legend

TestAmerica Chicago

Isotope Dilution Summary

Client: O'Brien & Gere Engineers, Inc.
 Project/Site: WBS Property - GB - Fmr MGP 1584/14.3B

TestAmerica Job ID: 500-140832-1

TCDD = 13C-2,3,7,8-TCDD
 PeCDD = 13C-1,2,3,7,8-PeCDD
 HxCDD = 13C-1,2,3,4,7,8-HxCDD
 HxDD = 13C-1,2,3,6,7,8-HxCDD
 HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
 OCDD = 13C-OCDD
 TCDF = 13C-2,3,7,8-TCDF
 PeCDF = 13C-1,2,3,7,8-PeCDF
 PeCF = 13C-2,3,4,7,8-PeCDF
 HxCDF = 13C-1,2,3,4,7,8-HxCDF
 HxDF = 13C-1,2,3,6,7,8-HxCDF
 13CHxCF = 13C-2,3,4,6,7,8-HxCDF
 HxCF = 13C-1,2,3,7,8,9-HxCDF
 HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
 HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
 13C-OCDF = 13C-OCDF

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCDD (20-175)	PeCDD (21-227)	HxCDD (21-193)	HxDD (25-163)	HpCDD (26-166)	OCDD (13-199)	TCDF (22-152)	PeCDF (21-192)
LCS 140-18224/20-A	Lab Control Sample	66	85	74	73	88	87	66	75

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PeCF (13-328)	HxCDF (19-202)	HxDF (21-159)	13CHxCF (22-176)	HxCF (17-205)	HpCDF (21-158)	HpCDF2 (20-186)	13C-OCDF (13-199)
LCS 140-18224/20-A	Lab Control Sample	74	70	67	75	70	77	78	85

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
 PeCDD = 13C-1,2,3,7,8-PeCDD
 HxCDD = 13C-1,2,3,4,7,8-HxCDD
 HxDD = 13C-1,2,3,6,7,8-HxCDD
 HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
 OCDD = 13C-OCDD
 TCDF = 13C-2,3,7,8-TCDF
 PeCDF = 13C-1,2,3,7,8-PeCDF
 PeCF = 13C-2,3,4,7,8-PeCDF
 HxCDF = 13C-1,2,3,4,7,8-HxCDF
 HxDF = 13C-1,2,3,6,7,8-HxCDF
 13CHxCF = 13C-2,3,4,6,7,8-HxCDF
 HxCF = 13C-1,2,3,7,8,9-HxCDF
 HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
 HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
 13C-OCDF = 13C-OCDF

**Attachment 2 - PTS
Core Photographs and
Data Package**

Project Name: WBS-Green Bay Former MGP
 Project Number: 1584/14.3B

PTS File No: 47430
 Client: Natural Resource Technology

TEST PROGRAM - 20180115

CORE ID	Depth ft.	Core Recovery ft.	Slab and Core Photo	Residual Saturation by Water Drive	Fluid Properties Pkg.	Fluid Cleaning		Comments
			1/4:3/4	Vert. 1.5"	TM D1481, 445,	Proprietary		
Date Received: 20171118								
111417001	10.2-12.2	1.80	2					1 1/4" acetate sleeve
111417002	19.2-21.2	2.00	2					1 1/4" acetate sleeve
111417003	5.9-7.9	1.95	2					1 1/4" acetate sleeve
111417004	18.4-20.4	2.00	2					1 1/4" acetate sleeve
111417005	7.7-9.7	1.83	2					1 1/4" acetate sleeve
111417006	16.7-19.2	1.40	2					1 1/4" acetate sleeve
111417007	19.2-21.7	2.40	3					1 1/4" acetate sleeve
111417008	9.5-11.5	1.95	2					1 1/4" acetate sleeve
111417009	17.0-19.5	1.30	2					1 1/4" acetate sleeve
111417010	19.5-22.0	2.44	3					1 1/4" acetate sleeve
111417011	4.0-6.0	1.37	2					1 1/4" acetate sleeve
111417012	10.0-12.0	1.65	2					1 1/4" acetate sleeve
111617013	5.1-7.1	2.08	2					1 1/4" acetate sleeve
111617014	0.2-2.2	1.90	2					1 1/4" acetate sleeve
111617015	8.1-10.1	1.93	2					1 1/4" acetate sleeve
111717016	1.0-3.5	1.30	2					1 1/4" acetate sleeve
111717017	0.0-2.5	0.77	1					1 1/4" acetate sleeve
111717018	1.5-4.0	2.38	3					1 1/4" acetate sleeve
111717019	4.0-6.5	2.46	3					1 1/4" acetate sleeve
111717020	1.4-3.4	1.97	2					1 1/4" acetate sleeve
111717021	0.7-2.7	2.63	3					1 1/4" acetate sleeve
111717023	14.2-16.2	1.95	2					1 1/4" acetate sleeve
111717025	8.2-10.9	2.60	3					1 1/4" acetate sleeve
111817027	9.8-11.9	2.02	2					1 1/4" acetate sleeve
111817028	10.0-12.0	2.25	3					1 1/4" acetate sleeve
111817029	5.5-7.35	1.80	2					1 1/4" acetate sleeve
111817030	5.5-7.35	1.70	2					1 1/4" acetate sleeve
		51.8	60	0	0	0		27

Laboratory Test Program Notes

Contaminant identification: _____

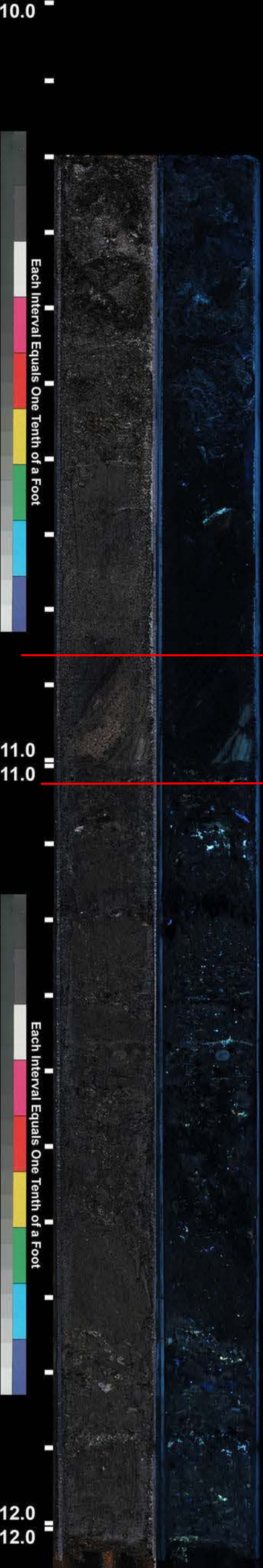
Standard TAT for basic analysis is 10-15 business days.

Residual Saturation by Water Drive: Sample driven to residual saturation by water/NAPL displacement. Residual saturations by Dean-Stark extraction, total porosity, bulk and grain density.

Fluid Properties Package - DNAPL & Water: Includes dynamic viscosity and fluid density at three temperatures (50, 60 and 70°F), surface tension for each fluid, and interfacial tensions (three phase pairs; oil/water, oil/air, and water/air (at ambient laboratory temperature)).

Core Photo: white light and ultraviolet, low and high resolution, strip format.

111417001
10.85-11.05



Project Name: WBS-Green Bay Former MGP Boring ID.: 111417001 10.2-12.2

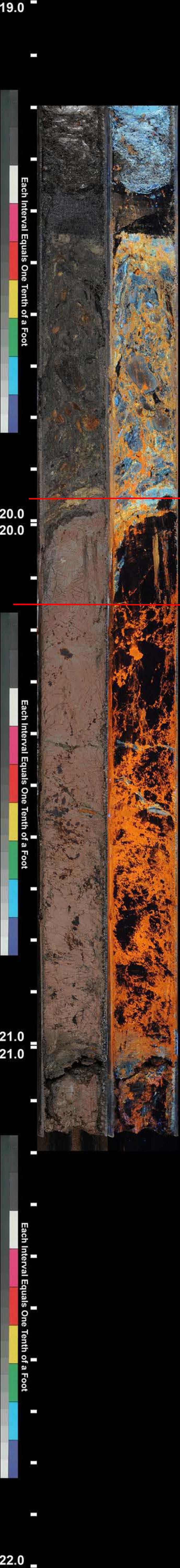
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Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417001 10.2-12.2

Project No.: 1584/14.3B



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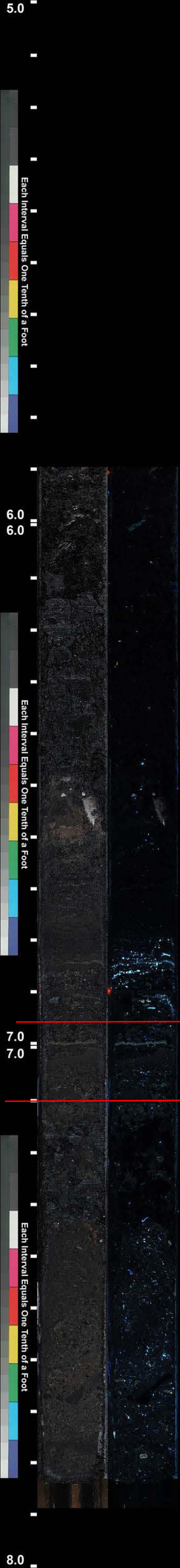
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Project Name: WBS-Green Bay Former MGP Boring ID.: 111417002 19.2-21.2

Project No.: 1584/14.3B

Project No.: 1584/14.3B

Project No.: 1584/14.3B



Project Name: WBS-Green Bay Former MGP Boring ID.: 111417003 5.9-7.9

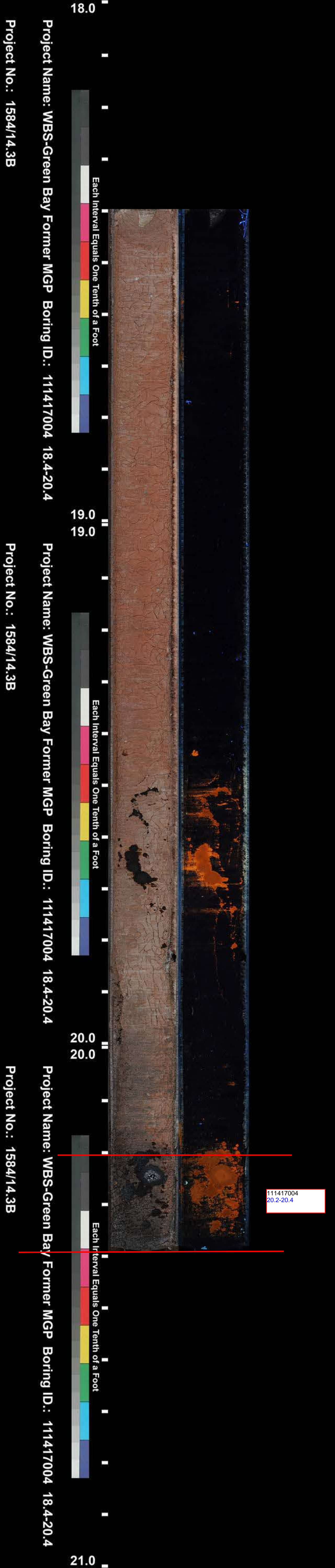
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Project Name: WBS-Green Bay Former MGP Boring ID.: 111417003 5.9-7.9

Project No.: 1584/14.3B

Project No.: 1584/14.3B

Project No.: 1584/14.3B



Project Name: WBS-Green Bay Former MGP Boring ID.: 111417004 18.4-20.4

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417004 18.4-20.4

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417004 18.4-20.4

Project No.: 1584/14.3B



111417004
20.2-20.4



Project Name: WBS-Green Bay Former MGP Boring ID.: 111417005 7.7-9.7

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417005 7.7-9.7

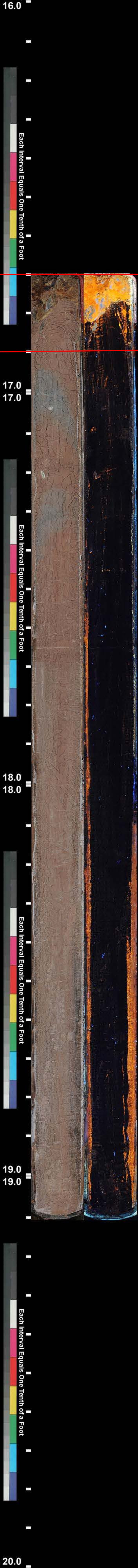
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Project No.: 1584/14.3B

Project No.: 1584/14.3B

Project No.: 1584/14.3B

111417006
16.7-16.9



Project Name: WBS-Green Bay Former MGP Boring ID.: 111417006 16.7-19.2

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417006 16.7-19.2

Project No.: 1584/14.3B

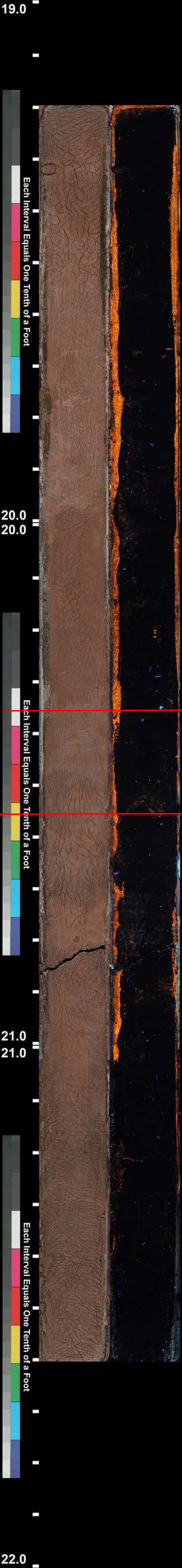
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Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417006 16.7-19.2

Project No.: 1584/14.3B

20.0
19.0
19.0



Project Name: WBS-Green Bay Former MGP Boring ID.: 111417007 19.2-21.7

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417007 19.2-21.7

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417007 19.2-21.7

Project No.: 1584/14.3B

Project No.: 1584/14.3B

Project No.: 1584/14.3B

111417007
20.35-20.55



Project Name: WBS-Green Bay Former MGP Boring ID.: 111417008 9.5-11.5

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417008 9.5-11.5

Project Name: WBS-Green Bay Former MGP Boring ID.: 111417008 9.

Project No.: 1584/14.3B

Project No.: 1584/14.3B

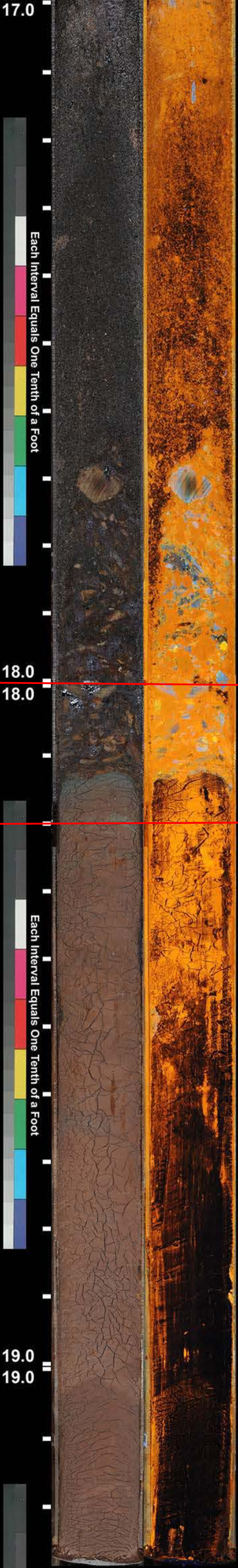
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0.0
10.0

11.0
11.0

12.0



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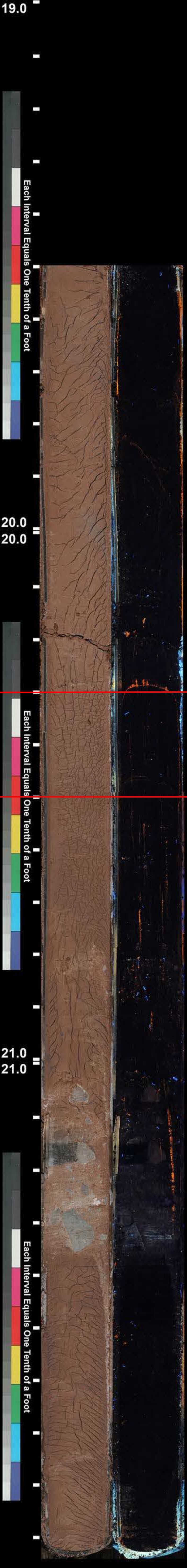
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Project No.: 1584/14.3B

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Project No.: 1584/14.3B



111417010
20.3-20.5

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Project Name: WBS-Green Bay Former MGP Boring ID.: 111417010 19.5-22.0

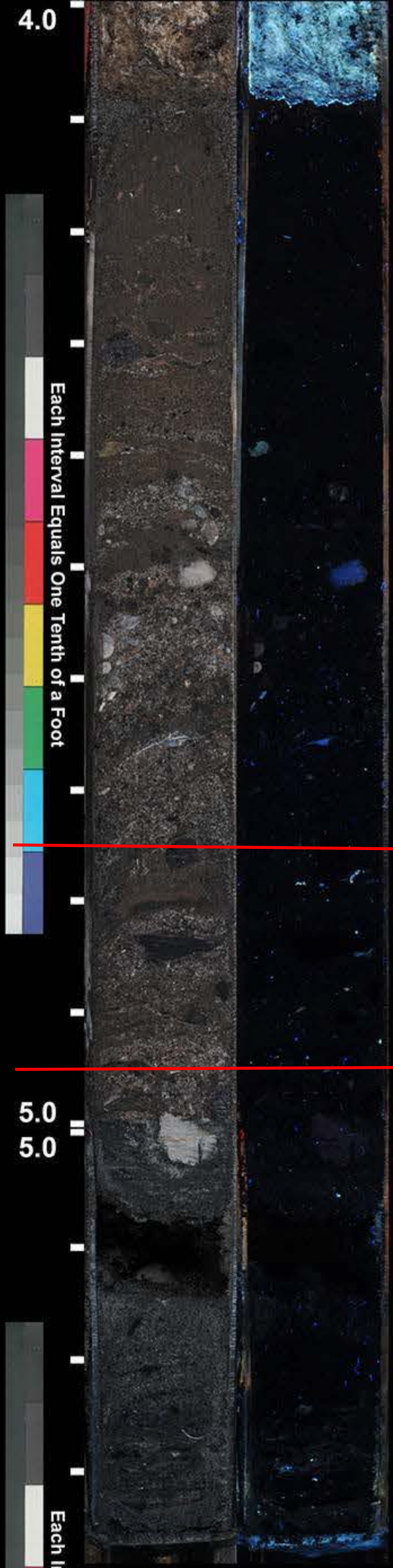
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Project No.: 1584/14.3B

Project No.: 1584/14.3B

111417001
4.75-4.95



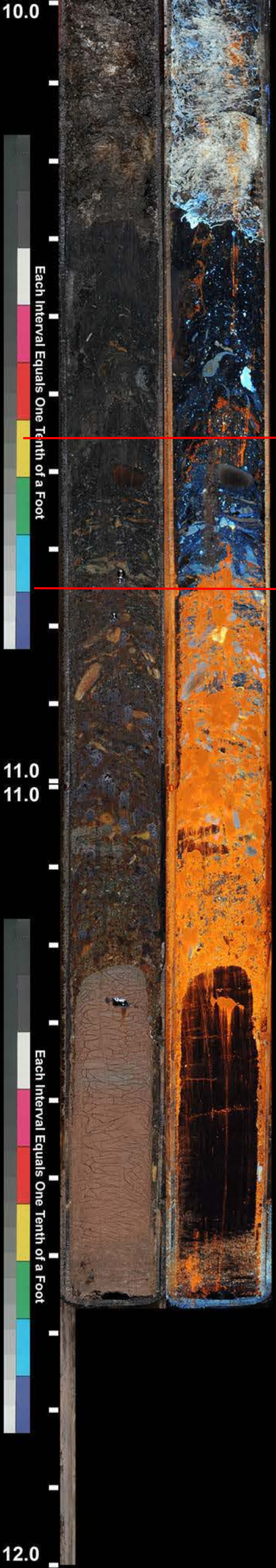
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Project No.: 1584/14.3B

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Project No.: 1584/14.3B

111417012
10.55-10.75

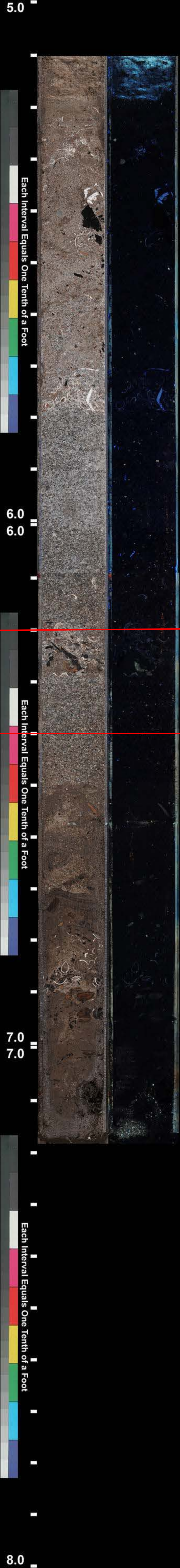


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Project Name: WBS-Green Bay Former MGP Boring ID.: 111417012 10.0-12.0

Project No.: 1584/14.3B

Project No.: 1584/14.3B



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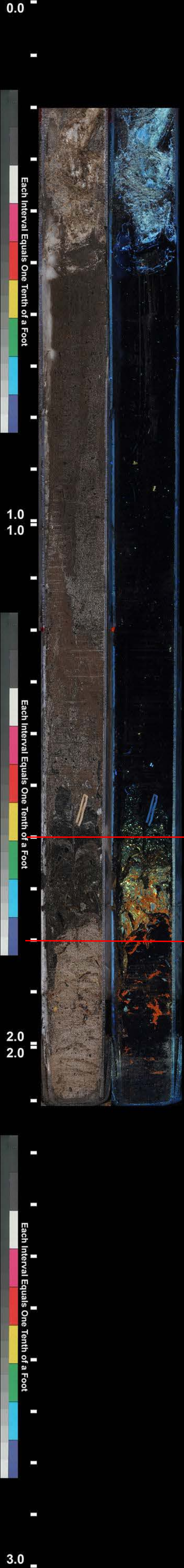
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Project No.: 1584/14.3B

Project No.: 1584/14.3B

Project No.: 1584/14.3B



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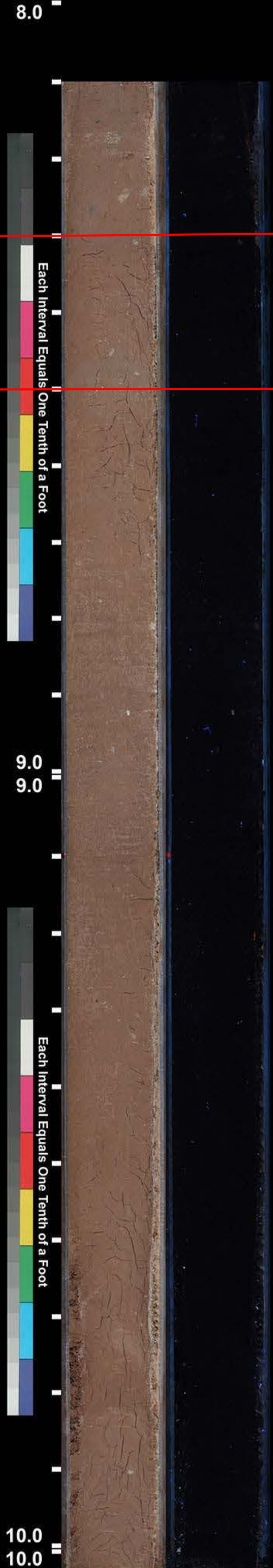
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Project No.: 1584/14.3B

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8.3-8.5



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Project No.: 1584/14.3B

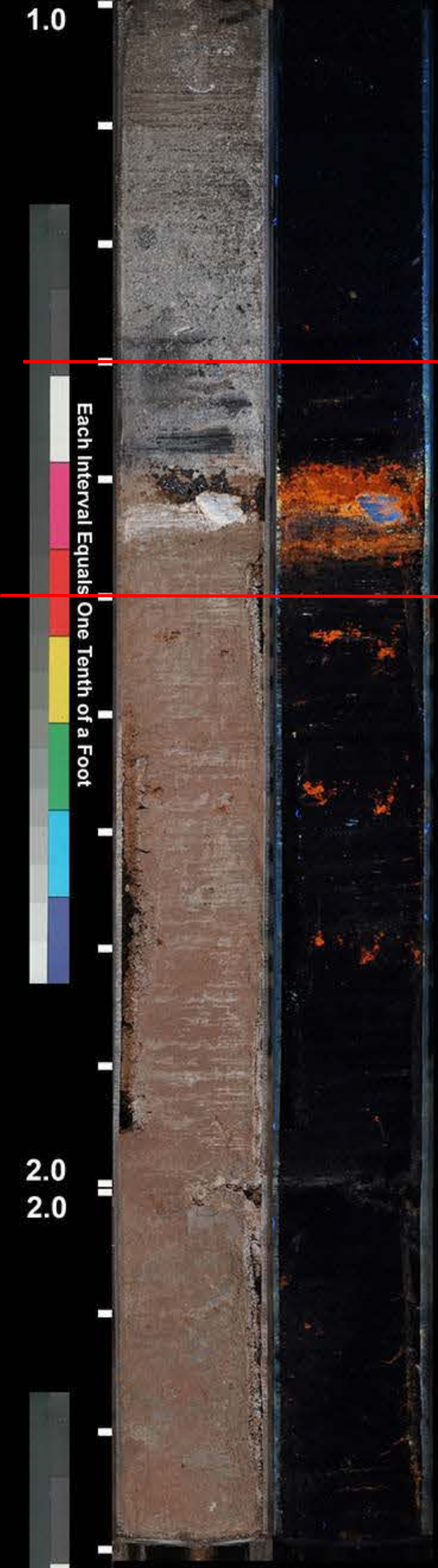
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Project No.: 1584/14.3B

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Project No.: 1584/14.3B

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1.3-1.5



Project Name: WBS-Green Bay Former MGP Boring ID.: 111717016 1.0-3.5

Project No.: 1584/14.3B

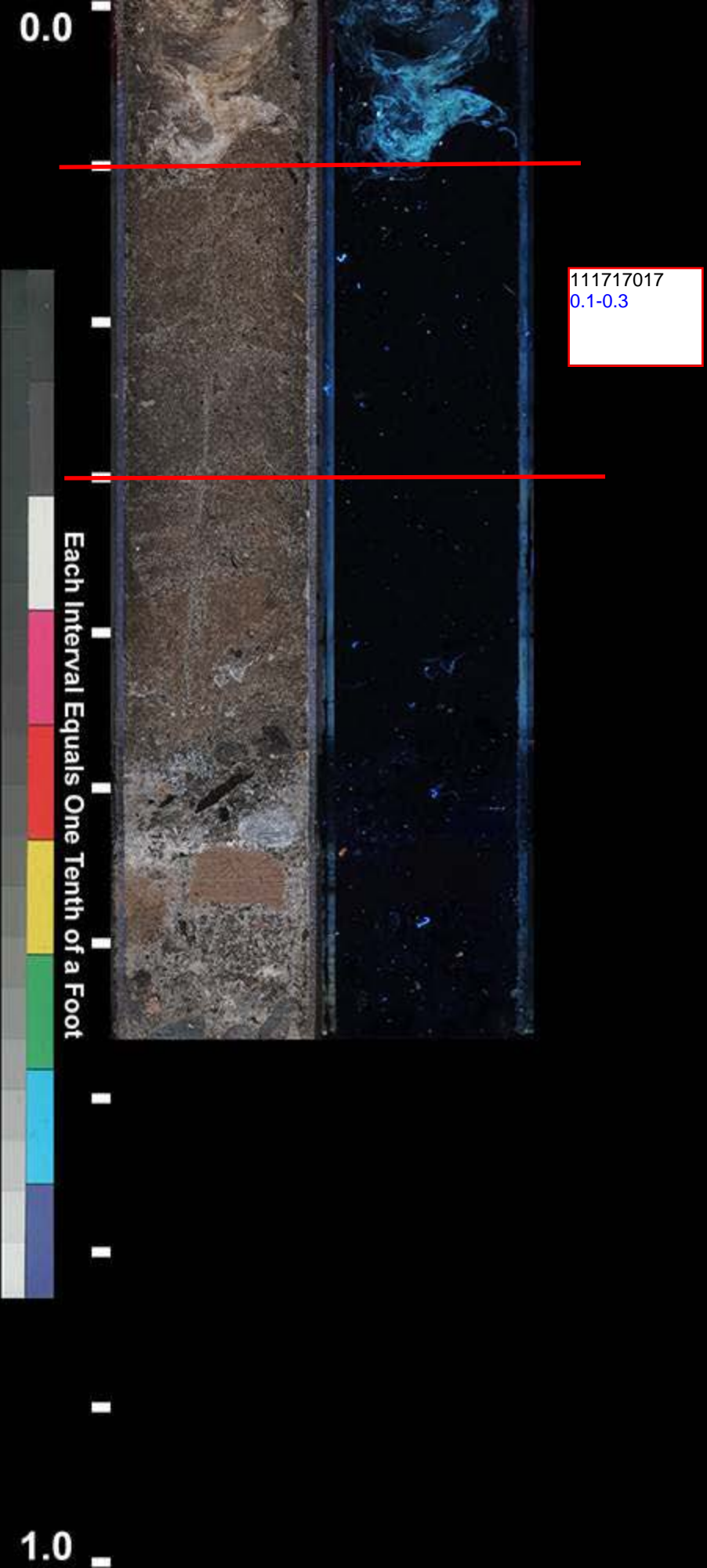
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Project No.: 1584/14.3B

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2.0

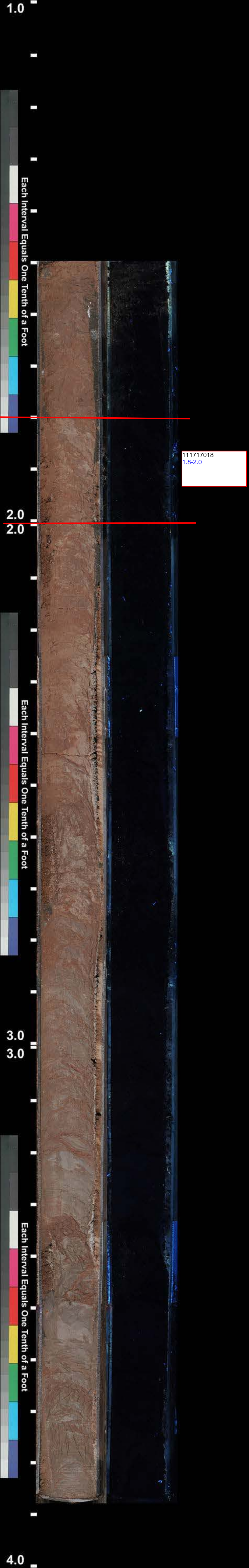
Each Interval Equals One Tenth of a Foot

3.0



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Project No.: 1584/14.3B



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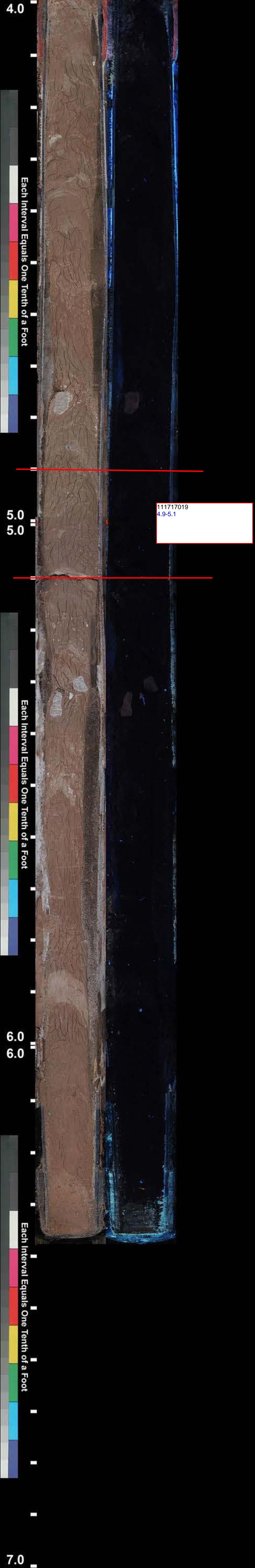
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Project No.: 1584/14.3B



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Project No.: 1584/14.3B

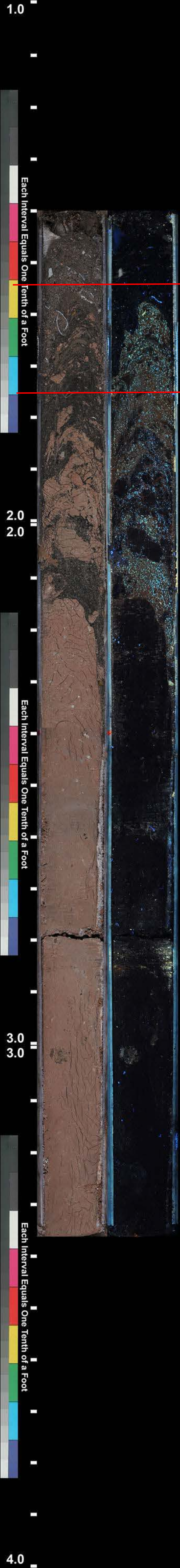
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Project No.: 1584/14.3B

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Project No.: 1584/14.3B

111717020
1.55-1.75



Project Name: WBS-Green Bay Former MGP Boring ID.: 111717020 1.4-3.4

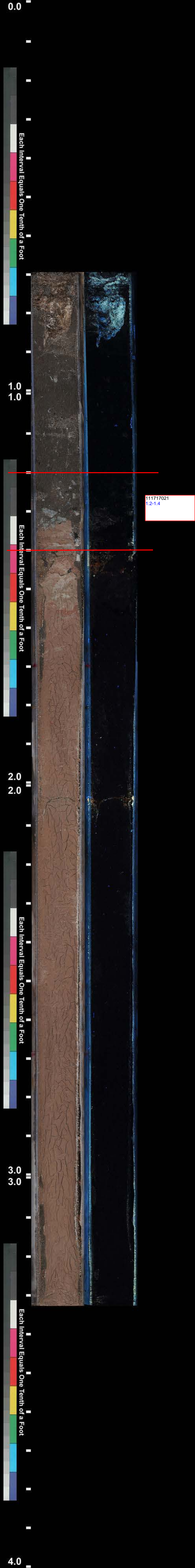
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Project Name: WBS-Green Bay Former MGP Boring ID.: 111717020 1.4-3.4

Project No.: 1584/14.3B

Project No.: 1584/14.3B

Project No.: 1584/14.3B



Project Name: WBS-Green Bay Former MGP Boring ID.: 111717021 0.7-2.7

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111717021 0.7-2.7

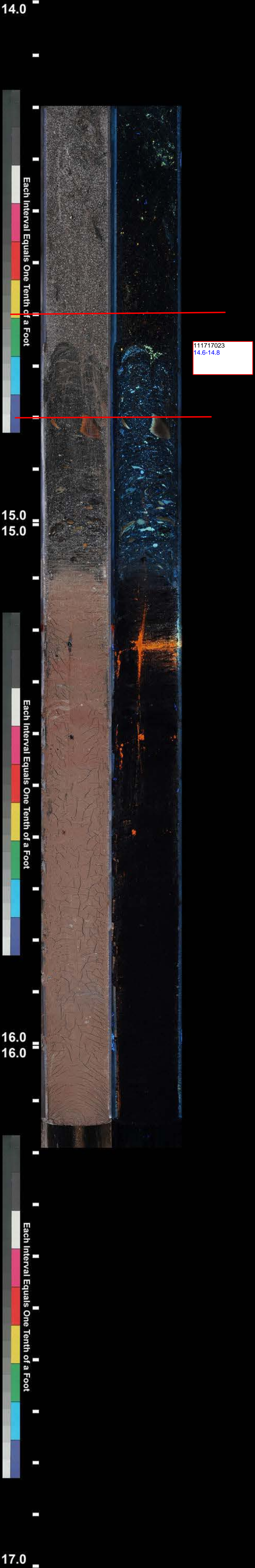
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Project No.: 1584/14.3B



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Project Name: WBS-Green Bay Former MGP Boring ID.: 111717023 14.2-16.2

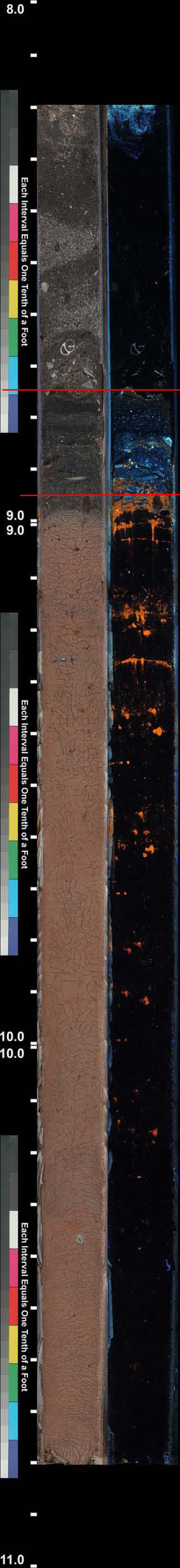
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111717025
8.75-8.95



Project Name: WBS-Green Bay Former MGP Boring ID.: 111717025 8.2-10.9

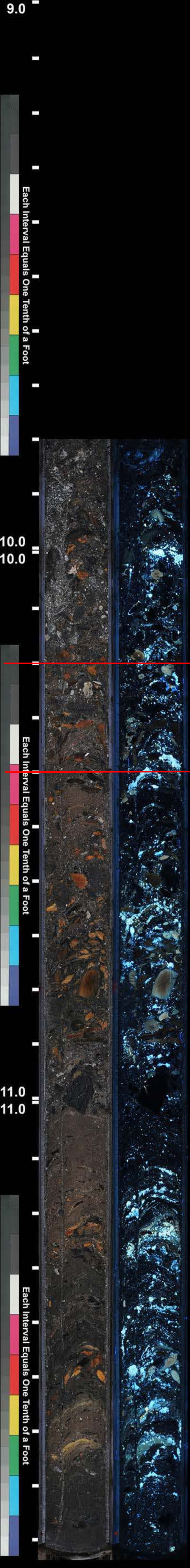
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Project Name: WBS-Green Bay Former MGP Boring ID.: 111717025 8.2-10.9

Project No.: 1584/14.3B

Project No.: 1584/14.3B

Project No.: 1584/14.3B



Project Name: WBS-Green Bay Former MGP Boring ID.: 111817027 9.8-11.9

Project No.: 1584/14.3B

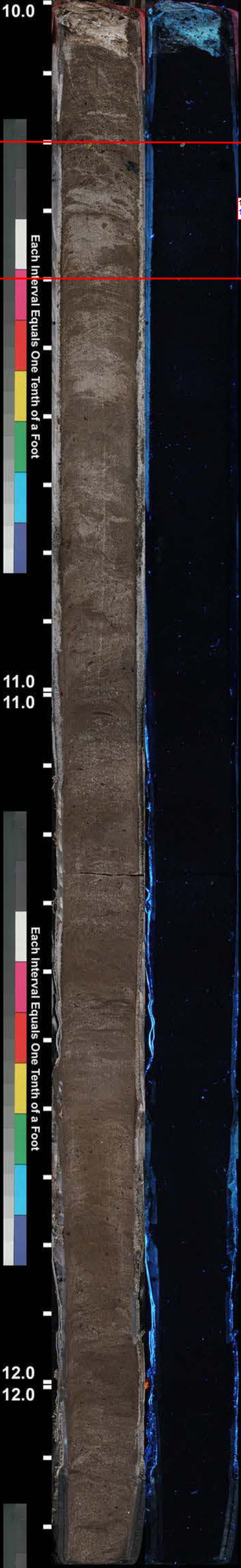
Project Name: WBS-Green Bay Former MGP Boring ID.: 111817027 9.8-11.9

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111817027 9.8-11.9

Project No.: 1584/14.3B

111817028
10.2-10.4



Project Name: WBS-Green Bay Former MGP Boring ID.: 111817028 10.0-12.0

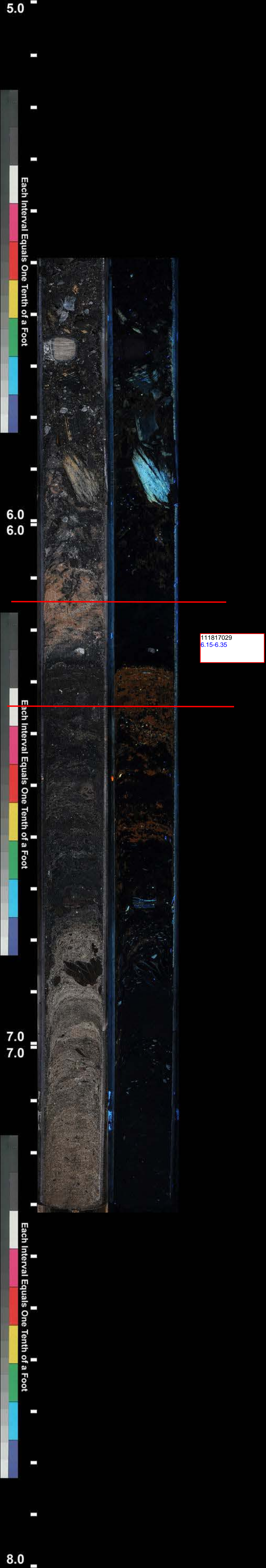
Project Name: WBS-Green Bay Former MGP Boring ID.: 111817028 10.0-12.0

Project Name: WBS-Green Bay Former MGP Boring ID.: 111817028 10.0-12.0

Project No.: 1584/14.3B

Project No.: 1584/14.3B

Project No.: 1584/14.3B



Project Name: WBS-Green Bay Former MGP Boring ID.: 111817029 5.5-7.35

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111817029 5.5-7.35

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111817029 5.5-7.35

Project No.: 1584/14.3B



Project Name: WBS-Green Bay Former MGP Boring ID.: 111817030 6.7-7.7

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111817030 6.7-7.7

Project No.: 1584/14.3B

Project Name: WBS-Green Bay Former MGP Boring ID.: 111817030 6.7-7.7

Project No.: 1584/14.3B

47430



NATURAL RESOURCE TECHNOLOGY, An OBG Company
 234 W. FLORIDA STREET, 5th FLOOR
 MILWAUKEE, WI 53204
 TEL: 414.937.3607

Chain of Custody #: 1584-11172017-01

Date: 11/17/2017

Custody Seal #: 1584-11172017-01-1 Page: 1 of 1

LABORATORY SAMPLES SUBMITTED TO: PTS Laboratories, Inc.			CLIENT PROJECT NAME WBS - Green Bay Former MGP			PROJECT NUMBER / TASK NUMBER: 1584/14.3B		
ADDRESS: 5730 Centralcrest Street			PROJECT CONTACT: Eric Hritsuk, eric.hritsuk@obg.com, 773-796-4368			QUOTE NO.: 11/15/17		
CITY: Houston, TX 77092			SAMPLER(S): (SIGNATURE) ANDREW HARDWICK					
TEL: (713) 316-1800	FAX:	E-MAIL: eanazodo@ptslabs.com						

TURNAROUND TIME Standard			REQUESTED ANALYSIS															
Data Package: Standard			Preservatives: A = none, B = HCL, C = H ₂ SO ₄ , D = HNO ₃ , E = methanol, F = sodium bisulfate, G = zinc acetate, H = other		Preservation Code (pick letter)		Method Number and Analytes											
					Filtered (Y or N)		A	A	A	A	A	A	A	A	A	H	H	H
							N	N	N	N	N	N	N	N	N	N	N	N

SPECIAL REQUIREMENTS
 Send all SAFs & Reports to **eric.hritsuk@obg.com**
 and **Data GSDData@obg.com**

LAB USE ONLY	ROW	SAMPLE ID	QC SAMPLE	FIELD COMMENTS	SAMPLE		MATRIX	SAMPLE TYPE	SAMPLE INTERVAL (ft)		#Cores	Core Stebbing and Preparation	Photography: Full Scale, color UV, strip format	Residual Saturation by Water Drive (API RP-40)	NAPL Extraction	NAPL Density (ASTM D1527)	NAPL Viscosity (ASTM D445)	NAPL Interfacial Tensions (ASTM D971)	Core Storage	Subsample and Submit to Alpha Analytical for SA PAH Analysis	Subsample and Submit to TestAmerica for VOCs, SVOCs, and PCBs	Subsample and Submit to TestAmerica for dioxins and PCBs
					DATE	TIME			TOP	BOTTOM												
✓	1	111417001	N/A	N/A	11/14/2017	8:50	S	Core	10.2	12.2	1	x	x	x					x	x	x	x
✓	2	111417002	N/A	N/A	11/14/2017	9:47	S	Core	19.2	21.2	1	x	x	x					x	x	x	x
✓	3	111417003	N/A	N/A	11/14/2017	10:40	S	Core	5.9	7.9	1	x	x	x	x	x	x	x	x	x	x	x
✓	4	111417004	N/A	N/A	11/14/2017	11:05	S	Core	18.4	20.4	1	x	x	x	x	x	x	x	x	x	x	x
✓	5	111417005	N/A	N/A	11/14/2017	11:54	S	Core	7.7	9.7	1	x	x	x					x	x	x	x
✓	6	111417006	N/A	N/A	11/14/2017	12:15	S	Core	16.7	19.2	1	x	x	x					x	x	x	x
✓	7	111417007	N/A	N/A	11/14/2017	12:20	S	Core	19.2	21.7	1	x	x	x	x	x	x	x	x	x	x	x
✓	8	111417008	N/A	N/A	11/14/2017	13:30	S	Core	9.5	11.5	1	x	x	x					x	x	x	x
✓	9	111417009	N/A	N/A	11/14/2017	13:50	S	Core	17	19.5	1	x	x	x					x	x	x	x
✓	10	111417010	N/A	N/A	11/14/2017	13:55	S	Core	19.5	22	1	x	x	x					x	x	x	x
✓	11	111417011	N/A	N/A	11/14/2017	15:20	S	Core	4	6	1	x	x	x	x	x	x	x	x	x	x	x
✓	12	111417012	N/A	N/A	11/14/2017	15:40	S	Core	10	12	1	x	x	x	x	x	x	x	x	x	x	x
✓	13	111617013	N/A	N/A	11/16/2017	16:20	S	Core	6.1	7.1	1	x	x	x					x		x	
✓	14	111617014	N/A	N/A	11/16/2017	16:00	S	Core	0.2	2.2	1	x	x	x					x		x	
✓	15	111617015	N/A	N/A	11/16/2017	16:30	S	Core	8.1	10.1	1	x	x	x	x	x	x	x	x		x	

Received by: (Signature) <i>[Signature]</i>	Date: 11/17/17	Time: 1730	Received by: (Signature) <i>[Signature]</i>	PTS Laboratories, Inc	Time:
Released by: (Signature)	Date: 11/18/17	Time: 1031	Received by: (Signature)		Time:
Released by: (Signature)	Date:	Time:	Received by: (Signature)		Time:

47430



NATURAL RESOURCE TECHNOLOGY, An OBG Company
 234 W. FLORIDA STREET, 5th FLOOR
 MILWAUKEE, WI 53204
 TEL: 414.637.3607

Chain of Custody #: 1584-11202017-01

Date: 11/20/2017

Custody Seal #: 1584-11202017-01-1 Page: 1 of 1

LABORATORY SAMPLES SUBMITTED TO: PTS Laboratories, Inc.			CLIENT PROJECT NAME WBS - Green Bay Former MGP				PROJECT NUMBER / TASK NUMBER: 1584/14.3B			
ADDRESS: 5730 Centralcrest Street			PROJECT CONTACT Eric Hritsuk, eric.hritsuk@obg.com, 773-796-4368				QUOTE NO.: 11/15/17			
CITY: Houston, TX 77092			SAMPLER(S) (SIGNATURE) <i>Andrew Handman</i>							
TPI: (713) 316-1800	FAX:	F-MAIL: sanzodo@ptsllabs.com								

TURNAROUND TIME Standard			REQUESTED ANALYSIS																
Data Package: Standard			Preservatives: A = none, B = HCL, C = H ₂ SO ₄ , D = HNO ₃ , E = methanol, F = sodium bisulfate, G = zinc acetate, H = other			Preservation Code (pick letter) Filtered (Y or N)			Method Number and Analytes										
									A	A	A	A	A	A	A	A	H	H	H
									N	N	N	N	N	N	N	N	N	N	N

SPECIAL REQUIREMENTS
 Send all SAFs & Reports to eric.hritsuk@obg.com
 and Data GDSData@obg.com

JOB #	JOB DATE	SAMPLE ID	GC SAMPLE	FIELD COMMENTS	SAMPLE		MATRIX	SAMPLE TYPE	SAMPLE INTERVAL (ft)		DEPTH	Core Slabbing and Preparation	Photography: Full Scale, color-UV, strip format	Residual Saturation by Water Drive (API RP40)	NAPL Extraction	NAPL Density (ASTM D1217)	NAPL Viscosity (ASTM D445)	NAPL Interfacial Tensions (ASTM D971)	Core Storage	Subsample and Submit to: Alpha Analytical for 34 PAH Analysis	Subsample and Submit to: TetraAmerica for VOCs, SVOCs, and PCBs	Subsample and Submit to: TetraAmerica for decon/stuans and PCBs
					DATE	TIME			TOP	BOTTOM												
1		111717016	N/A	N/A	11/17/2017	8:30	S	Core	1	3.5	1	X	X	X	X	X	X	X	X	X	X	X
2		111717017	N/A	N/A	11/17/2017	9:20	S	Core	0	2.5	1	X	X	X					X		X	
3		111717018	N/A	N/A	11/17/2017	9:50	S	Core	1.5	4	1	X	X	X					X		X	
4		111717019	N/A	N/A	11/17/2017	10:00	S	Core	4	6.5	1	X	X	X	X	X	X	X	X	X	X	X
5		111717020	N/A	N/A	11/17/2017	10:30	S	Core	1.4	3.4	1	X	X	X					X		X	
6		111717021	N/A	N/A	11/17/2017	11:20	S	Core	0.7	2.7	1	X	X	X					X		X	
7		111717023	N/A	N/A	11/17/2017	13:45	S	Core	14.2	16.2	1	X	X	X					X	X	X	X
8		111717025	N/A	N/A	11/17/2017	15:30	S	Core	8.2	10.9	1	X	X	X	X	X	X	X	X	X	X	X
9		111817027	N/A	N/A	11/18/2017	9:00	S	Core	9.8	11.9	1	X	X	X					X	X	X	X
10		111817028	N/A	N/A	11/18/2017	11:45	S	Core	10	12	1	X	X	X					X		X	
11		111817029	N/A	N/A	11/18/2017	12:00	S	Core	5.5	7.35	1	X	X	X	X	X	X	X	X	X	X	X
12		111817030	N/A	N/A	11/18/2017	12:15	S	Core	6.7	7.7	1	X	X	X	X	X	X	X	X	X	X	X
13																						
14																						
15																						

Released by: (Signature) <i>[Signature]</i>	Date: <u>11/20/17</u>	Time: <u>1700</u>	Received by: (Signature) _____	Time: _____
Relinquished by: (Signature) _____	Date: <u>11/20/17</u>	Time: <u>940</u>	Received by: (Signature) <i>[Signature]</i>	Time: _____
Relinquished by: (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Time: _____

[Signature] PTS Laboratories, Inc



5730 Centralcrest St. • Houston, TX 77092
Telephone (713) 316-1800 • Fax (877) 225-9953

April 2, 2018

Erik Hritsuk
Senior Engineer
Natural Resource Technology, An OBG Company
234 W. Florida St.
5th Floor
Milwaukee, WI 53204

Re: PTS File No: 47430
Project Name: WBS-Green Bay Former MGP
Project Number: 1584/14.3B

Dear Mr. Hritsuk,

Please find enclosed report for Physical Properties analyses conducted upon samples received from your Green Bay project.

Note that Extraction of NAPL from cores was not successful. Consequently, Fluid Properties could not be tested.

All analyses were performed by applicable ASTM, EPA, or API methodologies. The samples are currently in storage and will be retained for thirty days upon completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please contact myself or Emeka Anazodo at (713) 316-1800.

Sincerely,
PTS Laboratories, Inc.

Rick Schweizer

Rick Schweizer
Laboratory Supervisor

Encl.

Project Name: WBS-Green Bay Former MGP
 Project Number: 1584/14.3B

PTS File No: 47430
 Client: Natural Resource Technology

TEST PROGRAM - 20180115

CORE ID	Depth ft.	Core Recovery ft.	Slab and Core Photo	Residual Saturation by Water Drive	Fluid Properties Pkg.	NAPL Extraction	Metals sub-sampling	PAH Sub-sampling	Comments
			1/4:3/4	Vert. 1.5"	TM D1481, 445,	Proprietary	Grab	Grab	
Date Received: 20171118									
111417001	10.2-12.2	1.80	X	X			X	X	1½" acetate sleeve
111417002	19.2-21.2	2.00	X	X			X	X	1½" acetate sleeve
111417003	5.9-7.9	1.95	X	X	X	X	X	X	1½" acetate sleeve
111417004	18.4-20.4	2.00	X	X	X	X	X	X	1½" acetate sleeve
111417005	7.7-9.7	1.83	X	X			X	X	1½" acetate sleeve
111417006	16.7-19.2	1.40	X	X			X	X	1½" acetate sleeve
111417007	19.2-21.7	2.40	X	X	X	X	X	X	1½" acetate sleeve
111417008	9.5-11.5	1.95	X	X			X	X	1½" acetate sleeve
111417009	17.0-19.5	1.30	X	X			X	X	1½" acetate sleeve
111417010	19.5-22.0	2.44	X	X			X	X	1½" acetate sleeve
111417011	4.0-6.0	1.37	X	X	X	X	X	X	1½" acetate sleeve
111417012	10.0-12.0	1.65	X	X	X	X	X	X	1½" acetate sleeve
111617013	5.1-7.1	2.08	X	X			X		1½" acetate sleeve
111617014	0.2-2.2	1.90	X	X			X		1½" acetate sleeve
111617015	8.1-10.1	1.93	X	X	X	X	X		1½" acetate sleeve
111717016	1.0-3.5	1.30	X	X	X	X	X		1½" acetate sleeve
111717017	0.0-2.5	0.77	X	X			X		1½" acetate sleeve
111717018	1.5-4.0	2.38	X	X			X		1½" acetate sleeve
111717019	4.0-6.5	2.46	X	X	X	X	X		1½" acetate sleeve
111717020	1.4-3.4	1.97	X	X			X		1½" acetate sleeve
111717021	0.7-2.7	2.63	X	X			X		1½" acetate sleeve
111717023	14.2-16.2	1.95	X	X	X	X	X	X	1½" acetate sleeve
111717025	8.2-10.9	2.60	X	X			X	X	1½" acetate sleeve
111817027	9.8-11.9	2.02	X	X			X	X	1½" acetate sleeve
111817028	10.0-12.0	2.25	X	X			X		1½" acetate sleeve
111817029	5.5-7.35	1.80	X	X	X	X	X		1½" acetate sleeve
111817030	6.7-7.7	1.70	X	X	X	X	X		1½" acetate sleeve
				27	0	0	27	15	27

Laboratory Test Program Notes

Contaminant identification: _____

Standard TAT for basic analysis is 10-15 business days.

Residual Saturation by Water Drive: Sample driven to residual saturation by water/NAPL displacement. Residual saturations by Dean-Stark extraction, total porosity, bulk and grain density.

Fluid Properties Package - DNAPL & Water: Includes dynamic viscosity and fluid density at three temperatures (50, 60 and 70°F),

surface tension for each fluid, and interfacial tensions (three phase pairs; oil/water, oil/air, and water/air (at ambient laboratory temperature)).

Project Name: WBS-Green Bay Former MGP
 Project Number: 1584/14.3B

47430
 Natural Resource Technology

TEST PROGRAM - 20180115

CORE ID	Depth ft.	Core Recovery ft.	Slab and Core Photo	Residual Saturation by Water Drive	Requested Depth for RSWD, ft.	Actual Test Sample Depth, ft.	Comments	
			1/4:3/4	Vert. 1.5"				
Date Received: 20171118								
111417001	10.2-12.2	1.80		X	10.2-12.0	10.85-11.05	1½" acetate sleeve	
111417002	19.2-21.2	2.00		X	19.2-21.2	19.95-20.15	1½" acetate sleeve	
111417003	5.9-7.9	1.95		X	5.9-7.85	6.95-7.10	1½" acetate sleeve	
111417004	18.4-20.4	2.00		X	18.4-20.4	20.2-20.4	1½" acetate sleeve	
111417005	7.7-9.7	1.83		X	7.7-9.53	9.1-9.3	1½" acetate sleeve	
111417006	16.7-19.2	1.40		X	16.7-19.1	16.7-16.9	1½" acetate sleeve	
111417007	19.2-21.7	2.40		X	19.2-21.6	20.35-20.55	1½" acetate sleeve	
111417008	9.5-11.5	1.95		X	9.5-11.45	10.9-11.1	1½" acetate sleeve	
111417009	17.0-19.5	1.30		X	17.0-19.3	18.0-18.2	1½" acetate sleeve	
111417010	19.5-22.0	2.44		X	19.5-21.94	20.3-20.5	1½" acetate sleeve	
111417011	4.0-6.0	1.37		X	4.0-5.37	4.75-4.95	1½" acetate sleeve	
111417012	10.0-12.0	1.65		X	10.0-11.65	10.55-10.75	1½" acetate sleeve	
111617013	5.1-7.1	2.08		X	5.1-7.18	6.2-6.4	1½" acetate sleeve	
111617014	0.2-2.2	1.90		X	0.2-2.1	1.6-1.8	1½" acetate sleeve	
111617015	8.1-10.1	1.93		X	8.1-10.03	8.3-8.5	1½" acetate sleeve	
111717016	1.0-3.5	1.30		X	1.0-2.3	1.3-1.5	1½" acetate sleeve	
111717017	0.0-2.5	0.77		X	0.0-0.67	0.10-0.30	1½" acetate sleeve	
111717018	1.5-4.0	2.38		X	1.5-3.88	1.8-2.0	1½" acetate sleeve	
111717019	4.0-6.5	2.46		X	4.0-6.46	4.9-5.1	1½" acetate sleeve	
111717020	1.4-3.4	1.97		X	1.4-3.37	1.55-1.75	1½" acetate sleeve	
111717021	0.7-2.7	2.63		X	0.7-3.33	1.2-1.4	1½" acetate sleeve	
111717023	14.2-16.2	1.95		X	14.2-16.15	14.6-14.8	1½" acetate sleeve	
111717025	8.2-10.9	2.60		X	8.2-10.8	8.75-8.95	1½" acetate sleeve	
111817027	9.8-11.9	2.02		X	9.8-11.82	10.2-10.4	1½" acetate sleeve	
111817028	10.0-12.0	2.25		X	10.0-12.25	10.2-10.4	1½" acetate sleeve	
111817029	5.5-7.35	1.80		X	5.5-7.3	6.15-6.35	1½" acetate sleeve	
111817030	6.7-7.7	1.70		X	6.7-8.4	7.35-7.55	1½" acetate sleeve	
				27	27	27	0	27

PTS File No: 47430
 Client: Natural Resource Technology
 Report Date: 04/02/18

ENDPOINT SATURATION WATER DRIVE TEST: INITIAL AND RESIDUAL SATURATIONS

Project Name: WBS-Green Bay Former MGP
 Project No: 1584/14.3B

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	METHODS:		TOTAL POROSITY (2), %Vb	API RP 40, DEAN-STARK			
				API RP 40			API RP 40, DEAN-STARK		PORE FLUID SATURATIONS (3), % Pv	
				DENSITY			Initial Fluid Saturations		After Waterflood Test	
				DRY BULK, g/cc	GRAIN, g/cc	WATER (Swi) SATURATION	NAPL (Soi) SATURATION	WATER (Srw) SATURATION	NAPL (Sor) SATURATION	
111417001	10.85-11.05	V	20180217	0.80	2.17	63.3	51.2	1.6	69.5	1.6
NOTE: No visible NAPL produced; 16.87 pore volumes water injected. Produced water clear with faint HC odor.										
111417002	19.95-20.15	V	20180217	0.91	2.57	64.6	43.0	1.7	61.8	1.7
NOTE: No visible NAPL produced; 0.38 pore volumes water injected. Produced water clear with no odor. NAPL stain on sample package.										
111417003	6.95-7.10	V	20180217	0.73	2.11	65.6	29.2	5.4	56.2	5.4
NOTE: No visible NAPL produced; 6.47 pore volumes water injected. Produced water clear light yellow with no odor. NAPL stain on sample package.										
111417004	20.2-20.4	V	20180217	1.26	2.72	53.9	58.9	2.6	66.7	2.6
NOTE: No visible NAPL produced; 0.04 pore volumes water injected. Produced water clear with strong HC odor. NAPL stain on sample package.										
111417005	9.1-9.3	V	20180218	1.08	2.50	56.8	59.6	2.3	72.9	2.3
NOTE: No visible NAPL produced; 17.77 pore volumes water injected. Produced water clear light yellow with moderate HC odor.										
111417006	16.7-16.9	V	20180218	1.17	2.65	56.0	59.2	2.6	69.8	2.6
NOTE: No visible NAPL produced; 1.44 pore volumes water injected. Produced water clear light yellow with strong HC odor.										
111417007	20.35-20.55	V	20180218	1.43	2.74	47.8	58.6	1.7	70.1	1.7
NOTE: No visible NAPL produced; 0.47 pore volumes water injected. Produced water clear with strong HC odor. NAPL stain on sample package.										
111417008	10.9-11.1	V	20180218	0.73	2.38	69.2	41.8	3.4	65.2	3.4
NOTE: No visible NAPL produced; 2.89 pore volumes water injected. Produced water clear with faint HC odor.										
111417009	18.0-18.2	V	20180221	0.49	2.14	77.2	63.5	8.3	72.7	8.3
NOTE: No visible NAPL produced; 6.11 pore volumes water injected. Produced water clear with strong HC odor. NAPL stain on sample package.										
111417010	20.3-20.5	V	20180221	1.20	2.73	56.0	43.8	1.7	56.2	1.7
NOTE: No visible NAPL produced; 0.40 pore volumes water injected. Produced water clear with moderate HC odor.										

(1) Sample Orientation: H = horizontal; V = vertical; R = remold

(2) Total Porosity = all interconnected pore channels.

(3) Fluid density used to calculate pore fluid saturations: Water = 0.9996 g/cc, NAPL = 0.8600 g/cc.

Water drives conducted at 25 psi confining pressure and 70°F. Laboratory fresh water (tap) used as injection fluid.

Swi = Initial Water Saturation as received prior to waterflooding, Soi = Initial NAPL Saturation as received prior to waterflooding.

Srw = Residual Water Saturation after waterflooding, Sor = Residual NAPL Saturation after waterflooding.

Vb = Bulk Volume, cc; Pv = Pore Volume, cc; ND = Not Detected

PTS File No: 47430
 Client: Natural Resource Technology
 Report Date: 04/02/18

ENDPOINT SATURATION WATER DRIVE TEST: INITIAL AND RESIDUAL SATURATIONS

Project Name: WBS-Green Bay Former MGP
 Project No: 1584/14.3B

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	METHODS:		TOTAL POROSITY (2), %Vb	API RP 40, DEAN-STARK			
				API RP 40			PORE FLUID SATURATIONS (3), % Pv			
				DENSITY			Initial Fluid Saturations		After Waterflood Test	
				DRY BULK, g/cc	GRAIN, g/cc	WATER (Swi) SATURATION	NAPL (Soi) SATURATION	WATER (Srw) SATURATION	NAPL (Sor) SATURATION	
111417011	4.75-4.95	V	20180223	1.29	2.51	48.8	51.3	3.3	68.1	3.3
NOTE: No visible NAPL produced; 18.46 pore volumes water injected. Produced water clear light yellow with moderate HC odor.										
111417012	10.55-10.75	V	20180223	0.47	2.15	77.9	18.9	3.0	58.1	3.0
NOTE: No visible NAPL produced; 15.64 pore volumes water injected. Produced water clear with strong HC odor.										
111617013	6.2-6.4	V	20180223	1.54	2.68	42.5	70.4	4.0	74.1	4.0
NOTE: No visible NAPL produced; 23.84 pore volumes water injected. Produced water clear light yellow with strong HC odor.										
111617014	1.6-1.8	V	20180224	0.62	2.41	74.4	24.9	5.4	38.6	5.4
NOTE: No visible NAPL produced; 4.67 pore volumes water injected. Produced water clear light yellow with strong HC odor.										
111617015	8.3-8.5	V	20180226	1.71	2.71	36.8	40.6	7.9	81.3	7.9
NOTE: No visible NAPL produced; 0.82 pore volumes water injected. Produced water clear with moderate HC odor.										
111717016	1.3-1.5	V	20180226	1.63	2.65	38.4	73.7	2.0	74.1	2.0
NOTE: No visible NAPL produced; 2.33 pore volumes water injected. Produced water clear light yellow with strong HC odor. NAPL stain on sample package.										
111717017	0.10-0.30	V	20180227	0.76	2.58	70.5	16.5	1.4	42.5	1.4
NOTE: No visible NAPL produced; 12.84 pore volumes water injected. Produced water clear light yellow with faint HC odor. Sample length/diameter reduced.										
111717018	1.8-2.0	V	20180303	1.62	2.73	40.6	61.8	1.8	69.1	1.8
NOTE: No visible NAPL produced; 0.81 pore volumes water injected. Produced water clear with no odor.										
111717019	4.9-5.1	V	20180303	1.63	2.72	39.9	70.1	1.7	77.1	1.7
NOTE: No visible NAPL produced; 1.02 pore volumes water injected. Produced water clear with no odor.										
111717020	1.55-1.75	V	20180303	0.76	2.49	69.3	22.7	8.9	44.6	8.9
NOTE: No visible NAPL produced; 2.12 pore volumes water injected. Produced water clear with strong HC odor. Sample diameter reduced.										

(1) Sample Orientation: H = horizontal; V = vertical; R = remold

(2) Total Porosity = all interconnected pore channels.

(3) Fluid density used to calculate pore fluid saturations: Water = 0.9996 g/cc, NAPL = 0.8600 g/cc.

Water drives conducted at 25 psi confining pressure and 70°F. Laboratory fresh water (tap) used as injection fluid.

Swi = Initial Water Saturation as received prior to waterflooding, Soi = Initial NAPL Saturation as received prior to waterflooding.

Srw = Residual Water Saturation after waterflooding, Sor = Residual NAPL Saturation after waterflooding.

Vb = Bulk Volume, cc; Pv = Pore Volume, cc; ND = Not Detected

PTS File No: 47430
 Client: Natural Resource Technology
 Report Date: 04/02/18

ENDPOINT SATURATION WATER DRIVE TEST: INITIAL AND RESIDUAL SATURATIONS

Project Name: WBS-Green Bay Former MGP
 Project No: 1584/14.3B

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	METHODS:		TOTAL POROSITY (2), %Vb	API RP 40, DEAN-STARK			
				API RP 40			PORE FLUID SATURATIONS (3), % Pv			
				DRY BULK, g/cc	GRAIN, g/cc		Initial Fluid Saturations		After Waterflood Test	
				WATER (Swi) SATURATION	NAPL (Soi) SATURATION	WATER (Srw) SATURATION	NAPL (Sor) SATURATION			
111717021	1.2-1.4	V	20180302	1.59	2.72	41.7	59.5	3.3	78.8	2.4
NOTE: No visible NAPL produced; 1.23 pore volumes water injected. Produced water clear with moderate HC odor.										
111717023	14.6-14.8	V	20180304	1.26	2.60	51.4	56.3	2.4	67.6	2.4
NOTE: No visible NAPL produced; 5.23 pore volumes water injected. Produced water clear light yellow with moderate HC odor.										
111717025	8.75-8.95	V	20180304	0.74	2.44	69.6	33.9	1.8	55.4	1.8
NOTE: No visible NAPL produced; 2.27 pore volumes water injected. Produced water clear light yellow with moderate HC odor.										
111817027	10.2-10.4	V	20180305	0.73	2.28	68.1	19.3	9.3	37.0	9.3
NOTE: No visible NAPL produced; 8.49 pore volumes water injected. Produced water clear light yellow with moderate HC odor.										
111817028	10.2-10.4	V	20180305	1.32	2.61	49.6	64.1	7.4	74.6	7.4
NOTE: No visible NAPL produced; 9.09 pore volumes water injected. Produced water clear light yellow with faint HC odor.										
111817029	6.15-6.35	V	20180305	1.26	2.54	50.5	54.8	7.6	72.2	7.6
NOTE: No visible NAPL produced; 0.60 pore volumes water injected. Produced water clear with strong HC odor.										
111817030	7.35-7.55	V	20180306	1.43	2.64	45.8	53.4	6.3	62.7	6.3
NOTE: No visible NAPL produced; 14.96 pore volumes water injected. Produced water clear light yellow with strong HC odor. NAPL stain on sample package.										

(1) Sample Orientation: H = horizontal; V = vertical; R = remold

(2) Total Porosity = all interconnected pore channels.

(3) Fluid density used to calculate pore fluid saturations: Water = 0.9996 g/cc, NAPL = 0.8600 g/cc.

Water drives conducted at 25 psi confining pressure and 70°F. Laboratory fresh water (tap) used as injection fluid.

Swi = Initial Water Saturation as received prior to waterflooding, Soi = Initial NAPL Saturation as received prior to waterflooding.

Srw = Residual Water Saturation after waterflooding, Sor = Residual NAPL Saturation after waterflooding.

Vb = Bulk Volume, cc; Pv = Pore Volume, cc; ND = Not Detected

47430



NATURAL RESOURCE TECHNOLOGY, An OBG Company
 234 W. FLORIDA STREET, 5th FLOOR
 MILWAUKEE, WI 53204
 TEL: 414.937.3607

Chain of Custody #: 1584-11172017-01

Date: 11/17/2017

Custody Seal #: 1584-11172017-01-1 Page: 1 of 1

LABORATORY SAMPLES SUBMITTED TO: PTS Laboratories, Inc.			CLIENT PROJECT NAME WBS - Green Bay Former MGP			PROJECT NUMBER / TASK NUMBER: 1584/14.3B		
ADDRESS: 5730 Centralcrest Street			PROJECT CONTACT: Eric Hritsuk, eric.hritsuk@obg.com, 773-796-4368			QUOTE NO.: 11/15/17		
CITY: Houston, TX 77092			SAMPLER(S): (SIGNATURE) ANDREW HARDWICK					
TEL: (713) 316-1800	FAX:	E-MAIL: eanazodo@ptslabs.com						

TURNAROUND TIME Standard			REQUESTED ANALYSIS															
Data Package: Standard			Preservatives: A = none, B = HCL, C = H ₂ SO ₄ , D = HNO ₃ , E = methanol, F = sodium bisulfate, G = zinc acetate, H = other		Preservation Code (pick letter)		Method Number and Analytes											
					Filtered (Y or N)		A	A	A	A	A	A	A	A	A	H	H	H
							N	N	N	N	N	N	N	N	N	N	N	

SPECIAL REQUIREMENTS
 Send all SAFs & Reports to eric.hritsuk@obg.com
 and Data GSDData@obg.com

LAB USE ONLY	ROW	SAMPLE ID	QC SAMPLE	FIELD COMMENTS	SAMPLE		MATRIX	SAMPLE TYPE	SAMPLE INTERVAL (ft)		#Cores	Core Sealing and Preparation	Photography: Full Scale, color UV, strip format	Residual Saturation by Water Drive (API RP-40)	NAPL Extraction	NAPL Density (ASTM D1527)	NAPL Viscosity (ASTM D445)	NAPL Interfacial Tensions (ASTM D971)	Core Storage	Subsample and Submit to Alpha Analytical for SA PAH Analysis	Subsample and Submit to TestAmerica for VOCs, SVOCs, and PCBs	Subsample and Submit to TestAmerica for dioxibenzofurans and PCBs
					DATE	TIME			TOP	BOTTOM												
	1	111417001	N/A	N/A	11/14/2017	8:50	S	Core	10.2	12.2	1	X	X	X					X	X	X	X
	2	111417002	N/A	N/A	11/14/2017	9:47	S	Core	19.2	21.2	1	X	X	X					X	X	X	X
	3	111417003	N/A	N/A	11/14/2017	10:40	S	Core	5.9	7.9	1	X	X	X	X	X	X	X	X	X	X	X
	4	111417004	N/A	N/A	11/14/2017	11:05	S	Core	18.4	20.4	1	X	X	X	X	X	X	X	X	X	X	X
	5	111417005	N/A	N/A	11/14/2017	11:54	S	Core	7.7	9.7	1	X	X	X					X	X	X	X
	6	111417006	N/A	N/A	11/14/2017	12:15	S	Core	16.7	19.2	1	X	X	X					X	X	X	X
	7	111417007	N/A	N/A	11/14/2017	12:20	S	Core	19.2	21.7	1	X	X	X	X	X	X	X	X	X	X	X
	8	111417008	N/A	N/A	11/14/2017	13:30	S	Core	9.5	11.5	1	X	X	X					X	X	X	X
	9	111417009	N/A	N/A	11/14/2017	13:50	S	Core	17	19.5	1	X	X	X					X	X	X	X
	10	111417010	N/A	N/A	11/14/2017	13:55	S	Core	19.5	22	1	X	X	X					X	X	X	X
	11	111417011	N/A	N/A	11/14/2017	15:20	S	Core	4	6	1	X	X	X	X	X	X	X	X	X	X	X
	12	111417012	N/A	N/A	11/14/2017	15:40	S	Core	10	12	1	X	X	X	X	X	X	X	X	X	X	X
	13	111617013	N/A	N/A	11/16/2017	16:20	S	Core	6.1	7.1	1	X	X	X					X		X	
	14	111617014	N/A	N/A	11/16/2017	16:00	S	Core	0.2	2.2	1	X	X	X					X		X	
	15	111617015	N/A	N/A	11/16/2017	16:30	S	Core	8.1	10.1	1	X	X	X	X	X	X	X	X		X	

Received by: (Signature) <i>[Signature]</i>	Date: 11/17/17	Time: 1730	Received by: (Signature) <i>[Signature]</i>	PTS Laboratories, Inc	Time:
Relinquished by: (Signature)	Date: 11/18/17	Time: 1031	Received by: (Signature)		Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)		Time:

47430



NATURAL RESOURCE TECHNOLOGY, An OBG Company
 234 W. FLORIDA STREET, 5th FLOOR
 MILWAUKEE, WI 53204
 TEL: 414.637.3607

Chain of Custody #: 1584-11202017-01

Date: 11/20/2017

Custody Seal #: 1584-11202017-01-1 Page: 1 of 1

LABORATORY SAMPLES SUBMITTED TO: PTS Laboratories, Inc.			CLIENT PROJECT NAME WBS - Green Bay Former MGP				PROJECT NUMBER / TASK NUMBER: 1584/14.3B				
ADDRESS: 5730 Centralcrest Street			PROJECT CONTACT Eric Hritsuk, eric.hritsuk@obg.com, 773-796-4368				QUOTE NO.: 11/15/17				
CITY: Houston, TX 77092			SAMPLER(S) (SIGNATURE) <i>Andrew Handman</i>								
TPI: (713) 316-1800	FAX:	F-MAIL: sanzodo@ptsllabs.com									

TURNAROUND TIME Standard			REQUESTED ANALYSIS																
Data Package: Standard			Preservatives: A = none, B = HCL, C = H ₂ SO ₄ , D = HNO ₃ , E = methanol, F = sodium bisulfate, G = zinc acetate, H = other			Preservation Code (pick letter) Filtered (Y or N)			Method Number and Analytes										
									A	A	A	A	A	A	A	A	H	H	H
									N	N	N	N	N	N	N	N	N	N	

SPECIAL REQUIREMENTS
 Send all SAFs & Reports to eric.hritsuk@obg.com
 and Data GDSData@obg.com

JOB #	JOB ONLY	SAMPLE ID	QC SAMPLE	FIELD COMMENTS	SAMPLE		MATRIX	SAMPLE TYPE	SAMPLE INTERVAL (ft)		DEPTH	Core Slabbing and Preparation	Photography: Full Scale, color-UV, strip format	Residual Saturation by Water Drive (API RP40)	NAPL Extraction	NAPL Density (ASTM D1217)	NAPL Viscosity (ASTM D445)	NAPL Interfacial Tensions (ASTM D971)	Core Storage	Subsample and Submit to Alpha Analytical for 34 PAH Analysis	Subsample and Submit to TestAmerica for VOCs, SVOCs, and PCBs	Subsample and Submit to TestAmerica for decon/stains and PCBs
					DATE	TIME			TOP	BOTTOM												
1		111717016	N/A	N/A	11/17/2017	8:30	S	Core	1	3.5	1	X	X	X	X	X	X	X	X	X	X	X
2		111717017	N/A	N/A	11/17/2017	9:20	S	Core	0	2.5	1	X	X	X				X		X		
3		111717018	N/A	N/A	11/17/2017	9:50	S	Core	1.5	4	1	X	X	X				X		X		
4		111717019	N/A	N/A	11/17/2017	10:00	S	Core	4	6.5	1	X	X	X	X	X	X	X	X	X	X	X
5		111717020	N/A	N/A	11/17/2017	10:30	S	Core	1.4	3.4	1	X	X	X				X		X		
6		111717021	N/A	N/A	11/17/2017	11:20	S	Core	0.7	2.7	1	X	X	X				X		X		
7		111717023	N/A	N/A	11/17/2017	13:45	S	Core	14.2	16.2	1	X	X	X				X	X	X	X	X
8		111717025	N/A	N/A	11/17/2017	15:30	S	Core	8.2	10.9	1	X	X	X	X	X	X	X	X	X	X	X
9		111817027	N/A	N/A	11/18/2017	9:00	S	Core	9.8	11.9	1	X	X	X				X	X	X	X	X
10		111817028	N/A	N/A	11/18/2017	11:45	S	Core	10	12	1	X	X	X				X		X		
11		111817029	N/A	N/A	11/18/2017	12:00	S	Core	5.5	7.35	1	X	X	X	X	X	X	X	X	X	X	X
12		111817030	N/A	N/A	11/18/2017	12:15	S	Core	6.7	7.7	1	X	X	X	X	X	X	X	X	X	X	X
13																						
14																						
15																						

Released by: (Signature) <i>[Signature]</i>	Date: <u>11/20/17</u>	Time: <u>1700</u>	Received by: (Signature) _____	Time: _____
Relinquished by: (Signature) _____	Date: <u>11/20/17</u>	Time: <u>940</u>	Received by: (Signature) <i>[Signature]</i>	Time: _____
Relinquished by: (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Time: _____

[Signature] PTS Laboratories, Inc