



*CERTIFICATE OF ANALYSIS*

Mark Dennen  
RIDEM - Office of Waste Management  
235 Promenade Street  
Providence, RI 02908

**RE: PLF (N/A)**  
**ESS Laboratory Work Order Number: 1410145**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
Laboratory Director

**REVIEWED**

**By ESS Laboratory at 1:22 pm, Oct 14, 2014**

**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**SAMPLE RECEIPT**

The following samples were received on October 06, 2014 for the analyses specified on the enclosed Chain of Custody Record.

**The client did not deliver the samples in a cooler.**

<b>Lab Number</b>	<b>Sample Name</b>	<b>Matrix</b>	<b>Analysis</b>
1410145-01	SS-12	Soil	6010C, 7471A, 8270D



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**PROJECT NARRATIVE**

**8270C Semi-Volatile Organic Compounds**

- CXJ0090-CCV1 **Calibration required quadratic regression (O).**  
2,4-Dinitrophenol (60% @ 80-120%), Benzoic Acid (52% @ 80-120%)
- CXJ0090-CCV1 **Continuing Calibration recovery is below lower control limit (C-).**  
2,4-Dinitrophenol (60% @ 80-120%), 4,6-Dinitro-2-Methylphenol (72% @ 80-120%), Benzoic Acid (52% @ 80-120%)
- CXJ0090-CCV1 **Initial Calibration Verification recovery is outside of control limit (ICV).**  
2,4-Dinitrotoluene , Benzoic Acid , Hexachlorocyclopentadiene

**No other observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

- [Definitions of Quality Control Parameters](#)
- [Semivolatile Organics Internal Standard Information](#)
- [Semivolatile Organics Surrogate Information](#)
- [Volatile Organics Internal Standard Information](#)
- [Volatile Organics Surrogate Information](#)
- [EPH and VPH Alkane Lists](#)



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**CURRENT SW-846 METHODOLOGY VERSIONS**

**Analytical Methods**

- 1010A - Flashpoint
- 6010C - ICP
- 6020A - ICP MS
- 7010 - Graphite Furnace
- 7196A - Hexavalent Chromium
- 7470A - Aqueous Mercury
- 7471B - Solid Mercury
- 8011 - EDB/DBCP/TCP
- 8015D - GRO/DRO
- 8081B - Pesticides
- 8082A - PCB
- 8100M - TPH
- 8151A - Herbicides
- 8260B - VOA
- 8270D - SVOA
- 8270D SIM - SVOA Low Level
- 9014 - Cyanide
- 9038 - Sulfate
- 9040C - Aqueous pH
- 9045D - Solid pH (Corrosivity)
- 9050A - Specific Conductance
- 9056A - Anions (IC)
- 9060A - TOC
- 9095B - Paint Filter
- MADEP 04-1.1 - EPH / VPH

**Prep Methods**

- 3005A - Aqueous ICP and Graphite Furnace Digestion
- 3020A - Aqueous ICP MS Digestion
- 3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
- 3060A - Solid Hexavalent Chromium Digestion
- 3510C - Separatory Funnel Extraction
- 3520C - Liquid / Liquid Extraction
- 3540C - Manual Soxhlet Extraction
- 3541 - Automated Soxhlet Extraction
- 3546 - Microwave Extraction
- 3580A - Waste Dilution
- 5030B - Aqueous Purge and Trap
- 5030C - Aqueous Purge and Trap
- 5035 - Solid Purge and Trap



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF  
Client Sample ID: SS-12  
Date Sampled: 10/06/14 14:29  
Percent Solids: 86

ESS Laboratory Work Order: 1410145  
ESS Laboratory Sample ID: 1410145-01  
Sample Matrix: Soil  
Units: mg/kg dry

Extraction Method: 3050B

**Total Metals**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	61.2 (2.2)		6010C		1	KJK	10/08/14 20:34	2.65	100	CJ40734
Barium	35.6 (2.2)		6010C		1	KJK	10/08/14 20:34	2.65	100	CJ40734
Cadmium	1.10 (0.44)		6010C		1	KJK	10/08/14 20:34	2.65	100	CJ40734
Chromium	10.2 (0.9)		6010C		1	KJK	10/08/14 20:34	2.65	100	CJ40734
Lead	191 (4.4)		6010C		1	KJK	10/08/14 20:34	2.65	100	CJ40734
Mercury	0.081 (0.039)		7471A		1	BJV	10/09/14 12:20	0.6	40	CJ40814
Selenium	ND (4.4)		6010C		1	KJK	10/08/14 20:34	2.65	100	CJ40734
Silver	ND (0.44)		6010C		1	KJK	10/08/14 20:34	2.65	100	CJ40734



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF  
Client Sample ID: SS-12  
Date Sampled: 10/06/14 14:29  
Percent Solids: 86  
Initial Volume: 15.3  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1410145  
ESS Laboratory Sample ID: 1410145-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 10/7/14 10:55

**8270C Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1-Biphenyl	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
1,2,4-Trichlorobenzene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
1,2-Dichlorobenzene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
1,3-Dichlorobenzene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
1,4-Dichlorobenzene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2,3,4,6-Tetrachlorophenol	ND (1.91)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2,4,5-Trichlorophenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2,4,6-Trichlorophenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2,4-Dichlorophenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2,4-Dimethylphenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2,4-Dinitrophenol	ND (1.91)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2,4-Dinitrotoluene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2,6-Dinitrotoluene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2-Chloronaphthalene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2-Chlorophenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2-Methylnaphthalene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2-Methylphenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2-Nitroaniline	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
2-Nitrophenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
3,3'-Dichlorobenzidine	ND (0.765)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
3+4-Methylphenol	ND (0.765)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
3-Nitroaniline	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
4,6-Dinitro-2-Methylphenol	ND (1.91)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
4-Bromophenyl-phenylether	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
4-Chloro-3-Methylphenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
4-Chloroaniline	ND (0.765)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
4-Chloro-phenyl-phenyl ether	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
4-Nitroaniline	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
4-Nitrophenol	ND (1.91)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Acenaphthene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Acenaphthylene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Acetophenone	ND (0.765)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF  
Client Sample ID: SS-12  
Date Sampled: 10/06/14 14:29  
Percent Solids: 86  
Initial Volume: 15.3  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1410145  
ESS Laboratory Sample ID: 1410145-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 10/7/14 10:55

**8270C Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aniline	ND (0.765)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Anthracene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Azobenzene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Benzo(a)anthracene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Benzo(a)pyrene	ND (0.191)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Benzo(b)fluoranthene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Benzo(g,h,i)perylene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Benzo(k)fluoranthene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Benzoic Acid	ND (1.91)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Benzyl Alcohol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
bis(2-Chloroethoxy)methane	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
bis(2-Chloroethyl)ether	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
bis(2-chloroisopropyl)Ether	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
bis(2-Ethylhexyl)phthalate	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Butylbenzylphthalate	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Carbazole	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Chrysene	ND (0.191)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Dibenzo(a,h)Anthracene	ND (0.191)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Dibenzofuran	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Diethylphthalate	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Dimethylphthalate	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Di-n-butylphthalate	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Di-n-octylphthalate	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Fluoranthene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Fluorene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Hexachlorobenzene	ND (0.191)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Hexachlorobutadiene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Hexachlorocyclopentadiene	ND (1.91)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Hexachloroethane	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Indeno(1,2,3-cd)Pyrene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Isophorone	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Naphthalene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF  
Client Sample ID: SS-12  
Date Sampled: 10/06/14 14:29  
Percent Solids: 86  
Initial Volume: 15.3  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1410145  
ESS Laboratory Sample ID: 1410145-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 10/7/14 10:55

**8270C Semi-Volatile Organic Compounds**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Nitrobenzene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
N-Nitrosodimethylamine	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
N-Nitroso-Di-n-Propylamine	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
N-nitrosodiphenylamine	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Pentachlorophenol	ND (1.91)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Phenanthrene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Phenol	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Pyrene	ND (0.382)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603
Pyridine	ND (1.91)		8270D		1	10/07/14 16:33	CXJ0090	CJ40603

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>74 %</i>		<i>30-130</i>
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>91 %</i>		<i>30-130</i>
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>79 %</i>		<i>30-130</i>
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>78 %</i>		<i>30-130</i>
<i>Surrogate: 2-Fluorophenol</i>	<i>72 %</i>		<i>30-130</i>
<i>Surrogate: Nitrobenzene-d5</i>	<i>77 %</i>		<i>30-130</i>
<i>Surrogate: Phenol-d6</i>	<i>82 %</i>		<i>30-130</i>
<i>Surrogate: p-Terphenyl-d14</i>	<i>89 %</i>		<i>30-130</i>





*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

**Total Metals**

**Batch CJ40734 - 3050B**

**Blank**

Arsenic	ND	2.5	mg/kg wet
Barium	ND	2.5	mg/kg wet
Cadmium	ND	0.50	mg/kg wet
Chromium	ND	1.0	mg/kg wet
Lead	ND	5.0	mg/kg wet
Selenium	ND	5.0	mg/kg wet
Silver	ND	0.50	mg/kg wet

**LCS**

Arsenic	116	7.1	mg/kg wet	139.0	84	80-120
Barium	171	7.1	mg/kg wet	203.0	84	80-120
Cadmium	85.9	1.43	mg/kg wet	96.00	89	80-120
Chromium	122	2.9	mg/kg wet	136.0	90	80-120
Lead	116	14.3	mg/kg wet	133.0	87	80-120
Selenium	154	14.3	mg/kg wet	177.0	87	80-120
Silver	35.2	1.43	mg/kg wet	40.20	88	80-120

**LCS Dup**

Arsenic	117	8.1	mg/kg wet	139.0	84	80-120	1	20
Barium	172	8.1	mg/kg wet	203.0	85	80-120	0.5	20
Cadmium	86.5	1.61	mg/kg wet	96.00	90	80-120	0.7	20
Chromium	124	3.2	mg/kg wet	136.0	91	80-120	1	20
Lead	118	16.1	mg/kg wet	133.0	89	80-120	2	20
Selenium	159	16.1	mg/kg wet	177.0	90	80-120	3	20
Silver	35.0	1.61	mg/kg wet	40.20	87	80-120	0.7	20

**Batch CJ40814 - 7471A**

**Blank**

Mercury	ND	0.033	mg/kg wet
---------	----	-------	-----------

**LCS**

Mercury	8.84	3.05	mg/kg wet	23.50	38	27-111
---------	------	------	-----------	-------	----	--------

**LCS Dup**

Mercury	8.65	3.14	mg/kg wet	23.50	37	27-111	2	20
---------	------	------	-----------	-------	----	--------	---	----

**8270C Semi-Volatile Organic Compounds**

**Batch CJ40603 - 3546**

**Blank**

1,1-Biphenyl	ND	0.333	mg/kg wet
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet
1,2-Dichlorobenzene	ND	0.333	mg/kg wet
1,3-Dichlorobenzene	ND	0.333	mg/kg wet
1,4-Dichlorobenzene	ND	0.333	mg/kg wet
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Semi-Volatile Organic Compounds

**Batch CJ40603 - 3546**

2,4-Dichlorophenol	ND	0.333	mg/kg wet
2,4-Dimethylphenol	ND	0.333	mg/kg wet
2,4-Dinitrophenol	ND	1.67	mg/kg wet
2,4-Dinitrotoluene	ND	0.333	mg/kg wet
2,6-Dinitrotoluene	ND	0.333	mg/kg wet
2-Chloronaphthalene	ND	0.333	mg/kg wet
2-Chlorophenol	ND	0.333	mg/kg wet
2-Methylnaphthalene	ND	0.333	mg/kg wet
2-Methylphenol	ND	0.333	mg/kg wet
2-Nitroaniline	ND	0.333	mg/kg wet
2-Nitrophenol	ND	0.333	mg/kg wet
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet
3+4-Methylphenol	ND	0.667	mg/kg wet
3-Nitroaniline	ND	0.333	mg/kg wet
4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet
4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet
4-Chloroaniline	ND	0.667	mg/kg wet
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet
4-Nitroaniline	ND	0.333	mg/kg wet
4-Nitrophenol	ND	1.67	mg/kg wet
Acenaphthene	ND	0.333	mg/kg wet
Acenaphthylene	ND	0.333	mg/kg wet
Acetophenone	ND	0.667	mg/kg wet
Aniline	ND	0.667	mg/kg wet
Anthracene	ND	0.333	mg/kg wet
Azobenzene	ND	0.333	mg/kg wet
Benzo(a)anthracene	ND	0.333	mg/kg wet
Benzo(a)pyrene	ND	0.167	mg/kg wet
Benzo(b)fluoranthene	ND	0.333	mg/kg wet
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet
Benzo(k)fluoranthene	ND	0.333	mg/kg wet
Benzoic Acid	ND	1.67	mg/kg wet
Benzyl Alcohol	ND	0.333	mg/kg wet
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet
bis(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet
bis(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet
Butylbenzylphthalate	ND	0.333	mg/kg wet
Carbazole	ND	0.333	mg/kg wet
Chrysene	ND	0.167	mg/kg wet
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet
Dibenzofuran	ND	0.333	mg/kg wet
Diethylphthalate	ND	0.333	mg/kg wet
Dimethylphthalate	ND	0.333	mg/kg wet



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Semi-Volatile Organic Compounds

**Batch CJ40603 - 3546**

Di-n-butylphthalate	ND	0.333	mg/kg wet							
Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							
Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.90		mg/kg wet	3.333		87	30-130			
Surrogate: 2,4,6-Tribromophenol	4.20		mg/kg wet	5.000		84	30-130			
Surrogate: 2-Chlorophenol-d4	4.10		mg/kg wet	5.000		82	30-130			
Surrogate: 2-Fluorobiphenyl	2.73		mg/kg wet	3.333		82	30-130			
Surrogate: 2-Fluorophenol	3.86		mg/kg wet	5.000		77	30-130			
Surrogate: Nitrobenzene-d5	2.92		mg/kg wet	3.333		88	30-130			
Surrogate: Phenol-d6	4.19		mg/kg wet	5.000		84	30-130			
Surrogate: p-Terphenyl-d14	3.38		mg/kg wet	3.333		102	30-130			

**LCS**

1,1-Biphenyl	2.46	0.333	mg/kg wet	3.333		74	40-140			
1,2,4-Trichlorobenzene	2.39	0.333	mg/kg wet	3.333		72	40-140			
1,2-Dichlorobenzene	2.46	0.333	mg/kg wet	3.333		74	40-140			
1,3-Dichlorobenzene	2.43	0.333	mg/kg wet	3.333		73	40-140			
1,4-Dichlorobenzene	2.45	0.333	mg/kg wet	3.333		73	40-140			
2,3,4,6-Tetrachlorophenol	2.81	1.67	mg/kg wet	3.333		84	30-130			
2,4,5-Trichlorophenol	2.52	0.333	mg/kg wet	3.333		76	30-130			
2,4,6-Trichlorophenol	2.50	0.333	mg/kg wet	3.333		75	30-130			
2,4-Dichlorophenol	2.44	0.333	mg/kg wet	3.333		73	30-130			
2,4-Dimethylphenol	2.62	0.333	mg/kg wet	3.333		79	30-130			
2,4-Dinitrophenol	1.91	1.67	mg/kg wet	3.333		57	30-130			
2,4-Dinitrotoluene	2.95	0.333	mg/kg wet	3.333		89	40-140			
2,6-Dinitrotoluene	2.72	0.333	mg/kg wet	3.333		82	40-140			
2-Chloronaphthalene	2.31	0.333	mg/kg wet	3.333		69	40-140			
2-Chlorophenol	2.34	0.333	mg/kg wet	3.333		70	30-130			
2-Methylnaphthalene	2.37	0.333	mg/kg wet	3.333		71	40-140			



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Semi-Volatile Organic Compounds

**Batch CJ40603 - 3546**

2-Methylphenol	2.41	0.333	mg/kg wet	3.333		72	30-130			
2-Nitroaniline	2.38	0.333	mg/kg wet	3.333		71	40-140			
2-Nitrophenol	2.67	0.333	mg/kg wet	3.333		80	30-130			
3,3'-Dichlorobenzidine	2.59	0.667	mg/kg wet	3.333		78	40-140			
3+4-Methylphenol	4.65	0.667	mg/kg wet	6.667		70	30-130			
3-Nitroaniline	2.75	0.333	mg/kg wet	3.333		83	40-140			
4,6-Dinitro-2-Methylphenol	2.37	1.67	mg/kg wet	3.333		71	30-130			
4-Bromophenyl-phenylether	2.64	0.333	mg/kg wet	3.333		79	40-140			
4-Chloro-3-Methylphenol	2.61	0.333	mg/kg wet	3.333		78	30-130			
4-Chloroaniline	2.08	0.667	mg/kg wet	3.333		62	40-140			
4-Chloro-phenyl-phenyl ether	2.59	0.333	mg/kg wet	3.333		78	40-140			
4-Nitroaniline	2.93	0.333	mg/kg wet	3.333		88	40-140			
4-Nitrophenol	2.85	1.67	mg/kg wet	3.333		85	30-130			
Acenaphthene	2.49	0.333	mg/kg wet	3.333		75	40-140			
Acenaphthylene	2.50	0.333	mg/kg wet	3.333		75	40-140			
Acetophenone	2.55	0.667	mg/kg wet	3.333		77	40-140			
Aniline	1.83	0.667	mg/kg wet	3.333		55	40-140			
Anthracene	2.81	0.333	mg/kg wet	3.333		84	40-140			
Azobenzene	2.67	0.333	mg/kg wet	3.333		80	40-140			
Benzo(a)anthracene	2.58	0.333	mg/kg wet	3.333		77	40-140			
Benzo(a)pyrene	2.79	0.167	mg/kg wet	3.333		84	40-140			
Benzo(b)fluoranthene	2.75	0.333	mg/kg wet	3.333		83	40-140			
Benzo(g,h,i)perylene	2.92	0.333	mg/kg wet	3.333		88	40-140			
Benzo(k)fluoranthene	2.78	0.333	mg/kg wet	3.333		83	40-140			
Benzoic Acid	2.07	1.67	mg/kg wet	3.333		62	40-140			
Benzyl Alcohol	2.56	0.333	mg/kg wet	3.333		77	40-140			
bis(2-Chloroethoxy)methane	2.62	0.333	mg/kg wet	3.333		79	40-140			
bis(2-Chloroethyl)ether	2.34	0.333	mg/kg wet	3.333		70	40-140			
bis(2-chloroisopropyl)Ether	2.32	0.333	mg/kg wet	3.333		70	40-140			
bis(2-Ethylhexyl)phthalate	3.18	0.333	mg/kg wet	3.333		95	40-140			
Butylbenzylphthalate	2.99	0.333	mg/kg wet	3.333		90	40-140			
Carbazole	2.83	0.333	mg/kg wet	3.333		85	40-140			
Chrysene	2.66	0.167	mg/kg wet	3.333		80	40-140			
Dibenzo(a,h)Anthracene	2.92	0.167	mg/kg wet	3.333		88	40-140			
Dibenzofuran	2.52	0.333	mg/kg wet	3.333		76	40-140			
Diethylphthalate	2.91	0.333	mg/kg wet	3.333		87	40-140			
Dimethylphthalate	2.58	0.333	mg/kg wet	3.333		77	40-140			
Di-n-butylphthalate	3.14	0.333	mg/kg wet	3.333		94	40-140			
Di-n-octylphthalate	3.07	0.333	mg/kg wet	3.333		92	40-140			
Fluoranthene	2.99	0.333	mg/kg wet	3.333		90	40-140			
Fluorene	2.62	0.333	mg/kg wet	3.333		79	40-140			
Hexachlorobenzene	2.57	0.167	mg/kg wet	3.333		77	40-140			
Hexachlorobutadiene	2.42	0.333	mg/kg wet	3.333		73	40-140			
Hexachlorocyclopentadiene	2.16	1.67	mg/kg wet	3.333		65	40-140			
Hexachloroethane	2.40	0.333	mg/kg wet	3.333		72	40-140			



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Semi-Volatile Organic Compounds

**Batch CJ40603 - 3546**

Indeno(1,2,3-cd)Pyrene	2.87	0.333	mg/kg wet	3.333		86	40-140			
Isophorone	2.58	0.333	mg/kg wet	3.333		78	40-140			
Naphthalene	2.48	0.333	mg/kg wet	3.333		74	40-140			
Nitrobenzene	2.52	0.333	mg/kg wet	3.333		75	40-140			
N-Nitrosodimethylamine	1.88	0.333	mg/kg wet	3.333		57	40-140			
N-Nitroso-Di-n-Propylamine	2.46	0.333	mg/kg wet	3.333		74	40-140			
N-nitrosodiphenylamine	2.78	0.333	mg/kg wet	3.333		83	40-140			
Pentachlorophenol	2.40	1.67	mg/kg wet	3.333		72	30-130			
Phenanthrene	2.71	0.333	mg/kg wet	3.333		81	40-140			
Phenol	2.35	0.333	mg/kg wet	3.333		70	30-130			
Pyrene	2.58	0.333	mg/kg wet	3.333		77	40-140			
Pyridine	1.58	1.67	mg/kg wet	3.333		47	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.83		mg/kg wet	3.333		85	30-130			
Surrogate: 2,4,6-Tribromophenol	4.59		mg/kg wet	5.000		92	30-130			
Surrogate: 2-Chlorophenol-d4	3.95		mg/kg wet	5.000		79	30-130			
Surrogate: 2-Fluorobiphenyl	2.75		mg/kg wet	3.333		83	30-130			
Surrogate: 2-Fluorophenol	3.82		mg/kg wet	5.000		76	30-130			
Surrogate: Nitrobenzene-d5	2.93		mg/kg wet	3.333		88	30-130			
Surrogate: Phenol-d6	3.93		mg/kg wet	5.000		79	30-130			
Surrogate: p-Terphenyl-d14	3.23		mg/kg wet	3.333		97	30-130			

**LCS Dup**

1,1-Biphenyl	2.39	0.333	mg/kg wet	3.333		72	40-140	3	30	
1,2,4-Trichlorobenzene	2.26	0.333	mg/kg wet	3.333		68	40-140	5	30	
1,2-Dichlorobenzene	2.33	0.333	mg/kg wet	3.333		70	40-140	5	30	
1,3-Dichlorobenzene	2.30	0.333	mg/kg wet	3.333		69	40-140	6	30	
1,4-Dichlorobenzene	2.30	0.333	mg/kg wet	3.333		69	40-140	6	30	
2,3,4,6-Tetrachlorophenol	2.78	1.67	mg/kg wet	3.333		84	30-130	0.9	30	
2,4,5-Trichlorophenol	2.47	0.333	mg/kg wet	3.333		74	30-130	2	30	
2,4,6-Trichlorophenol	2.45	0.333	mg/kg wet	3.333		73	30-130	2	30	
2,4-Dichlorophenol	2.33	0.333	mg/kg wet	3.333		70	30-130	5	30	
2,4-Dimethylphenol	2.48	0.333	mg/kg wet	3.333		75	30-130	6	30	
2,4-Dinitrophenol	1.90	1.67	mg/kg wet	3.333		57	30-130	0.9	30	
2,4-Dinitrotoluene	2.90	0.333	mg/kg wet	3.333		87	40-140	2	30	
2,6-Dinitrotoluene	2.61	0.333	mg/kg wet	3.333		78	40-140	4	30	
2-Chloronaphthalene	2.26	0.333	mg/kg wet	3.333		68	40-140	2	30	
2-Chlorophenol	2.23	0.333	mg/kg wet	3.333		67	30-130	5	30	
2-Methylnaphthalene	2.27	0.333	mg/kg wet	3.333		68	40-140	4	30	
2-Methylphenol	2.33	0.333	mg/kg wet	3.333		70	30-130	3	30	
2-Nitroaniline	2.29	0.333	mg/kg wet	3.333		69	40-140	4	30	
2-Nitrophenol	2.50	0.333	mg/kg wet	3.333		75	30-130	7	30	
3,3'-Dichlorobenzidine	2.66	0.667	mg/kg wet	3.333		80	40-140	3	30	
3+4-Methylphenol	4.54	0.667	mg/kg wet	6.667		68	30-130	2	30	
3-Nitroaniline	2.72	0.333	mg/kg wet	3.333		82	40-140	1	30	
4,6-Dinitro-2-Methylphenol	2.32	1.67	mg/kg wet	3.333		69	30-130	3	30	
4-Bromophenyl-phenylether	2.54	0.333	mg/kg wet	3.333		76	40-140	4	30	



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Semi-Volatile Organic Compounds

**Batch CJ40603 - 3546**

4-Chloro-3-Methylphenol	2.50	0.333	mg/kg wet	3.333		75	30-130	4	30	
4-Chloroaniline	2.07	0.667	mg/kg wet	3.333		62	40-140	0.3	30	
4-Chloro-phenyl-phenyl ether	2.55	0.333	mg/kg wet	3.333		76	40-140	1	30	
4-Nitroaniline	2.87	0.333	mg/kg wet	3.333		86	40-140	2	30	
4-Nitrophenol	2.80	1.67	mg/kg wet	3.333		84	30-130	2	30	
Acenaphthene	2.43	0.333	mg/kg wet	3.333		73	40-140	2	30	
Acenaphthylene	2.43	0.333	mg/kg wet	3.333		73	40-140	3	30	
Acetophenone	2.45	0.667	mg/kg wet	3.333		73	40-140	4	30	
Aniline	1.81	0.667	mg/kg wet	3.333		54	40-140	1	30	
Anthracene	2.72	0.333	mg/kg wet	3.333		82	40-140	3	30	
Azobenzene	2.55	0.333	mg/kg wet	3.333		77	40-140	4	30	
Benzo(a)anthracene	2.64	0.333	mg/kg wet	3.333		79	40-140	2	30	
Benzo(a)pyrene	2.72	0.167	mg/kg wet	3.333		82	40-140	2	30	
Benzo(b)fluoranthene	2.72	0.333	mg/kg wet	3.333		82	40-140	1	30	
Benzo(g,h,i)perylene	2.79	0.333	mg/kg wet	3.333		84	40-140	4	30	
Benzo(k)fluoranthene	2.66	0.333	mg/kg wet	3.333		80	40-140	4	30	
Benzoic Acid	2.23	1.67	mg/kg wet	3.333		67	40-140	8	30	
Benzyl Alcohol	2.39	0.333	mg/kg wet	3.333		72	40-140	7	30	
bis(2-Chloroethoxy)methane	2.47	0.333	mg/kg wet	3.333		74	40-140	6	30	
bis(2-Chloroethyl)ether	2.23	0.333	mg/kg wet	3.333		67	40-140	5	30	
bis(2-chloroisopropyl)Ether	2.20	0.333	mg/kg wet	3.333		66	40-140	6	30	
bis(2-Ethylhexyl)phthalate	3.11	0.333	mg/kg wet	3.333		93	40-140	2	30	
Butylbenzylphthalate	2.91	0.333	mg/kg wet	3.333		87	40-140	3	30	
Carbazole	2.75	0.333	mg/kg wet	3.333		82	40-140	3	30	
Chrysene	2.69	0.167	mg/kg wet	3.333		81	40-140	1	30	
Dibenzo(a,h)Anthracene	2.62	0.167	mg/kg wet	3.333		79	40-140	11	30	
Dibenzofuran	2.44	0.333	mg/kg wet	3.333		73	40-140	3	30	
Diethylphthalate	2.87	0.333	mg/kg wet	3.333		86	40-140	1	30	
Dimethylphthalate	2.54	0.333	mg/kg wet	3.333		76	40-140	2	30	
Di-n-butylphthalate	3.04	0.333	mg/kg wet	3.333		91	40-140	3	30	
Di-n-octylphthalate	2.97	0.333	mg/kg wet	3.333		89	40-140	3	30	
Fluoranthene	2.86	0.333	mg/kg wet	3.333		86	40-140	4	30	
Fluorene	2.58	0.333	mg/kg wet	3.333		77	40-140	2	30	
Hexachlorobenzene	2.51	0.167	mg/kg wet	3.333		75	40-140	2	30	
Hexachlorobutadiene	2.27	0.333	mg/kg wet	3.333		68	40-140	7	30	
Hexachlorocyclopentadiene	2.03	1.67	mg/kg wet	3.333		61	40-140	6	30	
Hexachloroethane	2.29	0.333	mg/kg wet	3.333		69	40-140	5	30	
Indeno(1,2,3-cd)Pyrene	2.78	0.333	mg/kg wet	3.333		84	40-140	3	30	
Isophorone	2.46	0.333	mg/kg wet	3.333		74	40-140	5	30	
Naphthalene	2.35	0.333	mg/kg wet	3.333		70	40-140	5	30	
Nitrobenzene	2.36	0.333	mg/kg wet	3.333		71	40-140	6	30	
N-Nitrosodimethylamine	1.80	0.333	mg/kg wet	3.333		54	40-140	5	30	
N-Nitroso-Di-n-Propylamine	2.38	0.333	mg/kg wet	3.333		72	40-140	3	30	
N-nitrosodiphenylamine	2.71	0.333	mg/kg wet	3.333		81	40-140	3	30	
Pentachlorophenol	2.34	1.67	mg/kg wet	3.333		70	30-130	3	30	



CERTIFICATE OF ANALYSIS

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Semi-Volatile Organic Compounds

**Batch CJ40603 - 3546**

Phenanthrene	2.64	0.333	mg/kg wet	3.333		79	40-140	3	30	
Phenol	2.25	0.333	mg/kg wet	3.333		68	30-130	4	30	
Pyrene	2.53	0.333	mg/kg wet	3.333		76	40-140	2	30	
Pyridine	1.45	1.67	mg/kg wet	3.333		44	40-140	8	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.61		mg/kg wet	3.333		78	30-130			
Surrogate: 2,4,6-Tribromophenol	4.49		mg/kg wet	5.000		90	30-130			
Surrogate: 2-Chlorophenol-d4	3.70		mg/kg wet	5.000		74	30-130			
Surrogate: 2-Fluorobiphenyl	2.63		mg/kg wet	3.333		79	30-130			
Surrogate: 2-Fluorophenol	3.53		mg/kg wet	5.000		71	30-130			
Surrogate: Nitrobenzene-d5	2.70		mg/kg wet	3.333		81	30-130			
Surrogate: Phenol-d6	3.67		mg/kg wet	5.000		73	30-130			
Surrogate: p-Terphenyl-d14	3.14		mg/kg wet	3.333		94	30-130			



*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**Notes and Definitions**

- U Analyte included in the analysis, but not detected
- Q Calibration required quadratic regression (Q).
- ICV Initial Calibration Verification recovery is outside of control limit (ICV).
- D Diluted.
- C- Continuing Calibration recovery is below lower control limit (C-).
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte
- SUB Subcontracted analysis; see attached report





*CERTIFICATE OF ANALYSIS*

Client Name: RIDEM - Office of Waste Management  
Client Project ID: PLF

ESS Laboratory Work Order: 1410145

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)

A2LA Accredited: Testing Cert# 2864.01

<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/OutOfStateCommercialLaboratories.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf)

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002

<http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

[http://datamine2.state.nj.us/DEP\\_Opra/OpraMain/pi\\_main?mode=pi\\_by\\_site&sort\\_order=PI\\_NAMEA&Select+a+Site:=58715](http://datamine2.state.nj.us/DEP_Opra/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715)

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

[http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory\\_accreditation\\_program/590095](http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095)

**CHEMISTRY**

A2LA Accredited: Testing Cert # 2864.01

Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)

<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141

Lead Paint, Lead in Children's Metals Jewelry

<http://www.epsc.gov/cgi-bin/labapplist.aspx>

# ESS Laboratory

Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Page \_\_\_\_\_ of \_\_\_\_\_

Turn Time \_\_\_\_\_ Standard \_\_\_\_\_ Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from:  
 MA RI CT NH NJ NY ME Other \_\_\_\_\_  
 Is this project for any of the following: USACE Other \_\_\_\_\_  
 MA-MCP Navy

Reporting Limits  
 ESS LAB PROJECT ID  
 1410145  
 Electronic Deliverable Yes \_\_\_\_\_ No \_\_\_\_\_  
 Format: Excel \_\_\_\_\_ Access \_\_\_\_\_ PDF \_\_\_\_\_ Other \_\_\_\_\_

Co. Name RFDEM / Waste Mgmt  
 Project # \_\_\_\_\_ Project Name (20 Char. or less) PLF  
 Contact Person Mark M. Dennen Address 235 Promenade St.  
 City Providence State RI Zip 02908 PO# \_\_\_\_\_  
 Telephone # 401 222 2797 Fax # 401 222 3812 Email Address mark.dennen@dem.ri.gov  
 ESS LAB Sample # \_\_\_\_\_ Date 10/6/2014 Collection Time 14:29 Sample Identification (20 Char. or less) SS-12

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Res Code	Number of Containers	Type of Containers	Circle and/or Write Required Analysis
1	10/6/2014	14:29	X			SS-12				VOA 8260 624 524.2 VPH 8015 8021 GRO MTRB/RTX 8015 8021 TPB 8100 8015 EPH 8100 8015 EPH w/PAHs, w/PAHs 4 Diat 8081 8082 608 608 PCB Pesticides PCB PAH 8270 625 SVOA RCRA8 PP13 TAL23 RCRA8 TCLP-RCRA8 NBC7 MCP-METALS (13) MCP-METALS (13) w/Hg

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters  
 Cooler Present Yes \_\_\_\_\_ No   
 Seals Intact Yes \_\_\_\_\_ No NA:  I Pickup  
 Cooler Temp 22.6 sample temp 10/6/14  
 Relinquished by: (Signature) Mark M. Dennen Date/Time 10/6/14 15:15  
 Relinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_