



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

Friday, October 28, 2022

Chip Byrd  
Sevenson Environmental Services, Inc.  
2749 Lockport Road  
Niagara Falls, NY 14305

RE: A210874 - Gasco -- Filter Bags - 111323

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A210874, which was received by the laboratory on 9/28/2022 at 10:05:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: [dthomas@apex-labs.com](mailto:dthomas@apex-labs.com), or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

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Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1                      1.6 degC

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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.  
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Darwin Thomas, Business Development Director



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**ANALYTICAL REPORT FOR SAMPLES**

**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BF-092022-144	A210874-01	Solid	09/20/22 17:00	09/28/22 10:05

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**ANALYTICAL SAMPLE RESULTS**

**Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01RE1)</b>				<b>Matrix: Solid</b>		<b>Batch: 22J0112</b>		
<b>Diesel</b>	<b>5250000</b>	476000	952000	ug/kg	50	10/05/22 09:12	NWTPH-Dx	
<b>Oil</b>	<b>3860000</b>	952000	1900000	ug/kg	50	10/05/22 09:12	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: %</i>	<i>Limits: 50-150 %</i>	<i>50</i>	<i>10/05/22 09:12</i>	<i>NWTPH-Dx</i>	<i>S-01</i>

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**ANALYTICAL SAMPLE RESULTS**

**Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>		<b>Batch: 2210974</b>		<b>V-16</b>
<b>Gasoline Range Organics</b>	<b>9350000</b>	298000	595000	ug/kg dry	100	09/29/22 19:03	NWTPH-Gx (MS)	<b>F-13</b>
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 97 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>09/29/22 19:03</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>		<i>87 %</i>		<i>50-150 %</i>	<i>1</i>	<i>09/29/22 19:03</i>	<i>NWTPH-Gx (MS)</i>	

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**ANALYTICAL SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>		<b>Batch: 2210974</b>		<b>V-16</b>
Acetone	ND	59500	119000	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Acrylonitrile	ND	5950	11900	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Benzene	ND	595	1190	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Bromobenzene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Bromochloromethane	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
<b>Bromodichloromethane</b>	<b>58900</b>	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
<b>Bromoform</b>	<b>20300</b>	5950	11900	ug/kg dry	100	09/29/22 19:03	5035A/8260D	<b>Q-54b</b>
Bromomethane	ND	59500	59500	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
2-Butanone (MEK)	ND	29800	59500	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
n-Butylbenzene	ND	5950	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
sec-Butylbenzene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
tert-Butylbenzene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Carbon disulfide	ND	59500	59500	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Carbon tetrachloride	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Chlorobenzene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Chloroethane	ND	59500	59500	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
<b>Chloroform</b>	<b>71100</b>	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Chloromethane	ND	14900	29800	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
2-Chlorotoluene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
4-Chlorotoluene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
<b>Dibromochloromethane</b>	<b>40000</b>	5950	11900	ug/kg dry	100	09/29/22 19:03	5035A/8260D	<b>Q-54</b>
1,2-Dibromo-3-chloropropane	ND	14900	29800	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Dibromomethane	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,2-Dichlorobenzene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,3-Dichlorobenzene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,4-Dichlorobenzene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Dichlorodifluoromethane	ND	11900	11900	ug/kg dry	100	09/29/22 19:03	5035A/8260D	ICV-02
1,1-Dichloroethane	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,1-Dichloroethene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
cis-1,2-Dichloroethene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
trans-1,2-Dichloroethene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	

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**ANALYTICAL SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>		<b>Batch: 2210974</b>		<b>V-16</b>
1,2-Dichloropropane	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,3-Dichloropropane	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
2,2-Dichloropropane	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,1-Dichloropropene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
cis-1,3-Dichloropropene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
trans-1,3-Dichloropropene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
<b>Ethylbenzene</b>	<b>6370</b>	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Hexachlorobutadiene	ND	5950	11900	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
2-Hexanone	ND	59500	59500	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Isopropylbenzene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
4-Isopropyltoluene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Methylene chloride	ND	29800	59500	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	59500	59500	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
<b>Naphthalene</b>	<b>20400</b>	5950	11900	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
n-Propylbenzene	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Styrene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,1,1,2,2-Tetrachloroethane	ND	5950	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Tetrachloroethene (PCE)	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Toluene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,2,3-Trichlorobenzene	ND	14900	29800	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,2,4-Trichlorobenzene	ND	14900	29800	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,1,1-Trichloroethane	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,1,2-Trichloroethane	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Trichloroethene (TCE)	ND	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Trichlorofluoromethane	ND	5950	11900	ug/kg dry	100	09/29/22 19:03	5035A/8260D	EST
1,2,3-Trichloropropane	ND	8930	8930	ug/kg dry	100	09/29/22 19:03	5035A/8260D	R-02
<b>1,2,4-Trimethylbenzene</b>	<b>8690</b>	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
1,3,5-Trimethylbenzene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
Vinyl chloride	ND	2980	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
m,p-Xylene	ND	2980	5950	ug/kg dry	100	09/29/22 19:03	5035A/8260D	
<b>o-Xylene</b>	<b>2500</b>	1490	2980	ug/kg dry	100	09/29/22 19:03	5035A/8260D	J

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**ANALYTICAL SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>		<b>Batch: 2210974</b>		<b>V-16</b>
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>09/29/22 19:03</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>96 %</i>	<i>80-120 %</i>	<i>1</i>	<i>09/29/22 19:03</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>96 %</i>	<i>79-120 %</i>	<i>1</i>	<i>09/29/22 19:03</i>	<i>5035A/8260D</i>	

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**ANALYTICAL SAMPLE RESULTS**

**Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>			<b>Matrix: Solid</b>		<b>Batch: 22J0268</b>			
Benzene	ND	6.25	12.5	ug/L	50	10/07/22 16:28	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	10/07/22 16:28	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	10/07/22 16:28	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	10/07/22 16:28	1311/8260D	
<b>Chloroform</b>	<b>73.0</b>	25.0	50.0	ug/L	50	10/07/22 16:28	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	10/07/22 16:28	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	10/07/22 16:28	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	10/07/22 16:28	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	10/07/22 16:28	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	10/07/22 16:28	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	10/07/22 16:28	1311/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 113 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>10/07/22 16:28</i>	<i>1311/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>1</i>	<i>10/07/22 16:28</i>	<i>1311/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>1</i>	<i>10/07/22 16:28</i>	<i>1311/8260D</i>

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**ANALYTICAL SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01RE1)</b>				<b>Matrix: Solid</b>		<b>Batch: 22J0030</b>		
Acenaphthene	ND	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Acenaphthylene	<b>394</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	J
Anthracene	<b>339</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	J
Benz(a)anthracene	<b>523</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	J
Benzo(a)pyrene	<b>611</b>	492	985	ug/kg dry	20	10/04/22 21:03	EPA 8270E	J
Benzo(b)fluoranthene	<b>1050</b>	492	985	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Benzo(k)fluoranthene	ND	492	985	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Benzo(g,h,i)perylene	<b>334</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	J
Chrysene	<b>1440</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Dibenz(a,h)anthracene	ND	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Fluoranthene	<b>1420</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Fluorene	<b>3340</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Indeno(1,2,3-cd)pyrene	<b>415</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	J
1-Methylnaphthalene	ND	657	1310	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2-Methylnaphthalene	ND	657	1310	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Naphthalene	ND	657	1310	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Phenanthrene	<b>2160</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Pyrene	<b>495</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	J
Carbazole	<b>6110</b>	492	985	ug/kg dry	20	10/04/22 21:03	EPA 8270E	Q-42
Dibenzofuran	<b>746</b>	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2-Chlorophenol	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
4-Chloro-3-methylphenol	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2,4-Dichlorophenol	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2,4-Dimethylphenol	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	Q-42
2,4-Dinitrophenol	ND	8200	16400	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	8200	16400	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2-Methylphenol	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
3+4-Methylphenol(s)	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2-Nitrophenol	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
4-Nitrophenol	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Pentachlorophenol (PCP)	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Phenol	ND	657	1310	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	

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ORELAP ID: OR100062

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**ANALYTICAL SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01RE1)</b>				<b>Matrix: Solid</b>		<b>Batch: 22J0030</b>		
2,3,5,6-Tetrachlorophenol	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2,4,5-Trichlorophenol	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Nitrobenzene	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2,4,6-Trichlorophenol	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	4920	9850	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Butyl benzyl phthalate	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Diethylphthalate	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Dimethylphthalate	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Di-n-butylphthalate	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Di-n-octyl phthalate	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
N-Nitrosodimethylamine	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
N-Nitrosodiphenylamine	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Hexachlorobenzene	ND	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Hexachlorobutadiene	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Hexachlorocyclopentadiene	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Hexachloroethane	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2-Chloronaphthalene	ND	327	657	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
1,2,4-Trichlorobenzene	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
4-Bromophenyl phenyl ether	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Aniline	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	Q-42
4-Chloroaniline	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	Q-42
2-Nitroaniline	ND	6570	13100	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
3-Nitroaniline	ND	6570	13100	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
4-Nitroaniline	ND	6570	13100	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2,4-Dinitrotoluene	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
2,6-Dinitrotoluene	ND	3270	6570	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Benzoic acid	ND	41100	82000	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Benzyl alcohol	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	

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**ANALYTICAL SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01RE1)</b>				<b>Matrix: Solid</b>		<b>Batch: 22J0030</b>		
Isophorone	ND	2460	2460	ug/kg dry	20	10/04/22 21:03	EPA 8270E	R-02
Azobenzene (1,2-DPH)	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	8200	16400	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
3,3'-Dichlorobenzidine	ND	6570	13100	ug/kg dry	20	10/04/22 21:03	EPA 8270E	Q-42, Q-52
1,2-Dinitrobenzene	ND	8200	16400	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
1,3-Dinitrobenzene	ND	8200	16400	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
1,4-Dinitrobenzene	ND	8200	16400	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
Pyridine	ND	1640	3270	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
1,2-Dichlorobenzene	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
1,3-Dichlorobenzene	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
1,4-Dichlorobenzene	ND	820	1640	ug/kg dry	20	10/04/22 21:03	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 69 %</i>		<i>Limits: 37-122 %</i>		<i>20</i>	<i>10/04/22 21:03</i>	<i>EPA 8270E</i>
<i>2-Fluorobiphenyl (Surr)</i>		<i>66 %</i>		<i>44-120 %</i>		<i>20</i>	<i>10/04/22 21:03</i>	<i>EPA 8270E</i>
<i>Phenol-d6 (Surr)</i>		<i>37 %</i>		<i>33-122 %</i>		<i>20</i>	<i>10/04/22 21:03</i>	<i>EPA 8270E</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>80 %</i>		<i>54-127 %</i>		<i>20</i>	<i>10/04/22 21:03</i>	<i>EPA 8270E</i>
<i>2-Fluorophenol (Surr)</i>		<i>38 %</i>		<i>35-120 %</i>		<i>20</i>	<i>10/04/22 21:03</i>	<i>EPA 8270E</i>
<i>2,4,6-Tribromophenol (Surr)</i>		<i>72 %</i>		<i>39-132 %</i>		<i>20</i>	<i>10/04/22 21:03</i>	<i>EPA 8270E</i>

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**ANALYTICAL SAMPLE RESULTS**

**Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>				
Batch: 2210998								
<b>Arsenic</b>	<b>111000</b>	6800	13600	ug/kg dry	10	09/30/22 13:22	EPA 6020B	
<b>Barium</b>	<b>245000</b>	6800	13600	ug/kg dry	10	09/30/22 13:22	EPA 6020B	
Cadmium	ND	1360	2720	ug/kg dry	10	09/30/22 13:22	EPA 6020B	
<b>Chromium</b>	<b>240000</b>	6800	13600	ug/kg dry	10	09/30/22 13:22	EPA 6020B	
<b>Lead</b>	<b>174000</b>	1360	2720	ug/kg dry	10	09/30/22 13:22	EPA 6020B	
Mercury	ND	544	1090	ug/kg dry	10	09/30/22 13:22	EPA 6020B	
Selenium	ND	6800	13600	ug/kg dry	10	09/30/22 13:22	EPA 6020B	
Silver	ND	1360	2720	ug/kg dry	10	09/30/22 13:22	EPA 6020B	

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**ANALYTICAL SAMPLE RESULTS**

**TCLP Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>				
Batch: 22J0134								
Arsenic	ND	50.0	100	ug/L	10	10/05/22 23:15	1311/6020B	
Barium	ND	2500	5000	ug/L	10	10/05/22 23:15	1311/6020B	
Cadmium	ND	50.0	100	ug/L	10	10/05/22 23:15	1311/6020B	
Chromium	ND	50.0	100	ug/L	10	10/05/22 23:15	1311/6020B	
Lead	ND	25.0	50.0	ug/L	10	10/05/22 23:15	1311/6020B	
Mercury	ND	3.75	7.00	ug/L	10	10/05/22 23:15	1311/6020B	
Selenium	ND	50.0	100	ug/L	10	10/05/22 23:15	1311/6020B	
Silver	ND	50.0	100	ug/L	10	10/05/22 23:15	1311/6020B	

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**ANALYTICAL SAMPLE RESULTS**

**Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>		<b>Batch: 22J0022</b>		
<b>Total Cyanide</b>	<b>20200</b>	3030	6060	ug/kg dry	5	10/03/22 15:06	D7511-12	

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**ANALYTICAL SAMPLE RESULTS**

**Percent Dry Weight**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>		<b>Batch: 2211046</b>		
<b>% Solids</b>	<b>8.01</b>	1.00	1.00	%	1	10/03/22 06:52	EPA 8000D	

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**ANALYTICAL SAMPLE RESULTS**

**TCLP Extraction by EPA 1311**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>BF-092022-144 (A210874-01)</b>				<b>Matrix: Solid</b>		<b>Batch: 22J0014</b>		
TCLP Extraction	PREP			N/A	1	10/04/22 17:00	EPA 1311	
TCLP ZHE Extraction	PREP			N/A	1	10/04/22 15:01	EPA 1311 ZHE	

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0032 - EPA 3546 (Fuels)</b>						<b>Solid</b>						
<b>Blank (22J0032-BLK1)</b>			Prepared: 10/03/22 10:39 Analyzed: 10/04/22 10:58									
<u>NWTPH-Dx</u>												
Diesel	ND	9090	18200	ug/kg	1	---	---	---	---	---	---	
Oil	ND	18200	36400	ug/kg	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 72 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<b>LCS (22J0032-BS1)</b>			Prepared: 10/03/22 10:39 Analyzed: 10/04/22 11:22									
<u>NWTPH-Dx</u>												
Diesel	106000	10000	20000	ug/kg	1	125000	---	85	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 74 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<b>Duplicate (22J0032-DUP1)</b>			Prepared: 10/03/22 10:39 Analyzed: 10/04/22 12:33									
<u>QC Source Sample: BF-092022-144 (A210874-01)</u>												
<u>NWTPH-Dx</u>												
Diesel	<b>1040000</b>	9850	19700	ug/kg	1	---	946000	---	---	10	30%	
Oil	<b>610000</b>	19700	39400	ug/kg	1	---	549000	---	---	11	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 52 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<b>Batch 22J0112 - EPA 3546 (Fuels)</b>						<b>Solid</b>						
<b>Blank (22J0112-BLK1)</b>			Prepared: 10/04/22 16:18 Analyzed: 10/05/22 08:31									
<u>NWTPH-Dx</u>												
Diesel	ND	10000	20000	ug/kg	1	---	---	---	---	---	---	
Oil	ND	20000	40000	ug/kg	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<b>LCS (22J0112-BS1)</b>			Prepared: 10/04/22 16:18 Analyzed: 10/05/22 08:52									
<u>NWTPH-Dx</u>												
Diesel	119000	10000	20000	ug/kg	1	125000	---	95	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<b>Duplicate (22J0112-DUP1)</b>			Prepared: 10/04/22 16:18 Analyzed: 10/05/22 10:14									
<u>QC Source Sample: Non-SDG (A2J0030-02)</u>												
Diesel	<b>363000</b>	9740	19500	ug/kg	1	---	397000	---	---	9	30%	

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0112 - EPA 3546 (Fuels)</b>						<b>Solid</b>						
<b>Duplicate (22J0112-DUP1)</b>						Prepared: 10/04/22 16:18 Analyzed: 10/05/22 10:14						
<b>QC Source Sample: Non-SDG (A2J0030-02)</b>												
Oil	ND	19500	38900	ug/kg	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>						
<b>Blank (2210974-BLK1)</b>			Prepared: 09/29/22 08:00 Analyzed: 09/29/22 12:46									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	1670	3330	ug/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 92 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>90 %</i>		<i>50-150 %</i>		<i>"</i>						
<b>LCS (2210974-BS2)</b>			Prepared: 09/29/22 08:00 Analyzed: 09/29/22 12:19									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	21700	2500	5000	ug/kg wet	50	25000	---	87	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 92 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>102 %</i>		<i>50-150 %</i>		<i>"</i>						
<b>Duplicate (2210974-DUP1)</b>			Prepared: 09/28/22 16:14 Analyzed: 09/29/22 19:30									<b>V-16</b>
<u>QC Source Sample: BF-092022-144 (A210874-01)</u>												
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	<b>9580000</b>	298000	595000	ug/kg dry	100	---	9350000	---	---	2	30%	F-13
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 98 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>88 %</i>		<i>50-150 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>						
<b>Blank (2210974-BLK1)</b>			Prepared: 09/29/22 08:00 Analyzed: 09/29/22 12:46									
<u>5035A/8260D</u>												
Acetone	ND	333	667	ug/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	3.33	6.67	ug/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	333	333	ug/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	333	333	ug/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	333	333	ug/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	66.7	66.7	ug/kg wet	50	---	---	---	---	---	---	ICV-02
1,1-Dichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>						
<b>Blank (2210974-BLK1)</b>			Prepared: 09/29/22 08:00 Analyzed: 09/29/22 12:46									
1,2-Dichloropropane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	333	333	ug/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	333	333	ug/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Styrene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	EST
1,2,3-Trichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	16.7	16.7	ug/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr)      Recovery: 103 %      Limits: 80-120 %      Dilution: 1x

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>						
<b>Blank (2210974-BLK1)</b>						Prepared: 09/29/22 08:00 Analyzed: 09/29/22 12:46						
<i>Surr: Toluene-d8 (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						
<b>LCS (2210974-BS1)</b>						Prepared: 09/29/22 08:00 Analyzed: 09/29/22 11:51						
<b>5035A/8260D</b>												
Acetone	1670	500	1000	ug/kg wet	50	2000	---	83	80-120%	---	---	ICV-01
Acrylonitrile	884	50.0	100	ug/kg wet	50	1000	---	88	80-120%	---	---	
Benzene	1010	5.00	10.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Bromobenzene	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Bromochloromethane	996	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Bromodichloromethane	1170	25.0	50.0	ug/kg wet	50	1000	---	117	80-120%	---	---	
Bromoform	1260	50.0	100	ug/kg wet	50	1000	---	<b>126</b>	<b>80-120%</b>	---	---	Q-56
Bromomethane	966	500	500	ug/kg wet	50	1000	---	97	80-120%	---	---	
2-Butanone (MEK)	1590	250	500	ug/kg wet	50	2000	---	80	80-120%	---	---	
n-Butylbenzene	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
sec-Butylbenzene	999	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
tert-Butylbenzene	856	25.0	50.0	ug/kg wet	50	1000	---	86	80-120%	---	---	
Carbon disulfide	712	500	500	ug/kg wet	50	1000	---	<b>71</b>	<b>80-120%</b>	---	---	Q-55
Carbon tetrachloride	1260	25.0	50.0	ug/kg wet	50	1000	---	<b>126</b>	<b>80-120%</b>	---	---	Q-56
Chlorobenzene	1010	12.5	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Chloroethane	793	500	500	ug/kg wet	50	1000	---	<b>79</b>	<b>80-120%</b>	---	---	Q-55
Chloroform	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Chloromethane	868	125	250	ug/kg wet	50	1000	---	87	80-120%	---	---	
2-Chlorotoluene	962	25.0	50.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
4-Chlorotoluene	916	25.0	50.0	ug/kg wet	50	1000	---	92	80-120%	---	---	
Dibromochloromethane	1340	50.0	100	ug/kg wet	50	1000	---	<b>134</b>	<b>80-120%</b>	---	---	Q-56
1,2-Dibromo-3-chloropropane	1010	125	250	ug/kg wet	50	1000	---	101	80-120%	---	---	
1,2-Dibromoethane (EDB)	993	25.0	50.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Dibromomethane	1090	25.0	50.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
1,2-Dichlorobenzene	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
1,3-Dichlorobenzene	1070	12.5	25.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
1,4-Dichlorobenzene	1050	12.5	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
Dichlorodifluoromethane	888	100	100	ug/kg wet	50	1000	---	89	80-120%	---	---	ICV-02
1,1-Dichloroethane	991	12.5	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>						
<b>LCS (2210974-BS1)</b>			Prepared: 09/29/22 08:00 Analyzed: 09/29/22 11:51									
1,2-Dichloroethane (EDC)	950	12.5	25.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
1,1-Dichloroethene	803	12.5	25.0	ug/kg wet	50	1000	---	80	80-120%	---	---	
cis-1,2-Dichloroethene	940	12.5	25.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
trans-1,2-Dichloroethene	964	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
1,2-Dichloropropane	962	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
1,3-Dichloropropane	948	25.0	50.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
2,2-Dichloropropane	1240	25.0	50.0	ug/kg wet	50	1000	---	<b>124</b>	<b>80-120%</b>	---	---	Q-56
1,1-Dichloropropene	942	25.0	50.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
cis-1,3-Dichloropropene	962	25.0	50.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	1010	25.0	50.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Ethylbenzene	961	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
Hexachlorobutadiene	1100	50.0	100	ug/kg wet	50	1000	---	110	80-120%	---	---	
2-Hexanone	1460	500	500	ug/kg wet	50	2000	---	<b>73</b>	<b>80-120%</b>	---	---	Q-55
Isopropylbenzene	962	25.0	50.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
4-Isopropyltoluene	959	25.0	50.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
Methylene chloride	1140	250	500	ug/kg wet	50	1000	---	114	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	1470	500	500	ug/kg wet	50	2000	---	<b>74</b>	<b>80-120%</b>	---	---	Q-55
Methyl tert-butyl ether (MTBE)	902	25.0	50.0	ug/kg wet	50	1000	---	90	80-120%	---	---	
Naphthalene	1010	50.0	100	ug/kg wet	50	1000	---	101	80-120%	---	---	
n-Propylbenzene	950	12.5	25.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
Styrene	963	25.0	50.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1190	12.5	25.0	ug/kg wet	50	1000	---	119	80-120%	---	---	
1,1,2,2-Tetrachloroethane	892	25.0	50.0	ug/kg wet	50	1000	---	89	80-120%	---	---	
Tetrachloroethene (PCE)	1150	12.5	25.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
Toluene	943	25.0	50.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	1060	125	250	ug/kg wet	50	1000	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	1050	125	250	ug/kg wet	50	1000	---	105	80-120%	---	---	
1,1,1-Trichloroethane	1050	12.5	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
1,1,2-Trichloroethane	973	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Trichloroethene (TCE)	1140	12.5	25.0	ug/kg wet	50	1000	---	114	80-120%	---	---	
Trichlorofluoromethane	1800	50.0	100	ug/kg wet	50	1000	---	<b>180</b>	<b>80-120%</b>	---	---	Q-56, EST
1,2,3-Trichloropropane	974	25.0	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
1,2,4-Trimethylbenzene	970	25.0	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
1,3,5-Trimethylbenzene	973	25.0	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street  
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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>						
<b>LCS (2210974-BS1)</b>			Prepared: 09/29/22 08:00			Analyzed: 09/29/22 11:51						
Vinyl chloride	743	25.0	25.0	ug/kg wet	50	1000	---	74	80-120%	---	---	Q-55
m,p-Xylene	1920	25.0	50.0	ug/kg wet	50	2000	---	96	80-120%	---	---	
o-Xylene	888	12.5	25.0	ug/kg wet	50	1000	---	89	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>79-120 %</i>		<i>"</i>						

<b>Duplicate (2210974-DUP1)</b>	Prepared: 09/28/22 16:14	Analyzed: 09/29/22 19:30	V-16
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**QC Source Sample: BF-092022-144 (A210874-01)**

**5035A/8260D**

Acetone	ND	59500	119000	ug/kg dry	100	---	ND	---	---	---	30%	
Acrylonitrile	ND	5950	11900	ug/kg dry	100	---	ND	---	---	---	30%	
Benzene	ND	595	1190	ug/kg dry	100	---	ND	---	---	---	30%	
Bromobenzene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
Bromodichloromethane	<b>59300</b>	2980	5950	ug/kg dry	100	---	58900	---	---	0.7	30%	
Bromoform	<b>20700</b>	5950	11900	ug/kg dry	100	---	20300	---	---	2	30%	Q-54b
Bromomethane	ND	59500	59500	ug/kg dry	100	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	29800	59500	ug/kg dry	100	---	ND	---	---	---	30%	
n-Butylbenzene	ND	5950	5950	ug/kg dry	100	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
Carbon disulfide	ND	59500	59500	ug/kg dry	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%	
Chloroethane	ND	59500	59500	ug/kg dry	100	---	ND	---	---	---	30%	
Chloroform	<b>70500</b>	2980	5950	ug/kg dry	100	---	71100	---	---	0.8	30%	
Chloromethane	ND	14900	29800	ug/kg dry	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
Dibromochloromethane	<b>41800</b>	5950	11900	ug/kg dry	100	---	40000	---	---	5	30%	Q-54
1,2-Dibromo-3-chloropropane	ND	14900	29800	ug/kg dry	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
Dibromomethane	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director





ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>							
<b>Duplicate (2210974-DUP1)</b>			Prepared: 09/28/22 16:14 Analyzed: 09/29/22 19:30						<b>V-16</b>				
<b>QC Source Sample: BF-092022-144 (A210874-01)</b>													
1,2-Dichlorobenzene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
1,3-Dichlorobenzene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
1,4-Dichlorobenzene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
Dichlorodifluoromethane	ND	11900	11900	ug/kg dry	100	---	ND	---	---	---	30%	ICV-02	
1,1-Dichloroethane	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
1,2-Dichloroethane (EDC)	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
1,1-Dichloroethene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
cis-1,2-Dichloroethene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
trans-1,2-Dichloroethene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
1,2-Dichloropropane	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
1,3-Dichloropropane	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
2,2-Dichloropropane	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
1,1-Dichloropropene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
cis-1,3-Dichloropropene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
trans-1,3-Dichloropropene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
Ethylbenzene	<b>6310</b>	1490	2980	ug/kg dry	100	---	6370	---	---	0.9	30%		
Hexachlorobutadiene	ND	5950	11900	ug/kg dry	100	---	ND	---	---	---	30%		
2-Hexanone	ND	59500	59500	ug/kg dry	100	---	ND	---	---	---	30%		
Isopropylbenzene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
4-Isopropyltoluene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
Methylene chloride	ND	29800	59500	ug/kg dry	100	---	ND	---	---	---	30%		
4-Methyl-2-pentanone (MIBK)	ND	59500	59500	ug/kg dry	100	---	ND	---	---	---	30%		
Methyl tert-butyl ether (MTBE)	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
Naphthalene	<b>14600</b>	5950	11900	ug/kg dry	100	---	20400	---	---	<b>33</b>	<b>30%</b>	Q-05	
n-Propylbenzene	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
Styrene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
1,1,1,2-Tetrachloroethane	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
1,1,2,2-Tetrachloroethane	ND	5950	5950	ug/kg dry	100	---	ND	---	---	---	30%		
Tetrachloroethene (PCE)	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		
Toluene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%		
1,2,3-Trichlorobenzene	ND	14900	29800	ug/kg dry	100	---	ND	---	---	---	30%		
1,2,4-Trichlorobenzene	ND	14900	29800	ug/kg dry	100	---	ND	---	---	---	30%		
1,1,1-Trichloroethane	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%		

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**ANALYTICAL REPORT**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>												
<b>Soil</b>												
<b>Duplicate (2210974-DUP1)</b>												
						Prepared: 09/28/22 16:14 Analyzed: 09/29/22 19:30						V-16
<b>QC Source Sample: BF-092022-144 (A210874-01)</b>												
1,1,2-Trichloroethane	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	1490	2980	ug/kg dry	100	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	5950	11900	ug/kg dry	100	---	ND	---	---	---	30%	EST
1,2,3-Trichloropropane	ND	8930	8930	ug/kg dry	100	---	ND	---	---	---	30%	R-02
1,2,4-Trimethylbenzene	<b>8810</b>	2980	5950	ug/kg dry	100	---	8690	---	---	1	30%	
1,3,5-Trimethylbenzene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	2980	2980	ug/kg dry	100	---	ND	---	---	---	30%	
m,p-Xylene	ND	2980	5950	ug/kg dry	100	---	ND	---	---	---	30%	
o-Xylene	<b>2680</b>	1490	2980	ug/kg dry	100	---	2500	---	---	7	30%	J
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>79-120 %</i>		<i>"</i>						

<b>Matrix Spike (2210974-MS1)</b>												
						Prepared: 09/29/22 11:25 Analyzed: 09/29/22 16:48						V-15
<b>QC Source Sample: Non-SDG (A210908-01)</b>												
<b>5035A/8260D</b>												
Acetone	2570	711	1420	ug/kg dry	50	2850	ND	90	36-164%	---	---	ICV-01
Acrylonitrile	1210	71.1	142	ug/kg dry	50	1420	ND	85	65-134%	---	---	
Benzene	1430	7.11	14.2	ug/kg dry	50	1420	ND	100	77-121%	---	---	
Bromobenzene	1530	17.8	35.5	ug/kg dry	50	1420	ND	107	78-121%	---	---	
Bromochloromethane	1380	35.5	71.1	ug/kg dry	50	1420	ND	97	78-125%	---	---	
Bromodichloromethane	1670	35.5	71.1	ug/kg dry	50	1420	ND	118	75-127%	---	---	
Bromoform	1770	71.1	142	ug/kg dry	50	1420	ND	124	67-132%	---	---	Q-54b
Bromomethane	1550	711	711	ug/kg dry	50	1420	ND	109	53-143%	---	---	
2-Butanone (MEK)	2280	355	711	ug/kg dry	50	2850	ND	80	51-148%	---	---	
n-Butylbenzene	3200	35.5	71.1	ug/kg dry	50	1420	1790	99	70-128%	---	---	
sec-Butylbenzene	2040	35.5	71.1	ug/kg dry	50	1420	380	117	73-126%	---	---	
tert-Butylbenzene	1410	35.5	71.1	ug/kg dry	50	1420	ND	99	73-125%	---	---	
Carbon disulfide	1250	711	711	ug/kg dry	50	1420	ND	88	63-132%	---	---	Q-54h
Carbon tetrachloride	1880	35.5	71.1	ug/kg dry	50	1420	ND	132	70-135%	---	---	Q-54b
Chlorobenzene	1450	17.8	35.5	ug/kg dry	50	1420	ND	102	79-120%	---	---	
Chloroethane	1470	711	711	ug/kg dry	50	1420	ND	104	59-139%	---	---	Q-54e
Chloroform	1470	35.5	71.1	ug/kg dry	50	1420	ND	103	78-123%	---	---	

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ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>						
<b>Matrix Spike (2210974-MS1)</b>						Prepared: 09/29/22 11:25 Analyzed: 09/29/22 16:48						V-15
<b>QC Source Sample: Non-SDG (A210908-01)</b>												
Chloromethane	1250	178	355	ug/kg dry	50	1420	ND	88	50-136%	---	---	
2-Chlorotoluene	1560	35.5	71.1	ug/kg dry	50	1420	ND	107	75-122%	---	---	
4-Chlorotoluene	1380	35.5	71.1	ug/kg dry	50	1420	ND	97	72-124%	---	---	
Dibromochloromethane	1920	71.1	142	ug/kg dry	50	1420	ND	<b>135</b>	<b>74-126%</b>	---	---	Q-54
1,2-Dibromo-3-chloropropane	1730	178	355	ug/kg dry	50	1420	ND	121	61-132%	---	---	
1,2-Dibromoethane (EDB)	1450	35.5	71.1	ug/kg dry	50	1420	ND	102	78-122%	---	---	
Dibromomethane	1530	35.5	71.1	ug/kg dry	50	1420	ND	107	78-125%	---	---	
1,2-Dichlorobenzene	1530	17.8	35.5	ug/kg dry	50	1420	ND	107	78-121%	---	---	
1,3-Dichlorobenzene	1590	17.8	35.5	ug/kg dry	50	1420	ND	112	77-121%	---	---	
1,4-Dichlorobenzene	1510	17.8	35.5	ug/kg dry	50	1420	ND	106	75-120%	---	---	
Dichlorodifluoromethane	1410	142	142	ug/kg dry	50	1420	ND	99	29-149%	---	---	ICV-02
1,1-Dichloroethane	1450	17.8	35.5	ug/kg dry	50	1420	ND	102	76-125%	---	---	
1,2-Dichloroethane (EDC)	1370	17.8	35.5	ug/kg dry	50	1420	ND	96	73-128%	---	---	
1,1-Dichloroethene	1380	17.8	35.5	ug/kg dry	50	1420	ND	97	70-131%	---	---	
cis-1,2-Dichloroethene	1370	17.8	35.5	ug/kg dry	50	1420	ND	97	77-123%	---	---	
trans-1,2-Dichloroethene	1410	17.8	35.5	ug/kg dry	50	1420	ND	99	74-125%	---	---	
1,2-Dichloropropane	1340	17.8	35.5	ug/kg dry	50	1420	ND	94	76-123%	---	---	
1,3-Dichloropropane	1360	35.5	71.1	ug/kg dry	50	1420	ND	96	77-121%	---	---	
2,2-Dichloropropane	1790	35.5	71.1	ug/kg dry	50	1420	ND	126	67-133%	---	---	Q-54a
1,1-Dichloropropene	1380	35.5	71.1	ug/kg dry	50	1420	ND	97	76-125%	---	---	
cis-1,3-Dichloropropene	1390	35.5	71.1	ug/kg dry	50	1420	ND	97	74-126%	---	---	
trans-1,3-Dichloropropene	1440	35.5	71.1	ug/kg dry	50	1420	ND	101	71-130%	---	---	
Ethylbenzene	1430	17.8	35.5	ug/kg dry	50	1420	ND	101	76-122%	---	---	
Hexachlorobutadiene	2280	71.1	142	ug/kg dry	50	1420	ND	<b>161</b>	<b>61-135%</b>	---	---	Q-01
2-Hexanone	2220	711	711	ug/kg dry	50	2850	ND	78	53-145%	---	---	Q-54g
Isopropylbenzene	1610	35.5	71.1	ug/kg dry	50	1420	ND	113	68-134%	---	---	
4-Isopropyltoluene	2170	35.5	71.1	ug/kg dry	50	1420	461	120	73-127%	---	---	
Methylene chloride	1430	355	711	ug/kg dry	50	1420	ND	100	70-128%	---	---	
4-Methyl-2-pentanone (MiBK)	2150	711	711	ug/kg dry	50	2850	ND	75	65-135%	---	---	Q-54f
Methyl tert-butyl ether (MTBE)	1330	35.5	71.1	ug/kg dry	50	1420	ND	93	73-125%	---	---	
Naphthalene	8170	71.1	142	ug/kg dry	50	1420	6370	127	62-129%	---	---	
n-Propylbenzene	1700	17.8	35.5	ug/kg dry	50	1420	186	106	73-125%	---	---	
Styrene	1450	35.5	71.1	ug/kg dry	50	1420	ND	102	76-124%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210974 - EPA 5035A</b>						<b>Soil</b>						
<b>Matrix Spike (2210974-MS1)</b>						Prepared: 09/29/22 11:25 Analyzed: 09/29/22 16:48						V-15
<b>QC Source Sample: Non-SDG (A210908-01)</b>												
1,1,1,2-Tetrachloroethane	1720	17.8	35.5	ug/kg dry	50	1420	ND	121	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1410	35.5	71.1	ug/kg dry	50	1420	ND	91	70-124%	---	---	
Tetrachloroethene (PCE)	1690	17.8	35.5	ug/kg dry	50	1420	ND	119	73-128%	---	---	
Toluene	1370	35.5	71.1	ug/kg dry	50	1420	ND	97	77-121%	---	---	
1,2,3-Trichlorobenzene	1820	178	355	ug/kg dry	50	1420	ND	128	66-130%	---	---	
1,2,4-Trichlorobenzene	1870	178	355	ug/kg dry	50	1420	ND	<b>132</b>	<b>67-129%</b>	---	---	Q-01
1,1,1-Trichloroethane	1570	17.8	35.5	ug/kg dry	50	1420	ND	111	73-130%	---	---	
1,1,2-Trichloroethane	1410	17.8	35.5	ug/kg dry	50	1420	ND	99	78-121%	---	---	
Trichloroethene (TCE)	1650	17.8	35.5	ug/kg dry	50	1420	ND	116	77-123%	---	---	
Trichlorofluoromethane	2190	71.1	142	ug/kg dry	50	1420	ND	<b>154</b>	<b>62-140%</b>	---	---	EST, Q-54c
1,2,3-Trichloropropane	1460	35.5	71.1	ug/kg dry	50	1420	ND	100	73-125%	---	---	
1,2,4-Trimethylbenzene	11700	35.5	71.1	ug/kg dry	50	1420	9990	117	75-123%	---	---	
1,3,5-Trimethylbenzene	4680	35.5	71.1	ug/kg dry	50	1420	3000	118	73-124%	---	---	
Vinyl chloride	1290	35.5	35.5	ug/kg dry	50	1420	ND	90	56-135%	---	---	Q-54f
m,p-Xylene	2900	35.5	71.1	ug/kg dry	50	2850	35.5	101	77-124%	---	---	
o-Xylene	1420	17.8	35.5	ug/kg dry	50	1420	20.6	99	77-123%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>79-120 %</i>		<i>"</i>						

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<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0268 - EPA 1311/5030B TCLP Volatiles</b>						<b>Water</b>						
<b>Blank (22J0268-BLK1)</b>						Prepared: 10/07/22 08:23 Analyzed: 10/07/22 15:07						<b>TCLPb</b>
<u>1311/8260D</u>												
Benzene	ND	6.25	12.5	ug/L	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	250	500	ug/L	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Chloroform	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Vinyl chloride	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 111 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<b>Blank (22J0268-BLK2)</b>						Prepared: 10/07/22 08:23 Analyzed: 10/07/22 15:34						<b>TCLPc</b>
<u>1311/8260D</u>												
Benzene	ND	6.25	12.5	ug/L	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	250	500	ug/L	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Chloroform	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Vinyl chloride	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 111 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<b>LCS (22J0268-BS1)</b>						Prepared: 10/07/22 08:23 Analyzed: 10/07/22 13:18						<b>TCLPb</b>

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0268 - EPA 1311/5030B TCLP Volatiles</b>						<b>Water</b>						
<b>LCS (22J0268-BS1)</b>						Prepared: 10/07/22 08:23 Analyzed: 10/07/22 13:18						<b>TCLPb</b>
<u>1311/8260D</u>												
Benzene	1050	6.25	12.5	ug/L	50	1000	---	105	80-120%	---	---	
2-Butanone (MEK)	1890	250	500	ug/L	50	2000	---	95	80-120%	---	---	
Carbon tetrachloride	1290	25.0	50.0	ug/L	50	1000	---	<b>129</b>	<b>80-120%</b>	---	---	Q-56
Chlorobenzene	1010	12.5	25.0	ug/L	50	1000	---	101	80-120%	---	---	
Chloroform	1030	25.0	50.0	ug/L	50	1000	---	103	80-120%	---	---	
1,4-Dichlorobenzene	999	12.5	25.0	ug/L	50	1000	---	100	80-120%	---	---	
1,1-Dichloroethene	1070	12.5	25.0	ug/L	50	1000	---	107	80-120%	---	---	
1,2-Dichloroethane (EDC)	987	12.5	25.0	ug/L	50	1000	---	99	80-120%	---	---	
Tetrachloroethene (PCE)	1260	12.5	25.0	ug/L	50	1000	---	<b>126</b>	<b>80-120%</b>	---	---	Q-56
Trichloroethene (TCE)	1080	12.5	25.0	ug/L	50	1000	---	108	80-120%	---	---	
Vinyl chloride	798	12.5	25.0	ug/L	50	1000	---	80	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>94 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						

<b>LCS (22J0268-BS2)</b>						Prepared: 10/07/22 08:23 Analyzed: 10/07/22 13:45						<b>TCLPc</b>
<u>1311/8260D</u>												
Benzene	1040	6.25	12.5	ug/L	50	1000	---	104	80-120%	---	---	
2-Butanone (MEK)	1900	250	500	ug/L	50	2000	---	95	80-120%	---	---	
Carbon tetrachloride	1290	25.0	50.0	ug/L	50	1000	---	<b>129</b>	<b>80-120%</b>	---	---	Q-56
Chlorobenzene	1010	12.5	25.0	ug/L	50	1000	---	101	80-120%	---	---	
Chloroform	1020	25.0	50.0	ug/L	50	1000	---	102	80-120%	---	---	
1,4-Dichlorobenzene	1000	12.5	25.0	ug/L	50	1000	---	100	80-120%	---	---	
1,1-Dichloroethene	1110	12.5	25.0	ug/L	50	1000	---	111	80-120%	---	---	
1,2-Dichloroethane (EDC)	971	12.5	25.0	ug/L	50	1000	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	1250	12.5	25.0	ug/L	50	1000	---	<b>125</b>	<b>80-120%</b>	---	---	Q-56
Trichloroethene (TCE)	1090	12.5	25.0	ug/L	50	1000	---	109	80-120%	---	---	
Vinyl chloride	852	12.5	25.0	ug/L	50	1000	---	85	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>94 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						

<b>Duplicate (22J0268-DUPI)</b>						Prepared: 10/07/22 10:23 Analyzed: 10/07/22 17:22					
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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0268 - EPA 1311/5030B TCLP Volatiles</b>						<b>Water</b>						
<b>Duplicate (22J0268-DUP1)</b>			Prepared: 10/07/22 10:23 Analyzed: 10/07/22 17:22									
<b>QC Source Sample: Non-SDG (A210892-01)</b>												
Benzene	ND	6.25	12.5	ug/L	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 111 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						

<b>Matrix Spike (22J0268-MS1)</b>			Prepared: 10/07/22 10:23 Analyzed: 10/07/22 18:16									
<b>QC Source Sample: Non-SDG (A210980-01)</b>												
<b>1311/8260D</b>												
Benzene	1050	6.25	12.5	ug/L	50	1000	ND	105	79-120%	---	---	
2-Butanone (MEK)	1880	250	500	ug/L	50	2000	ND	94	56-143%	---	---	
Carbon tetrachloride	1310	25.0	50.0	ug/L	50	1000	ND	131	72-136%	---	---	Q-54d
Chlorobenzene	1030	12.5	25.0	ug/L	50	1000	ND	103	80-120%	---	---	
Chloroform	1040	25.0	50.0	ug/L	50	1000	ND	104	79-124%	---	---	
1,4-Dichlorobenzene	999	12.5	25.0	ug/L	50	1000	ND	100	79-120%	---	---	
1,1-Dichloroethene	1120	12.5	25.0	ug/L	50	1000	ND	112	71-131%	---	---	
1,2-Dichloroethane (EDC)	996	12.5	25.0	ug/L	50	1000	ND	100	73-128%	---	---	
Tetrachloroethene (PCE)	1260	12.5	25.0	ug/L	50	1000	ND	126	74-129%	---	---	Q-54b
Trichloroethene (TCE)	1090	12.5	25.0	ug/L	50	1000	ND	109	79-123%	---	---	
Vinyl chloride	816	12.5	25.0	ug/L	50	1000	ND	82	58-137%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>94 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
 Tigard, OR 97223  
 503-718-2323  
 ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>Blank (22J0030-BLK1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/03/22 22:59									
<u>EPA 8270E</u>												
Acenaphthene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.87	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.87	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.87	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Carbazole	ND	1.87	3.75	ug/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
2-Chlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
2-Methylphenol	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Nitrophenol	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
4-Nitrophenol	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Phenol	ND	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>Blank (22J0030-BLK1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/03/22 22:59									
2,3,5,6-Tetrachlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Nitrobenzene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	18.7	37.5	ug/kg wet	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Diethylphthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Dimethylphthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Hexachloroethane	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Aniline	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
4-Chloroaniline	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Nitroaniline	ND	25.0	50.0	ug/kg wet	1	---	---	---	---	---	---	
3-Nitroaniline	ND	25.0	50.0	ug/kg wet	1	---	---	---	---	---	---	
4-Nitroaniline	ND	25.0	50.0	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Benzoic acid	ND	157	312	ug/kg wet	1	---	---	---	---	---	---	
Benzyl alcohol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Isophorone	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>Blank (22J0030-BLK1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/03/22 22:59									
Azobenzene (1,2-DPH)	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	25.0	50.0	ug/kg wet	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 1x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>82 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>88 %</i>		<i>33-122 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>90 %</i>		<i>54-127 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>88 %</i>		<i>35-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>75 %</i>		<i>39-132 %</i>		<i>"</i>						

<b>LCS (22J0030-BS1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/03/22 23:34									
<b>EPA 8270E</b>												
Acenaphthene	464	2.66	5.34	ug/kg wet	2	533	---	87	40-123%	---	---	
Acenaphthylene	495	2.66	5.34	ug/kg wet	2	533	---	93	32-132%	---	---	
Anthracene	500	2.66	5.34	ug/kg wet	2	533	---	94	47-123%	---	---	
Benz(a)anthracene	500	2.66	5.34	ug/kg wet	2	533	---	94	49-126%	---	---	
Benzo(a)pyrene	517	4.00	8.00	ug/kg wet	2	533	---	97	45-129%	---	---	
Benzo(b)fluoranthene	523	4.00	8.00	ug/kg wet	2	533	---	98	45-132%	---	---	
Benzo(k)fluoranthene	506	4.00	8.00	ug/kg wet	2	533	---	95	47-132%	---	---	
Benzo(g,h,i)perylene	432	2.66	5.34	ug/kg wet	2	533	---	81	43-134%	---	---	
Chrysene	482	2.66	5.34	ug/kg wet	2	533	---	90	50-124%	---	---	
Dibenz(a,h)anthracene	494	2.66	5.34	ug/kg wet	2	533	---	93	45-134%	---	---	
Fluoranthene	499	2.66	5.34	ug/kg wet	2	533	---	94	50-127%	---	---	
Fluorene	481	2.66	5.34	ug/kg wet	2	533	---	90	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	468	2.66	5.34	ug/kg wet	2	533	---	88	45-133%	---	---	
1-Methylnaphthalene	471	5.34	10.7	ug/kg wet	2	533	---	88	40-120%	---	---	
2-Methylnaphthalene	474	5.34	10.7	ug/kg wet	2	533	---	89	38-122%	---	---	

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
 Tigard, OR 97223  
 503-718-2323  
 ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>LCS (22J0030-BS1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/03/22 23:34									
Naphthalene	467	5.34	10.7	ug/kg wet	2	533	---	87	35-123%	---	---	
Phenanthrene	466	2.66	5.34	ug/kg wet	2	533	---	87	50-121%	---	---	
Pyrene	494	2.66	5.34	ug/kg wet	2	533	---	93	47-127%	---	---	
Carbazole	488	4.00	8.00	ug/kg wet	2	533	---	92	50-123%	---	---	
Dibenzofuran	475	2.66	5.34	ug/kg wet	2	533	---	89	44-120%	---	---	
2-Chlorophenol	520	13.3	26.6	ug/kg wet	2	533	---	98	34-121%	---	---	
4-Chloro-3-methylphenol	517	26.6	53.4	ug/kg wet	2	533	---	97	45-122%	---	---	
2,4-Dichlorophenol	510	13.3	26.6	ug/kg wet	2	533	---	96	40-122%	---	---	
2,4-Dimethylphenol	534	13.3	26.6	ug/kg wet	2	533	---	100	30-127%	---	---	
2,4-Dinitrophenol	411	66.6	133	ug/kg wet	2	533	---	77	10-137%	---	---	
4,6-Dinitro-2-methylphenol	461	66.6	133	ug/kg wet	2	533	---	86	29-132%	---	---	
2-Methylphenol	530	6.66	13.3	ug/kg wet	2	533	---	99	32-122%	---	---	
3+4-Methylphenol(s)	545	6.66	13.3	ug/kg wet	2	533	---	102	34-120%	---	---	
2-Nitrophenol	470	26.6	53.4	ug/kg wet	2	533	---	88	36-123%	---	---	
4-Nitrophenol	460	26.6	53.4	ug/kg wet	2	533	---	86	30-132%	---	---	
Pentachlorophenol (PCP)	446	26.6	53.4	ug/kg wet	2	533	---	84	25-133%	---	---	
Phenol	541	5.34	10.7	ug/kg wet	2	533	---	101	34-121%	---	---	
2,3,4,6-Tetrachlorophenol	509	13.3	26.6	ug/kg wet	2	533	---	95	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	477	13.3	26.6	ug/kg wet	2	533	---	89	40-120%	---	---	
2,4,5-Trichlorophenol	501	13.3	26.6	ug/kg wet	2	533	---	94	41-124%	---	---	
Nitrobenzene	505	26.6	53.4	ug/kg wet	2	533	---	95	34-122%	---	---	
2,4,6-Trichlorophenol	511	13.3	26.6	ug/kg wet	2	533	---	96	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	509	40.0	80.0	ug/kg wet	2	533	---	95	51-133%	---	---	
Butyl benzyl phthalate	527	26.6	53.4	ug/kg wet	2	533	---	99	48-132%	---	---	
Diethylphthalate	490	26.6	53.4	ug/kg wet	2	533	---	92	50-124%	---	---	
Dimethylphthalate	482	26.6	53.4	ug/kg wet	2	533	---	90	48-124%	---	---	
Di-n-butylphthalate	534	26.6	53.4	ug/kg wet	2	533	---	100	51-128%	---	---	
Di-n-octyl phthalate	576	26.6	53.4	ug/kg wet	2	533	---	108	45-140%	---	---	
N-Nitrosodimethylamine	473	6.66	13.3	ug/kg wet	2	533	---	89	23-120%	---	---	
N-Nitroso-di-n-propylamine	513	6.66	13.3	ug/kg wet	2	533	---	96	36-120%	---	---	
N-Nitrosodiphenylamine	508	6.66	13.3	ug/kg wet	2	533	---	95	38-127%	---	---	
Bis(2-Chloroethoxy) methane	479	6.66	13.3	ug/kg wet	2	533	---	90	36-121%	---	---	
Bis(2-Chloroethyl) ether	505	6.66	13.3	ug/kg wet	2	533	---	95	31-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	494	6.66	13.3	ug/kg wet	2	533	---	93	39-120%	---	---	

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>LCS (22J0030-BS1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/03/22 23:34									
Hexachlorobenzene	457	2.66	5.34	ug/kg wet	2	533	---	86	45-122%	---	---	
Hexachlorobutadiene	455	6.66	13.3	ug/kg wet	2	533	---	85	32-123%	---	---	
Hexachlorocyclopentadiene	402	13.3	26.6	ug/kg wet	2	533	---	75	10-140%	---	---	
Hexachloroethane	465	6.66	13.3	ug/kg wet	2	533	---	87	28-120%	---	---	
2-Chloronaphthalene	472	2.66	5.34	ug/kg wet	2	533	---	89	41-120%	---	---	
1,2,4-Trichlorobenzene	475	6.66	13.3	ug/kg wet	2	533	---	89	34-120%	---	---	
4-Bromophenyl phenyl ether	482	6.66	13.3	ug/kg wet	2	533	---	90	46-124%	---	---	
4-Chlorophenyl phenyl ether	473	6.66	13.3	ug/kg wet	2	533	---	89	45-121%	---	---	
Aniline	360	13.3	26.6	ug/kg wet	2	533	---	67	10-120%	---	---	
4-Chloroaniline	266	6.66	13.3	ug/kg wet	2	533	---	50	17-120%	---	---	
2-Nitroaniline	487	53.4	107	ug/kg wet	2	533	---	91	44-127%	---	---	
3-Nitroaniline	485	53.4	107	ug/kg wet	2	533	---	91	33-120%	---	---	
4-Nitroaniline	478	53.4	107	ug/kg wet	2	533	---	90	51-125%	---	---	
2,4-Dinitrotoluene	509	26.6	53.4	ug/kg wet	2	533	---	96	48-126%	---	---	
2,6-Dinitrotoluene	502	26.6	53.4	ug/kg wet	2	533	---	94	46-124%	---	---	
Benzoic acid	743	334	666	ug/kg wet	2	1070	---	70	10-140%	---	---	
Benzyl alcohol	521	13.3	26.6	ug/kg wet	2	533	---	98	29-122%	---	---	
Isophorone	503	6.66	13.3	ug/kg wet	2	533	---	94	30-122%	---	---	
Azobenzene (1,2-DPH)	523	6.66	13.3	ug/kg wet	2	533	---	98	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	518	66.6	133	ug/kg wet	2	533	---	97	61-121%	---	---	
3,3'-Dichlorobenzidine	2790	53.4	107	ug/kg wet	2	1070	---	<b>261</b>	<b>22-121%</b>	---	---	Q-29, Q-41
1,2-Dinitrobenzene	496	66.6	133	ug/kg wet	2	533	---	93	44-120%	---	---	
1,3-Dinitrobenzene	477	66.6	133	ug/kg wet	2	533	---	89	43-127%	---	---	
1,4-Dinitrobenzene	489	66.6	133	ug/kg wet	2	533	---	92	37-132%	---	---	
Pyridine	441	13.3	26.6	ug/kg wet	2	533	---	83	10-120%	---	---	
1,2-Dichlorobenzene	463	6.66	13.3	ug/kg wet	2	533	---	87	33-120%	---	---	
1,3-Dichlorobenzene	459	6.66	13.3	ug/kg wet	2	533	---	86	30-120%	---	---	
1,4-Dichlorobenzene	461	6.66	13.3	ug/kg wet	2	533	---	87	31-120%	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 2x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>87 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>94 %</i>		<i>33-122 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>94 %</i>		<i>54-127 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>93 %</i>		<i>35-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>89 %</i>		<i>39-132 %</i>		<i>"</i>						

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>							<b>Solid</b>					
<b>Duplicate (22J0030-DUP1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/04/22 00:42									
<b>QC Source Sample: Non-SDG (A210864-01)</b>												
Acenaphthene	5730	902	1810	ug/kg dry	200	---	4090	---	---	34	30%	Q-04
Acenaphthylene	1450	902	1810	ug/kg dry	200	---	1100	---	---	28	30%	J
Anthracene	12500	902	1810	ug/kg dry	200	---	9540	---	---	27	30%	
Benz(a)anthracene	9660	902	1810	ug/kg dry	200	---	7560	---	---	24	30%	
Benzo(a)pyrene	12400	1360	2710	ug/kg dry	200	---	9440	---	---	27	30%	
Benzo(b)fluoranthene	10300	1360	2710	ug/kg dry	200	---	7550	---	---	31	30%	Q-04
Benzo(k)fluoranthene	4170	1360	2710	ug/kg dry	200	---	3870	---	---	8	30%	M-05
Benzo(g,h,i)perylene	6420	902	1810	ug/kg dry	200	---	5040	---	---	24	30%	
Chrysene	12700	902	1810	ug/kg dry	200	---	9830	---	---	25	30%	
Dibenz(a,h)anthracene	ND	902	1810	ug/kg dry	200	---	ND	---	---	---	30%	
Fluoranthene	35800	902	1810	ug/kg dry	200	---	28300	---	---	23	30%	
Fluorene	5550	902	1810	ug/kg dry	200	---	4000	---	---	33	30%	Q-04
Indeno(1,2,3-cd)pyrene	7030	902	1810	ug/kg dry	200	---	5560	---	---	23	30%	
1-Methylnaphthalene	ND	1810	3620	ug/kg dry	200	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	1810	3620	ug/kg dry	200	---	ND	---	---	---	30%	
Naphthalene	ND	1810	3620	ug/kg dry	200	---	ND	---	---	---	30%	
Phenanthrene	51500	902	1810	ug/kg dry	200	---	40400	---	---	24	30%	
Pyrene	41200	902	1810	ug/kg dry	200	---	32200	---	---	25	30%	
Carbazole	ND	1360	2710	ug/kg dry	200	---	ND	---	---	---	30%	
Dibenzofuran	ND	902	1810	ug/kg dry	200	---	ND	---	---	---	30%	
2-Chlorophenol	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
4-Chloro-3-methylphenol	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	22600	45300	ug/kg dry	200	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	22600	45300	ug/kg dry	200	---	ND	---	---	---	30%	
2-Methylphenol	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
2-Nitrophenol	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
4-Nitrophenol	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
Phenol	ND	1810	3620	ug/kg dry	200	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>Duplicate (22J0030-DUP1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/04/22 00:42									
<b>QC Source Sample: Non-SDG (A210864-01)</b>												
2,3,4,6-Tetrachlorophenol	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
Nitrobenzene	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	13600	27100	ug/kg dry	200	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
Diethylphthalate	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
Dimethylphthalate	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
2,2'-Oxybis(1-Chloropropane)	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	902	1810	ug/kg dry	200	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
Hexachloroethane	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	902	1810	ug/kg dry	200	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
Aniline	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%	
4-Chloroaniline	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%	
2-Nitroaniline	ND	18100	36200	ug/kg dry	200	---	ND	---	---	---	30%	
3-Nitroaniline	ND	18100	36200	ug/kg dry	200	---	ND	---	---	---	30%	
4-Nitroaniline	ND	18100	36200	ug/kg dry	200	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	9020	18100	ug/kg dry	200	---	ND	---	---	---	30%	
Benzoic acid	ND	113000	226000	ug/kg dry	200	---	ND	---	---	---	30%	

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b>	Project: <b>Gasco -- Filter Bags</b>	
2749 Lockport Road	Project Number: <b>111323</b>	<b>Report ID:</b>
Niagara Falls, NY 14305	Project Manager: <b>Chip Byrd</b>	<b>A210874 - 10 28 22 0544</b>

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>							
<b>Duplicate (22J0030-DUP1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/04/22 00:42										
<b>QC Source Sample: Non-SDG (A210864-01)</b>													
Benzyl alcohol	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%		
Isophorone	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%		
Azobenzene (1,2-DPH)	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%		
Bis(2-Ethylhexyl) adipate	ND	22600	45300	ug/kg dry	200	---	ND	---	---	---	30%		
3,3'-Dichlorobenzidine	ND	18100	36200	ug/kg dry	200	---	ND	---	---	---	30%	Q-52	
1,2-Dinitrobenzene	ND	22600	45300	ug/kg dry	200	---	ND	---	---	---	30%		
1,3-Dinitrobenzene	ND	22600	45300	ug/kg dry	200	---	ND	---	---	---	30%		
1,4-Dinitrobenzene	ND	22600	45300	ug/kg dry	200	---	ND	---	---	---	30%		
Pyridine	ND	4530	9020	ug/kg dry	200	---	ND	---	---	---	30%		
1,2-Dichlorobenzene	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%		
1,3-Dichlorobenzene	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%		
1,4-Dichlorobenzene	ND	2260	4530	ug/kg dry	200	---	ND	---	---	---	30%		
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 60%</i>		<i>Limits: 37-122%</i>		<i>Dilution: 200x</i>							S-05
<i>2-Fluorobiphenyl (Surr)</i>		<i>80%</i>		<i>44-120%</i>		<i>"</i>							S-05
<i>Phenol-d6 (Surr)</i>		<i>61%</i>		<i>33-122%</i>		<i>"</i>							S-05
<i>p-Terphenyl-d14 (Surr)</i>		<i>91%</i>		<i>54-127%</i>		<i>"</i>							S-05
<i>2-Fluorophenol (Surr)</i>		<i>72%</i>		<i>35-120%</i>		<i>"</i>							S-05
<i>2,4,6-Tribromophenol (Surr)</i>		<i>127%</i>		<i>39-132%</i>		<i>"</i>							S-05

<b>Matrix Spike (22J0030-MS1)</b>			Prepared: 10/03/22 10:34 Analyzed: 10/04/22 21:39									
<b>QC Source Sample: BF-092022-144 (A210874-01RE1)</b>												
<b>EPA 8270E</b>												
Acenaphthene	6150	332	666	ug/kg dry	20	6660	ND	92	40-123%	---	---	
Acenaphthylene	6480	332	666	ug/kg dry	20	6660	394	91	32-132%	---	---	
Anthracene	6700	332	666	ug/kg dry	20	6660	339	96	47-123%	---	---	
Benz(a)anthracene	7030	332	666	ug/kg dry	20	6660	523	98	49-126%	---	---	
Benzo(a)pyrene	7300	499	998	ug/kg dry	20	6660	611	100	45-129%	---	---	
Benzo(b)fluoranthene	8720	499	998	ug/kg dry	20	6660	1050	115	45-132%	---	---	
Benzo(k)fluoranthene	7380	499	998	ug/kg dry	20	6660	ND	111	47-132%	---	---	
Benzo(g,h,i)perylene	6910	332	666	ug/kg dry	20	6660	334	99	43-134%	---	---	
Chrysene	8270	332	666	ug/kg dry	20	6660	1440	103	50-124%	---	---	
Dibenz(a,h)anthracene	6520	332	666	ug/kg dry	20	6660	ND	98	45-134%	---	---	
Fluoranthene	8780	332	666	ug/kg dry	20	6660	1420	111	50-127%	---	---	

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Darwin Thomas, Business Development Director





ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>Matrix Spike (22J0030-MS1)</b>						Prepared: 10/03/22 10:34 Analyzed: 10/04/22 21:39						
<b>QC Source Sample: BF-092022-144 (A210874-01RE1)</b>												
Fluorene	11100	332	666	ug/kg dry	20	6660	3340	117	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	6910	332	666	ug/kg dry	20	6660	415	98	45-133%	---	---	
1-Methylnaphthalene	5710	666	1330	ug/kg dry	20	6660	ND	86	40-120%	---	---	
2-Methylnaphthalene	5760	666	1330	ug/kg dry	20	6660	ND	87	38-122%	---	---	
Naphthalene	5510	666	1330	ug/kg dry	20	6660	ND	83	35-123%	---	---	
Phenanthrene	9400	332	666	ug/kg dry	20	6660	2160	109	50-121%	---	---	
Pyrene	7350	332	666	ug/kg dry	20	6660	495	103	47-127%	---	---	
Carbazole	16000	499	998	ug/kg dry	20	6660	6110	<b>148</b>	<b>50-123%</b>	---	---	Q-01
Dibenzofuran	6940	332	666	ug/kg dry	20	6660	746	93	44-120%	---	---	
2-Chlorophenol	4890	1660	3320	ug/kg dry	20	6660	ND	74	34-121%	---	---	
4-Chloro-3-methylphenol	5950	3320	6660	ug/kg dry	20	6660	ND	89	45-122%	---	---	J
2,4-Dichlorophenol	5670	1660	3320	ug/kg dry	20	6660	ND	85	40-122%	---	---	
2,4-Dimethylphenol	1740	1660	3320	ug/kg dry	20	6660	ND	<b>26</b>	<b>30-127%</b>	---	---	J, Q-01
2,4-Dinitrophenol	11600	8310	16600	ug/kg dry	20	6660	ND	<b>174</b>	<b>10-137%</b>	---	---	J, Q-01
4,6-Dinitro-2-methylphenol	8410	8310	16600	ug/kg dry	20	6660	ND	126	29-132%	---	---	J
2-Methylphenol	4220	831	1660	ug/kg dry	20	6660	ND	63	32-122%	---	---	
3+4-Methylphenol(s)	4570	831	1660	ug/kg dry	20	6660	ND	69	34-120%	---	---	
2-Nitrophenol	6370	3320	6660	ug/kg dry	20	6660	ND	96	36-123%	---	---	J
4-Nitrophenol	5860	3320	6660	ug/kg dry	20	6660	ND	88	30-132%	---	---	J
Pentachlorophenol (PCP)	9120	3320	6660	ug/kg dry	20	6660	ND	<b>137</b>	<b>25-133%</b>	---	---	Q-01
Phenol	4600	666	1330	ug/kg dry	20	6660	ND	69	34-121%	---	---	
2,3,4,6-Tetrachlorophenol	7270	1660	3320	ug/kg dry	20	6660	ND	109	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	6730	1660	3320	ug/kg dry	20	6660	ND	101	40-120%	---	---	
2,4,5-Trichlorophenol	6270	1660	3320	ug/kg dry	20	6660	ND	94	41-124%	---	---	
Nitrobenzene	5500	3320	6660	ug/kg dry	20	6660	ND	83	34-122%	---	---	J
2,4,6-Trichlorophenol	6900	1660	3320	ug/kg dry	20	6660	ND	104	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	7310	4990	9980	ug/kg dry	20	6660	ND	110	51-133%	---	---	J
Butyl benzyl phthalate	8310	3320	6660	ug/kg dry	20	6660	ND	125	48-132%	---	---	
Diethylphthalate	6330	3320	6660	ug/kg dry	20	6660	ND	95	50-124%	---	---	J
Dimethylphthalate	6150	3320	6660	ug/kg dry	20	6660	ND	92	48-124%	---	---	J
Di-n-butylphthalate	7150	3320	6660	ug/kg dry	20	6660	ND	107	51-128%	---	---	
Di-n-octyl phthalate	10300	3320	6660	ug/kg dry	20	6660	ND	<b>154</b>	<b>45-140%</b>	---	---	Q-01
N-Nitrosodimethylamine	4590	831	1660	ug/kg dry	20	6660	ND	69	23-120%	---	---	

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Darwin Thomas, Business Development Director





ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>Matrix Spike (22J0030-MS1)</b>						Prepared: 10/03/22 10:34 Analyzed: 10/04/22 21:39						
<b>QC Source Sample: BF-092022-144 (A210874-01RE1)</b>												
N-Nitroso-di-n-propylamine	7650	831	1660	ug/kg dry	20	6660	ND	115	36-120%	---	---	
N-Nitrosodiphenylamine	5350	831	1660	ug/kg dry	20	6660	ND	80	38-127%	---	---	
Bis(2-Chloroethoxy) methane	5370	831	1660	ug/kg dry	20	6660	ND	81	36-121%	---	---	
Bis(2-Chloroethyl) ether	4650	831	1660	ug/kg dry	20	6660	ND	70	31-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	5470	831	1660	ug/kg dry	20	6660	ND	82	39-120%	---	---	
Hexachlorobenzene	6410	332	666	ug/kg dry	20	6660	ND	96	45-122%	---	---	
Hexachlorobutadiene	5190	831	1660	ug/kg dry	20	6660	ND	78	32-123%	---	---	
Hexachlorocyclopentadiene	6310	1660	3320	ug/kg dry	20	6660	ND	95	10-140%	---	---	
Hexachloroethane	4800	831	1660	ug/kg dry	20	6660	ND	72	28-120%	---	---	
2-Chloronaphthalene	5570	332	666	ug/kg dry	20	6660	ND	84	41-120%	---	---	
1,2,4-Trichlorobenzene	5170	831	1660	ug/kg dry	20	6660	ND	78	34-120%	---	---	
4-Bromophenyl phenyl ether	6400	831	1660	ug/kg dry	20	6660	ND	96	46-124%	---	---	
4-Chlorophenyl phenyl ether	6250	831	1660	ug/kg dry	20	6660	ND	94	45-121%	---	---	
Aniline	ND	1660	3320	ug/kg dry	20	6660	ND		<b>10-120%</b>	---	---	Q-01
4-Chloroaniline	ND	831	1660	ug/kg dry	20	6660	ND		<b>17-120%</b>	---	---	Q-01
2-Nitroaniline	ND	6660	13300	ug/kg dry	20	6660	ND		<b>44-127%</b>	---	---	Q-11
3-Nitroaniline	ND	6660	13300	ug/kg dry	20	6660	ND		<b>33-120%</b>	---	---	Q-11
4-Nitroaniline	ND	6660	13300	ug/kg dry	20	6660	ND		<b>51-125%</b>	---	---	Q-11
2,4-Dinitrotoluene	6900	3320	6660	ug/kg dry	20	6660	ND	104	48-126%	---	---	
2,6-Dinitrotoluene	6860	3320	6660	ug/kg dry	20	6660	ND	103	46-124%	---	---	
Benzoic acid	ND	41700	83100	ug/kg dry	20	13300	ND		<b>10-140%</b>	---	---	Q-11
Benzyl alcohol	3670	1660	3320	ug/kg dry	20	6660	ND	55	29-122%	---	---	
Isophorone	7480	2500	2500	ug/kg dry	20	6660	ND	112	30-122%	---	---	
Azobenzene (1,2-DPH)	6310	831	1660	ug/kg dry	20	6660	ND	95	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	ND	8310	16600	ug/kg dry	20	6660	ND		<b>61-121%</b>	---	---	Q-11
3,3'-Dichlorobenzidine	ND	6660	13300	ug/kg dry	20	13300	ND		<b>22-121%</b>	---	---	Q-01, Q-41
1,2-Dinitrobenzene	ND	8310	16600	ug/kg dry	20	6660	ND		<b>44-120%</b>	---	---	Q-11
1,3-Dinitrobenzene	ND	8310	16600	ug/kg dry	20	6660	ND		<b>43-127%</b>	---	---	Q-11
1,4-Dinitrobenzene	ND	8310	16600	ug/kg dry	20	6660	ND		<b>37-132%</b>	---	---	Q-11
Pyridine	3490	1660	3320	ug/kg dry	20	6660	ND	52	10-120%	---	---	
1,2-Dichlorobenzene	4580	831	1660	ug/kg dry	20	6660	ND	69	33-120%	---	---	
1,3-Dichlorobenzene	4440	831	1660	ug/kg dry	20	6660	ND	67	30-120%	---	---	
1,4-Dichlorobenzene	4540	831	1660	ug/kg dry	20	6660	ND	68	31-120%	---	---	

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<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0030 - EPA 3546</b>						<b>Solid</b>						
<b>Matrix Spike (22J0030-MS1)</b>						Prepared: 10/03/22 10:34 Analyzed: 10/04/22 21:39						
<b>QC Source Sample: BF-092022-144 (A210874-01RE1)</b>												
<i>Surr: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 74 %</i>	<i>Limits: 37-122 %</i>		<i>Dilution: 20x</i>						
<i>2-Fluorobiphenyl (Surr)</i>			<i>54 %</i>	<i>44-120 %</i>								
<i>Phenol-d6 (Surr)</i>			<i>68 %</i>	<i>33-122 %</i>								
<i>p-Terphenyl-d14 (Surr)</i>			<i>66 %</i>	<i>54-127 %</i>								
<i>2-Fluorophenol (Surr)</i>			<i>62 %</i>	<i>35-120 %</i>								
<i>2,4,6-Tribromophenol (Surr)</i>			<i>75 %</i>	<i>39-132 %</i>								

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210998 - EPA 3051A</b>						<b>Solid</b>						
<b>Blank (2210998-BLK1)</b>			Prepared: 09/29/22 15:36 Analyzed: 09/30/22 12:51									
<u>EPA 6020B</u>												
Arsenic	ND	481	962	ug/kg wet	10	---	---	---	---	---	---	
Barium	ND	481	962	ug/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	96.2	192	ug/kg wet	10	---	---	---	---	---	---	
Chromium	ND	481	962	ug/kg wet	10	---	---	---	---	---	---	
Lead	ND	96.2	192	ug/kg wet	10	---	---	---	---	---	---	
Mercury	ND	38.5	76.9	ug/kg wet	10	---	---	---	---	---	---	
Selenium	ND	481	962	ug/kg wet	10	---	---	---	---	---	---	
Silver	ND	96.2	192	ug/kg wet	10	---	---	---	---	---	---	
<hr/>												
<b>LCS (2210998-BS1)</b>			Prepared: 09/29/22 15:36 Analyzed: 09/30/22 12:57									
<u>EPA 6020B</u>												
Arsenic	52700	500	1000	ug/kg wet	10	50000	---	105	80-120%	---	---	
Barium	53700	500	1000	ug/kg wet	10	50000	---	107	80-120%	---	---	
Cadmium	53300	100	200	ug/kg wet	10	50000	---	107	80-120%	---	---	
Chromium	54300	500	1000	ug/kg wet	10	50000	---	109	80-120%	---	---	
Lead	51900	100	200	ug/kg wet	10	50000	---	104	80-120%	---	---	
Mercury	1030	40.0	80.0	ug/kg wet	10	1000	---	103	80-120%	---	---	
Selenium	27200	500	1000	ug/kg wet	10	25000	---	109	80-120%	---	---	
<hr/>												
<b>LCS (2210998-BS2)</b>			Prepared: 09/29/22 15:36 Analyzed: 10/03/22 14:18									
<u>EPA 6020B</u>												
Silver	27500	100	200	ug/kg wet	10	25000	---	110	80-120%	---	---	Q-16
<hr/>												
<b>Duplicate (2210998-DUP1)</b>			Prepared: 09/29/22 15:36 Analyzed: 09/30/22 13:07									
<u>QC Source Sample: Non-SDG (A210620-01)</u>												
Arsenic	<b>9600</b>	539	1080	ug/kg wet	10	---	7600	---	---	<b>23</b>	<b>20%</b>	Q-04
Barium	<b>60200</b>	539	1080	ug/kg wet	10	---	71900	---	---	18	20%	
Cadmium	<b>1020</b>	108	216	ug/kg wet	10	---	867	---	---	17	20%	
Chromium	<b>91600</b>	539	1080	ug/kg wet	10	---	76600	---	---	18	20%	
Lead	<b>19500</b>	108	216	ug/kg wet	10	---	19900	---	---	2	20%	
Mercury	<b>1320</b>	43.1	86.2	ug/kg wet	10	---	2320	---	---	<b>55</b>	<b>20%</b>	Q-04
Selenium	<b>699</b>	539	1080	ug/kg wet	10	---	1230	---	---	<b>55</b>	<b>20%</b>	Q-05, J
Silver	<b>493</b>	108	216	ug/kg wet	10	---	696	---	---	<b>34</b>	<b>20%</b>	Q-05

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2210998 - EPA 3051A</b>							<b>Solid</b>					
<b>Matrix Spike (2210998-MS1)</b>					Prepared: 09/29/22 15:36 Analyzed: 09/30/22 13:12							
<b>QC Source Sample: Non-SDG (A210620-01)</b>												
<b>EPA 6020B</b>												
Arsenic	58400	503	1010	ug/kg wet	10	50300	7600	101	75-125%	---	---	
Barium	121000	503	1010	ug/kg wet	10	50300	71900	99	75-125%	---	---	
Cadmium	52700	101	201	ug/kg wet	10	50300	867	103	75-125%	---	---	
Chromium	138000	503	1010	ug/kg wet	10	50300	76600	122	75-125%	---	---	
Lead	69100	101	201	ug/kg wet	10	50300	19900	98	75-125%	---	---	
Mercury	2630	40.2	80.5	ug/kg wet	10	1010	2320	<b>31</b>	<b>75-125%</b>	---	---	Q-04
Selenium	25500	503	1010	ug/kg wet	10	25200	1230	96	75-125%	---	---	
Silver	28800	101	201	ug/kg wet	10	25200	696	112	75-125%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
---	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0134 - EPA 1311/3015A</b>						<b>Solid</b>						
<b>Blank (22J0134-BLK1)</b>			Prepared: 10/05/22 08:50 Analyzed: 10/05/22 23:04									
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
Barium	ND	2500	5000	ug/L	10	---	---	---	---	---	---	TCLP
Cadmium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
Chromium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
Lead	ND	25.0	50.0	ug/L	10	---	---	---	---	---	---	TCLP
Mercury	ND	3.75	7.00	ug/L	10	---	---	---	---	---	---	TCLP
Selenium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
Silver	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
<hr/>												
<b>LCS (22J0134-BS1)</b>			Prepared: 10/05/22 08:50 Analyzed: 10/05/22 23:10									
<u>1311/6020B</u>												
Arsenic	5300	50.0	100	ug/L	10	5000	---	106	80-120%	---	---	TCLP
Barium	11000	2500	5000	ug/L	10	10000	---	110	80-120%	---	---	TCLP
Cadmium	1000	50.0	100	ug/L	10	1000	---	100	80-120%	---	---	TCLP
Chromium	5050	50.0	100	ug/L	10	5000	---	101	80-120%	---	---	TCLP
Lead	5310	25.0	50.0	ug/L	10	5000	---	106	80-120%	---	---	TCLP
Mercury	99.3	3.75	7.00	ug/L	10	100	---	99	80-120%	---	---	TCLP
Selenium	979	50.0	100	ug/L	10	1000	---	98	80-120%	---	---	TCLP
Silver	1050	50.0	100	ug/L	10	1000	---	105	80-120%	---	---	TCLP
<hr/>												
<b>Matrix Spike (22J0134-MS1)</b>			Prepared: 10/05/22 08:50 Analyzed: 10/05/22 23:20									
<u>QC Source Sample: BF-092022-144 (A210874-01)</u>												
<u>1311/6020B</u>												
Arsenic	5290	50.0	100	ug/L	10	5000	ND	106	50-150%	---	---	
Barium	11300	2500	5000	ug/L	10	10000	ND	113	50-150%	---	---	
Cadmium	993	50.0	100	ug/L	10	1000	ND	99	50-150%	---	---	
Chromium	5060	50.0	100	ug/L	10	5000	ND	101	50-150%	---	---	
Lead	5120	25.0	50.0	ug/L	10	5000	ND	102	50-150%	---	---	
Mercury	96.4	3.75	7.00	ug/L	10	100	ND	96	50-150%	---	---	
Selenium	979	50.0	100	ug/L	10	1000	ND	98	50-150%	---	---	
Silver	983	50.0	100	ug/L	10	1000	ND	98	50-150%	---	---	
<hr/>												
<b>Matrix Spike (22J0134-MS2)</b>			Prepared: 10/05/22 08:50 Analyzed: 10/05/22 23:30									

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**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0134 - EPA 1311/3015A</b>						<b>Solid</b>						
<b>Matrix Spike (22J0134-MS2)</b>						Prepared: 10/05/22 08:50 Analyzed: 10/05/22 23:30						
<b>QC Source Sample: Non-SDG (A210937-01)</b>												
<b>1311/6020B</b>												
Arsenic	5240	50.0	100	ug/L	10	5000	ND	105	50-150%	---	---	
Barium	10800	2500	5000	ug/L	10	10000	ND	108	50-150%	---	---	
Cadmium	996	50.0	100	ug/L	10	1000	ND	100	50-150%	---	---	
Chromium	4940	50.0	100	ug/L	10	5000	ND	99	50-150%	---	---	
Lead	5420	25.0	50.0	ug/L	10	5000	333	102	50-150%	---	---	
Mercury	96.4	3.75	7.00	ug/L	10	100	ND	96	50-150%	---	---	
Selenium	976	50.0	100	ug/L	10	1000	ND	98	50-150%	---	---	
Silver	1010	50.0	100	ug/L	10	1000	ND	101	50-150%	---	---	

<b>Matrix Spike (22J0134-MS3)</b>						Prepared: 10/05/22 08:50 Analyzed: 10/05/22 23:51						
<b>QC Source Sample: Non-SDG (A210937-02)</b>												
<b>1311/6020B</b>												
Arsenic	5270	50.0	100	ug/L	10	5000	ND	105	50-150%	---	---	
Barium	11000	2500	5000	ug/L	10	10000	ND	110	50-150%	---	---	
Cadmium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%	---	---	
Chromium	4980	50.0	100	ug/L	10	5000	ND	100	50-150%	---	---	
Lead	5480	25.0	50.0	ug/L	10	5000	344	103	50-150%	---	---	
Mercury	99.0	3.75	7.00	ug/L	10	100	ND	99	50-150%	---	---	
Selenium	981	50.0	100	ug/L	10	1000	ND	98	50-150%	---	---	
Silver	1010	50.0	100	ug/L	10	1000	ND	101	50-150%	---	---	

<b>Matrix Spike (22J0134-MS4)</b>						Prepared: 10/05/22 08:50 Analyzed: 10/06/22 00:01						
<b>QC Source Sample: Non-SDG (A210937-03)</b>												
<b>1311/6020B</b>												
Arsenic	5350	50.0	100	ug/L	10	5000	ND	107	50-150%	---	---	
Barium	11300	2500	5000	ug/L	10	10000	ND	113	50-150%	---	---	
Cadmium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%	---	---	
Chromium	5010	50.0	100	ug/L	10	5000	ND	100	50-150%	---	---	
Lead	24700	25.0	50.0	ug/L	10	5000	19600	102	50-150%	---	---	
Mercury	97.6	3.75	7.00	ug/L	10	100	ND	98	50-150%	---	---	
Selenium	979	50.0	100	ug/L	10	1000	ND	98	50-150%	---	---	

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<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0134 - EPA 1311/3015A</b>						<b>Solid</b>						
<b>Matrix Spike (22J0134-MS4)</b>			Prepared: 10/05/22 08:50 Analyzed: 10/06/22 00:01									
<b>QC Source Sample: Non-SDG (A210937-03)</b>												
Silver	1030	50.0	100	ug/L	10	1000	ND	103	50-150%	---	---	
<b>Matrix Spike (22J0134-MS5)</b>			Prepared: 10/05/22 08:50 Analyzed: 10/06/22 00:12									
<b>QC Source Sample: Non-SDG (A210937-04)</b>												
<b>1311/6020B</b>												
Arsenic	5150	50.0	100	ug/L	10	5000	ND	103	50-150%	---	---	TCLPa
Barium	11200	2500	5000	ug/L	10	10000	ND	112	50-150%	---	---	TCLPa
Cadmium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%	---	---	TCLPa
Chromium	4890	50.0	100	ug/L	10	5000	ND	98	50-150%	---	---	TCLPa
Lead	6160	25.0	50.0	ug/L	10	5000	1080	102	50-150%	---	---	TCLPa
Mercury	97.0	3.75	7.00	ug/L	10	100	ND	97	50-150%	---	---	TCLPa
Selenium	956	50.0	100	ug/L	10	1000	ND	96	50-150%	---	---	TCLPa
Silver	1010	50.0	100	ug/L	10	1000	ND	101	50-150%	---	---	TCLPa
<b>Matrix Spike (22J0134-MS6)</b>			Prepared: 10/05/22 08:50 Analyzed: 10/06/22 00:22									
<b>QC Source Sample: Non-SDG (A210937-05)</b>												
<b>1311/6020B</b>												
Arsenic	5460	50.0	100	ug/L	10	5000	ND	109	50-150%	---	---	
Barium	11400	2500	5000	ug/L	10	10000	ND	114	50-150%	---	---	
Cadmium	1040	50.0	100	ug/L	10	1000	ND	104	50-150%	---	---	
Chromium	5110	50.0	100	ug/L	10	5000	ND	102	50-150%	---	---	
Lead	5500	25.0	50.0	ug/L	10	5000	225	105	50-150%	---	---	
Mercury	100	3.75	7.00	ug/L	10	100	ND	100	50-150%	---	---	
Selenium	1000	50.0	100	ug/L	10	1000	ND	100	50-150%	---	---	
Silver	1050	50.0	100	ug/L	10	1000	ND	105	50-150%	---	---	
<b>Matrix Spike (22J0134-MS7)</b>			Prepared: 10/05/22 08:50 Analyzed: 10/06/22 00:32									
<b>QC Source Sample: Non-SDG (A210937-06)</b>												
<b>1311/6020B</b>												
Arsenic	5070	50.0	100	ug/L	10	5000	ND	101	50-150%	---	---	
Barium	11500	2500	5000	ug/L	10	10000	ND	115	50-150%	---	---	
Cadmium	989	50.0	100	ug/L	10	1000	ND	99	50-150%	---	---	

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0134 - EPA 1311/3015A</b>						<b>Solid</b>						
<b>Matrix Spike (22J0134-MS7)</b>						Prepared: 10/05/22 08:50 Analyzed: 10/06/22 00:32						
<b>QC Source Sample: Non-SDG (A210937-06)</b>												
Chromium	4960	50.0	100	ug/L	10	5000	ND	99	50-150%	---	---	
Lead	6490	25.0	50.0	ug/L	10	5000	1450	101	50-150%	---	---	
Mercury	96.6	3.75	7.00	ug/L	10	100	ND	97	50-150%	---	---	
Selenium	963	50.0	100	ug/L	10	1000	ND	96	50-150%	---	---	
Silver	993	50.0	100	ug/L	10	1000	ND	99	50-150%	---	---	

<b>Matrix Spike (22J0134-MS8)</b>						Prepared: 10/05/22 08:50 Analyzed: 10/06/22 00:53						
<b>QC Source Sample: Non-SDG (A2J0042-01)</b>												
<b>1311/6020B</b>												
Arsenic	5180	50.0	100	ug/L	10	5000	ND	104	50-150%	---	---	
Barium	10700	2500	5000	ug/L	10	10000	ND	107	50-150%	---	---	
Cadmium	983	50.0	100	ug/L	10	1000	ND	98	50-150%	---	---	
Chromium	4930	50.0	100	ug/L	10	5000	ND	99	50-150%	---	---	
Lead	5020	25.0	50.0	ug/L	10	5000	ND	100	50-150%	---	---	
Mercury	96.2	3.75	7.00	ug/L	10	100	ND	96	50-150%	---	---	
Selenium	953	50.0	100	ug/L	10	1000	ND	95	50-150%	---	---	
Silver	958	50.0	100	ug/L	10	1000	ND	96	50-150%	---	---	

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22J0022 - ASTM D7511-12mod (S)</b>						<b>Soil</b>						
<b>Blank (22J0022-BLK1)</b>						Prepared: 10/03/22 09:31 Analyzed: 10/03/22 14:50						
<u>D7511-12</u>												
Total Cyanide	ND	50.0	100	ug/kg wet	1	---	---	---	---	---	---	
<b>LCS (22J0022-BS1)</b>						Prepared: 10/03/22 09:31 Analyzed: 10/03/22 14:52						
<u>D7511-12</u>												
Total Cyanide	406	50.0	100	ug/kg wet	1	400	---	101	84-116%	---	---	
<b>Matrix Spike (22J0022-MS2)</b>						Prepared: 10/03/22 09:31 Analyzed: 10/03/22 15:38						
<u>QC Source Sample: Non-SDG (A210864-01)</u>												
<u>D7511-12</u>												
Total Cyanide	7530	662	1320	ug/kg dry	4	1320	5370	<b>164</b>	<b>64-136%</b>	---	---	Q-01, Q-16
<b>Matrix Spike Dup (22J0022-MSD2)</b>						Prepared: 10/03/22 09:31 Analyzed: 10/03/22 15:40						
<u>QC Source Sample: Non-SDG (A210864-01)</u>												
Total Cyanide	6990	661	1320	ug/kg dry	4	1320	5370	123	64-136%	8	47%	Q-16

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
<b>Batch 2211046 - Total Solids (Dry Weight)</b>						<b>Soil</b>							
<b>Duplicate (2211046-DUP1)</b>			Prepared: 09/30/22 13:07 Analyzed: 10/03/22 06:52						<b>PRO</b>				
<u>QC Source Sample: Non-SDG (A210671-02)</u>													
% Solids	97.6	1.00	1.00	%	1	---	97.7	---	---	0.2	10%		
<b>Duplicate (2211046-DUP2)</b>			Prepared: 09/30/22 13:07 Analyzed: 10/03/22 06:52						<b>PRO</b>				
<u>QC Source Sample: Non-SDG (A210671-04)</u>													
% Solids	97.8	1.00	1.00	%	1	---	97.7	---	---	0.08	10%		
<b>Duplicate (2211046-DUP3)</b>			Prepared: 09/30/22 13:07 Analyzed: 10/03/22 06:52						<b>PRO</b>				
<u>QC Source Sample: Non-SDG (A210708-02)</u>													
% Solids	98.4	1.00	1.00	%	1	---	98.4	---	---	0.03	10%		
<b>Duplicate (2211046-DUP4)</b>			Prepared: 09/30/22 13:07 Analyzed: 10/03/22 06:52						<b>PRO</b>				
<u>QC Source Sample: Non-SDG (A210708-04)</u>													
% Solids	97.7	1.00	1.00	%	1	---	97.7	---	---	0.04	10%		
<b>Duplicate (2211046-DUP5)</b>			Prepared: 09/30/22 13:07 Analyzed: 10/03/22 06:52						<b>PRO</b>				
<u>QC Source Sample: Non-SDG (A210708-06)</u>													
% Solids	96.7	1.00	1.00	%	1	---	96.9	---	---	0.1	10%		
<b>Duplicate (2211046-DUP6)</b>			Prepared: 09/30/22 19:20 Analyzed: 10/03/22 06:52						<b>PRO</b>				
<u>QC Source Sample: Non-SDG (A210981-01)</u>													
% Solids	88.6	1.00	1.00	%	1	---	89.1	---	---	0.6	10%		
<b>Duplicate (2211046-DUP7)</b>			Prepared: 09/30/22 19:20 Analyzed: 10/03/22 06:52						<b>PRO</b>				
<u>QC Source Sample: Non-SDG (A210981-02)</u>													
% Solids	77.7	1.00	1.00	%	1	---	83.6	---	---	7	10%		
<b>Duplicate (2211046-DUP8)</b>			Prepared: 09/30/22 19:20 Analyzed: 10/03/22 06:52						<b>PRO</b>				
<u>QC Source Sample: Non-SDG (A210981-03)</u>													
% Solids	89.0	1.00	1.00	%	1	---	88.0	---	---	1	10%		

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 2211046 - Total Solids (Dry Weight)</b>							<b>Soil</b>					
<b>Duplicate (2211046-DUP9)</b>					Prepared: 09/30/22 19:20 Analyzed: 10/03/22 06:52							
<b>QC Source Sample: Non-SDG (A210986-01)</b>												
% Solids	79.4	1.00	1.00	%	1	---	78.8	---	---	0.7	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**SAMPLE PREPARATION INFORMATION**

**Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Prep: EPA 3546 (Fuels)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22J0112							
A210874-01RE1	Solid	NWTPH-Dx	09/20/22 17:00	10/04/22 16:18	10.5g/5mL	10g/5mL	0.95

**Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 2210974							
A210874-01	Solid	NWTPH-Gx (MS)	09/20/22 17:00	09/28/22 16:14	1.3g/5mL	5g/5mL	3.85

**Volatile Organic Compounds by EPA 8260D**

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 2210974							
A210874-01	Solid	5035A/8260D	09/20/22 17:00	09/28/22 16:14	1.3g/5mL	5g/5mL	3.85

**Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D**

Prep: EPA 1311/5030B TCLP Volatiles					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22J0268							
A210874-01	Solid	1311/8260D	09/20/22 17:00	10/07/22 10:23	5mL/5mL	5mL/5mL	1.00

**Semivolatile Organic Compounds by EPA 8270E**

Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22J0030							
A210874-01RE1	Solid	EPA 8270E	09/20/22 17:00	10/03/22 10:37	15.22g/2mL	15g/2mL	0.99

**Total Metals by EPA 6020B (ICPMS)**

Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 2210998							
A210874-01	Solid	EPA 6020B	09/20/22 17:00	09/29/22 15:36	0.459g/50mL	0.5g/50mL	1.09

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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**SAMPLE PREPARATION INFORMATION**

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor

TCLP Metals by EPA 6020B (ICPMS)

Prep: EPA 1311/3015A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22J0134</u>							
A210874-01	Solid	1311/6020B	09/20/22 17:00	10/05/22 08:50	10mL/50mL	10mL/50mL	1.00

Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12mod (S)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22J0022</u>							
A210874-01	Solid	D7511-12	09/20/22 17:00	10/03/22 09:31	2.575g/50mL	2.5g/50mL	0.97

Percent Dry Weight

Prep: Total Solids (Dry Weight)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22I1046</u>							
A210874-01	Solid	EPA 8000D	09/20/22 17:00	09/30/22 13:07			NA

TCLP Extraction by EPA 1311

Prep: EPA 1311 (TCLP)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22J0014</u>							
A210874-01	Solid	EPA 1311	09/20/22 17:00	10/04/22 17:00	100g/2000g	100g/2000g	NA

  

Prep: EPA 1311 TCLP/ZHE					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22J0107</u>							
A210874-01	Solid	EPA 1311 ZHE	09/20/22 17:00	10/04/22 15:01	19.9g/399.1g	25g/500g	NA

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**Sevenson Environmental Services, Inc.**  
2749 Lockport Road  
Niagara Falls, NY 14305

Project: **Gasco -- Filter Bags**  
Project Number: **111323**  
Project Manager: **Chip Byrd**

**Report ID:**  
**A210874 - 10 28 22 0544**

**QUALIFIER DEFINITIONS**

**Client Sample and Quality Control (QC) Sample Qualifier Definitions:**

**Apex Laboratories**

- EST** Result reported as an Estimated Value. Failed initial calibration criteria
- F-13** The chromatographic pattern does not resemble the fuel standard used for quantitation
- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- ICV-02** Estimated Result. Initial Calibration Verification (ICV) failed low.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- PRO** Sample has undergone sample processing prior to extraction and analysis.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-11** Spike recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +60%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.

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<b>Sevenson Environmental Services, Inc.</b> 2749 Lockport Road Niagara Falls, NY 14305	Project: <b>Gasco -- Filter Bags</b> Project Number: <b>111323</b> Project Manager: <b>Chip Byrd</b>	<b>Report ID:</b> <b>A210874 - 10 28 22 0544</b>
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- Q-54f** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -6%. The results are reported as Estimated Values.
- Q-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -7%. The results are reported as Estimated Values.
- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -9%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-01** Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- TCLP** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22J0014.
- TCLPa** Limited sample volume. Leachate was prepared using less than the recommended amount of sample per EPA 1311 or 1312. To maintain consistency in leaching, the standard ratio of sample to leachate fluid was maintained.
- TCLPb** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22J0107.
- TCLPc** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22J0233.
- V-15** Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.
- V-16** Sample aliquot was subsampled from the sample container in the laboratory. The subsampled aliquot was not preserved within 48 hours of sampling.

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**REPORTING NOTES AND CONVENTIONS:**

**Abbreviations:**

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).  
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.  
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")  
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.  
  
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " \*\*\* " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).  
-For Blank hits falling between 1/2 the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.  
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.  
For further details, please request a copy of this document.

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ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Table with 3 columns: Client (Sevenson Environmental Services, Inc.), Project (Gasco -- Filter Bags), and Report ID (A210874 - 10 28 22 0544).

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Handwritten signature of Darwin Thomas

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---	--	---

**LABORATORY ACCREDITATION INFORMATION**

**ORELAP Certification ID: OR100062 (Primary Accreditation) -**  
**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

**Apex Laboratories**

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
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All reported analytes are included in Apex Laboratories' current ORELAP scope.

**Secondary Accreditations**

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

**Subcontract Laboratory Accreditations**

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

**Field Testing Parameters**

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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**CHAIN OF CUSTODY**

APEX LABS      12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A210874      COC # of \_\_\_\_\_

Company: Sevenson Environmental Services, Inc.	Project Mgr: Chip Byrd	Project Name: Gasco -- Bag Filler	Project # 111323
Address: 2749 Lockport Road, Niagara Falls, NY 14305	Phone: (716) 553-2754	Fax:	E-mail: wbyrd@sevenson.com
<b>ANALYSIS REQUEST</b>			
Sampled by: <u>Jeffrey Lubinski</u>	MATRIX	# OF CONTAINERS	
SAMPLE ID	TIME		
LAB ID #	DATE		
BF-092022-144	9/28/22	1	
	8260 VOCs	X	
	1311/8260 TCLP VOCs	X	
	8270D LL Pfill List	X	
	Dry Weight	X	
	Metals, RCRA 8	X	
	Metals, TPCL	X	
	Total Cyanide	X	
	NMTPH-DX	X	
	NMTPH-GX	X	
SPECIAL INSTRUCTIONS:			
Normal Turn Around Time (TAT) = 6-10 Business Days			
TAT Requested (circle)      1 DAY      2 DAY      3 DAY      4 DAY      5 DAY      Other: <b>STD</b>			
SAMPLES ARE HELD FOR 30 DAYS			
RELINQUISHED BY: Signature: <u>Jeffrey Lubinski</u> Date: <u>09/28/22</u>	RECEIVED BY: Signature: <u>[Signature]</u> Date: <u>09/28/22</u>	RELINQUISHED BY: Signature: _____ Date: _____	RECEIVED BY: Signature: _____ Date: _____
Printed Name: <u>Jeffrey Lubinski</u> Time: <u>1005</u>	Printed Name: <u>EV Ryan</u> Time: <u>1005</u>	Printed Name: _____ Time: _____	Printed Name: _____ Time: _____
Company: <u>S.E.S.</u>	Company: <u>APEX LABS</u>	Company: _____	Company: _____

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**APEX LABS COOLER RECEIPT FORM**

**Client:** Sevenson Environmental Services, Inc. Element WO#: A2 10874

**Project/Project #:** Gasco - Bag Filter 111323

**Delivery Info:**

Date/time received: 9/28/22 @ 1005 By: ET

Delivered by: Apex  Client  ESS  FedEx  UPS  Swift  Senvoy  SDS  Other

**Cooler Inspection** Date/time inspected: 9/28/22 @ 1112 By: ET

Chain of Custody included? Yes  No  Custody seals? Yes  No

Signed/dated by client? Yes  No

Signed/dated by Apex? Yes  No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>1.6</u>						
Received on ice? (Y/N)	<input checked="" type="checkbox"/>						
Temp. blanks? (Y/N)	<input checked="" type="checkbox"/>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) Possible reason why: \_\_\_\_\_

Green dots applied to out of temperature samples? Yes  No

Out of temperature samples form initiated? Yes  No

**Sample Inspection:** Date/time inspected: 9/28/22 @ 1545 By: W

All samples intact? Yes  No  Comments: \_\_\_\_\_

Bottle labels/COCs agree? Yes  No  Comments: \_\_\_\_\_

COC/container discrepancies form initiated? Yes  No

Containers/volumes received appropriate for analysis? Yes  No  Comments: \_\_\_\_\_

Do VOA vials have visible headspace? Yes  No  NA

Comments: \_\_\_\_\_

Water samples: pH checked: Yes  No  NA  pH appropriate? Yes  No  NA

Comments: \_\_\_\_\_

**Additional information:** \_\_\_\_\_

Labeled by: W

Witness: DJS

Cooler Inspected by: W

Form Y-003 R-00

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