

Sevenson Environmental Services 2749 Lockport Road Niagara Falls, NY 14305 Phone 716.284.0431 Fax 716.284.1796

November 13, 2023

Mr. Mark Krening Waste Management, Inc. 7227 NE 55th Avenue Portland, OR 97218

RE: NW Natural Source Control Groundwater Treatment Facility Filter Press Cake Renewal Profile

Dear Mark:

Sevenson Environmental Services, Inc. (SES), on behalf of NW Natural, requests renewal of existing Profile 115116OR to continue to dispose of filter press cake residuals from the NW Natural Groundwater Treatment System (GTS) at the Waste Management, Inc. Hillsboro (Subtitle D) Landfill.

Table 1 summarizes representative testing results of monthly samples collected of the filter press cake residuals since the previous profile renewal in January 2023. All samples as summarized on Table 1 were submitted to Apex Laboratories, LLC (Apex) for analysis of: free liquids, total metals, leachable metals (toxicity characteristic leaching procedure-TCLP), total petroleum hydrocarbons (TPH), total cyanide, total volatile organic compounds (VOCs) and TCLP VOCs, and semi-volatile organic compounds (SVOCs). The laboratory reports as provided by Apex for each of the ten monthly sampling events completed during 2023 are included in Attachment 1.

Table 1 includes Method Detection Limits (MDLs) for "non-detect" constituents. Neither the reported concentrations nor the MDLs for these constituents exceed Resource Conservation and Recovery Act (RCRA) toxicity characteristic regulatory levels. These regulatory levels are based on leachate concentrations tested by Toxicity Characteristic Leaching Procedure (TCLP) methodology. Therefore, to complete this evaluation the total-concentration analytical results for the samples were screened against EPA's TCLP regulatory levels multiplied by 20 (Table 1) to account for attenuation that occurs during the leaching process.

Part of Waste Management, Inc. profile renewal process requires radiochemical sampling. SES collected a separate grab sample from the October monthly sampling of filter press cake on October 24, 2023. The filter press cake sample was submitted to Pace Analytical (Pace) on October 25, 2023 for radiochemical analytical testing by Method DOE Ga-01-R/901.1 for following analytes: Potassium-40, Thallium-208, Lead-210, Lead-212, Lead-214, Bismuth-212, Bismuth-214(Ra-226), Radium-226 (186 KeV), Actinium-228 (Ra-228), Thorium-234 (U-238), Protactinium-234m, and Uranium-235. In Table 2, SES has charted the results from Pace Analytical Report dated October 26, 2023. The chart provides WM limits for comparison. The full laboratory report for this testing is included as Attachment 2.

Based on Apex Laboratories, LLC and Pace Analytical testing and screening procedures described above, it is concluded that filter press cake residuals are consistent with the existing profile (for renewal) and are therefore acceptable for disposal at a RCRA Subtitle D non-hazardous waste disposal facility. Based on the information included herein, it is requested that Waste Management renew Profile 115116OR and approve of continued disposal of these waste treatment residuals at the Hillsboro Landfill.

Please contact me if you have any questions.

Thank You,

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William Byrd WWTP Superintendent Sevenson Environmental Services

Cc: Robert Wyatt (NW Natural),Kathryn Williams (NW Natural), Patty Dost (Pearl Legal Group), Ryan Barth (Anchor QEA), Rob Ede (Hahn and Associates), Tim Stone (Anchor QEA), Jen Mott (Anchor QEA), Mike Crystal (Sevenson Environmental Services), Joe Burke (Sevenson Environmental Services), Wesley Thomas (ODEQ), Terence Driscoll (Aponowich, Driscoll & Associates, Inc.)

Table

Table 1 Charted Monthly Apex Laboratory ResultsTable 2 Charted Pace Analytical Results

Attachments Attachment 1 Apex Laboratory Reports Attachment 2 Pace Analytical Report Signed WM Profile 115116OR Signed Oregon Profile Radiation Addendum Certification

Generator Name	Profile Number	

Waste Name

Generator's NAICS Code

Code Two;

Does the Generator's Facility manage, store, use, process, or discard any of the following materials in or from your production process?

Yes ¹	No	Waste Classifications
		Nuclear Materials
		Mineral Ore mining/overburden processing or extraction
		Uranium, Radium, Thorium, Plutonium, Cobalt, Strontium, Zirconium, Polonium, Beryllium
		Phosphate Fertilizer Production
		Phosphogypsum, Scale, Residuals, Slag
		Coal and Coal Burning Wastes
		Coal Fly/Bottom Ash
		Petroleum Refining/Production
		Filter Socks, Pipe Scale, Stratum Water, Refinery Process Sediments, Tank Bottoms
		Drinking Water and Wastewater Treatment Wastes
		Filter Socks, Pipe Scale, Stratum Water, Tank Bottoms, Bio-solids, Septic
		Other Processing Wastes
		Ceramic, Refractory, Zircon sand, Bauxite to Alumina processing, Titanium, Zirconium, Baghouse Dusts with refractory, "Mag-Thor" metals, Ceramic Insulators, Sand Blasting waste
		Geothermal Wastes
		Filter Socks, Pipe Scale, Stratum Water, Tank Bottoms
		Does the generator perform Metals Casting?
		Are any of the Generator's wastes subject to an oil and gas exploration and production (E&P) exemption pursuant to section 3001(b)(2)(A)?
		Have any of the Generator's wastes been tested using isotopic testing?
		Is any of the generator's wastes known to contain radioactivity?
		Does the Generator's facility have a Federal or State license to store, dispose or transport radioactive materials? Federal License No: State License No:

1- Any YES answers may require additional information, please contact your TSC representative at <u>wmpnw2@wm.com</u>

GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this form, I hereby certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

I am an Authorized Agent signing on behalf of the Generator, and I have confirmed with the Generator that information contained in this profile, as well as supporting documents provided, are accurate and complete.

Name Print	
Title	
Company	

Certification Signature

Date _____



Apex Laboratories, LLC

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

Wednesday, February 8, 2023

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

RE: A3A0849 - Gasco -- Filtercake - 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 A3A0849, which was received by the laboratory on 1/25/2023 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: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information

Default Cooler

(See Cooler Receipt Form for details) 2.6 degC

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.



Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtercake	
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3A0849 - 02 08 23 1514

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION						
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received		
FC-012323-2053	A3A0849-01	Solid	01/23/23 23:45	01/25/23 10:05		

Apex Laboratories

Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3A0849 - 02 08 23 1514

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
FC-012323-2053 (A3A0849-01)				Matrix: Soli	d	Batch:	23A0938	
Diesel	11900000	1090000	2180000	ug/kg dry	20	01/27/23 08:30	NWTPH-Dx	F-13
Oil	ND	2180000	4350000	ug/kg dry	20	01/27/23 08:30	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Rec	covery: %	Limits: 50-150 %	5 <i>20</i>	01/27/23 08:30	NWTPH-Dx	S-01

Apex Laboratories

Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3A0849 - 02 08 23 1514

ANALYTICAL SAMPLE RESULTS

Gasco -- Filtercake

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Matrix: Solic	1	Batch:	23A1004	V-15
Gasoline Range Organics	987000	130000	261000	ug/kg dry	100	01/27/23 19:25	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recover	ry: 101 % 96 %	Limits: 50-150 % 50-150 %	1 1	01/27/23 19:25 01/27/23 19:25	NWTPH-Gx (MS) NWTPH-Gx (MS)	

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Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:	
A3A0849 - 02 08 23 1514	ŀ

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Matrix: Sol	lid	Batch:	23A1004	V-15
Acetone	ND	26100	52100	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Acrylonitrile	ND	2610	5210	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Benzene	391	261	521	ug/kg dry	100	01/27/23 19:25	5035A/8260D	J
Bromobenzene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Bromochloromethane	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Bromodichloromethane	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Bromoform	ND	2610	5210	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Bromomethane	ND	26100	26100	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
2-Butanone (MEK)	ND	13000	26100	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
n-Butylbenzene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
sec-Butylbenzene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
tert-Butylbenzene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Carbon disulfide	ND	13000	26100	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Carbon tetrachloride	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Chlorobenzene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Chloroethane	ND	13000	26100	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Chloroform	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Chloromethane	ND	6520	13000	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
2-Chlorotoluene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
4-Chlorotoluene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Dibromochloromethane	ND	2610	5210	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	6520	13000	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Dibromomethane	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,2-Dichlorobenzene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,3-Dichlorobenzene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,4-Dichlorobenzene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Dichlorodifluoromethane	ND	2610	5210	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,1-Dichloroethane	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,1-Dichloroethene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
cis-1,2-Dichloroethene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
trans-1,2-Dichloroethene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	

Apex Laboratories



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Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3A0849 - 02 08 23	1514

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting	¥7. 1.		Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Matrix: Sol	id	Batch:	23A1004	V-15
1,2-Dichloropropane	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,3-Dichloropropane	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
2,2-Dichloropropane	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,1-Dichloropropene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
cis-1,3-Dichloropropene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
trans-1,3-Dichloropropene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Ethylbenzene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Hexachlorobutadiene	ND	2610	5210	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
2-Hexanone	ND	26100	26100	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Isopropylbenzene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
4-Isopropyltoluene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Methylene chloride	ND	13000	26100	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	13000	26100	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Naphthalene	49800	2610	5210	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
n-Propylbenzene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Styrene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Tetrachloroethene (PCE)	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Toluene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,2,3-Trichlorobenzene	ND	6520	13000	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,2,4-Trichlorobenzene	ND	6520	13000	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,1,1-Trichloroethane	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,1,2-Trichloroethane	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Trichloroethene (TCE)	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Trichlorofluoromethane	ND	2610	5210	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,2,3-Trichloropropane	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
1,2,4-Trimethylbenzene	1850	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	J
1,3,5-Trimethylbenzene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
Vinyl chloride	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
m,p-Xylene	ND	1300	2610	ug/kg dry	100	01/27/23 19:25	5035A/8260D	
o-Xylene	ND	652	1300	ug/kg dry	100	01/27/23 19:25	5035A/8260D	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3A0849 - 02 08 23 1514

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D									
Analyte	Sample Result	Detection Limit	Reporting Limit	U	Inits	Dilution	Date Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Mat	rix: Solic	d	Batch:	23A1004	V-15
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 103 %	Limits:	80-120 %	5 1	01/27/23 19:25	5035A/8260D	
Toluene-d8 (Surr)			97 %		80-120 %	6 I	01/27/23 19:25	5035A/8260D	
4-Bromofluorobenzene (Surr)			97 %		79-120 %	5 I	01/27/23 19:25	5035A/8260D	

Apex Laboratories

Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3A0849 - 02 08 23 151	4

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
FC-012323-2053 (A3A0849-01)				Matrix: Solid		Batch:	23B0150	
Benzene	ND	6.25	12.5	ug/L	50	02/03/23 16:09	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	02/03/23 16:09	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	02/03/23 16:09	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	02/03/23 16:09	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	02/03/23 16:09	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	02/03/23 16:09	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	02/03/23 16:09	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	02/03/23 16:09	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	02/03/23 16:09	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	02/03/23 16:09	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	02/03/23 16:09	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 104 %	Limits: 80-120 %	1	02/03/23 16:09	1311/8260D	
Toluene-d8 (Surr)			100 %	80-120 %	1	02/03/23 16:09	1311/8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	1	02/03/23 16:09	1311/8260D	

Apex Laboratories



Apex Laboratories, LLC

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Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3A0849 - 02 08 23 1514

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Matrix: Sol	id	Batch:	23A1133	
Acenaphthene	47300	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Acenaphthylene	ND	3670	3670	ug/kg dry	200	02/02/23 13:57	EPA 8270E	R-02
Anthracene	36700	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Benz(a)anthracene	19300	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Benzo(a)pyrene	22800	2140	4270	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Benzo(b)fluoranthene	17400	2140	4270	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Benzo(k)fluoranthene	6540	2140	4270	ug/kg dry	200	02/02/23 13:57	EPA 8270E	M-05
Benzo(g,h,i)perylene	13100	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Chrysene	25600	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Dibenz(a,h)anthracene	ND	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Fluoranthene	99100	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Fluorene	28600	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Indeno(1,2,3-cd)pyrene	11900	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
1-Methylnaphthalene	17800	2850	5690	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2-Methylnaphthalene	18800	2850	5690	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Naphthalene	ND	2850	5690	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Phenanthrene	192000	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Pyrene	116000	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Carbazole	2580	2140	4270	ug/kg dry	200	02/02/23 13:57	EPA 8270E	J
Dibenzofuran	3800	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2-Chlorophenol	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
4-Chloro-3-methylphenol	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,4-Dichlorophenol	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,4-Dimethylphenol	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,4-Dinitrophenol	ND	35600	71200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	35600	71200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2-Methylphenol	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
3+4-Methylphenol(s)	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2-Nitrophenol	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
4-Nitrophenol	ND	28500	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Pentachlorophenol (PCP)	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Phenol	ND	2850	5690	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	

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Apex Laboratories, LLC

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

Sevenson Environmental Services, In	c.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3A0849 - 02 08 23 151	14

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Matrix: Sol	id	Batch:	23A1133	
2,3,5,6-Tetrachlorophenol	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,4,5-Trichlorophenol	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Nitrobenzene	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,4,6-Trichlorophenol	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	21400	42700	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Butyl benzyl phthalate	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Diethylphthalate	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Dimethylphthalate	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Di-n-butylphthalate	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Di-n-octyl phthalate	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
N-Nitrosodimethylamine	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
N-Nitrosodiphenylamine	ND	7120	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Hexachlorobenzene	ND	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Hexachlorobutadiene	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Hexachlorocyclopentadiene	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Hexachloroethane	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2-Chloronaphthalene	ND	1420	2850	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
1,2,4-Trichlorobenzene	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
4-Bromophenyl phenyl ether	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Aniline	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
4-Chloroaniline	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2-Nitroaniline	ND	28500	56900	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
3-Nitroaniline	ND	28500	56900	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
4-Nitroaniline	ND	28500	56900	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,4-Dinitrotoluene	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
2,6-Dinitrotoluene	ND	14200	28500	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Benzoic acid	ND	178000	356000	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Benzyl alcohol	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenso	a Environmental	Services,	Inc.
2749 Lo	ckport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3A0849 - 02 08 23	1514

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Matrix: Solid	b	Batch: 2	23A1133	
Isophorone	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Azobenzene (1,2-DPH)	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	35600	71200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
3,3'-Dichlorobenzidine	ND	28500	56900	ug/kg dry	200	02/02/23 13:57	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	35600	71200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
1,3-Dinitrobenzene	ND	35600	71200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
1,4-Dinitrobenzene	ND	35600	71200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Pyridine	ND	7120	14200	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
1,2-Dichlorobenzene	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
1,3-Dichlorobenzene	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
1,4-Dichlorobenzene	ND	3560	7120	ug/kg dry	200	02/02/23 13:57	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recon	very: 91 %	Limits: 37-122 %	200	02/02/23 13:57	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			67 %	44-120 %	200	02/02/23 13:57	EPA 8270E	S-05
Phenol-d6 (Surr)			188 %	33-122 %	200	02/02/23 13:57	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			83 %	54-127 %	200	02/02/23 13:57	EPA 8270E	S-05
2-Fluorophenol (Surr)			30 %	35-120 %	200	02/02/23 13:57	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			%	39-132 %	200	02/02/23 13:57	EPA 8270E	S-01

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3A0849 - 02 08 23 1514

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Matrix: Sol	id			
Batch: 23A0990								
Arsenic	8950	2630	5260	ug/kg dry	10	01/27/23 16:25	EPA 6020B	
Barium	217000	2630	5260	ug/kg dry	10	01/27/23 16:25	EPA 6020B	
Cadmium	ND	526	1050	ug/kg dry	10	01/27/23 16:25	EPA 6020B	
Chromium	ND	2630	5260	ug/kg dry	10	01/27/23 16:25	EPA 6020B	
Lead	ND	526	1050	ug/kg dry	10	01/27/23 16:25	EPA 6020B	
Mercury	ND	210	421	ug/kg dry	10	01/27/23 16:25	EPA 6020B	
Selenium	ND	2630	5260	ug/kg dry	10	01/27/23 16:25	EPA 6020B	
Silver	ND	526	1050	ug/kg dry	10	01/27/23 16:25	EPA 6020B	

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

Sevenson Environmental Services, Inc.	Project: <u>G</u>	Jasco Filtercake	
2749 Lockport Road	Project Number: 11	11323	Report ID:
Niagara Falls, NY 14305	Project Manager: C	Chip Byrd	A3A0849 - 02 08 23 1514

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting	** •		Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01RE1)				Matrix: So	lid			
Batch: 23A1122								
Arsenic	ND	50.0	100	ug/L	10	02/04/23 03:52	1311/6020B	
Barium	ND	2500	5000	ug/L	10	02/04/23 03:52	1311/6020B	
Cadmium	ND	50.0	100	ug/L	10	02/04/23 03:52	1311/6020B	
Chromium	ND	50.0	100	ug/L	10	02/04/23 03:52	1311/6020B	
Lead	ND	25.0	50.0	ug/L	10	02/04/23 03:52	1311/6020B	
Mercury	ND	3.75	7.00	ug/L	10	02/04/23 03:52	1311/6020B	
Selenium	ND	50.0	100	ug/L	10	02/04/23 03:52	1311/6020B	
Silver	ND	50.0	100	ug/L	10	02/04/23 03:52	1311/6020B	

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Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3A0849 - 02 08 23 1514

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
FC-012323-2053 (A3A0849-01)				Matrix: Solid		Matrix: Solid Batch: 23B0070		
Total Cyanide	5340	538	1080	ug/kg dry	2	02/02/23 16:15	D7511-12	

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

Sevenson Environmental Services, Inc.	Project:	<u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number: 1	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3A0849 - 02 08 23 1514

ANALYTICAL SAMPLE RESULTS

	Percent Dry Weight												
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.Notes													
FC-012323-2053 (A3A0849-01)				Matrix: So	olid	Batch:	23A1010						
% Solids 18.4 1.00 % 1 01/30/23 07:00 EPA 8000D													

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305		Project Project	ject: <u>Gasco</u> t Number: 11132 Manager: Chip	<u>) Filtercake</u> 3 Byrd			<u>Report ID:</u> A3A0849 - 02 08 23	1514
		ANALYTI	CAL SAMPL	E RESULT	ſS			
		TCLP Extr	action by EP	A 1311 (ZHE	E)			
	Sample	Detection	Reporting	TT	D'I d'	Date		

Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-012323-2053 (A3A0849-01)				Matrix: So	olid	Batch:	23B0049	
TCLP ZHE Extraction	0.00			N/A	1	02/01/23 15:05	EPA 1311 ZHE	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

		Die	esel and/o	r Oil Hyc	Irocarbor	ns by NW1	PH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A0938 - EPA 3546 (Fu	iels)						Sol	id				
Blank (23A0938-BLK1)			Prepared:	: 01/26/23	06:24 Anal	lyzed: 01/27/	/23 06:48					
NWTPH-Dx												
Diesel	ND	10000	20000	ug/kg w	et 1							
Oil	ND	20000	40000	ug/kg w	et 1							
Surr: o-Terphenyl (Surr)		Recon	very: 99 %	Limits: 50)-150 %	Dilu	tion: 1x					
LCS (23A0938-BS1)			Prepared:	01/26/23	06:24 Anal	lyzed: 01/27/	23 07:08					
NWTPH-Dx												
Diesel	131000	10000	20000	ug/kg w	et 1	125000		104	38-132%			
Surr: o-Terphenyl (Surr)		Recove	ery: 102 %	Limits: 50)-150 %	Dilı.	ution: 1x					
Duplicate (23A0938-DUP1)			Prepared	01/26/23	06:24 Anal	lyzed: 01/27/	23 07:49					
QC Source Sample: Non-SDG (A3	A0848-01)											
Diesel	44300000	2230000	4470000	ug/kg di	у 20		51400000	۰ <u></u>		15	30%	
Oil	3000000	4470000	8930000	ug/kg di	ту 20		34100000	۱		13	30%	
Surr: o-Terphenyl (Surr)		Rec	covery: %	Limits: 50	1-150 %	Dilu	tion: 20x					S-01

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolin	ne Range H	ydrocarbo	ons (Ben	zene throu	ugh Naphi	halene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							Soi	il				
Blank (23A1004-BLK1)	_	_	Prepared	1: 01/27/23	08:00 Anal	yzed: 01/27/	23 12:37		_	_	_	
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 98 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			99 %	50	0-150 %		"					
LCS (23A1004-BS2)			Prepared	1: 01/27/23	08:00 Anal	yzed: 01/27/	23 11:20					
NWTPH-Gx (MS)												
Gasoline Range Organics	21200	2500	5000	ug/kg w	ret 50	25000		85	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 96 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			97 %		0-150 %		"					
Duplicate (23A1004-DUP1)			Prepared	1: 01/25/23	11:05 Anal	yzed: 01/27/	23 13:28					
QC Source Sample: Non-SDG (A3	A0906-01)											
Gasoline Range Organics	ND	3440	6890	ug/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 99 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			101 %	50	9-150 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							Soi					
Blank (23A1004-BLK1)			Prepared	: 01/27/23 08:	:00 Ana	lyzed: 01/27	/23 12:37					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1.2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1.2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1.2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1.1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1.2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kø wet	50							
1.1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1.2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trang 1.2 Dishlaroothana	ND	12.5	25.0		50							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							Soi					
Blank (23A1004-BLK1)			Prepared	: 01/27/23 08	:00 Anal	yzed: 01/27	/23 12:37					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	500	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m.p-Xylene	ND	25.0	50.0	ug/kg wet	50							
vi v Vulana	ND	12.5	25.0		50							

Apex Laboratories



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

Sevenson Environmental Servi	ces. Inc.			Project:	Gasco -	- Filtercake						
2749 Lockport Road			Pro	oiect Numbe	r: 111323	1	<u>-</u>			n	enort ID:	
Niagara Falls, NY 14305			Pro	oject Manage	r: Chip By	vrd			А	<u>-</u> 3A0849	- 02 08 23	3 1514
		OI	ALITY CO	ONTROL	(\mathbf{OC}) SA	MPLER	RESULT	s				
		QU	Volatile Or	ganic Con	npounds	by EPA 8	8260D	5				
<u>L</u>		Det	D (<u> </u>		G '1	G		N/ DEC		DDD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	% REC Limits	RPD	Limit	Notes
Batch 23A1004 - EPA 5035A							So	il				
Blank (23A1004-BLK1)			Preparec	1: 01/27/23 0	8:00 Ana	lyzed: 01/27	//23 12:37					
Surr: Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr)		Rec	overy: 98 % 100 %	Limits: 80- 79-	120 % 120 %	Dil	ution: 1x "					
LCS (23A1004-BS1)			Prepareo	1: 01/27/23 0	8:00 Ana	lyzed: 01/27	7/23 11:46					
5035A/8260D												
Acetone	1890	500	1000	ug/kg we	t 50	2000		95	80-120%			
Acrylonitrile	989	50.0	100	ug/kg we	t 50	1000		99	80-120%			
Benzene	1070	5.00	10.0	ug/kg we	t 50	1000		107	80-120%			
Bromobenzene	964	12.5	25.0	ug/kg we	t 50	1000		96	80-120%			
Bromochloromethane	1140	25.0	50.0	ug/kg we	t 50	1000		114	80-120%			
Bromodichloromethane	1100	25.0	50.0	ug/kg we	t 50	1000		110	80-120%			
Bromoform	980	50.0	100	ug/kg we	t 50	1000		98	80-120%			
Bromomethane	2160	500	500	ug/kg we	t 50	1000		216	80-120%			Q-56
2-Butanone (MEK)	1900	250	500	ug/kg we	t 50	2000		95	80-120%			
n-Butylbenzene	869	25.0	50.0	ug/kg we	t 50	1000		87	80-120%			
sec-Butylbenzene	926	25.0	50.0	ug/kg we	t 50	1000		93	80-120%			
tert-Butylbenzene	864	25.0	50.0	ug/kg we	t 50	1000		86	80-120%			
Carbon disulfide	1010	250	500	ug/kg we	t 50	1000		101	80-120%			
Carbon tetrachloride	1090	25.0	50.0	ug/kg we	t 50	1000		109	80-120%			
Chlorobenzene	1010	12.5	25.0	ug/kg we	t 50	1000		101	80-120%			
Chloroethane	1420	250	500	ug/kg we	t 50	1000		142	80-120%			Q-56
Chloroform	1140	25.0	50.0	ug/kg we	t 50	1000		114	80-120%			
Chloromethane	928	125	250	ug/kg we	t 50	1000		93	80-120%			
2-Chlorotoluene	922	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
4-Chlorotoluene	916	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
Dibromochloromethane	968	50.0	100	ug/kg we	t 50	1000		97	80-120%			
1,2-Dibromo-3-chloropropane	814	125	250	ug/kg we	t 50	1000		81	80-120%			
1,2-Dibromoethane (EDB)	1010	25.0	50.0	ug/kg we	t 50	1000		101	80-120%			
Dibromomethane	1150	25.0	50.0	ug/kg we	t 50	1000		115	80-120%			
1,2-Dichlorobenzene	965	12.5	25.0	ug/kg we	t 50	1000		96	80-120%			
1,3-Dichlorobenzene	966	12.5	25.0	ug/kg we	t 50	1000		97	80-120%			
1,4-Dichlorobenzene	946	12.5	25.0	ug/kg we	t 50	1000		95	80-120%			
Dichlorodifluoromethane	902	50.0	100	ug/kg we	t 50	1000		90	80-120%			

Apex Laboratories

1,1-Dichloroethane

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

116

80-120%

1000

1160

12.5

25.0

ug/kg wet 50



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

L						,						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							Soi	1				
LCS (23A1004-BS1)			Prepared	: 01/27/23 08	:00 Anal	yzed: 01/27/	/23 11:46					
1,2-Dichloroethane (EDC)	1150	12.5	25.0	ug/kg wet	50	1000		115	80-120%			
1,1-Dichloroethene	1140	12.5	25.0	ug/kg wet	50	1000		114	80-120%			
cis-1,2-Dichloroethene	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
trans-1,2-Dichloroethene	1120	12.5	25.0	ug/kg wet	50	1000		112	80-120%			
1,2-Dichloropropane	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
1,3-Dichloropropane	973	25.0	50.0	ug/kg wet	50	1000		97	80-120%			
2,2-Dichloropropane	1080	25.0	50.0	ug/kg wet	50	1000		108	80-120%			
1,1-Dichloropropene	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
cis-1,3-Dichloropropene	916	25.0	50.0	ug/kg wet	50	1000		92	80-120%			
trans-1,3-Dichloropropene	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
Ethylbenzene	990	12.5	25.0	ug/kg wet	50	1000		99	80-120%			
Hexachlorobutadiene	868	50.0	100	ug/kg wet	50	1000		87	80-120%			
2-Hexanone	1590	500	500	ug/kg wet	50	2000		79	80-120%			Q-:
Isopropylbenzene	900	25.0	50.0	ug/kg wet	50	1000		90	80-120%			
4-Isopropyltoluene	890	25.0	50.0	ug/kg wet	50	1000		89	80-120%			
Methylene chloride	1070	250	500	ug/kg wet	50	1000		107	80-120%			
4-Methyl-2-pentanone (MiBK)	1770	250	500	ug/kg wet	50	2000		88	80-120%			
Methyl tert-butyl ether (MTBE)	998	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
Naphthalene	817	50.0	100	ug/kg wet	50	1000		82	80-120%			
n-Propylbenzene	946	12.5	25.0	ug/kg wet	50	1000		95	80-120%			
Styrene	878	25.0	50.0	ug/kg wet	50	1000		88	80-120%			
1,1,1,2-Tetrachloroethane	1050	12.5	25.0	ug/kg wet	50	1000		105	80-120%			
1,1,2,2-Tetrachloroethane	942	25.0	50.0	ug/kg wet	50	1000		94	80-120%			
Tetrachloroethene (PCE)	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
Toluene	992	25.0	50.0	ug/kg wet	50	1000		99	80-120%			
1,2,3-Trichlorobenzene	928	125	250	ug/kg wet	50	1000		93	80-120%			
1,2,4-Trichlorobenzene	830	125	250	ug/kg wet	50	1000		83	80-120%			
1,1,1-Trichloroethane	1120	12.5	25.0	ug/kg wet	50	1000		112	80-120%			
1,1,2-Trichloroethane	1010	12.5	25.0	ug/kg wet	50	1000		101	80-120%			
Trichloroethene (TCE)	1150	12.5	25.0	ug/kg wet	50	1000		115	80-120%			
Trichlorofluoromethane	1460	50.0	100	ug/kg wet	50	1000		146	80-120%			Q-5
1,2,3-Trichloropropane	962	25.0	50.0	ug/kg wet	50	1000		96	80-120%			
1,2,4-Trimethylbenzene	966	25.0	50.0	ug/kg wet	50	1000		97	80-120%			
1,3,5-Trimethylbenzene	979	25.0	50.0	ug/kg wet	50	1000		98	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Corr	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							Soi	1				
LCS (23A1004-BS1)			Preparec	1: 01/27/23 08	3:00 Ana	lyzed: 01/27	/23 11:46					
Vinyl chloride	1660	12.5	25.0	ug/kg wet	50	1000		166	80-120%			Q-:
m,p-Xylene	2000	25.0	50.0	ug/kg wet	50	2000		100	80-120%			
o-Xylene	896	12.5	25.0	ug/kg wet	50	1000		90	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 104 %	Limits: 80-1	20 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			98 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			95 %	79-1	20 %		"					
Duplicate (23A1004-DUP1)			Prepared	1: 01/25/23 11	:05 Anal	yzed: 01/27/	/23 13:28					
OC Source Sample: Non-SDG (A3)	A0906-01)											
Acetone	ND	689	1380	ug/kg dry	50		ND				30%	
Acrylonitrile	ND	68.9	138	ug/kg dry	50		ND				30%	
Benzene	ND	6.89	13.8	ug/kg dry	50		ND				30%	
Bromobenzene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Bromoform	ND	68.9	138	ug/kg dry	50		ND				30%	
Bromomethane	ND	689	689	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	344	689	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	344	689	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
Chloroethane	ND	344	689	ug/kg dry	50		ND				30%	
Chloroform	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Chloromethane	ND	172	344	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	68.9	138	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	172	344	ug/kg drv	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	34.4	68.9	ug/kg drv	50		ND				30%	
Dibromomethane	ND	34.4	68.9	ug/kg drv	50		ND				30%	
1,2-Dichlorobenzene	ND	17.2	34.4	ug/kg drv	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							Soi	I				
Duplicate (23A1004-DUP1)			Prepared	: 01/25/23 11	:05 Anal	yzed: 01/27/	23 13:28					
QC Source Sample: Non-SDG (A3	A0906-01)											
1,3-Dichlorobenzene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	68.9	138	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	17.2	34.4	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	17.2	34.4	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	17.2	34.4	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	34.4	68.9	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	34.4	68.9	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	68.9	138	ug/kg dry	50		ND				30%	
2-Hexanone	ND	689	689	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Methylene chloride	ND	344	689	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	344	689	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Naphthalene	ND	68.9	138	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
Styrene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	17.2	34.4	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	123	17.2	34.4	ug/kg dry	50		134			9	30%	
Toluene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene	ND	172	344	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	172	344	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	17.2	34.4	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	17.2	34.4	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							Soi	il				
Duplicate (23A1004-DUP1)			Prepare	1: 01/25/23 1	1:05 Anal	yzed: 01/27	/23 13:28					
QC Source Sample: Non-SDG (A3	<u>A0906-01)</u>											
Trichloroethene (TCE)	ND	17.2	34.4	ug/kg dry	50		ND				30%	
Trichlorofluoromethane	ND	68.9	138	ug/kg dry	50		ND				30%	
1,2,3-Trichloropropane	ND	34.4	68.9	ug/kg dry	50		ND				30%	
1,2,4-Trimethylbenzene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
1,3,5-Trimethylbenzene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
Vinyl chloride	ND	17.2	34.4	ug/kg dry	50		ND				30%	
m,p-Xylene	ND	34.4	68.9	ug/kg dry	50		ND				30%	
o-Xylene	ND	17.2	34.4	ug/kg dry	50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 106 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			98 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3	<u>A0750-01)</u>											
<u>5035A/8260D</u>	2 (2 (1000		-	2 (7)			26.16404			
Acetone	2620	667	1330	ug/kg dry	7 50 50	2670	ND	98	36-164%			
Acrylonitrile	1300	00.7	133	ug/kg dry	50	1330	ND	9/	05-134%			
Benzene	1400	0.07	13.3	ug/kg dry	7 50 50	1330	ND	105	70.121%			
Bromobenzene	1300	16./	33.3	ug/kg dry	7 50 50	1330	ND	98	/8-121%			
Bromochloromethane	1420	33.3	66.7	ug/kg dry	7 50 50	1330	ND	106	78-125%			
Bromodicniorometnane	1410	33.3 66 7	122	ug/kg ary	50	1330	ND	106	/3-12/%			
Bromotorm Bromomotheme	1200	667	155	ug/kg dry	/ 50 - 50	1330	ND	95	07-132% 52 1420/			0.54
2 Determine (MEK)	2800	222	007	ug/kg dry	50	2(70	ND	210	53-143%			Q-34
2-Butanone (MEK)	2460	222	00/ 667	ug/kg ary	50	2070	202	92	51-148% 70.1280/			
n-Butylbenzene	1620	22.2	00.7	ug/kg ary	50	1330	202	100	70-128%			
text Details an end	1410	22.2	667	ug/kg dry	50	1330	00.7	101	73-12070			
Carbon digulfida	1230	22.5	00./ 227	ug/kg dry	, 50	1330	ND	94 08	/3-123% 62 1220/			
Carbon disultae	1310	22.2	00/	ug/kg dry	, 50	1220		90 100	03-132%			
Carbon tetrachioride	1450	55.5 16.7	00./	ug/Kg dry	/ 50 - 50	1330	ND	109	/0-135%			
Chloroothara	1340	10./	33.3	ug/kg dry	/ 50 - 50	1330	ND	100	/9-120%			0.54
Chloreform	1000	333	00/	ug/kg dry	/ 50 - 50	1330	ND	124	39-139%			Q-54
Chlorem	1480	33.3	00./	ug/kg dry	/ 50 - 50	1330	ND	111	/8-125%			
Cniorometnane	1170	16/	555	ug/kg dry	/ 50	1330	ND	88	30-136%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D												
Analyte	Result	Detection Limit	Reporting Limit	Units 1	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							So	il				
Matrix Spike (23A1004-MS1)			Prepared:	: 01/20/23 00	:00 Anal	yzed: 01/27/	/23 18:08					
QC Source Sample: Non-SDG (A3/	40750-01)											
2-Chlorotoluene	1330	33.3	66.7	ug/kg dry	50	1330	ND	99	75-122%			
4-Chlorotoluene	1230	33.3	66.7	ug/kg dry	50	1330	ND	92	72-124%			
Dibromochloromethane	1250	66.7	133	ug/kg dry	50	1330	ND	94	74-126%			
1,2-Dibromo-3-chloropropane	1300	167	333	ug/kg dry	50	1330	ND	98	61-132%			
1,2-Dibromoethane (EDB)	1340	33.3	66.7	ug/kg dry	50	1330	ND	101	78-122%			
Dibromomethane	1460	33.3	66.7	ug/kg dry	50	1330	ND	110	78-125%			
1,2-Dichlorobenzene	1330	16.7	33.3	ug/kg dry	50	1330	ND	99	78-121%			
1,3-Dichlorobenzene	1320	16.7	33.3	ug/kg dry	50	1330	ND	99	77-121%			
1,4-Dichlorobenzene	1280	16.7	33.3	ug/kg dry	50	1330	ND	96	75-120%			
Dichlorodifluoromethane	1190	66.7	133	ug/kg dry	50	1330	ND	89	29-149%			
1,1-Dichloroethane	1480	16.7	33.3	ug/kg dry	50	1330	ND	111	76-125%			
1,2-Dichloroethane (EDC)	1450	16.7	33.3	ug/kg dry	50	1330	ND	109	73-128%			
1,1-Dichloroethene	1480	16.7	33.3	ug/kg dry	50	1330	ND	111	70-131%			
cis-1,2-Dichloroethene	1420	16.7	33.3	ug/kg dry	50	1330	ND	106	77-123%			
trans-1,2-Dichloroethene	1450	16.7	33.3	ug/kg dry	50	1330	ND	109	74-125%			
1,2-Dichloropropane	1420	16.7	33.3	ug/kg dry	50	1330	ND	106	76-123%			
1,3-Dichloropropane	1270	33.3	66.7	ug/kg dry	50	1330	ND	95	77-121%			
2,2-Dichloropropane	1430	33.3	66.7	ug/kg dry	50	1330	ND	107	67-133%			
1,1-Dichloropropene	1360	33.3	66.7	ug/kg dry	50	1330	ND	102	76-125%			
cis-1,3-Dichloropropene	1250	33.3	66.7	ug/kg dry	50	1330	ND	94	74-126%			
trans-1,3-Dichloropropene	1320	33.3	66.7	ug/kg dry	50	1330	ND	99	71-130%			
Ethylbenzene	1440	16.7	33.3	ug/kg dry	50	1330	108	100	76-122%			
Hexachlorobutadiene	1570	66.7	133	ug/kg dry	50	1330	ND	117	61-135%			
2-Hexanone	2230	667	667	ug/kg dry	50	2670	ND	83	53-145%			Q-54
Isopropylbenzene	1330	33.3	66.7	ug/kg drv	50	1330	44.7	96	68-134%			
4-Isopropyltoluene	1370	33.3	66.7	ug/kg drv	50	1330	39.3	100	73-127%			
Methylene chloride	1340	333	667	ug/kg drv	50	1330	ND	100	70-128%			
4-Methyl-2-pentanone (MiBK)	2370	333	667	ug/kg drv	50	2670	ND	89	65-135%			
Methyl tert-butyl ether (MTBE)	1290	33.3	66.7	ug/kg drv	50	1330	ND	97	73-125%			
Naphthalene	2870	66.7	133	ug/kg drv	50	1330	1320	116	62-129%			
n-Propylbenzene	1610	16.7	33.3	ug/ko drv	50	1330	255	102	73-125%			
Styrene	1210	33.3	66.7	110/ka dry	50	1330	ND	91	76-124%			
1 1 1 2-Tetrachloroethane	1210	167	22.2	ug/kg dwy	50	1330		103	78_124/0			
1,1,1,2-1ettaemoroettane	1370	10.7	55.5	ug/kg ury	50	1330	ND	105	10-12370			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1004 - EPA 5035A							So	il				
Matrix Spike (23A1004-MS1)			Prepared	1: 01/20/23 0	0:00 Ana	lyzed: 01/27/	/23 18:08					
QC Source Sample: Non-SDG (A3)	<u> 40750-01)</u>											
1,1,2,2-Tetrachloroethane	1250	33.3	66.7	ug/kg dry	⁷ 50	1330	ND	94	70-124%			
Tetrachloroethene (PCE)	1570	16.7	33.3	ug/kg dry	7 50	1330	120	108	73-128%			
Toluene	1300	33.3	66.7	ug/kg dry	7 50	1330	ND	98	77-121%			
1,2,3-Trichlorobenzene	1370	167	333	ug/kg dry	7 50	1330	ND	103	66-130%			
1,2,4-Trichlorobenzene	1380	167	333	ug/kg dry	7 50	1330	ND	103	67-129%			
1,1,1-Trichloroethane	1470	16.7	33.3	ug/kg dry	7 50	1330	ND	110	73-130%			
1,1,2-Trichloroethane	1300	16.7	33.3	ug/kg dry	7 50	1330	ND	98	78-121%			
Trichloroethene (TCE)	1530	16.7	33.3	ug/kg dry	7 50	1330	ND	115	77-123%			
Trichlorofluoromethane	1720	66.7	133	ug/kg dry	7 50	1330	ND	129	62-140%			Q-54
1,2,3-Trichloropropane	1280	33.3	66.7	ug/kg dry	7 50	1330	ND	96	73-125%			
1,2,4-Trimethylbenzene	5090	33.3	66.7	ug/kg dry	7 50	1330	3490	120	75-123%			
1,3,5-Trimethylbenzene	2700	33.3	66.7	ug/kg dry	7 50	1330	1180	114	73-124%			
Vinyl chloride	2070	16.7	33.3	ug/kg dry	7 50	1330	ND	155	56-135%			Q-54
m,p-Xylene	3280	33.3	66.7	ug/kg dry	7 50	2670	489	104	77-124%			
o-Xylene	1650	16.7	33.3	ug/kg dry	7 50	1330	328	99	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 103 %	Limits: 80-	120 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			96 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 23B0150 - EPA 1311/5030B TCLP Volatiles Water Blank (23B0150-BLK1) Prepared: 02/03/23 12:06 Analyzed: 02/03/23 14:48 TCLPa 1311/8260D ND 6.25 12.5 ug/L 50 Benzene ND 250 500 50 2-Butanone (MEK) ug/L ---------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 50 ug/L ---1,4-Dichlorobenzene ND 12.5 25.0 50 ug/L ---------------____ 1,1-Dichloroethene ND 12.5 25.0 50 ug/L ---ND 12.5 25.0 1,2-Dichloroethane (EDC) ug/L 50 ---------------Tetrachloroethene (PCE) ND 12.5 25.0 ug/L 50 Trichloroethene (TCE) ND 12.5 25.0 50 ug/L ___ -------------_ _ _ Vinyl chloride ND 12.5 25.0 50 ug/L --------------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 104 % Limits: 80-120 % Dilution: 1x 99 % Toluene-d8 (Surr) 80-120 % " 4-Bromofluorobenzene (Surr) 108 % 80-120 % LCS (23B0150-BS1) Prepared: 02/03/23 12:06 Analyzed: 02/03/23 13:50 TCLPa 1311/8260D 98 Benzene 981 6.25 12.5 ug/L 50 1000 80-120% 1750 250 500 50 2000 88 80-120% 2-Butanone (MEK) ug/L ---------Carbon tetrachloride 1220 25.0 50.0 ug/L 50 1000 ---122 80-120% ------Q-56 Chlorobenzene 1000 12.5 25.0 ug/L 50 1000 ---100 80-120% ------Chloroform 972 25.050.0 ug/L 50 1000 97 80-120% 1,4-Dichlorobenzene 982 12.5 25.0 50 1000 98 80-120% ug/L ---------1,1-Dichloroethene 1000 12.5 25.0 ug/L 50 1000 100 80-120% ---------1,2-Dichloroethane (EDC) 998 12.5 25.0 ug/L 50 1000 100 80-120% ---1140 1000 Tetrachloroethene (PCE) 12.5 25.0 ug/L 50 ---114 80-120% ---Trichloroethene (TCE) 988 12.5 25.0 ug/L 50 1000 ---99 80-120% ------Vinyl chloride 862 12.5 25.0ug/L 50 1000 ---86 80-120% ---____ Surr: 1,4-Difluorobenzene (Surr) 94 % Recovery: Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 95 % 80-120 %

Duplicate (23B0150-DUP1)

4-Bromofluorobenzene (Surr)

Prepared: 02/03/23 12:06 Analyzed: 02/03/23 15:42

80-120 %

91%

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

		Regulated	TCLP Vola	tile Orgar	nic Comp	ounds by	EPA 13'	11/8260D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23B0150 - EPA 1311/503	0B TCLP	Volatiles					Wa	ter				
Duplicate (23B0150-DUP1)			Prepare	d: 02/03/23	12:06 Ana	lyzed: 02/03	/23 15:42					
QC Source Sample: Non-SDG (A3	<u>A0848-01)</u>											
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	134	25.0	50.0	ug/L	50		137			2	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%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 104 %	Limits: 80	0-120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			100 %	80	0-120 %		"					
4-Bromofluorobenzene (Surr)			107 %	80	0-120 %		"					
Matrix Spike (23B0150-MS1)			Prepare	d: 02/03/23	12:06 Ana	lyzed: 02/03	/23 16:36					
QC Source Sample: FC-012323-20	53 (A3A08	<u>49-01)</u>										
<u>1311/8260D</u>												
Benzene	966	6.25	12.5	ug/L	50	1000	ND	97	79-120%			
2-Butanone (MEK)	1800	250	500	ug/L	50	2000	ND	90	56-143%			
Carbon tetrachloride	1190	25.0	50.0	ug/L	50	1000	ND	119	72-136%			Q-5
Chlorobenzene	989	12.5	25.0	ug/L	50	1000	ND	99	80-120%			
Chloroform	945	25.0	50.0	ug/L	50	1000	ND	94	79-124%			
1,4-Dichlorobenzene	990	12.5	25.0	ug/L	50	1000	ND	99	79-120%			
1,1-Dichloroethene	970	12.5	25.0	ug/L	50	1000	ND	97	71-131%			
1,2-Dichloroethane (EDC)	972	12.5	25.0	ug/L	50	1000	ND	97	73-128%			
Tetrachloroethene (PCE)	1110	12.5	25.0	ug/L	50	1000	ND	111	74-129%			
Trichloroethene (TCE)	980	12.5	25.0	ug/L	50	1000	ND	98	79-123%			
Vinyl chloride	881	12.5	25.0	ug/L	50	1000	ND	88	58-137%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 94 %	Limits: 80	0-120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			96 %	80	0-120 %		"					
4-Bromofluorobenzene (Surr)			93 %	80	0-120 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1133 - EPA 3546							Sol	d				
Blank (23A1133-BLK1)			Prepared	: 01/31/23 15	5:48 Ana	lyzed: 02/02	/23 11:41					
EPA 8270E												
Acenaphthene	ND	1.33	2.67	ug/kg wet	1							
Acenaphthylene	ND	1.33	2.67	ug/kg wet	1							
Anthracene	ND	1.33	2.67	ug/kg wet	1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg wet	1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg wet	1							
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg wet	1							
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg wet	1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg wet	1							
Chrysene	ND	1.33	2.67	ug/kg wet	1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg wet	1							
Fluoranthene	ND	1.33	2.67	ug/kg wet	1							
Fluorene	ND	1.33	2.67	ug/kg wet	1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg wet	1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg wet	1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg wet	1							
Naphthalene	ND	2.67	5.33	ug/kg wet	1							
Phenanthrene	ND	1.33	2.67	ug/kg wet	1							
Pyrene	ND	1.33	2.67	ug/kg wet	1							
Carbazole	ND	2.00	4.00	ug/kg wet	1							
Dibenzofuran	ND	1.33	2.67	ug/kg wet	1							
2-Chlorophenol	ND	6.67	13.3	ug/kg wet	1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg wet	1							
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg wet	1							
2,4-Dinitrophenol	ND	33.3	66.7	ug/kg wet	1							
4.6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg wet	1							
2-Methylphenol	ND	3.33	6.67	ug/kg wet	1							
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg wet	1							
2-Nitrophenol	ND	13.3	26.7	ug/kg wet	1							
4-Nitrophenol	ND	13.3	26.7	ug/kg wet	1							
Pentachlorophenol (PCP)	ND	13.3	26.7	ug/kg wet	1							
Phenol	ND	2.67	5.33	ug/kg wet	1							
2.3.4.6-Tetrachlorophenol	ND	6.67	13.3	ug/kø wet	1							
_,e, .,o requeinsiophenor	110	0.07	10.0	46/AE 1101	1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompoun	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1133 - EPA 3546							Sol	id				
Blank (23A1133-BLK1)			Prepared	: 01/31/23 15	5:48 Anal	lyzed: 02/02	/23 11:41					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg wet	: 1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
Nitrobenzene	ND	13.3	26.7	ug/kg wet	1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg wet	: 1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg wet	: 1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg wet	1							
Diethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Dimethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-butylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg wet	1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg wet	1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg wet	1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg wet	1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg wet	1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg wet	1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg wet	1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg wet	1							
Hexachloroethane	ND	3.33	6.67	ug/kg wet	1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg wet	1							
1.2.4-Trichlorobenzene	ND	3.33	6.67	ug/kg wet	1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
Aniline	ND	6.67	13.3	ug/kg wet	1							
4-Chloroaniline	ND	3.33	6.67	ug/kg wet	1							
2-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
3-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
4-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
2.6-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	: 1							
Benzoic acid	ND	167	333	ug/kø wet	: 1							
Benzvl alcohol	ND	6.67	13.3	ug/kg wet	: 1							
Isonhorone	ND	3.33	6.67	ug/kg wet	1							
rr	1.0	2.25	0.07		-							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1133 - EPA 3546							Sol	id				
Blank (23A1133-BLK1)			Prepare	d: 01/31/23 1	5:48 Ana	lyzed: 02/02	/23 11:41					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	t 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	t 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 94 %	Limits: 37-	122 %	Dilı	ution: 1x					
2-Fluorobiphenyl (Surr)			82 %	44-	120 %		"					
Phenol-d6 (Surr)			70 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			95 %	54-	127 %		"					
2-Fluorophenol (Surr)			84 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			79 %	39-	132 %		"					
LCS (23A1133-BS1)			Prepareo	d: 01/31/23 1	5:48 Ana	lyzed: 02/02	/23 12:15					Q-18
EPA 8270E												
Acenaphthene	487	5.32	10.7	ug/kg we	t 4	533		91	40-123%			
Acenaphthylene	517	5.32	10.7	ug/kg we	t 4	533		97	32-132%			
Anthracene	543	5.32	10.7	ug/kg we	t 4	533		102	47-123%			
Benz(a)anthracene	537	5.32	10.7	ug/kg we	t 4	533		101	49-126%			
Benzo(a)pyrene	550	8.00	16.0	ug/kg we	t 4	533		103	45-129%			
Benzo(b)fluoranthene	553	8.00	16.0	ug/kg we	t 4	533		104	45-132%			
Benzo(k)fluoranthene	549	8.00	16.0	ug/kg we	t 4	533		103	47-132%			
Benzo(g,h,i)perylene	559	5.32	10.7	ug/kg we	t 4	533		105	43-134%			
Chrysene	521	5.32	10.7	ug/kg we	t 4	533		98	50-124%			
Dibenz(a,h)anthracene	540	5.32	10.7	ug/kg we	t 4	533		101	45-134%			
Fluoranthene	562	5.32	10.7	ug/kg we	t 4	533		105	50-127%			
Fluorene	478	5.32	10.7	ug/kg we	t 4	533		90	43-125%			
Indeno(1,2,3-cd)pvrene	543	5.32	10.7	ug/kg we	t 4	533		102	45-133%			
1-Methylnaphthalene	500	10.7	21.3	ug/kg we	t 4	533		94	40-120%			
2 Mathrilganhthalana	502	10.7	21.2			500			20 1220/0			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

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	
Batch 23A1133 - EPA 3546							So	lid					
LCS (23A1133-BS1)			Prepared	: 01/31/23 1:	5:48 Ana	lyzed: 02/02	/23 12:15					Q-18	
Naphthalene	496	10.7	21.3	ug/kg wet	t 4	533		93	35-123%				
Phenanthrene	501	5.32	10.7	ug/kg wet	t 4	533		94	50-121%				
Pyrene	543	5.32	10.7	ug/kg wet	t 4	533		102	47-127%				
Carbazole	512	8.00	16.0	ug/kg wet	t 4	533		96	50-123%				
Dibenzofuran	488	5.32	10.7	ug/kg wet	t 4	533		92	44-120%				
2-Chlorophenol	520	26.7	53.2	ug/kg wet	t 4	533		98	34-121%				
4-Chloro-3-methylphenol	491	53.2	107	ug/kg wet	t 4	533		92	45-122%				
2,4-Dichlorophenol	497	26.7	53.2	ug/kg wet	t 4	533		93	40-122%				
2,4-Dimethylphenol	548	26.7	53.2	ug/kg wet	t 4	533		103	30-127%			Q-4	
2,4-Dinitrophenol	285	133	267	ug/kg wet	t 4	533		53	10-137%			Q-3	
4,6-Dinitro-2-methylphenol	419	133	267	ug/kg wet	t 4	533		79	29-132%				
2-Methylphenol	516	13.3	26.7	ug/kg wet	t 4	533		97	32-122%				
3+4-Methylphenol(s)	482	13.3	26.7	ug/kg wet	t 4	533		90	34-120%				
2-Nitrophenol	573	53.2	107	ug/kg wet	t 4	533		107	36-123%			Q-4	
4-Nitrophenol	390	53.2	107	ug/kg wet	t 4	533		73	30-132%				
Pentachlorophenol (PCP)	405	53.2	107	ug/kg wet	t 4	533		76	25-133%				
Phenol	502	10.7	21.3	ug/kg wet	t 4	533		94	34-121%				
2,3,4,6-Tetrachlorophenol	510	26.7	53.2	ug/kg wet	t 4	533		96	44-125%				
2,3,5,6-Tetrachlorophenol	488	26.7	53.2	ug/kg wet	t 4	533		91	40-120%				
2,4,5-Trichlorophenol	500	26.7	53.2	ug/kg wet	t 4	533		94	41-124%				
Nitrobenzene	494	53.2	107	ug/kg wet	t 4	533		93	34-122%				
2,4,6-Trichlorophenol	493	26.7	53.2	ug/kg wet	t 4	533		92	39-126%				
Bis(2-ethylhexyl)phthalate	552	80.0	160	ug/kg wet	t 4	533		104	51-133%				
Butyl benzyl phthalate	553	53.2	107	ug/kg wet	t 4	533		104	48-132%				
Diethylphthalate	514	53.2	107	ug/kg wet	t 4	533		96	50-124%				
Dimethylphthalate	510	53.2	107	ug/kg wet	t 4	533		96	48-124%				
Di-n-butylphthalate	604	53.2	107	ug/kg wet	t 4	533		113	51-128%				
Di-n-octyl phthalate	617	53.2	107	ug/kg wet	t 4	533		116	45-140%				
N-Nitrosodimethylamine	475	13.3	26.7	ug/kg wet	t 4	533		89	23-120%				
N-Nitroso-di-n-propylamine	506	13.3	26.7	ug/kg wet	t 4	533		95	36-120%				
N-Nitrosodiphenylamine	526	13.3	26.7	ug/kg wet	t 4	533		99	38-127%				
Bis(2-Chloroethoxy) methane	501	13.3	26.7	ug/kg wet	t 4	533		94	36-121%				
Bis(2-Chloroethyl) ether	460	13.3	26.7	ug/kg wet	t 4	533		86	31-120%				
2.2'-Oxybis(1-Chloropropage)	434	13.3	26.7	ug/kg wet	t 4	533		81	39-120%				
2,2 -Oxyois(1-Chioropropane)	454	13.3	20.7	ug/kg wei	ι 4	555		01	37-120%				

Apex Laboratories


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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

		D				G ''			0/ 255		DDD	
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
3atch 23A1133 - EPA 3546		<u>, </u>					So	lid				
LCS (23A1133-BS1)			Prepared	1: 01/31/23 15	5:48 Ana	yzed: 02/02/	/23 12:15					Q-18
Iexachlorobenzene	502	5.32	10.7	ug/kg wet	4	533		94	45-122%			
Iexachlorobutadiene	473	13.3	26.7	ug/kg wet	t 4	533		89	32-123%			
Iexachlorocyclopentadiene	482	26.7	53.2	ug/kg wet	4	533		90	10-140%			
Hexachloroethane	487	13.3	26.7	ug/kg wet	4	533		91	28-120%			
2-Chloronaphthalene	488	5.32	10.7	ug/kg wet	4	533		92	41-120%			
,2,4-Trichlorobenzene	497	13.3	26.7	ug/kg wet	4	533		93	34-120%			
-Bromophenyl phenyl ether	515	13.3	26.7	ug/kg wet	4	533		96	46-124%			
-Chlorophenyl phenyl ether	506	13.3	26.7	ug/kg wet	4	533		95	45-121%			
Aniline	392	26.7	53.2	ug/kg wet	4	533		73	10-120%			
l-Chloroaniline	372	13.3	26.7	ug/kg wet	4	533		70	17-120%			Q-4
2-Nitroaniline	519	107	213	ug/kg wet	: 4	533		97	44-127%			
3-Nitroaniline	517	107	213	ug/kg wet	: 4	533		97	33-120%			Q-4
l-Nitroaniline	586	107	213	ug/kg wet	4	533		110	51-125%			Q-4
2,4-Dinitrotoluene	491	53.2	107	ug/kg wet	: 4	533		92	48-126%			
2,6-Dinitrotoluene	521	53.2	107	ug/kg wet	: 4	533		98	46-124%			
Benzoic acid	377	320	320	ug/kg wet	: 4	1070		35	10-140%			
Benzyl alcohol	394	26.7	53.2	ug/kg wet	: 4	533		74	29-122%			
sophorone	491	13.3	26.7	ug/kg wet	4	533		92	30-122%			
Azobenzene (1,2-DPH)	517	13.3	26.7	ug/kg wet	: 4	533		97	39-125%			
Bis(2-Ethylhexyl) adipate	577	133	267	ug/kg wet	: 4	533		108	61-121%			
3,3'-Dichlorobenzidine	4700	107	213	ug/kg wet	: 4	1070		441	22-121%			Q-29, Q-4 Q-5
,2-Dinitrobenzene	523	133	267	ug/kg wet	4	533		98	44-120%			
,3-Dinitrobenzene	481	133	267	ug/kg wet	4	533		90	43-127%			
,4-Dinitrobenzene	482	133	267	ug/kg wet	4	533		90	37-132%			
Pyridine	405	26.7	53.2	ug/kg wet	4	533		76	10-120%			
,2-Dichlorobenzene	481	13.3	26.7	ug/kg wet	4	533		90	33-120%			
,3-Dichlorobenzene	486	13.3	26.7	ug/kg wet	4	533		91	30-120%			
,4-Dichlorobenzene	472	13.3	26.7	ug/kg wet	: 4	533		88	31-120%			
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 95 %	Limits: 37-	122 %	Dilu	ution: 4x					
2-Fluorobiphenyl (Surr)			95 %	44-1	120 %		"					
Phenol-d6 (Surr)			84 %	33-1	122 %		"					
p-Terphenyl-d14 (Surr)			110 %	54-1	127 %		"					
2-Fluorophenol (Surr)			93 %	35-1	20 %		"					
246-Tribromonhaval (Cum)			0101	20 1	137 0%		"					

Apex Laboratories



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

Sevenson Environmental Serv 2749 Lockport Road Niagara Falls, NY 14305	ices, Inc.		I Proj Proj	Project: ject Numbe ect Manage	<u>Gasco -</u> r: 111323 r: Chip By	- Filtercake yrd	2		A	<u>I</u> 3A0849	Report ID - 02 08 2	<u>:</u> 3 1514
		OU	ALITY CO	NTROL	(OC) SA	MPLE R	RESULTS	5				
		Sei	mivolatile C	Drganic C	compour	nds by EP	A 8270E	-				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1133 - EPA 3546							Sol	id				
Duplicate (23A1133-DUP1)			Prepared:	01/31/23 1	5:48 Ana	lyzed: 02/02	2/23 13:23					
OC Source Sample: Non-SDG (A	3A0848-01)											
Acenaphthene	ND	2930	5890	ug/kg dry	200		ND				30%	
Acenaphthylene	ND	2930	5890	ug/kg dry	y 200		ND				30%	
Anthracene	ND	2930	5890	ug/kg dry	y 200		ND				30%	
Benz(a)anthracene	ND	6070	6070	ug/kg dry	y 200		ND				30%	R-02
Benzo(a)pyrene	ND	4410	8820	ug/kg dry	y 200		ND				30%	
Benzo(b)fluoranthene	5670	4410	8820	ug/kg dry	y 200		6030			6	30%	J
Benzo(k)fluoranthene	ND	4410	8820	ug/kg dry	y 200		ND				30%	
Benzo(g,h,i)perylene	ND	2930	5890	ug/kg dry	y 200		ND				30%	
Chrysene	ND	7740	7740	ug/kg dry	y 200		ND				30%	R-02
Dibenz(a,h)anthracene	ND	2930	5890	ug/kg dry	y 200		ND				30%	
Fluoranthene	46700	2930	5890	ug/kg dry	y 200		47800			2	30%	
Fluorene	78300	2930	5890	ug/kg dry	y 200		77800			0.7	30%	
Indeno(1,2,3-cd)pyrene	ND	2930	5890	ug/kg dry	y 200		ND				30%	
1-Methylnaphthalene	6420	5890	11800	ug/kg dry	y 200		6510			2	30%	J
2-Methylnaphthalene	6130	5890	11800	ug/kg dry	y 200		ND				30%	J, Q-17
Naphthalene	54800	5890	11800	ug/kg dry	y 200		58900			7	30%	
Phenanthrene	169000	2930	5890	ug/kg dry	y 200		172000			2	30%	
Pyrene	ND	2930	5890	ug/kg dry	y 200		ND				30%	
Carbazole	46400	4410	8820	ug/kg dry	y 200		47700			3	30%	
Dibenzofuran	14400	2930	5890	ug/kg dry	y 200		13800			4	30%	
2-Chlorophenol	ND	14700	29300	ug/kg dry	y 200		ND				30%	
4-Chloro-3-methylphenol	ND	29300	58900	ug/kg dry	y 200		ND				30%	
2,4-Dichlorophenol	ND	14700	29300	ug/kg dry	y 200		ND				30%	
2,4-Dimethylphenol	ND	14700	29300	ug/kg dry	y 200		ND				30%	
2,4-Dinitrophenol	ND	73500	147000	ug/kg dry	y 200		ND				30%	
4,6-Dinitro-2-methylphenol	ND	73500	147000	ug/kg dry	y 200		ND				30%	
2-Methylphenol	ND	7350	14700	ug/kg dry	y 200		ND				30%	
3+4-Methylphenol(s)	ND	7350	14700	ug/kg dry	y 200		ND				30%	
2-Nitrophenol	ND	29300	58900	ug/kg dry	y 200		ND				30%	
4-Nitrophenol	ND	29300	58900	ug/kg dry	y 200		ND				30%	
Pentachlorophenol (PCP)	ND	29300	58900	ug/kg dry	y 200		ND				30%	
Phenol	ND	5890	11800	ug/kg dry	y 200		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile (Organic C	ompoun	ds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1133 - EPA 3546							Soli	id				
Duplicate (23A1133-DUP1)			Prepared	: 01/31/23 15	5:48 Anal	yzed: 02/02/	/23 13:23					
QC Source Sample: Non-SDG (A	<u>3A0848-01)</u>											
2,3,4,6-Tetrachlorophenol	ND	14700	29300	ug/kg dry	200		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	14700	29300	ug/kg dry	200		ND				30%	
2,4,5-Trichlorophenol	ND	14700	29300	ug/kg dry	200		ND				30%	
Nitrobenzene	ND	29300	58900	ug/kg dry	200		ND				30%	
2,4,6-Trichlorophenol	ND	14700	29300	ug/kg dry	200		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	44100	88200	ug/kg dry	200		ND				30%	
Butyl benzyl phthalate	ND	29300	58900	ug/kg dry	200		ND				30%	
Diethylphthalate	ND	29300	58900	ug/kg dry	200		ND				30%	
Dimethylphthalate	ND	29300	58900	ug/kg dry	200		ND				30%	
Di-n-butylphthalate	ND	29300	58900	ug/kg dry	200		ND				30%	
Di-n-octyl phthalate	ND	29300	58900	ug/kg dry	200		ND				30%	
N-Nitrosodimethylamine	ND	7350	14700	ug/kg dry	200		ND				30%	
N-Nitroso-di-n-propylamine	ND	14700	14700	ug/kg dry	200		ND				30%	
N-Nitrosodiphenylamine	ND	7350	14700	ug/kg dry	200		ND				30%	
Bis(2-Chloroethoxy) methane	ND	7350	14700	ug/kg dry	200		ND				30%	
Bis(2-Chloroethyl) ether	ND	7350	14700	ug/kg dry	200		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	7350	14700	ug/kg dry	200		ND				30%	
Hexachlorobenzene	ND	2930	5890	ug/kg dry	200		ND				30%	
Hexachlorobutadiene	ND	7350	14700	ug/kg dry	200		ND				30%	
Hexachlorocyclopentadiene	ND	14700	29300	ug/kg dry	200		ND				30%	
Hexachloroethane	ND	7350	14700	ug/kg dry	200		ND				30%	
2-Chloronaphthalene	ND	2930	5890	ug/kg dry	200		ND				30%	
1,2,4-Trichlorobenzene	ND	7350	14700	ug/kg dry	200		ND				30%	
4-Bromophenyl phenyl ether	ND	7350	14700	ug/kg dry	200		ND				30%	
4-Chlorophenyl phenyl ether	ND	7350	14700	ug/kg dry	200		ND				30%	
Aniline	ND	14700	29300	ug/kg dry	200		ND				30%	
4-Chloroaniline	ND	7350	14700	ug/kg dry	200		ND				30%	
2-Nitroaniline	ND	58900	118000	ug/kg dry	200		ND				30%	
3-Nitroaniline	ND	58900	118000	ug/kg dry	200		ND				30%	
4-Nitroaniline	ND	58900	118000	ug/kg dry	200		ND				30%	
2,4-Dinitrotoluene	ND	29300	58900	ug/kg dry	200		ND				30%	
2,6-Dinitrotoluene	ND	29300	58900	ug/kg dry	200		ND				30%	
Benzoic acid	ND	368000	735000	ug/kg dry	200		ND				30%	
	-			8 8 - 9								

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile	Organic (Compour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1133 - EPA 3546							Sol	id				
Duplicate (23A1133-DUP1)			Prepared	l: 01/31/23 1	5:48 Ana	lyzed: 02/02/	/23 13:23					
QC Source Sample: Non-SDG (A3	3A0848-01)											
Benzyl alcohol	ND	14700	29300	ug/kg dr	y 200		ND				30%	
Isophorone	ND	24500	24500	ug/kg dr	y 200		ND				30%	R-
Azobenzene (1,2-DPH)	ND	7350	14700	ug/kg dr	y 200		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	73500	147000	ug/kg dr	y 200		ND				30%	
3,3'-Dichlorobenzidine	ND	58900	118000	ug/kg dr	y 200		ND				30%	Q
1,2-Dinitrobenzene	ND	73500	147000	ug/kg dr	y 200		ND				30%	
1,3-Dinitrobenzene	ND	73500	147000	ug/kg dr	y 200		ND				30%	
1,4-Dinitrobenzene	ND	73500	147000	ug/kg dr	y 200		ND				30%	
Pyridine	ND	14700	29300	ug/kg dr	y 200		ND				30%	
1,2-Dichlorobenzene	ND	7350	14700	ug/kg dr	y 200		ND				30%	
1,3-Dichlorobenzene	ND	7350	14700	ug/kg dr	y 200		ND				30%	
1,4-Dichlorobenzene	ND	7350	14700	ug/kg dr	y 200		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Recov	ery: 110 %	Limits: 37-	·122 %	Dilı	ution: 200x					S-05
2-Fluorobiphenyl (Surr)			61 %	44-	120 %		"					S-05
Phenol-d6 (Surr)			%	33-	122 %		"					S-05
p-Terphenyl-d14 (Surr)			81 %	54-	127 %		"					S-05
2-Fluorophenol (Surr)			159 %	35-	120 %		"					S-05
2.4.6-Tribromophenol (Surr)			%	39-	132 %		"					S-01

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 602(B (ICPM:	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A0990 - EPA 3051A							Sol	id				
Blank (23A0990-BLK1)			Prepared	: 01/27/23 0	7:31 Anal	yzed: 01/27,	/23 15:48					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg we	t 10							
Barium	ND	500	1000	ug/kg we	t 10							
Cadmium	ND	100	200	ug/kg we	t 10							
Chromium	ND	500	1000	ug/kg we	t 10							
Lead	ND	100	200	ug/kg we	t 10							
Mercury	ND	40.0	80.0	ug/kg we	t 10							
Selenium	ND	500	1000	ug/kg we	t 10							
Silver	ND	100	200	ug/kg we	t 10							
LCS (23A0990-BS1)			Prepared:	: 01/27/23 0	7:31 Anal	yzed: 01/27/	/23 15:53					
EPA 6020B												
Arsenic	46900	500	1000	ug/kg we	t 10	50000		94	80-120%			
Barium	47300	500	1000	ug/kg we	t 10	50000		95	80-120%			
Cadmium	49200	100	200	ug/kg we	t 10	50000		98	80-120%			
Chromium	46900	500	1000	ug/kg we	t 10	50000		94	80-120%			
Lead	48900	100	200	ug/kg we	t 10	50000		98	80-120%			
Mercury	943	40.0	80.0	ug/kg we	t 10	1000		94	80-120%			
Selenium	23300	500	1000	ug/kg we	t 10	25000		93	80-120%			
Silver	25300	100	200	ug/kg we	t 10	25000		101	80-120%			
Duplicate (23A0990-DUP1)			Prepared:	: 01/27/23 0	7:31 Anal	yzed: 01/27/	/23 16:13					
QC Source Sample: Non-SDG (A3	3A0848-01)											
Arsenic	231000	5420	10800	ug/kg drv	v 10		222000			4	20%	
Barium	119000	5420	10800	ug/kg drv	v 10		118000			0.2	20%	
Cadmium	ND	1080	2170	ug/kg drv	v 10		ND				20%	
Chromium	35600	5420	10800	ug/kg drv	v 10		35200			1	20%	
Lead	5670	1080	2170	ug/kg drv	v 10		6140			8	20%	
Mercury	ND	434	867	ug/kg drv	7 10		ND				20%	
Selenium	ND	5420	10800	ug/kg drv	/ 10		ND				20%	
Silver	ND	1080	2170	110/ka Am	7 10		ND				20%	

Matrix Spike (23A0990-MS1)

Prepared: 01/27/23 07:31 Analyzed: 01/27/23 16:18

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	etals by I	EPA 6020	B (ICPM	3)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A0990 - EPA 3051A							Sol	id				
Matrix Spike (23A0990-MS1)			Prepared:	01/27/23 0	7:31 Anal	yzed: 01/27	/23 16:18					
QC Source Sample: Non-SDG (A3A	0848-01)											
<u>EPA 6020B</u>												
Arsenic	745000	5600	11200	ug/kg dry	/ 10	560000	222000	93	75-125%			
Barium	641000	5600	11200	ug/kg dry	/ 10	560000	118000	93	75-125%			
Cadmium	553000	1120	2240	ug/kg dry	r 10	560000	ND	99	75-125%			
Chromium	556000	5600	11200	ug/kg dry	7 10	560000	35200	93	75-125%			
Lead	552000	1120	2240	ug/kg dry	r 10	560000	6140	97	75-125%			
Mercury	10900	448	897	ug/kg dry	/ 10	11200	ND	97	75-125%			
Selenium	258000	5600	11200	ug/kg dry	7 10	280000	ND	92	75-125%			
Silver	282000	1120	2240	ug/kg dry	/ 10	280000	ND	101	75-125%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	0B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1122 - EPA 1311/3	015A						So	lid				
Blank (23A1122-BLK2)			Prepared	: 01/31/23	12:21 Anal	yzed: 02/04	/23 03:41					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							Q-16, TCL
Barium	ND	2500	5000	ug/L	10							Q-16, TCL
Cadmium	ND	50.0	100	ug/L	10							Q-16, TCL
Chromium	ND	50.0	100	ug/L	10							Q-16, TCL
Lead	ND	25.0	50.0	ug/L	10							Q-16, TCL
Mercury	ND	3.75	7.00	ug/L	10							Q-16, TCL
Selenium	ND	50.0	100	ug/L	10							Q-16, TCL
Silver	ND	50.0	100	ug/L	10							Q-16, TCL
LCS (23A1122-BS2)			Prepared	: 01/31/23	12:21 Anal	yzed: 02/04	/23 03:47					
<u>1311/6020B</u>												
Arsenic	2700	50.0	100	ug/L	10	2500		108	80-120%			Q-16, TCL
Barium	5670	2500	5000	ug/L	10	5000		113	80-120%			Q-16, TCL
Cadmium	523	50.0	100	ug/L	10	500		105	80-120%			Q-16, TCL
Chromium	2700	50.0	100	ug/L	10	2500		108	80-120%			Q-16, TCL
Lead	2800	25.0	50.0	ug/L	10	2500		112	80-120%			Q-16, TCL
Mercury	50.0	3.75	7.00	ug/L	10	50.0		100	80-120%			Q-16, TCL
Selenium	515	50.0	100	ug/L	10	500		103	80-120%			Q-16, TCL
Silver	560	50.0	100	ug/L	10	500		112	80-120%			Q-16, TCL
Duplicate (23A1122-DUP2)			Prepared	: 01/31/23	12:21 Anal	yzed: 02/04	/23 03:58					
QC Source Sample: FC-012323-	2053 (A3A08	49-01RE1)										
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10		ND				20%	Q-1
Barium	ND	2500	5000	ug/L	10		ND				20%	Q-1
Cadmium	ND	50.0	100	ug/L	10		ND				20%	Q-1
Chromium	ND	50.0	100	ug/L	10		ND				20%	Q-1
Lead	ND	25.0	50.0	ug/L	10		ND				20%	Q-1
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	Q-1
Selenium	ND	50.0	100	ug/L	10		ND				20%	Q-1
Silver	ND	50.0	100	ug/L	10		ND				20%	Q-1

Matrix Spike (23A1122-MS2)

Prepared: 01/31/23 12:21 Analyzed: 02/04/23 04:04

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1122 - EPA 1311/301	5A						So	lid				
Matrix Spike (23A1122-MS2)			Prepared	: 01/31/23	12:21 Ana	lyzed: 02/04	/23 04:04					
QC Source Sample: FC-012323-20- 1311/6020B	53 (A3A08	<u>49-01RE1)</u>										
Arsenic	2650	50.0	100	ug/L	10	2500	ND	106	50-150%			Q-1
Barium	6120	2500	5000	ug/L	10	5000	ND	122	50-150%			Q-1
Cadmium	516	50.0	100	ug/L	10	500	ND	103	50-150%			Q-1
Chromium	2660	50.0	100	ug/L	10	2500	ND	107	50-150%			Q-1
Lead	2690	25.0	50.0	ug/L	10	2500	ND	108	50-150%			Q-1
Mercury	50.2	3.75	7.00	ug/L	10	50.0	ND	100	50-150%			Q-1
Selenium	534	50.0	100	ug/L	10	500	ND	107	50-150%			Q-1
Silver	551	50.0	100	ug/L	10	500	ND	110	50-150%			Q-1

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

	Solu	ble Cyanic	le by UV Di	igestion	/Gas Diffu	sion/Amp	erometr	ic Detecti	on			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23B0070 - ASTM D751	1-12mod (S)					Soi	1				
Blank (23B0070-BLK1)			Prepared	: 02/02/23	09:12 Ana	lyzed: 02/02	/23 15:55					
D7511-12 Total Cyanide	ND	50.0	100	ug/kg w	vet 1							
LCS (23B0070-BS1)			Prepared	: 02/02/23	09:12 Ana	lyzed: 02/02/	/23 15:57					
D7511-12 Total Cyanide	431	50.0	100	ug/kg w	vet 1	400		108	84-116%			
Matrix Spike (23B0070-MS1))		Prepared	: 02/02/23	09:12 Ana	lyzed: 02/02/	/23 16:09					
QC Source Sample: Non-SDG (2 D7511-12	<u>A3A0848-01)</u>											
Total Cyanide	27100	2770	5530	ug/kg d	lry 5	4430	24500	59	64-136%			Q-0
Matrix Spike Dup (23B0070-	MSD1)		Prepared	: 02/02/23	09:12 Ana	lyzed: 02/02	/23 16:11		,			
OC Source Sample: Non-SDG (#	<u>43A0848-01)</u>											
Total Cyanide	25100	2750	5510	ug/kg d	lry 5	4410	24500	13	64-136%	8	47%	Q-0

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percent	t Dry Wei <u>c</u>	jht						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1010 - Total Solids (Dr	y Weigl	nt)					Soil	I				
Duplicate (23A1010-DUP1)			Prepared:	01/27/23	10:45 Anal	yzed: 01/30/	23 07:00					
<u>QC Source Sample: Non-SDG (A3A0</u> % Solids	<u>872-01)</u> 77.7		1.00	%	1		77.4			0.3	10%	
Duplicate (23A1010-DUP2)			Prepared:	01/27/23	10:45 Anal	yzed: 01/30/	23 07:00					
OC Source Sample: Non-SDG (A3A0) % Solids	<u>872-03)</u> 76.9		1.00	%	1		77.3			0.6	10%	
Duplicate (23A1010-DUP3)			Prepared:	01/27/23	10:45 Analy	yzed: 01/30/	23 07:00					
OC Source Sample: Non-SDG (A3A0) % Solids	76.8		1.00	%	1		76.1			0.9	10%	
Duplicate (23A1010-DUP4)			Prepared:	01/27/23	16:18 Anal	yzed: 01/30/	23 07:00					PRO
OC Source Sample: Non-SDG (A3A0) % Solids	<u>820-02)</u> 94.5		1.00	%	1		94.5			0.04	10%	
Duplicate (23A1010-DUP5)			Prepared:	01/27/23	18:36 Analy	yzed: 01/30/	23 07:00					
QC Source Sample: Non-SDG (A3A0)	<u>953-01)</u>											
% Solids	82.1		1.00	%	1		84.3			3	10%	
Duplicate (23A1010-DUP6)			Prepared:	01/27/23	18:36 Anal	yzed: 01/30/	23 07:00					
<u>QC Source Sample:</u> Non-SDG (A3A0) % Solids	<u>953-02)</u> 80.8		1.00	%	1		79.0			2	10%	
Duplicate (23A1010-DUP7)			Prepared:	01/27/23	18:36 Anal	yzed: 01/30/	23 07:00					
OC Source Sample: Non-SDG (A3A0 % Solids	<u>954-01)</u> 80.8		1.00	%	1		79.8			1	10%	
Duplicate (23A1010-DUP8)			Prepared:	01/27/23 2	20:24 Analy	yzed: 01/30/	23 07:00					
<u>OC Source Sample: Non-SDG (A3A0</u> % Solide	<u>965-01)</u> 78-4		1.00	0/	1		787			0.5	10%	
/0 501105	/ 0.4		1.00	<i>7</i> 0	1		/0./			0.5	10%0	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Weig	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23A1010 - Total Solids (Dry Weigh	nt)					Soil					
Duplicate (23A1010-DUP9)			Prepared	: 01/27/23	20:24 Anal	yzed: 01/30/	/23 07:00					
QC Source Sample: Non-SDG (A3	A0965-02)											
% Solids	77.2		1.00	%	1		77.7			0.7	10%	
Duplicate (23A1010-DUPA)			Prepared	: 01/27/23	20:24 Anal	yzed: 01/30/	/23 07:00					
QC Source Sample: Non-SDG (A3	<u>A0965-03)</u>											
% Solids	80.2		1.00	%	1		80.9			0.8	10%	

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

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

<u>Sevenson Environment</u> 2749 Lockport Road Niagara Falls, NY 1430	<u>al Services, Inc.</u> 05	Pr Pr		<u>Report ID:</u> A3A0849 - 02 08 23	<u>-</u> 3 1514		
		SAMPLE	PREPARATION I	NFORMATION			
		Diesel and	l/or Oil Hydrocarbor	is by NWTPH-Dx			
Prep: EPA 3546 (Fuel	<u>s)</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23A0938 A3A0849-01	Solid	NWTPH-Dx	01/23/23 23:45	01/26/23 06:24	10.01g/5mL	10g/5mL	1.00
	Gaso	line Range Hydrocart	oons (Benzene throu	ugh Naphthalene) b	y NWTPH-Gx		
Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 23A1004</u> A3A0849-01	Solid	NWTPH-Gx (MS)	01/23/23 23:45	01/25/23 13:15	1.26g/5mL	5g/5mL	3.97
		Volatile C	Drganic Compounds	by EPA 8260D			
<u>Prep: EPA 5035A</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23A1004 A3A0849-01	Solid	5035A/8260D	01/23/23 23:45	01/25/23 13:15	1.26g/5mL	5g/5mL	3.97
		Regulated TCLP Vol	atile Organic Comp	ounds by EPA 1311	/8260D		
Prep: EPA 1311/5030E	3 TCLP Volatiles		. .	•	Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23B0150 A3A0849-01	Solid	1311/8260D	01/23/23 23:45	02/03/23 12:06	5mL/5mL	5mL/5mL	1.00
		Semivolatile	e Organic Compour	nds by EPA 8270E			
<u>Prep: EPA 3546</u>			<u> </u>	,	Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23A1133 A3A0849-01	Solid	EPA 8270E	01/23/23 23:45	01/31/23 15:48	15.31g/2mL	15g/2mL	0.98
		Total	Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3051A			, , , , , , , , , , , , , , , , , , , ,	、 ,	Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 23A0990</u> A3A0849-01	Solid	EPA 6020B	01/23/23 23:45	01/27/23 07:31	0.518g/50mL	0.5g/50mL	0.97

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

<u>Sevenson Environmental Services, Inc.</u>	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3A0849 - 02 08 23 1514

SAMPLE PREPARATION INFORMATION

	Total Metals by EPA 6020B (ICPMS)							
Prep: EPA 3051A Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor	
		TCLF	^o Metals by EPA 602	20B (ICPMS)				
Prep: EPA 1311/3015	<u>A</u>				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23A1122 A3A0849-01RE1	Solid	1311/6020B	01/23/23 23:45	01/31/23 12:21	10mL/50mL	10mL/50mL	1.00	
Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection								
Prep: ASTM D7511-12	2mod (S)				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
<u>Batch: 23B0070</u> A3A0849-01	Solid	D7511-12	01/23/23 23:45	02/02/23 09:12	2.533g/50mL	2.5g/50mL	0.99	
			Percent Dry Wei	ight]	
Prep: Total Solids (Dr	y Weight)				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23A1010 A3A0849-01	Solid	EPA 8000D	01/23/23 23:45	01/27/23 10:45			NA	
TCLP Extraction by EPA 1311 (ZHE)								
Prep: EPA 1311 TCLF	<u>YZHE</u>				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23B0049 A3A0849-01	Solid	EPA 1311 ZHE	01/23/23 23:45	02/01/23 15:05	20.8g/398.5g	25g/500g	NA	

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

QUALIFIER DEFINITIONS

<u>Client Sample and Quality Control (QC) Sample Qualifier Definitions:</u>

Apex Laboratories

- F-13 The chromatographic pattern does not resemble the fuel standard used for quantitation
- 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-03 Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-16 Reanalysis of an original Batch QC sample.
- Q-17 RPD between original and duplicate sample is outside of established control limits.
- Q-18 Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
- Q-29 Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31 Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41 Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- 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 +2%. 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 +22%. 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 +26%. 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 +46%. 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 +96%. 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.
- 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.

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Apex Laboratories, LLC

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

<u>Sevenson En</u> 2749 Lockpo Niagara Fall	<u>vironmental Services, Inc.</u> rt Road s, NY 14305	Project: Project Number: Project Manager:	<u>Gasco Filtercake</u> 111323 Chip Byrd	<u>Report ID:</u> A3A0849 - 02 08 23 1514			
S-01	Surrogate recovery for this sample is not availant interference.	able due to sample dilu	tion required from high analyte o	concentration and/or matrix			
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 23A1089.						
TCLPa	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 23B0049.						
V-15	Sample aliquot was subsampled from the samp sampling.	ple container. The subs	ampled aliquot was preserved in	the laboratory within 48 hours of			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

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.

- <u>" dry"</u> 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 ½ the Reporting Limit (RL). -For Blank hits falling between ½ 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.

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

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.

Apex Laboratories



Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3A0849 - 02 08 23 1514

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 <u>exception</u> of any analyte(s) listed below:

Apex Lab	<u>oratories</u>				
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



Apex Laboratories, LLC

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



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Apex Laboratories, LLC

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

Sevenson Environmental Services,	Inc. Project: Gasco Filtercake	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3A0849 - 02 08 23 1514
Client: <u>Sex</u> Project/Proje <u>Delivery Info</u> Date/time rece Delivered by: <u>Cooler Inspec</u> Chain of Custo Signed/dated b Temperature (Custody seals? Received on ic Temp. blanks? Ice type: (Gel/I Condition (In/C Cooler out of to Green dots app Out of tempera <u>Sample Inspec</u> All samples int	APEX LABS COOLER RECEIPT FORM tenson Environmental Services, Inc. Element WO#: A3_ AD Ait # 60500 Filtwake 11132.3 : sived: $1/25/23$ @_1005 By:EST ApexXClient_ESS_FedEx_UPS_Radio_Morgan_SDS_Evergreen_Other ody included? Yes X No Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler Order #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler Order #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler Cooler #1 Cooler #2 Cooler #4 Cooler #5 Cooler #6 Cooler Order #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler Order #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler Cooler #1 Cooler #2 Cooler #4 Cooler #5 Cooler #6 Cooler Order #1 Cooler #2 Cooler #4 Cooler #5 Cooler #6 Cooler Order #1 Cooler #2 Cooler #4 Cooler #5 Cooler #6 Cooler Order #1 Cooler #2 Cooler #4 Cooler #5 Cooler #6 Cooler Order #1 Cooler #2 Cooler #4 Cooler #5 Cooler #6 Cooler Order #1 Cooler #2 Cooler #4 Cooler #5 Cooler #6 Cooler Order #6 Cooler Order #6 Co	er #7
COC/container Containers/volu	discrepancies form initiated? Yes No Comments:	-
Do VOA vials l Comments Water samples: Comments:	nave visible headspace? Yes No NA pH appropriate? Yes No NA	
Additional info	mation:	
Labeled by:	Witness: Cooler Inspected by:	s-00 -

Apex Laboratories



Apex Laboratories, LLC

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

Tuesday, March 28, 2023 Chip Byrd Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305

RE: A3B0682 - Gasco -- Filtercake - 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 A3B0682, which was received by the laboratory on 2/21/2023 at 10:00:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information

Default Cooler

(See Cooler Receipt Form for details) 2.8 degC

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.



Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: Gasco F	iltercake
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3B0682 - 03 28 23 0832

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION					
Client Sample ID	Laboratory ID	Matrix	Date Sampled Date Received		
FC-022023-2067	A3B0682-01	Solid	02/20/23 13:30 02/21/23 10:00		

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3B0682 - 03 28 23 0832

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
FC-022023-2067 (A3B0682-01)				Matrix: Soli	d	Batch:	23C0014	
Diesel	5100000	427000	855000	ug/kg dry	10	03/01/23 21:48	NWTPH-Dx	F-13
Oil	ND	855000	1710000	ug/kg dry	10	03/01/23 21:48	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Rec	covery: %	Limits: 50-150 %	6 10	03/01/23 21:48	NWTPH-Dx	S-02

Apex Laboratories

Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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
FC-022023-2067 (A3B0682-01)				Matrix: Solid	ł	Batch:	23B0779	V-15
Gasoline Range Organics	161000	38000	75900	ug/kg dry	100	02/21/23 19:57	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recove	ery: 102 % 99 %	Limits: 50-150 % 50-150 %	5 1 5 1	02/21/23 19:57 02/21/23 19:57	NWTPH-Gx (MS) NWTPH-Gx (MS)	

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

Sevenson Environmental Services, Inc	•
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:	
A3B0682 - 03 28 23 0832	2

ANALYTICAL SAMPLE RESULTS

	v	olatile Organ	ic Compoun	ds by EPA 82	60D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Matrix: Sol	id	Batch:	23B0779	V-15
Acetone	ND	7590	15200	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Acrylonitrile	ND	759	1520	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Benzene	159	75.9	152	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Bromobenzene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Bromochloromethane	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Bromodichloromethane	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Bromoform	ND	759	1520	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Bromomethane	ND	7590	7590	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
2-Butanone (MEK)	ND	3800	7590	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
n-Butylbenzene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
sec-Butylbenzene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
tert-Butylbenzene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Carbon disulfide	ND	3800	7590	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Carbon tetrachloride	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Chlorobenzene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Chloroethane	ND	3800	7590	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Chloroform	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Chloromethane	ND	1900	3800	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
2-Chlorotoluene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
4-Chlorotoluene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Dibromochloromethane	ND	759	1520	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	1900	3800	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Dibromomethane	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,2-Dichlorobenzene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,3-Dichlorobenzene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,4-Dichlorobenzene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Dichlorodifluoromethane	ND	1520	1520	ug/kg dry	100	02/21/23 19:57	5035A/8260D	ICV-02
1,1-Dichloroethane	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,1-Dichloroethene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
cis-1,2-Dichloroethene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
trans-1,2-Dichloroethene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	

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Apex Laboratories, LLC

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

4	Sevenson	Environmental	Services,	Inc
	2749 Loci	kport Road		

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:	
A3B0682 - 03 28 23 0832	2

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compoun	ds by EPA 82	60D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Matrix: Sol	id	Batch:	23B0779	V-15
1,2-Dichloropropane	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,3-Dichloropropane	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
2,2-Dichloropropane	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,1-Dichloropropene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
cis-1,3-Dichloropropene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
trans-1,3-Dichloropropene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Ethylbenzene	304	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	J
Hexachlorobutadiene	ND	759	1520	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
2-Hexanone	ND	3800	7590	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Isopropylbenzene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
4-Isopropyltoluene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Methylene chloride	ND	3800	7590	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	3800	7590	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Naphthalene	1810	759	1520	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
n-Propylbenzene	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Styrene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Tetrachloroethene (PCE)	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Toluene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,2,3-Trichlorobenzene	ND	1900	3800	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,2,4-Trichlorobenzene	ND	1900	3800	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,1,1-Trichloroethane	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,1,2-Trichloroethane	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Trichloroethene (TCE)	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Trichlorofluoromethane	ND	759	1520	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,2,3-Trichloropropane	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
1,2,4-Trimethylbenzene	683	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	J
1,3,5-Trimethylbenzene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
Vinyl chloride	ND	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
m,p-Xylene	ND	380	759	ug/kg dry	100	02/21/23 19:57	5035A/8260D	
o-Xylene	220	190	380	ug/kg dry	100	02/21/23 19:57	5035A/8260D	J

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3B0682 - 03 28 23 0832

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by	EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	U	Inits	Dilution	Date Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Mat	rix: Solic	ł	Batch:	23B0779	V-15
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 104 %	Limits:	80-120 %	1	02/21/23 19:57	5035A/8260D	
Toluene-d8 (Surr)			98 %		80-120 %	1	02/21/23 19:57	5035A/8260D	
4-Bromofluorobenzene (Surr)			100 %		79-120 %	1	02/21/23 19:57	5035A/8260D	

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

Sevenson Environmental Ser	vices, Inc.
2749 Locknort Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3B0682 - 03 28 23 0832	2

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
FC-022023-2067 (A3B0682-01)				Matrix: Solid		Batch:	23C0157	Q-44a
Benzene	ND	6.25	12.5	ug/L	50	03/04/23 04:15	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	03/04/23 04:15	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	03/04/23 04:15	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	03/04/23 04:15	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	03/04/23 04:15	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	03/04/23 04:15	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	03/04/23 04:15	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	03/04/23 04:15	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	03/04/23 04:15	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	03/04/23 04:15	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	03/04/23 04:15	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 104 %	Limits: 80-120 %	1	03/04/23 04:15	1311/8260D	
Toluene-d8 (Surr)			101 %	80-120 %	1	03/04/23 04:15	1311/8260D	
4-Bromofluorobenzene (Surr)			101 %	80-120 %	1	03/04/23 04:15	1311/8260D	

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

Sevenson Environmental Serv	ices, Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3B0682 - 03 28 23 0832

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Matrix: Sol	id	Batch:	23C0015	
Acenaphthene	51600	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Acenaphthylene	ND	4780	4780	ug/kg dry	200	03/02/23 02:52	EPA 8270E	R-02
Anthracene	43800	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Benz(a)anthracene	25000	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Benzo(a)pyrene	27400	1710	3420	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Benzo(b)fluoranthene	23200	1710	3420	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Benzo(k)fluoranthene	7890	1710	3420	ug/kg dry	200	03/02/23 02:52	EPA 8270E	M-05
Benzo(g,h,i)perylene	16100	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Chrysene	33400	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Dibenz(a,h)anthracene	1700	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	J
Fluoranthene	114000	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Fluorene	35400	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Indeno(1,2,3-cd)pyrene	14900	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
1-Methylnaphthalene	19600	2280	4550	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2-Methylnaphthalene	16300	2280	4550	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Naphthalene	ND	2280	4550	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Phenanthrene	246000	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Pyrene	134000	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Carbazole	ND	1710	3420	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Dibenzofuran	4360	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2-Chlorophenol	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
4-Chloro-3-methylphenol	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,4-Dichlorophenol	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,4-Dimethylphenol	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,4-Dinitrophenol	ND	28400	56900	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	28400	56900	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2-Methylphenol	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
3+4-Methylphenol(s)	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2-Nitrophenol	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
4-Nitrophenol	ND	22800	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Pentachlorophenol (PCP)	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Phenol	ND	2280	4550	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	

Apex Laboratories



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

Sevenson Environmental Services, I	nc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3B0682 - 03 28 23 0832

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Matrix: Soli	id	Batch: 2	3C0015	
2,3,5,6-Tetrachlorophenol	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,4,5-Trichlorophenol	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,4,6-Trichlorophenol	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	17100	34200	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Butyl benzyl phthalate	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Diethylphthalate	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Dimethylphthalate	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Di-n-butylphthalate	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Di-n-octyl phthalate	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
N-Nitrosodimethylamine	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
N-Nitrosodiphenylamine	ND	5980	5980	ug/kg dry	200	03/02/23 02:52	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Hexachlorobenzene	ND	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Hexachlorobutadiene	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Hexachlorocyclopentadiene	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Hexachloroethane	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2-Chloronaphthalene	ND	1140	2280	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
1,2,4-Trichlorobenzene	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
4-Bromophenyl phenyl ether	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Aniline	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
4-Chloroaniline	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2-Nitroaniline	ND	22800	45500	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
3-Nitroaniline	ND	22800	45500	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
4-Nitroaniline	ND	22800	45500	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Nitrobenzene	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,4-Dinitrotoluene	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
2,6-Dinitrotoluene	ND	11400	22800	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Benzoic acid	ND	143000	284000	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Benzyl alcohol	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3B0682 - 03 28 23 0832

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Matrix: Solid	d	Batch:	23C0015	
Isophorone	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Azobenzene (1,2-DPH)	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	28400	56900	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
3,3'-Dichlorobenzidine	ND	22800	45500	ug/kg dry	200	03/02/23 02:52	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	28400	56900	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
1,3-Dinitrobenzene	ND	28400	56900	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
1,4-Dinitrobenzene	ND	28400	56900	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Pyridine	ND	5690	11400	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
1,2-Dichlorobenzene	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
1,3-Dichlorobenzene	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
1,4-Dichlorobenzene	ND	2840	5690	ug/kg dry	200	03/02/23 02:52	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recov	very: 65 %	Limits: 37-122 %	200	03/02/23 02:52	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			74 %	44-120 %	200	03/02/23 02:52	EPA 8270E	S-05
Phenol-d6 (Surr)			19 %	33-122 %	200	03/02/23 02:52	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			89 %	54-127 %	200	03/02/23 02:52	EPA 8270E	S-05
2-Fluorophenol (Surr)			27 %	35-120 %	200	03/02/23 02:52	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			120 %	39-132 %	200	03/02/23 02:52	EPA 8270E	S-05

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: <u>(</u>	Gasco Filtercake	
2749 Lockport Road	Project Number: 1	111323	Report ID:
Niagara Falls, NY 14305	Project Manager: C	Chip Byrd	A3B0682 - 03 28 23 0832

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)	Matrix: Solid							
Batch: 23C0066								
Arsenic	8430	2290	4580	ug/kg dry	10	03/03/23 01:26	EPA 6020B	
Barium	227000	2290	4580	ug/kg dry	10	03/03/23 01:26	EPA 6020B	
Cadmium	ND	458	917	ug/kg dry	10	03/03/23 01:26	EPA 6020B	
Chromium	ND	2290	4580	ug/kg dry	10	03/03/23 01:26	EPA 6020B	
Lead	ND	458	917	ug/kg dry	10	03/03/23 01:26	EPA 6020B	
Mercury	ND	183	367	ug/kg dry	10	03/03/23 01:26	EPA 6020B	
Selenium	ND	2290	4580	ug/kg dry	10	03/03/23 01:26	EPA 6020B	
Silver	ND	458	917	ug/kg dry	10	03/03/23 01:26	EPA 6020B	

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Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtero	<u>cake</u>
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3B0682 - 03 28 23 0832

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Matrix: So	olid			
Batch: 23C0080								
Arsenic	ND	50.0	100	ug/L	10	03/03/23 05:28	1311/6020B	Q-44b
Barium	ND	2500	5000	ug/L	10	03/03/23 05:28	1311/6020B	Q-44b
Cadmium	ND	50.0	100	ug/L	10	03/03/23 05:28	1311/6020B	Q-44b
Chromium	ND	50.0	100	ug/L	10	03/03/23 05:28	1311/6020B	Q-44b
Lead	ND	25.0	50.0	ug/L	10	03/03/23 05:28	1311/6020B	Q-44b
Mercury	ND	3.75	7.00	ug/L	10	03/03/23 05:28	1311/6020B	Q-44b
Selenium	ND	50.0	100	ug/L	10	03/03/23 05:28	1311/6020B	Q-44b
Silver	ND	50.0	100	ug/L	10	03/03/23 05:28	1311/6020B	Q-44b

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Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3B0682 - 03 28 23 0832

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
FC-022023-2067 (A3B0682-01)				Matrix: Solid Batch: 23C0029				
Total Cyanide	5420	434	868	ug/kg dry	2	03/02/23 15:38	D7511-12	

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Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3B0682 - 03 28 23 0832

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Matrix: So	lid	Batch:	23B0856	
% Solids	22.9		1.00	%	1	02/25/23 07:11	EPA 8000D	

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3B0682 - 03 28 23 0832

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-022023-2067 (A3B0682-01)				Matrix: Solid Batch: 23C0028			23C0028	
TCLP Extraction	PREP			N/A	1	03/01/23 15:30	EPA 1311	Q-44b
TCLP ZHE Extraction	0.00			N/A	1	03/01/23 16:30	EPA 1311 ZHE	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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		
Batch 23C0014 - EPA 3546 (Fu	uels)						Soli	d						
Blank (23C0014-BLK1)			Prepared	: 03/01/23 ()8:47 Ana	lyzed: 03/01	/23 20:06							
NWTPH-Dx														
Diesel	ND	10000	20000	ug/kg we	et 1									
Oil	ND	20000	40000	ug/kg we	et 1									
Surr: o-Terphenyl (Surr)		Reco	very: 86 %	Limits: 50	-150 %	Dilt	ution: 1x							
LCS (23C0014-BS1)			Prepared	: 03/01/23 ()8:47 Ana	lyzed: 03/01	/23 20:26							
<u>NWTPH-Dx</u>														
Diesel	112000	10000	20000	ug/kg we	et 1	125000		90	38-132%					
Surr: o-Terphenyl (Surr)		Reco	very: 75 %	Limits: 50	-150 %	Dilt	ution: 1x							
Duplicate (23C0014-DUP2)			Prepared	: 03/01/23 ()8:47 Ana	lyzed: 03/02	/23 10:51							
QC Source Sample: Non-SDG (A3	B0613-01RE1)												
Diesel	ND	837000	1670000	ug/kg we	et 40		ND				30%			
Oil	6030000	1670000	3350000	ug/kg we	et 40		11300000			61	30%	F-03, Q-0		
Surr: o-Terphenyl (Surr)		Re	covery: %	Limits: 50	-150 %	Dili	ution: 40x					S-01		

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolir	ne Range H	lydrocarbo	ons (Ben	zene throu	ugh Napht	thalene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23B0779 - EPA 5035A							Soi	il				
Blank (23B0779-BLK1)	_	_	Preparec	1: 02/21/23	10:00 Anal	yzed: 02/21/	23 14:51	_	_	_	_	_
<u>NWTPH-Gx (MS)</u> Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Reco	wery: 99%	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			103 %	5	0-150 %		"					
LCS (23B0779-BS2)			Preparec	1: 02/21/23	10:00 Anal	yzed: 02/21/	23 14:25					
NWTPH-Gx (MS)												
Gasoline Range Organics	27900	2500	5000	ug/kg w	vet 50	25000		112	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Recov	very: 102 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			103 %	5	0-150 %		"					
Duplicate (23B0779-DUP1)			Preparec	1: 02/17/23	09:09 Anal	yzed: 02/21/	23 15:42					
QC Source Sample: Non-SDG (A3	B0649-01)											
Gasoline Range Organics	ND	2830	5650	ug/kg d	lry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	wery: 99%	Limits: 5	·0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			103 %	5	0-150 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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		
Batch 23B0779 - EPA 5035A							Soi	I						
Blank (23B0779-BLK1)			Prepared	: 02/21/23 10	0:00 Ana	lyzed: 02/21	/23 14:51							
5035A/8260D														
Acetone	ND	500	1000	ug/kg wet	50									
Acrylonitrile	ND	50.0	100	ug/kg wet	50									
Benzene	ND	5.00	10.0	ug/kg wet	50									
Bromobenzene	ND	12.5	25.0	ug/kg wet	50									
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50									
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50									
Bromoform	ND	50.0	100	ug/kg wet	50									
Bromomethane	ND	500	500	ug/kg wet	50									
2-Butanone (MEK)	ND	250	500	ug/kg wet	50									
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50									
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50									
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50									
Carbon disulfide	ND	250	500	ug/kg wet	50									
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50									
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50									
Chloroethane	ND	250	500	ug/kg wet	50									
Chloroform	ND	25.0	50.0	ug/kg wet	50									
Chloromethane	ND	125	250	ug/kg wet	50									
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50									
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50									
Dibromochloromethane	ND	50.0	100	ug/kg wet	50									
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50									
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50									
Dibromomethane	ND	25.0	50.0	ug/kg wet	50									
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50									
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50									
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50									
Dichlorodifluoromethane	ND	100	100	ug/kg wet	50							ICV		
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50									
1.2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50									
1.1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50									
cis-1.2-Dichloroethene	ND	12.5	25.0	ug/kø wet	50									
trans_1 2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50									

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23B0779 - EPA 5035A							Soi	I				
Blank (23B0779-BLK1)			Prepared	: 02/21/23 10):00 Ana	lyzed: 02/21/	/23 14:51					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	50							
o Vulono	ND	12.5	25.0	ug/kg wot	50							

Apex Laboratories



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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3B0682 - 03 28 23 0832 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 23B0779 - EPA 5035A Soil Blank (23B0779-BLK1) Prepared: 02/21/23 10:00 Analyzed: 02/21/23 14:51 Surr: Toluene-d8 (Surr) Recovery: 99% Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 96 % 79-120 % LCS (23B0779-BS1) Prepared: 02/21/23 10:00 Analyzed: 02/21/23 14:00 5035A/8260D Acetone 2010 500 1000 ug/kg wet 50 2000 100 80-120% ---Acrylonitrile 1000 50.0 100 50 1000 100 80-120% ug/kg wet ---------Benzene 1030 5.00 10.0 ug/kg wet 50 1000 103 80-120% ---25.0 Bromobenzene 992 12.5 50 1000 99 80-120% ug/kg wet ----------Bromochloromethane 1080 25.0 50.0 ug/kg wet 50 1000 108 80-120% ---------25.0 50.0 1000 105 Bromodichloromethane 1050 ug/kg wet 50 ---80-120% ------Bromoform 1010 50.0 100 ug/kg wet 50 1000 101 80-120% Bromomethane 1310 500 500 ug/kg wet 50 1000 131 80-120% Q-56 ---------2-Butanone (MEK) 2170 250 500 ug/kg wet 50 2000 108 80-120% ---1030 25.0 50.0 50 1000 103 80-120% n-Butylbenzene ug/kg wet ---------sec-Butylbenzene 1030 25.050.0 ug/kg wet 50 1000 103 80-120% --tert-Butylbenzene 978 25.0 50.0 50 1000 98 80-120% ug/kg wet ----------Carbon disulfide 1010 250 500 ug/kg wet 50 1000 ---101 80-120% ------Carbon tetrachloride 1060 25.0 50.0 ug/kg wet 50 1000 106 80-120% ---------Chlorobenzene 986 12.5 25.0ug/kg wet 50 1000 99 80-120% ---Chloroethane 1330 250 500 50 1000 133 80-120% O-56 ug/kg wet ----------1000 80-120% Chloroform 1060 25.050.0 ug/kg wet 50 106 ------Chloromethane 1040 125 250 50 1000 104 80-120% ug/kg wet ---------2-Chlorotoluene 984 25.050.0 ug/kg wet 50 1000 ---98 80-120% ____ 4-Chlorotoluene 995 25.0 50.0 ug/kg wet 50 1000 100 80-120% ---------50.0 100 Dibromochloromethane 1040 ug/kg wet 50 1000 104 80-120% --------ug/kg wet 1,2-Dibromo-3-chloropropane 822 125 250 50 1000 82 80-120% ---1,2-Dibromoethane (EDB) 998 1000 100 25.050.0 ug/kg wet 50 80-120% ---Dibromomethane 1020 25.0 50.0 ug/kg wet 50 1000 102 80-120% ---------1,2-Dichlorobenzene 1010 12.5 25.0ug/kg wet 50 1000 ----101 80-120% ------1,3-Dichlorobenzene 988 12.5 25.0 ug/kg wet 50 1000 99 80-120% ---------1,4-Dichlorobenzene 991 12.5 25.0 50 1000 99 80-120% ug/kg wet ------Q-56, ICV-02 Dichlorodifluoromethane 1210 100 100 ug/kg wet 50 1000 121 80-120% ---------1,1-Dichloroethane 1050 12.5 25.0 1000 105 80-120% ug/kg wet 50 ---------

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Orç	ganic Com	pounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23B0779 - EPA 5035A							Soi	il				
LCS (23B0779-BS1)			Prepared	: 02/21/23 10	0:00 Ana	yzed: 02/21	/23 14:00					
1,2-Dichloroethane (EDC)	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
1,1-Dichloroethene	1130	12.5	25.0	ug/kg wet	50	1000		113	80-120%			
cis-1,2-Dichloroethene	1070	12.5	25.0	ug/kg wet	50	1000		107	80-120%			
trans-1,2-Dichloroethene	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
1,2-Dichloropropane	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
1,3-Dichloropropane	1050	25.0	50.0	ug/kg wet	50	1000		105	80-120%			
2,2-Dichloropropane	994	25.0	50.0	ug/kg wet	50	1000		99	80-120%			
1,1-Dichloropropene	1070	25.0	50.0	ug/kg wet	50	1000		107	80-120%			
cis-1,3-Dichloropropene	996	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
trans-1,3-Dichloropropene	1020	25.0	50.0	ug/kg wet	50	1000		102	80-120%			
Ethylbenzene	1010	12.5	25.0	ug/kg wet	50	1000		101	80-120%			
Hexachlorobutadiene	981	50.0	100	ug/kg wet	50	1000		98	80-120%			
2-Hexanone	1960	250	500	ug/kg wet	50	2000		98	80-120%			
Isopropylbenzene	1000	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
4-Isopropyltoluene	1000	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
Methylene chloride	1060	250	500	ug/kg wet	50	1000		106	80-120%			
4-Methyl-2-pentanone (MiBK)	1980	250	500	ug/kg wet	50	2000		99	80-120%			
Methyl tert-butyl ether (MTBE)	974	25.0	50.0	ug/kg wet	50	1000		97	80-120%			
Naphthalene	986	50.0	100	ug/kg wet	50	1000		99	80-120%			
n-Propylbenzene	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%			
Styrene	931	25.0	50.0	ug/kg wet	50	1000		93	80-120%			
1,1,1,2-Tetrachloroethane	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
1,1,2,2-Tetrachloroethane	1070	25.0	50.0	ug/kg wet	50	1000		107	80-120%			
Tetrachloroethene (PCE)	1010	12.5	25.0	ug/kg wet	50	1000		101	80-120%			
Toluene	980	25.0	50.0	ug/kg wet	50	1000		98	80-120%			
1,2,3-Trichlorobenzene	973	125	250	ug/kg wet	50	1000		97	80-120%			
1,2,4-Trichlorobenzene	986	125	250	ug/kg wet	50	1000		99	80-120%			
1,1,1-Trichloroethane	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
1,1,2-Trichloroethane	1010	12.5	25.0	ug/kg wet	50	1000		101	80-120%			
Trichloroethene (TCE)	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
Trichlorofluoromethane	1630	50.0	100	ug/kg wet	50	1000		163	80-120%			(
1,2,3-Trichloropropane	996	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
1,2,4-Trimethylbenzene	996	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
1,3,5-Trimethylbenzene	1020	25.0	50.0	ug/kg wet	50	1000		102	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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		
Batch 23B0779 - EPA 5035A							So	il						
LCS (23B0779-BS1)			Prepared	1: 02/21/23 10):00 Ana	lyzed: 02/21/	/23 14:00							
Vinyl chloride	1210	12.5	25.0	ug/kg wet	50	1000		121	80-120%			Q-5		
m,p-Xylene	2030	25.0	50.0	ug/kg wet	50	2000		101	80-120%					
o-Xylene	996	12.5	25.0	ug/kg wet	50	1000		100	80-120%					
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 102 %	Limits: 80-1	120 %	Dilu	ution: 1x							
Toluene-d8 (Surr)			101 %	80-1	20 %		"							
4-Bromofluorobenzene (Surr)			96 %	79-1	120 %		"							
Duplicate (23B0779-DUP1)			Preparec	1: 02/17/23 09):09 Ana	lyzed: 02/21/	/23 15:42							
OC Source Sample: Non-SDG (A31	<u>B0649-01)</u>													
Acetone	ND	565	1130	ug/kg dry	50		ND				30%			
Acrylonitrile	ND	56.5	113	ug/kg dry	50		ND				30%			
Benzene	ND	5.65	11.3	ug/kg dry	50		ND				30%			
Bromobenzene	ND	14.1	28.3	ug/kg dry	50		ND				30%			
Bromochloromethane	ND	28.3	56.5	ug/kg dry	50		ND				30%			
Bromodichloromethane	ND	28.3	56.5	ug/kg dry	50		ND				30%			
Bromoform	ND	56.5	113	ug/kg dry	50		ND				30%			
Bromomethane	ND	565	565	ug/kg dry	50		ND				30%			
2-Butanone (MEK)	ND	283	565	ug/kg dry	50		ND				30%			
n-Butylbenzene	ND	28.3	56.5	ug/kg dry	50		ND				30%			
sec-Butylbenzene	ND	28.3	56.5	ug/kg dry	50		ND				30%			
tert-Butylbenzene	ND	28.3	56.5	ug/kg dry	50		ND				30%			
Carbon disulfide	ND	283	565	ug/kg dry	50		ND				30%			
Carbon tetrachloride	ND	28.3	56.5	ug/kg dry	50		ND				30%			
Chlorobenzene	ND	14.1	28.3	ug/kg dry	50		ND				30%			
Chloroethane	ND	283	565	ug/kg dry	50		ND				30%			
Chloroform	ND	28.3	56.5	ug/kg dry	50		ND				30%			
Chloromethane	ND	141	283	ug/kg dry	50		ND				30%			
2-Chlorotoluene	ND	28.3	56.5	ug/kg dry	50		ND				30%			
4-Chlorotoluene	ND	28.3	56.5	ug/kg dry	50		ND				30%			
Dibromochloromethane	ND	56.5	113	ug/kg drv	50		ND				30%			
1,2-Dibromo-3-chloropropane	ND	141	283	ug/kg drv	50		ND				30%			
1,2-Dibromoethane (EDB)	ND	28.3	56.5	ug/kg drv	50		ND				30%			
Dibromomethane	ND	28.3	56.5	ug/kg drv	50		ND				30%			
1.2-Dichlorobenzene	ND	14.1	28 3	ug/kø drv	50		ND				30%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23B0779 - EPA 5035A							Soi	I				
Duplicate (23B0779-DUP1)			Prepared:	02/17/23 09	:09 Anal	yzed: 02/21/	/23 15:42					
QC Source Sample: Non-SDG (A3	<u>B0649-01)</u>											
1,3-Dichlorobenzene	ND	14.1	28.3	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	14.1	28.3	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	113	113	ug/kg dry	50		ND				30%	ICV-0
1,1-Dichloroethane	ND	14.1	28.3	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	14.1	28.3	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	14.1	28.3	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	14.1	28.3	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	14.1	28.3	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	14.1	28.3	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	28.3	56.5	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	28.3	56.5	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	28.3	56.5	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	28.3	56.5	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	28.3	56.5	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	14.1	28.3	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	56.5	113	ug/kg dry	50		ND				30%	
2-Hexanone	ND	283	565	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	28.3	56.5	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	28.3	56.5	ug/kg dry	50		ND				30%	
Methylene chloride	ND	283	565	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	283	565	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	28.3	56.5	ug/kg dry	50		ND				30%	
Naphthalene	ND	56.5	113	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	14.1	28.3	ug/kg dry	50		ND				30%	
Styrene	ND	28.3	56.5	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	14.1	28.3	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	28.3	56.5	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	14.1	28.3	ug/kg dry	50		ND				30%	
Toluene	ND	28.3	56.5	ug/kg drv	50		ND				30%	
1,2,3-Trichlorobenzene	ND	141	283	ug/kg drv	50		ND				30%	
1,2,4-Trichlorobenzene	ND	141	283	ug/kg drv	50		ND				30%	
1,1,1-Trichloroethane	ND	14.1	28.3	ug/kg drv	50		ND				30%	
1.1.2-Trichloroethane	ND	1/ 1	28.2	110/ka dm	50						30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

	Volatile Organic Compounds by EPA 8260D Detection Reporting Spike Source % REC RPD														
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes			
Batch 23B0779 - EPA 5035A							Soi	I							
Duplicate (23B0779-DUP1)			Prepared	d: 02/17/23 0	9:09 Ana	lyzed: 02/21	/23 15:42								
QC Source Sample: Non-SDG (A3	B0649-01)														
Trichloroethene (TCE)	18.1	14.1	28.3	ug/kg dr	y 50		18.1			0	30%				
Trichlorofluoromethane	ND	56.5	113	ug/kg dr	y 50		ND				30%				
1,2,3-Trichloropropane	ND	28.3	56.5	ug/kg dr	y 50		ND				30%				
1,2,4-Trimethylbenzene	ND	28.3	56.5	ug/kg dr	y 50		ND				30%				
1,3,5-Trimethylbenzene	ND	28.3	56.5	ug/kg dr	y 50		ND				30%				
Vinyl chloride	ND	14.1	28.3	ug/kg dr	y 50		ND				30%				
m,p-Xylene	ND	28.3	56.5	ug/kg dr	y 50		ND				30%				
o-Xylene	ND	14.1	28.3	ug/kg dr	y 50		ND				30%				
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 102 %	Limits: 80-	-120 %	Dili	ution: 1x								
Toluene-d8 (Surr)			100 %	80-	120 %		"								
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"								
QC Source Sample: Non-SDG (A3	<u>B0649-02)</u>														
<u>5035A/8260D</u>	10.00	10.6	0.02		-	1000									
Acetone	1960	496	993	ug/kg dr	y 50	1990	ND	99	36-164%						
Acrylonitrile	993	49.6	99.3	ug/kg dr	y 50	994	ND	100	65-134%						
Benzene	10/0	4.96	9.93	ug/kg dr	y 50	994	ND	107	77-121%						
Bromobenzene	1010	12.4	24.8	ug/kg dr	y 50	994	ND	102	/8-121%						
Bromochloromethane	1090	24.8	49.6	ug/kg dr	y 50	994	ND	110	78-125%						
Bromodichloromethane	1040	24.8	49.6	ug/kg dr	y 50	994	ND	105	/5-12/%						
Bromotorm	1020	49.6	99.3	ug/kg dr	y 50	994	ND	102	67-132%			0.54			
Bromometnane	1360	496	496	ug/kg dr	y 50	994	ND	137	53-143%			Q-34			
2-Butanone (MEK)	2130	248	496	ug/kg dr	y 50	1990	ND	107	51-148%						
n-Butylbenzene	1080	24.8	49.6	ug/kg dr	y 50	994	ND	109	70-128%						
sec-Butylbenzene	1090	24.8	49.6	ug/kg dr	y 50	994	ND	110	73-126%						
tert-Butylbenzene	1030	24.8	49.6	ug/kg dry	y 50	994	ND	103	/3-125%						
Carbon disulfide	1060	248	496	ug/kg dr	y 50	994	ND	107	03-132%						
Carbon tetrachloride	1120	24.8	49.6	ug/kg dr	y 50	994	ND	113	70-135%						
Chlorobenzene	1020	12.4	24.8	ug/kg dr	y 50	994	ND	103	79-120%			<u> </u>			
Chloroethane	1300	248	496	ug/kg dr	y 50	994	ND	130	59-139%			Q-54			
Chlorotorm	1080	24.8	49.6	ug/kg dr	y 50	994	ND	109	78-123%						
Chloromethane	1080	124	248	ug/kg dr	y 50	994	ND	109	50-136%						

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

L			voiatilė Uľ(Janie COM	Pounds	Jy ⊑rA 8	~00U					
Analyte	Result	Detection Limit	Reporting Limit	Units 1	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23B0779 - EPA 5035A							Soi	I				
Matrix Spike (23B0779-MS1)			Prepared	: 02/17/23 10	:13 Ana	lyzed: 02/21	/23 16:33					
QC Source Sample: Non-SDG (A3	B0649-02)											
2-Chlorotoluene	1050	24.8	49.6	ug/kg dry	50	994	ND	105	75-122%			
4-Chlorotoluene	1050	24.8	49.6	ug/kg dry	50	994	ND	105	72-124%			
Dibromochloromethane	1050	49.6	99.3	ug/kg dry	50	994	ND	106	74-126%			
1,2-Dibromo-3-chloropropane	822	124	248	ug/kg dry	50	994	ND	83	61-132%			
1,2-Dibromoethane (EDB)	1010	24.8	49.6	ug/kg dry	50	994	ND	102	78-122%			
Dibromomethane	1010	24.8	49.6	ug/kg dry	50	994	ND	101	78-125%			
1,2-Dichlorobenzene	1040	12.4	24.8	ug/kg dry	50	994	ND	105	78-121%			
1,3-Dichlorobenzene	1030	12.4	24.8	ug/kg dry	50	994	ND	103	77-121%			
1,4-Dichlorobenzene	1020	12.4	24.8	ug/kg dry	50	994	ND	102	75-120%			
Dichlorodifluoromethane	1280	99.3	99.3	ug/kg dry	50	994	ND	129	29-149%			ICV-02, Q-5
1,1-Dichloroethane	1080	12.4	24.8	ug/kg dry	50	994	ND	108	76-125%			
1,2-Dichloroethane (EDC)	1090	12.4	24.8	ug/kg dry	50	994	ND	110	73-128%			
1,1-Dichloroethene	1190	12.4	24.8	ug/kg dry	50	994	ND	119	70-131%			
cis-1,2-Dichloroethene	1090	12.4	24.8	ug/kg dry	50	994	ND	109	77-123%			
trans-1,2-Dichloroethene	1100	12.4	24.8	ug/kg dry	50	994	ND	111	74-125%			
1,2-Dichloropropane	1060	12.4	24.8	ug/kg dry	50	994	ND	107	76-123%			
1,3-Dichloropropane	1070	24.8	49.6	ug/kg dry	50	994	ND	107	77-121%			
2,2-Dichloropropane	1080	24.8	49.6	ug/kg dry	50	994	ND	109	67-133%			
1,1-Dichloropropene	1120	24.8	49.6	ug/kg dry	50	994	ND	113	76-125%			
cis-1,3-Dichloropropene	1040	24.8	49.6	ug/kg dry	50	994	ND	105	74-126%			
trans-1,3-Dichloropropene	1030	24.8	49.6	ug/kg dry	50	994	ND	104	71-130%			
Ethylbenzene	1040	12.4	24.8	ug/kg dry	50	994	ND	105	76-122%			
Hexachlorobutadiene	1030	49.6	99.3	ug/kg dry	50	994	ND	104	61-135%			
2-Hexanone	1970	248	496	ug/kg dry	50	1990	ND	99	53-145%			
Isopropylbenzene	1050	24.8	49.6	ug/kg dry	50	994	ND	106	68-134%			
4-Isopropyltoluene	1060	24.8	49.6	ug/kg dry	50	994	ND	106	73-127%			
Methylene chloride	1030	248	496	ug/kg dry	50	994	ND	104	70-128%			
4-Methyl-2-pentanone (MiBK)	1970	248	496	ug/kg dry	50	1990	ND	99	65-135%			
Methyl tert-butyl ether (MTBE)	969	24.8	49.6	ug/kg drv	50	994	ND	98	73-125%			
Naphthalene	978	49.6	99.3	ug/kg drv	50	994	ND	98	62-129%			
n-Propvlbenzene	1090	12.4	24.8	ug/kg drv	50	994	ND	110	73-125%			
Styrene	972	24.8	49.6	uø/kø drv	50	994	ND	98	76-124%			
1 1 1 2-Tetrachloroethane	1060	12.4	24.8	ug/kg dry	50	994	ND	106	78-125%			
1,1,1,2-100a01101000011alle	1000	12.4	∠4.0	ug/kg uly	50	2 74	ND	100	10-12370			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23B0779 - EPA 5035A							So	il				
Matrix Spike (23B0779-MS1)			Preparec	1: 02/17/23 1	0:13 Ana	lyzed: 02/21	/23 16:33					
QC Source Sample: Non-SDG (A3	<u>B0649-02)</u>											
1,1,2,2-Tetrachloroethane	1060	24.8	49.6	ug/kg dr	y 50	994	ND	107	70-124%			
Tetrachloroethene (PCE)	1070	12.4	24.8	ug/kg dr	y 50	994	ND	108	73-128%			
Toluene	1020	24.8	49.6	ug/kg dr	y 50	994	ND	103	77-121%			
1,2,3-Trichlorobenzene	975	124	248	ug/kg dr	y 50	994	ND	98	66-130%			
1,2,4-Trichlorobenzene	1010	124	248	ug/kg dr	y 50	994	ND	101	67-129%			
1,1,1-Trichloroethane	1110	12.4	24.8	ug/kg dr	y 50	994	ND	112	73-130%			
1,1,2-Trichloroethane	1030	12.4	24.8	ug/kg dr	y 50	994	ND	104	78-121%			
Trichloroethene (TCE)	1050	12.4	24.8	ug/kg dr	y 50	994	ND	106	77-123%			
Trichlorofluoromethane	1960	49.6	99.3	ug/kg dr	y 50	994	ND	197	62-140%			Q-54
1,2,3-Trichloropropane	996	24.8	49.6	ug/kg dr	y 50	994	ND	100	73-125%			
1,2,4-Trimethylbenzene	1050	24.8	49.6	ug/kg dr	y 50	994	ND	106	75-123%			
1,3,5-Trimethylbenzene	1080	24.8	49.6	ug/kg dr	y 50	994	ND	109	73-124%			
Vinyl chloride	1290	12.4	24.8	ug/kg dr	y 50	994	ND	130	56-135%			Q-5
m,p-Xylene	2100	24.8	49.6	ug/kg dr	y 50	1990	ND	106	77-124%			
o-Xylene	1020	12.4	24.8	ug/kg dr	y 50	994	ND	103	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 102 %	Limits: 80-	-120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			100 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Result Limit Units Dilution % REC RPD Analyte Limit Amount Result Limits Limit Notes Batch 23C0157 - EPA 1311/5030B TCLP Volatiles Water Blank (23C0157-BLK1) Prepared: 03/03/23 13:36 Analyzed: 03/04/23 03:48 TCLPa 1311/8260D ND 6.25 12.5 ug/L 50 Benzene ND 250 500 50 2-Butanone (MEK) ug/L ---------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 50 ug/L ---1,4-Dichlorobenzene ND 12.5 25.0 ug/L 50 ---------------____ 1,1-Dichloroethene ND 12.5 25.0 50 ug/L ---ND 12.5 25.0 ug/L 1,2-Dichloroethane (EDC) 50 ---------------Tetrachloroethene (PCE) ND 12.5 25.0 ug/L 50 Trichloroethene (TCE) ND 12.5 25.0 50 ug/L ___ -------------_ _ _ Vinyl chloride ND 12.5 25.0 50 ug/L --------------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 104 % Limits: 80-120 % Dilution: 1x 101 % Toluene-d8 (Surr) 80-120 % " 4-Bromofluorobenzene (Surr) 101 % 80-120 % Prepared: 03/03/23 13:36 Analyzed: 03/04/23 02:54 LCS (23C0157-BS1) TCLPa 1311/8260D 93 Benzene 928 6.25 12.5 ug/L 50 1000 80-120% 1950 250 500 50 2000 97 80-120% 2-Butanone (MEK) ug/L ---------91 Carbon tetrachloride 906 25.0 50.0 ug/L 50 1000 ---80-120% ---Chlorobenzene 922 12.5 25.0 ug/L 50 1000 ---92 80-120% ------Chloroform 956 25.050.0 ug/L 50 1000 96 80-120% 1,4-Dichlorobenzene 862 12.5 25.0 50 1000 86 80-120% ug/L ---------1,1-Dichloroethene 862 12.5 25.0 ug/L 50 1000 86 80-120% ---------957 1,2-Dichloroethane (EDC) 12.5 25.0 ug/L 50 1000 96 80-120% 826 1000 Tetrachloroethene (PCE) 12.5 25.0 ug/L 50 83 80-120% ---Trichloroethene (TCE) 838 12.5 25.0 ug/L 50 1000 84 80-120% ---------Vinyl chloride 884 12.5 25.0ug/L 50 1000 ---88 80-120% ---____ Surr: 1,4-Difluorobenzene (Surr) 98 % Recovery: Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 98 % 80-120 %

Duplicate (23C0157-DUP1)

4-Bromofluorobenzene (Surr)

Prepared: 03/03/23 13:36 Analyzed: 03/04/23 04:43

80-120 %

89 %

Q-44

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

	F	Regulated	TCLP Vola	tile Orgai	nic Comp	ounds by	EPA 13 ⁴	11/8260D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0157 - EPA 1311/503	0B TCLP	Volatiles					Wa	ter				
Duplicate (23C0157-DUP1)			Prepared	1: 03/03/23	13:36 Ana	lyzed: 03/04	/23 04:43					Q-44
QC Source Sample: FC-022023-20	67 (A3B068	<u>32-01)</u>										
<u>1311/8260D</u>												
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%	
Surr: 1,4-Difluorobenzene (Surr)		Recon	verv: 105 %	Limits: 80	0-120 %	Dil	ution: 1x					
Toluene-d8 (Surr)			102 %	80	0-120 %		"					
4-Bromofluorobenzene (Surr)			99 %	80	0-120 %		"					
Matrix Spike (23C0157-MS1)			Prepared	1: 03/03/23	13:36 Ana	lyzed: 03/04	/23 05:37					Q-44a
QC Source Sample: Non-SDG (A3 1311/8260D	<u>B0683-01)</u>											
Benzene	992	6.25	12.5	ug/L	50	1000	ND	99	79-120%			
2-Butanone (MEK)	2040	250	500	ug/L	50	2000	ND	102	56-143%			
Carbon tetrachloride	996	25.0	50.0	ug/L	50	1000	ND	100	72-136%			
Chlorobenzene	968	12.5	25.0	ug/L	50	1000	ND	97	80-120%			
Chloroform	1080	25.0	50.0	119/L	50	1000	67.0	102	79-124%			
1.4-Dichlorobenzene	912	12.5	25.0	ug/L	50	1000	ND	91	79-120%			
1.1-Dichloroethene	946	12.5	25.0	119/L	50	1000	ND	95	71-131%			
1.2-Dichloroethane (EDC)	1000	12.5	25.0	11g/L	50	1000	ND	100	73-128%			
Tetrachloroethene (PCE)	884	12.5	25.0	ug/L	50	1000	ND	88	74-129%			
Trichloroethene (TCE)	893	12.5	25.0	ug/L	50	1000	ND	89	79-123%			
Vinyl chloride	976	12.5	25.0	ug/L	50	1000	ND	98	58-137%			
Surr: 1.4-Difluorobenzene (Surr)		Reci	wery: 98%	Limits: 8	0-120 %	Dil	ution: 1x					
Toluene-d8 (Surr)		1.00	98 %	8(0-120 %	200	"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Gasco -- Filtercake

Project:

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

	4	Regulated	TCLP Volat	ile Orga	nic Comp	ounds by	EPA 1311	1/8260D			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits RPI	RPD Limit	Notes
Batch 23C0157 - EPA 1311/503	0B TCLP	Volatiles					Wate	er			
Matrix Spike (23C0157-MS1)			Prepared	: 03/03/23	13:36 Anal	yzed: 03/04/	23 05:37				Q-44a
QC Source Sample: Non-SDG (A3)	<u>30683-01)</u>										
Surr: 4-Bromofluorobenzene (Surr)		Reco	overy: 88 %	Limits: 8	0-120 %	Dilu	tion: 1x				

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	Compour	ids by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0015 - EPA 3546							Sol	id				
Blank (23C0015-BLK1)			Prepared	l: 03/01/23 0	08:48 Ana	lyzed: 03/01	/23 21:34					
<u>EPA 8270E</u>												
Acenaphthene	ND	1.33	2.67	ug/kg we	et 1							
Acenaphthylene	ND	1.33	2.67	ug/kg we	et 1							
Anthracene	ND	1.33	2.67	ug/kg we	et 1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg we	et 1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg we	et 1							
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg we	et 1							
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg we	t 1							
Chrysene	ND	1.33	2.67	ug/kg we	t 1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg we	t 1							
Fluoranthene	ND	1.33	2.67	ug/kg we	t 1							
Fluorene	ND	1.33	2.67	ug/kg we	t 1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg we	t 1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg we	t 1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg we	t 1							
Naphthalene	2.74	2.67	5.33	ug/kg we	t 1							В-02,
Phenanthrene	ND	1.33	2.67	ug/kg we	t 1							
Pyrene	ND	1.33	2.67	ug/kg we	t 1							
Carbazole	ND	2.00	4.00	ug/kg we	t 1							
Dibenzofuran	ND	1.33	2.67	ug/kg we	t 1							
2-Chlorophenol	ND	6.67	13.3	ug/kg we	t 1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg we	t 1							
2.4-Dichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2.4-Dimethylphenol	ND	6.67	13.3	ug/kg we	t 1							
2.4-Dinitrophenol	ND	33.3	66.7	ug/kg we	t 1							
4.6-Dinitro-2-methylphenol	ND	33.3	66.7	119/kg we	et 1							
2-Methylphenol	ND	3.33	6.67	ug/kø we	t 1							
3+4-Methylphenol(s)	ND	3,33	6.67	110/ko we								
2-Nitronhenol	ND	13 3	26.7	ug ng we	et 1							
4-Nitrophenol	ND	13.3	26.7	110/kg we	4 1							
Pentachlaranhenal (PCP)		13.3	26.7	ug/kg we	n 1 nt 1							
Dhenol		13.5	5 22	ug/kg we	λι 1 1							
1 1101101 2 2 4 6 Tatra alta1		2.0/	5.55 12 2	ug/kg we	μ I							
2,3,4,0-1etrachiorophenol	ND	6.6/	13.3	ug/kg we	et 1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

L		50		organic (Joinpoun		A UZ/UE					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0015 - EPA 3546			. <u> </u>				Sol	id				
Blank (23C0015-BLK1)			Prepared	: 03/01/23 0	8:48 Anal	yzed: 03/01/	/23 21:34					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg we	t 1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg we	t 1							
Diethylphthalate	ND	13.3	26.7	ug/kg we	t 1							
Dimethylphthalate	ND	13.3	26.7	ug/kg we	t 1							
Di-n-butylphthalate	14.4	13.3	26.7	ug/kg we	t 1							В-02,
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg we	t 1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg we	t 1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg we	t 1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg we	t 1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg we	t 1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg we	t 1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg we	t 1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg we	t 1							
Hexachloroethane	ND	3.33	6.67	ug/kg we	t 1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg we	t 1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg we	:t 1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg we	t 1							
Aniline	ND	6.67	13.3	ug/kg we	:t 1							
4-Chloroaniline	ND	3.33	6.67	ug/kg we	:t 1							
2-Nitroaniline	ND	26.7	53.3	ug/kg we	:t 1							
3-Nitroaniline	ND	26.7	53.3	ug/kg we	:t 1							
4-Nitroaniline	ND	26.7	53.3	ug/kg we	:t 1							
Nitrobenzene	ND	13.3	26.7	ug/kg we	t 1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg we	t 1							
2,6-Dinitrotoluene	ND	13 3	26.7	ug/ko we	-t 1							
Benzoic acid	ND	167	333	uo/ko we	-t 1							
Benzyl alcohol	ND	6 67	13 3	ug/ko we	t 1							
(sonhorone		2 22	6.67	100/120 mg	 .t 1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	Compour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0015 - EPA 3546							Sol	lid				
Blank (23C0015-BLK1)			Prepare	d: 03/01/23 ()8:48 Ana	lyzed: 03/01	/23 21:34					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	et 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	et 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	et 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
Pyridine	ND	6.67	13.3	ug/kg we	et 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	et 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	et 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	et 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 92 %	Limits: 37	-122 %	Dilı	ution: 1x					Q-41
2-Fluorobiphenyl (Surr)			83 %	44-	-120 %		"					
Phenol-d6 (Surr)			83 %	33-	-122 %		"					
p-Terphenyl-d14 (Surr)			94 %	54-	-127 %		"					
2-Fluorophenol (Surr)			79 %	35-	-120 %		"					
2,4,6-Tribromophenol (Surr)			79 %	39.	-132 %		"					
LCS (23C0015-BS1)			Prepare	d: 03/01/23 ()8:48 Ana	lyzed: 03/01	/23 22:09					Q-18
EPA 8270E												
Acenaphthene	475	5.32	10.7	ug/kg we	et 4	533		89	40-123%			
Acenaphthylene	508	5.32	10.7	ug/kg we	et 4	533		95	32-132%			
Anthracene	498	5.32	10.7	ug/kg we	et 4	533		93	47-123%			
Benz(a)anthracene	497	5.32	10.7	ug/kg we	et 4	533		93	49-126%			
Benzo(a)pyrene	529	8.00	16.0	ug/kg we	et 4	533		99	45-129%			
Benzo(b)fluoranthene	523	8.00	16.0	ug/kg we	et 4	533		98	45-132%			
Benzo(k)fluoranthene	515	8.00	16.0	ug/kg we	et 4	533		96	47-132%			
Benzo(g,h,i)perylene	482	5.32	10.7	ug/kg we	et 4	533		90	43-134%			
Chrysene	487	5.32	10.7	ug/kg we	et 4	533		91	50-124%			
Dibenz(a,h)anthracene	485	5.32	10.7	ug/kg we	et 4	533		91	45-134%			
Fluoranthene	464	5.32	10.7	ug/kg we	et 4	533		87	50-127%			
Fluorene	508	5.32	10.7	ug/kg we	et 4	533		95	43-125%			
Indeno(1,2,3-cd)pyrene	507	5.32	10.7	ug/kg we	et 4	533		95	45-133%			
1-Methylnaphthalene	472	10.7	21.3	ug/kg we	et 4	533		88	40-120%			
2-Methylnaphthalene	491	10.7	21.3	ug/kg we	et 4	533		92	38-122%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile (Organic C	ompoun	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0015 - EPA 3546		. <u> </u>	. <u> </u>				Sol	id				
LCS (23C0015-BS1)			Prepared	: 03/01/23 08	3:48 Anal	yzed: 03/01/	23 22:09					Q-18
Naphthalene	466	10.7	21.3	ug/kg wet	4	533		87	35-123%			B-0
Phenanthrene	475	5.32	10.7	ug/kg wet	4	533		89	50-121%			
Pyrene	458	5.32	10.7	ug/kg wet	4	533		86	47-127%			
Carbazole	532	8.00	16.0	ug/kg wet	4	533		100	50-123%			
Dibenzofuran	495	5.32	10.7	ug/kg wet	4	533		93	44-120%			
2-Chlorophenol	497	26.7	53.2	ug/kg wet	4	533		93	34-121%			
4-Chloro-3-methylphenol	517	53.2	107	ug/kg wet	4	533		97	45-122%			
2,4-Dichlorophenol	507	26.7	53.2	ug/kg wet	4	533		95	40-122%			
2,4-Dimethylphenol	539	26.7	53.2	ug/kg wet	4	533		101	30-127%			
2,4-Dinitrophenol	481	133	267	ug/kg wet	4	533		90	10-137%			
4,6-Dinitro-2-methylphenol	493	133	267	ug/kg wet	4	533		92	29-132%			
2-Methylphenol	569	13.3	26.7	ug/kg wet	4	533		107	32-122%			
3+4-Methylphenol(s)	602	13.3	26.7	ug/kg wet	4	533		113	34-120%			Q-4
2-Nitrophenol	536	53.2	107	ug/kg wet	4	533		101	36-123%			
4-Nitrophenol	504	53.2	107	ug/kg wet	4	533		95	30-132%			
Pentachlorophenol (PCP)	504	53.2	107	ug/kg wet	4	533		94	25-133%			
Phenol	527	10.7	21.3	ug/kg wet	4	533		99	34-121%			
2,3,4,6-Tetrachlorophenol	493	26.7	53.2	ug/kg wet	4	533		92	44-125%			
2,3,5,6-Tetrachlorophenol	498	26.7	53.2	ug/kg wet	4	533		93	40-120%			
2,4,5-Trichlorophenol	501	26.7	53.2	ug/kg wet	4	533		94	41-124%			
2,4,6-Trichlorophenol	484	26.7	53.2	ug/kg wet	4	533		91	39-126%			
Bis(2-ethylhexyl)phthalate	580	80.0	160	ug/kg wet	4	533		109	51-133%			
Butyl benzyl phthalate	610	53.2	107	ug/kg wet	4	533		114	48-132%			
Diethylphthalate	509	53.2	107	ug/kg wet	4	533		95	50-124%			
Dimethylphthalate	491	53.2	107	ug/kg wet	4	533		92	48-124%			
Di-n-butylphthalate	524	53.2	107	ug/kg wet	4	533		98	51-128%			В-0
Di-n-octyl phthalate	663	53.2	107	ug/kg wet	4	533		124	45-140%			
N-Nitrosodimethylamine	408	13.3	26.7	ug/kg wet	4	533		77	23-120%			
N-Nitroso-di-n-propylamine	606	13.3	26.7	ug/kg wet	4	533		114	36-120%			Q-4
N-Nitrosodiphenylamine	563	13.3	26.7	ug/kg wet	4	533		106	38-127%			
Bis(2-Chloroethoxy) methane	506	13.3	26.7	ug/kg wet	4	533		95	36-121%			
Bis(2-Chloroethyl) ether	482	13.3	26.7	ug/kg wet	4	533		90	31-120%			Q-4
2,2'-Oxybis(1-Chloropropane)	549	13.3	26.7	ug/kg wet	4	533		103	39-120%			
Hexachlorobenzene	444	5.32	10.7	ug/kg wet	4	533		83	45-122%			
		0.02	10.7	45/15 Wet	•	555		00				

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

		Detection	Reporting			Snike	Source		% REC		רוסק	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23C0015 - EPA 3546							So	lid				
LCS (23C0015-BS1)			Prepared	1: 03/01/23 0	8:48 Ana	lyzed: 03/01	/23 22:09					Q-18
Hexachlorobutadiene	405	13.3	26.7	ug/kg we	t 4	533		76	32-123%			
Hexachlorocyclopentadiene	551	26.7	53.2	ug/kg we	t 4	533		103	10-140%			
Iexachloroethane	437	13.3	26.7	ug/kg we	t 4	533		82	28-120%			
-Chloronaphthalene	493	5.32	10.7	ug/kg we	t 4	533		92	41-120%			
,2,4-Trichlorobenzene	448	13.3	26.7	ug/kg we	t 4	533		84	34-120%			
-Bromophenyl phenyl ether	493	13.3	26.7	ug/kg we	t 4	533		93	46-124%			
-Chlorophenyl phenyl ether	480	13.3	26.7	ug/kg we	t 4	533		90	45-121%			
Aniline	468	26.7	53.2	ug/kg we	t 4	533		88	10-120%			
-Chloroaniline	436	13.3	26.7	ug/kg we	t 4	533		82	17-120%			
-Nitroaniline	532	107	213	ug/kg we	t 4	533		100	44-127%			
-Nitroaniline	583	107	213	ug/kg we	t 4	533		109	33-120%			
-Nitroaniline	568	107	213	ug/kg we	t 4	533		106	51-125%			
Vitrobenzene	554	53.2	107	ug/kg we	t 4	533		104	34-122%			Q
,4-Dinitrotoluene	504	53.2	107	ug/kg we	t 4	533		94	48-126%			
e,6-Dinitrotoluene	503	53.2	107	ug/kg we	t 4	533		94	46-124%			
Benzoic acid	950	668	668	ug/kg we	t 4	1070		89	10-140%			
Benzyl alcohol	562	26.7	53.2	ug/kg we	t 4	533		105	29-122%			
sophorone	529	13.3	26.7	ug/kg we	t 4	533		99	30-122%			
Azobenzene (1,2-DPH)	583	13.3	26.7	ug/kg we	t 4	533		109	39-125%			
Bis(2-Ethylhexyl) adipate	627	133	267	ug/kg we	t 4	533		118	61-121%			
,3'-Dichlorobenzidine	3330	107	213	ug/kg we	t 4	1070		312	22-121%			Q-29, Q-3 Q
,2-Dinitrobenzene	493	133	267	ug/kg we	t 4	533		93	44-120%			
,3-Dinitrobenzene	481	133	267	ug/kg we	t 4	533		90	43-127%			
,4-Dinitrobenzene	531	133	267	ug/kg we	t 4	533		99	37-132%			
yridine	432	26.7	53.2	ug/kg we	t 4	533		81	10-120%			
,2-Dichlorobenzene	453	13.3	26.7	ug/kg we	t 4	533		85	33-120%			
,3-Dichlorobenzene	435	13.3	26.7	ug/kg we	t 4	533		82	30-120%			
,4-Dichlorobenzene	442	13.3	26.7	ug/kg we	t 4	533		83	31-120%			
urr: Nitrobenzene-d5 (Surr)		Reco	overy: 80 %	Limits: 37-	122 %	Dilı	ution: 4x					Q-41
2-Fluorobiphenyl (Surr)			70 %	44-	120 %		"					
Phenol-d6 (Surr)			74 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			76 %	54-	127 %		"					
2-Fluorophenol (Surr)			62 %	35-	120 %		"					
2.4.6-Tribromonhenol (Surr)			72%	30_	132 %		"					

Apex Laboratories



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

Sevenson Environmental Servio	ces. Inc.			Project:	Gasco -	- Filtercake						
2749 Locknort Road			Pro	iect Numbe	r: 111323	THUIVAN	<u>-</u>			т	lanart IN	•
Niagara Falls, NY 14305			Proi	ect Manage	r: Chin B	vrd				1 380682	-03.28.2	<u>.</u> 3 0832
g ,			j			<i>,</i>			1	1010002	- 05 20 2	, 0052
		QUA	ALITY CC	ONTROL	(QC) SA	AMPLE F	RESULTS					
		Ser	nivolatile (Organic C	compour	nds by EF	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0015 - EPA 3546							Soli	d				
Duplicate (23C0015-DUP1)			Prepared	: 03/01/23 0	8:48 Ana	lyzed: 03/01	1/23 23:20					
OC Source Sample: Non-SDG (A3	B0633-01)		1									
Acenaphthene	2690000	9410	18900	ug/kg we	t 1000		2130000			23	30%	
Acenaphthylene	ND	53100	53100	ug/kg we	t 1000		ND				30%	R-02
Anthracene	1420000	9410	18900	ug/kg we	t 1000		1090000			26	30%	
Benz(a)anthracene	744000	9410	18900	ug/kg we	t 1000		561000			28	30%	
Benzo(a)pyrene	203000	14200	28300	ug/kg we	t 1000		153000			28	30%	
Benzo(b)fluoranthene	336000	14200	28300	ug/kg we	t 1000		253000			28	30%	
Benzo(k)fluoranthene	124000	14200	28300	ug/kg we	t 1000		95300			26	30%	M-05
Benzo(g,h,i)perylene	37000	9410	18900	ug/kg we	t 1000		26300			34	30%	Q-04
Chrysene	726000	9410	18900	ug/kg we	t 1000		557000			26	30%	
Dibenz(a,h)anthracene	13000	9410	18900	ug/kg we	t 1000		9990			26	30%	J
Fluoranthene	5600000	9410	18900	ug/kg we	t 1000		4170000			29	30%	
Fluorene	2710000	9410	18900	ug/kg we	t 1000		2150000			23	30%	
Indeno(1,2,3-cd)pyrene	48900	9410	18900	ug/kg we	t 1000		36400			29	30%	
1-Methylnaphthalene	1060000	18900	37700	ug/kg we	t 1000		882000			18	30%	
2-Methylnaphthalene	1930000	18900	37700	ug/kg we	t 1000		1600000			19	30%	
Naphthalene	1400000	18900	37700	ug/kg we	t 1000		1060000			28	30%	B-02
Phenanthrene	8360000	9410	18900	ug/kg we	t 1000		6630000			23	30%	
Pyrene	3400000	9410	18900	ug/kg we	t 1000		2500000			31	30%	Q-04
Carbazole	760000	14200	28300	ug/kg we	t 1000		606000			23	30%	
Dibenzofuran	2310000	9410	18900	ug/kg we	t 1000		1860000			22	30%	
2-Chlorophenol	ND	47200	94100	ug/kg we	t 1000		ND				30%	
4-Chloro-3-methylphenol	ND	94100	189000	ug/kg we	t 1000		ND				30%	
2,4-Dichlorophenol	ND	47200	94100	ug/kg we	t 1000		ND				30%	
2.4-Dimethylphenol	ND	47200	94100	ug/kg we	t 1000		ND				30%	
2,4-Dinitrophenol	ND	236000	472000	ug/kg we	t 1000		ND				30%	
4,6-Dinitro-2-methylphenol	ND	236000	472000	ug/kg we	t 1000		ND				30%	
2-Methylphenol	ND	23600	47200	ug/kg we	t 1000		ND				30%	
3+4-Methylphenol(s)	ND	23600	47200	ug/kg we	t 1000		ND				30%	
2-Nitrophenol	ND	94100	189000	ug/kg we	t 1000		ND				30%	
4-Nitrophenol	ND	189000	189000	ug/kg we	t 1000		ND				30%	
Pentachlorophenol (PCP)	137000	94100	189000	ug/kg we	t 1000		106000			25	30%	J
Phenol	ND	18900	37700	ug/kg we	t 1000		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

		Ser	nivolatile (Organic C	ompour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0015 - EPA 3546							Sol	lid				
Duplicate (23C0015-DUP1)			Prepared	: 03/01/23 0	8:48 Ana	lyzed: 03/01	/23 23:20					
QC Source Sample: Non-SDG (A.	3B0633-01)											
2,3,4,6-Tetrachlorophenol	ND	47200	94100	ug/kg we	t 1000		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	47200	94100	ug/kg we	t 1000		ND				30%	
2,4,5-Trichlorophenol	ND	47200	94100	ug/kg we	t 1000		ND				30%	
2,4,6-Trichlorophenol	ND	47200	94100	ug/kg we	t 1000		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	142000	283000	ug/kg we	t 1000		ND				30%	
Butyl benzyl phthalate	ND	94100	189000	ug/kg we	t 1000		ND				30%	
Diethylphthalate	ND	94100	189000	ug/kg we	t 1000		ND				30%	
Dimethylphthalate	ND	94100	189000	ug/kg we	t 1000		ND				30%	
Di-n-butylphthalate	ND	94100	189000	ug/kg we	t 1000		ND				30%	
Di-n-octyl phthalate	ND	94100	189000	ug/kg we	t 1000		ND				30%	
N-Nitrosodimethylamine	ND	23600	47200	ug/kg we	t 1000		ND				30%	
N-Nitroso-di-n-propylamine	ND	23600	47200	ug/kg we	t 1000		ND				30%	
N-Nitrosodiphenylamine	ND	81400	81400	ug/kg we	t 1000		ND				30%	R-0
Bis(2-Chloroethoxy) methane	ND	23600	47200	ug/kg we	t 1000		ND				30%	
Bis(2-Chloroethyl) ether	ND	23600	47200	ug/kg we	t 1000		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	23600	47200	ug/kg we	t 1000		ND				30%	
Hexachlorobenzene	ND	9410	18900	ug/kg we	t 1000		ND				30%	
Hexachlorobutadiene	ND	23600	47200	ug/kg we	t 1000		ND				30%	
Hexachlorocyclopentadiene	ND	47200	94100	ug/kg we	t 1000		ND				30%	
Hexachloroethane	ND	23600	47200	ug/kg we	t 1000		ND				30%	
2-Chloronaphthalene	ND	9410	18900	ug/kg we	t 1000		ND				30%	
1,2,4-Trichlorobenzene	ND	23600	47200	ug/kg we	t 1000		ND				30%	
4-Bromophenyl phenyl ether	ND	23600	47200	ug/kg we	t 1000		ND				30%	
4-Chlorophenyl phenyl ether	ND	23600	47200	ug/kg we	t 1000		ND				30%	
Aniline	ND	47200	94100	ug/kg we	t 1000		ND				30%	
4-Chloroaniline	ND	23600	47200	ug/kg we	t 1000		ND				30%	
2-Nitroaniline	ND	189000	377000	ug/kg we	t 1000		ND				30%	
3-Nitroaniline	ND	189000	377000	ug/kg we	t 1000		ND				30%	
4-Nitroaniline	ND	189000	377000	ug/kg we	t 1000		ND				30%	
Nitrobenzene	ND	94100	189000	ug/kg we	t 1000		ND				30%	
2.4-Dinitrotoluene	ND	94100	189000	ug/kg we	t 1000		ND				30%	
2.6-Dinitrotoluene	ND	94100	189000	ug/kg we	t 1000		ND				30%	
Benzoic acid	ND	1180000	2360000	110/kg we	1000		ND				30%	
Denzere dela	110	1100000	2300000	aging we	1000					-	5070	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile	Organic C	compour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0015 - EPA 3546							Sol	id				
Duplicate (23C0015-DUP1)			Prepared	l: 03/01/23 0	8:48 Ana	lyzed: 03/01	/23 23:20					
QC Source Sample: Non-SDG (A3E	80633-01 <u>)</u>											
Benzyl alcohol	ND	47200	94100	ug/kg we	t 1000		ND				30%	
Isophorone	ND	23600	47200	ug/kg we	t 1000		ND				30%	
Azobenzene (1,2-DPH)	ND	47200	47200	ug/kg we	t 1000		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	236000	472000	ug/kg we	t 1000		ND				30%	
3,3'-Dichlorobenzidine	ND	189000	377000	ug/kg we	t 1000		ND				30%	Q
1,2-Dinitrobenzene	ND	236000	472000	ug/kg we	t 1000		ND				30%	
1,3-Dinitrobenzene	ND	236000	472000	ug/kg we	t 1000		ND				30%	
1,4-Dinitrobenzene	ND	236000	472000	ug/kg we	t 1000		ND				30%	
Pyridine	ND	47200	94100	ug/kg we	t 1000		ND				30%	
1,2-Dichlorobenzene	ND	23600	47200	ug/kg we	t 1000		ND				30%	
1,3-Dichlorobenzene	ND	23600	47200	ug/kg we	t 1000		ND				30%	
1,4-Dichlorobenzene	ND	23600	47200	ug/kg we	t 1000		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 60 %	Limits: 37-	-122 %	Dili	ution: 1000)x				S-05
2-Fluorobiphenyl (Surr)			89 %	44-	120 %		"					S-05
Phenol-d6 (Surr)			22 %	33-	122 %		"					S-05
p-Terphenyl-d14 (Surr)			231 %	54-	127 %		"					S-05
2-Fluorophenol (Surr)			14 %	35-	120 %		"					S-05
2,4,6-Tribromophenol (Surr)			517 %	39-	132 %		"					S-05
Duplicate (23C0015-DUP2)			Prepared	l: 03/01/23 0	8:48 Ana	lyzed: 03/02	/23 14:37					
QC Source Sample: Non-SDG (A3E	80633-01RI	E1)										
Phenanthrene	7780000	94100	189000	ug/kg we	t 10000		7790000			0.1	30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by I	EPA 6020	B (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0066 - EPA 3051A							Sol	id				
Blank (23C0066-BLK1)			Prepared	: 03/02/23 0	6:56 Anal	yzed: 03/03	/23 01:15					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg we	t 10							
Barium	ND	500	1000	ug/kg we	t 10							
Cadmium	ND	100	200	ug/kg we	t 10							
Chromium	ND	500	1000	ug/kg we	t 10							
Lead	ND	100	200	ug/kg we	t 10							
Mercury	ND	40.0	80.0	ug/kg we	t 10							
Selenium	ND	500	1000	ug/kg we	t 10							
Silver	ND	100	200	ug/kg we	t 10							
LCS (23C0066-BS1)			Prepared	: 03/02/23 0	6:56 Anal	yzed: 03/03	/23 01:20					
<u>EPA 6020B</u>												
Arsenic	48500	500	1000	ug/kg we	t 10	50000		97	80-120%			
Barium	50500	500	1000	ug/kg we	t 10	50000		101	80-120%			
Cadmium	48400	100	200	ug/kg we	t 10	50000		97	80-120%			
Chromium	46200	500	1000	ug/kg we	t 10	50000		92	80-120%			
Lead	48100	100	200	ug/kg we	t 10	50000		96	80-120%			
Mercury	868	40.0	80.0	ug/kg we	t 10	1000		87	80-120%			
Selenium	23900	500	1000	ug/kg we	t 10	25000		95	80-120%			
Silver	23900	100	200	ug/kg we	t 10	25000		96	80-120%			
Duplicate (23C0066-DUP1)			Prepared	: 03/02/23 0	6:56 Anal	yzed: 03/03	/23 01:31					
QC Source Sample: FC-022023-	-2067 (A3B068	<u>2-01)</u>										
EPA 6020B												
Arsenic	8450	2180	4360	ug/kg dry	v 10		8430			0.2	20%	
Barium	224000	2180	4360	ug/kg dry	v 10		227000			1	20%	
Cadmium	ND	436	873	ug/kg dry	v 10		ND				20%	
Chromium	ND	2180	4360	ug/kg dry	v 10		ND				20%	
Lead	ND	436	873	ug/kg dry	v 10		ND				20%	
Mercury	ND	175	349	ug/kg dry	v 10		ND				20%	
Selenium	ND	2180	4360	ug/kg dry	v 10		ND				20%	
Silver	ND	436	873	ug/kg dry	v 10		ND				20%	

Matrix Spike (23C0066-MS1)

Prepared: 03/02/23 06:56 Analyzed: 03/03/23 01:36

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

		1	Total M	letals by E	EPA 6020	B (ICPM:	5)					1
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0066 - EPA 3051A							Sol	id				
Matrix Spike (23C0066-MS1)			Prepared:	: 03/02/23 06	5:56 Anal	yzed: 03/03/	/23 01:36					
QC Source Sample: FC-022023-206	7 (A3B068	32-01)										
<u>EPA 6020B</u>												
Arsenic	222000	2310	4610	ug/kg dry	10	231000	8430	92	75-125%			
Barium	449000	2310	4610	ug/kg dry	10	231000	227000	96	75-125%			
Cadmium	217000	461	922	ug/kg dry	10	231000	ND	94	75-125%			
Chromium	204000	2310	4610	ug/kg dry	10	231000	ND	88	75-125%			
Lead	217000	461	922	ug/kg dry	10	231000	ND	94	75-125%			
Mercury	3900	184	369	ug/kg dry	10	4610	ND	85	75-125%			
Selenium	106000	2310	4610	ug/kg dry	10	115000	ND	92	75-125%			
Silver	107000	461	922	ug/kg dry	10	115000	ND	92	75-125%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0080 - EPA 1311/30	15A						So	lid				
Blank (23C0080-BLK1)			Prepared	: 03/02/23	11:20 Anal	yzed: 03/03/	/23 05:07					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							Q-44b, TCL
Barium	ND	2500	5000	ug/L	10							Q-44b, TCL
Cadmium	ND	50.0	100	ug/L	10							Q-44b, TCL
Chromium	ND	50.0	100	ug/L	10							Q-44b, TCL
Lead	ND	25.0	50.0	ug/L	10							Q-44b, TCL
Mercury	ND	3.75	7.00	ug/L	10							Q-44b, TCL
Selenium	ND	50.0	100	ug/L	10							Q-44b, TCL
Silver	ND	50.0	100	ug/L	10							Q-44b, TCL
LCS (23C0080-BS1)			Prepared	: 03/02/23	11:20 Anal	yzed: 03/03/	/23 05:23					
<u>1311/6020B</u>												
Arsenic	5130	50.0	100	ug/L	10	5000		103	80-120%			Q-44b, TCL
Barium	11300	2500	5000	ug/L	10	10000		113	80-120%			Q-44b, TCL
Cadmium	1010	50.0	100	ug/L	10	1000		101	80-120%			Q-44b, TCL
Chromium	4930	50.0	100	ug/L	10	5000		99	80-120%			Q-44b, TCL
Lead	5070	25.0	50.0	ug/L	10	5000		101	80-120%			Q-44b, TCL
Mercury	92.7	3.75	7.00	ug/L	10	100		93	80-120%			Q-44b, TCL
Selenium	1010	50.0	100	ug/L	10	1000		101	80-120%			Q-44b, TCL
Silver	967	50.0	100	ug/L	10	1000		97	80-120%			Q-44b, TCL
Duplicate (23C0080-DUP1)			Prepared	: 03/02/23	11:20 Anal	yzed: 03/03/	/23 05:33					
QC Source Sample: FC-022023-2	2067 (A3B068	<u> 32-01)</u>										
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10		ND				20%	Q-44
Barium	ND	2500	5000	ug/L	10		ND				20%	Q-44
Cadmium	ND	50.0	100	ug/L	10		ND				20%	Q-44
Chromium	ND	50.0	100	ug/L	10		ND				20%	Q-44
Lead	ND	25.0	50.0	ug/L	10		ND				20%	Q-44
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	Q-44
Selenium	ND	50.0	100	ug/L	10		ND				20%	Q-44
Silver	ND	50.0	100	110/L	10		ND				20%	0-44

Matrix Spike (23C0080-MS1)

Prepared: 03/02/23 11:20 Analyzed: 03/03/23 05:38

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	/ EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0080 - EPA 1311/301	5A						So	lid				
Matrix Spike (23C0080-MS1)			Prepared	1: 03/02/23	11:20 Ana	lyzed: 03/03	3/23 05:38					
<u>QC Source Sample: FC-022023-20</u>	67 (A3B068	<u>82-01)</u>										
<u>1311/6020B</u>												
Arsenic	5230	50.0	100	ug/L	10	5000	ND	105	50-150%			Q-44
Barium	11600	2500	5000	ug/L	10	10000	ND	116	50-150%			Q-44
Cadmium	1030	50.0	100	ug/L	10	1000	ND	103	50-150%			Q-44
Chromium	4990	50.0	100	ug/L	10	5000	ND	100	50-150%			Q-44
Lead	5370	25.0	50.0	ug/L	10	5000	ND	107	50-150%			Q-44
Mercury	95.4	3.75	7.00	ug/L	10	100	ND	95	50-150%			Q-44
Selenium	1050	50.0	100	ug/L	10	1000	ND	105	50-150%			Q-44
Silver	990	50.0	100	ug/L	10	1000	ND	99	50-150%			Q-44

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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
Batch 23C0029 - ASTM D7	511-12mod (S)					So	il				
Blank (23C0029-BLK1)			Prepared	l: 03/01/23	10:26 Ana	lyzed: 03/02	2/23 15:30					
<u>D7511-12</u> Total Cyanide	ND	50.0	100	ug/kg w	vet 1							
LCS (23C0029-BS1)	3S1) Prepared: 03/01/23 10:26 Analyzed: 03/02/23 15:32											
Total Cyanide	365	50.0	100	ug/kg w	vet 1	400		91	84-116%			
Matrix Spike (23C0029-MS	51)		Prepared	l: 03/01/23	10:26 Ana	lyzed: 03/02	2/23 15:46					COMP
<u>QC Source Sample: Non-SDG</u> <u>D7511-12</u>	<u>(A3B0710-03)</u>											
Total Cyanide	3230	845	1690	ug/kg d	ry 10	676	4270	-154	64-136%			Q-0
Matrix Spike Dup (23C002	9-MSD1)		Prepared	l: 03/01/23	10:26 Ana	lyzed: 03/02	2/23 15:48					СОМР
OC Source Sample: Non-SDG Total Cyanide	<u>(A3B0710-03)</u> 3620	846	1690	ug/kg d	lry 10	677	4270	-96	64-136%	11	47%	Q-0

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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
Batch 23B0856 - Total Solids (Dry Weig	ht)					Soil					
Duplicate (23B0856-DUP1)			Prepared	: 02/22/23	13:40 Ana	yzed: 02/25/	/23 07:11					
QC Source Sample: FC-022023-20 EPA 8000D	67 (A3B06)	<u>82-01)</u>										
% Solids	23.3		1.00	%	1		22.9			2	10%	
Duplicate (23B0856-DUP2)			Prepared	: 02/22/23	13:40 Ana	yzed: 02/25/	/23 07:11					
QC Source Sample: Non-SDG (A3	B0683-01)											
% Solids	11.0		1.00	%	1		12.2			11	10%	Q-0
Duplicate (23B0856-DUP3)			Prepared	: 02/22/23	19:40 Anal	yzed: 02/25/	/23 07:11					
QC Source Sample: Non-SDG (A3	<u>B0769-01)</u>											
% Solids	74.8		1.00	%	1		74.6			0.3	10%	

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

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

<u>Sevenson Environmental Ser</u> 2749 Lockport Road Niagara Falls, NY 14305	rvices, Inc.	Pr Pr	<u>Report ID:</u> A3B0682 - 03 28 23 0832							
	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: 23C0014 A3B0682-01	Solid	NWTPH-Dx	02/20/23 13:30	03/01/23 08:47	10.21g/5mL	10g/5mL	0.98			
	Gasol	ine Range Hydrocart	oons (Benzene throu	ugh Naphthalene) b	y NWTPH-Gx					
<u>Prep: EPA 5035A</u>					Sample	Default	RL Prep			
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
<u>Batch: 23B0779</u> A3B0682-01	Solid	NWTPH-Gx (MS)	02/20/23 13:30	02/21/23 11:32	5.16g/5mL	5g/5mL	0.97			
Volatile Organic Compounds by EPA 8260D										
<u>Prep: EPA 5035A</u>			<u> </u>		Sample	Default	RL Prep			
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23B0779 A3B0682-01	Solid	5035A/8260D	02/20/23 13:30	02/21/23 11:32	5.16g/5mL	5g/5mL	0.97			
		Regulated TCLP Vol	atile Organic Comp	ounds by EPA 1311	/8260D					
Prep: EPA 1311/5030B TCI	_P Volatiles	0		y	Sample	Default	RL Prep			
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23C0157 A3B0682-01	Solid	1311/8260D	02/20/23 13:30	03/03/23 13:36	5mL/5mL	5mL/5mL	1.00			
		Semivolatile	e Organic Compour	nds by EPA 8270E						
Prep: EPA 3546					Sample	Default	RL Prep			
Lab Number 1	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23C0015 A3B0682-01	Solid	EPA 8270E	02/20/23 13:30	03/01/23 08:48	15.33g/2mL	15g/2mL	0.98			
		Total	Metals by EPA 6020	0B (ICPMS)						
<u>Prep: EPA 3051A</u>				、 ,	Sample	Default	RL Prep			
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23C0066 A3B0682-01	Solid	EPA 6020B	02/20/23 13:30	03/02/23 06:56	0.476g/50mL	0.5g/50mL	1.05			

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

Sevenson Environmental Services, Inc.	Project:	<u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3B0682 - 03 28 23 0832
		FION INFORMATION	

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 1311/30154	<u>A</u>				Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23C0080	a 111	1211/(0200	00/00/00 10 00	00/00/00 11 00	10 1/50 1	10 1/50 1	1.00		
A3B0682-01	Solid	1311/6020B	02/20/23 13:30	03/02/23 11:20	10mL/50mL	10mL/50mL	1.00		
	Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection								
Prep: ASTM D7511-12	2mod (S)				Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23C0029									
A3B0682-01	Solid	D7511-12	02/20/23 13:30	03/01/23 10:26	2.5127g/50mL	2.5g/50mL	1.00		
Percent Dry Weight									
			Percent Dry Wei	ght					
Prep: Total Solids (Dry	/ Weight)		Percent Dry Wei	ght	Sample	Default	RL Prep		
Prep: Total Solids (Dry Lab Number	<u>/ Weight)</u> Matrix	Method	Percent Dry Wei	ght Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor		
Prep: Total Solids (Dry Lab Number Batch: 23B0856	<u>/ Weight)</u> Matrix	Method	Percent Dry Wei Sampled	ight Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01	<u>/ Weight)</u> Matrix Solid	Method EPA 8000D	Percent Dry Wei Sampled 02/20/23 13:30	Prepared 02/22/23 13:40	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01	<u>/ Weight)</u> Matrix Solid	Method EPA 8000D T	Percent Dry Wei Sampled 02/20/23 13:30	Prepared 02/22/23 13:40	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01 Prep: EPA 1311 (TCLE	<u>/ Weight)</u> Matrix Solid	Method EPA 8000D	Percent Dry Wei Sampled 02/20/23 13:30	Prepared 02/22/23 13:40 PA 1311	Sample Initial/Final	Default Initial/Final Default	RL Prep Factor NA		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01 Prep: EPA 1311 (TCLF Lab Number	<u>/ Weight)</u> Matrix Solid	Method EPA 8000D T	Percent Dry Wei Sampled 02/20/23 13:30 CLP Extraction by E Sampled	Prepared 02/22/23 13:40 PRA 1311 Prepared	Sample Initial/Final Sample Initial/Final	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C0028	<u>/ Weight)</u> Matrix Solid 2) Matrix	Method EPA 8000D T Method	Percent Dry Wei Sampled 02/20/23 13:30 CLP Extraction by E Sampled	ight Prepared 02/22/23 13:40 PA 1311 Prepared	Sample Initial/Final Sample Initial/Final	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C0028 A3B0682-01	<u>/ Weight)</u> Matrix Solid <u>2)</u> Matrix Solid	Method EPA 8000D T Method EPA 1311	Percent Dry Wei Sampled 02/20/23 13:30 CLP Extraction by E Sampled 02/20/23 13:30	Ight Prepared 02/22/23 13:40 Prepared 03/01/23 15:30	Sample Initial/Final Sample Initial/Final 100g/2000g	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor NA		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C0028 A3B0682-01 Prep: EPA 1311 TCLP	<u>/ Weight)</u> Matrix Solid 2) Matrix Solid	Method EPA 8000D T Method EPA 1311	Percent Dry Wei Sampled 02/20/23 13:30 CLP Extraction by E Sampled 02/20/23 13:30	Ight Prepared 02/22/23 13:40 Prepared 03/01/23 15:30	Sample Initial/Final Sample Initial/Final 100g/2000g Sample	Default Initial/Final Default Initial/Final 100g/2000g Default	RL Prep Factor NA RL Prep Factor NA RL Prep		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C0028 A3B0682-01 Prep: EPA 1311 TCLP Lab Number	<u>/ Weight)</u> Matrix Solid 2) Matrix Solid /ZHE Matrix	Method EPA 8000D T Method EPA 1311 Method	Percent Dry Wei Sampled 02/20/23 13:30 CLP Extraction by E Sampled 02/20/23 13:30 Sampled	ight Prepared 02/22/23 13:40 PA 1311 Prepared 03/01/23 15:30 Prepared	Sample Initial/Final Sample Initial/Final 100g/2000g Sample Initial/Final	Default Initial/Final Default Initial/Final 100g/2000g Default Initial/Final	RL Prep Factor NA RL Prep Factor NA RL Prep Factor		
Prep: Total Solids (Dry Lab Number Batch: 23B0856 A3B0682-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C0028 A3B0682-01 Prep: EPA 1311 TCLP Lab Number Batch: 23C0062	<u>/ Weight)</u> Matrix Solid 2) Matrix Solid //ZHE Matrix	Method EPA 8000D T Method EPA 1311 Method	Percent Dry Wei Sampled 02/20/23 13:30 CLP Extraction by E Sampled 02/20/23 13:30 Sampled	Ight Prepared 02/22/23 13:40 Prepared 03/01/23 15:30 Prepared	Sample Initial/Final Sample Initial/Final 100g/2000g Sample Initial/Final	Default Initial/Final Default Initial/Final 100g/2000g Default Initial/Final	RL Prep Factor NA RL Prep Factor NA RL Prep Factor		

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Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

QUALIFIER DEFINITIONS

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

Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)

Sample is a composite of discrete samples. See prep information for details.

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B-02

COMP

F-03	The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
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.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-04	Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-29	Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-44	Room temperature during the 18 hr. TCLP tumbling procedure exceeded EPA recommended temperature range by no more than +/-2 degrees C for a maximum of 12 hours
Q-44a	Room temperature during the 18 hr. TCLP tumbling procedure exceeded EPA recommended temperature range by no more than +/-2 degrees C for a maximum of 12hrs
Q-44b	Room temperature during the 18 hr. TCLP tumbling procedure exceeded EPA recommended temperature range by no more than +/-2 degrees C for a maximum of 25.7
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 +1%. 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 +11%. 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 +13%. The

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

results are reported as Estimated Values.



Apex Laboratories, LLC

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

<u>Sevenson Env</u> 2749 Lockpor Niagara Falls	<u>vironmental Services, Inc.</u> rt Road , NY 14305	Project: Project Number: Project Manager:	<u>Gasco Filtercake</u> 111323 Chip Byrd	<u>Report ID:</u> A3B0682 - 03 28 23 0832		
Q-54c	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA	A method 8260/8270 by +43%. The		
Q-56	Daily CCV/LCS recovery for this analyte was above	ve the +/-20% crite	ria 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-02	Surrogate recovery cannot be accurately quantified	due to interference	e from coeluting organic compound	ls present in the sample extract.		
S-05	Surrogate recovery is estimated due to sample dilut	tion required for hi	gh analyte concentration and/or ma	trix interference.		
TCLP	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23C0028.			
TCLPa	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23C0062.			
V-15	Sample aliquot was subsampled from the sample co	ontainer. The subsa	mpled aliquot was preserved in the	e laboratory within 48 hours of		

sampling.

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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.

- <u>" dry"</u> 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 ½ the Reporting Limit (RL). -For Blank hits falling between ½ 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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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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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Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3B0682 - 03 28 23 0832

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 <u>exception</u> of any analyte(s) listed below:

Apex Lab	Apex Laboratories									
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation					

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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



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

Sevenson Environmental Serv	ices, Inc. Project: <u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3B0682 - 03 28 23 0832
Client: Project/ Delivery Date/tim Delivery Date/tim Delivered Cooler I Chain of Signed/da Temperat Custody s Received Temp. bla Ice type: (Condition Cooler ou Green dot Out of tem Sample In All sample Bottle labe COC/conta Containers Do VOA v Comments Water sam Comments	APEX LABS COOLER RECEIPT FORM Sevensa Environmental Servers Inc. Element WO#: A3BO(52) Project #: Gas20 ~ Filter(a & 0) N132 3 Info: 1/132 3 Info: 2/21/23 @ 1000 By: EST d by: Apex/Client_ESS_FedEx_UPS_Radio_Morgan_SDS_Evergreen_Other mspection Date/time inspected: 7/21/23 @ 1054 By: EST Custody included? Yes No	E #7
Labeled by	Witness: Cooler Iser and the	-
	ABA Form Y-003 R-	-00 -
VVVR	RUNP	

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Apex Laboratories, LLC

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

Wednesday, May 3, 2023

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

RE: A3C0842 - Gasco -- Filtercake - 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 A3C0842, which was received by the laboratory on 3/23/2023 at 1:05:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information

Default Cooler

(See Cooler Receipt Form for details) 1.8 degC

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtercake	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3C0842 - 05 03 23 1321

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION						
Client Sample ID Laboratory ID Matrix Date Sampled Date Received						
FC-032023-2081	A3C0842-01	Solid	03/20/23 12:30 03/23/23 13:05			

Apex Laboratories

Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3C0842 - 05 03 23 1321

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
FC-032023-2081 (A3C0842-01)				Matrix: Solid	d	Batch:	23D0059	CONT
Diesel	2120	417	834	mg/kg dry	10	04/04/23 02:18	NWTPH-Dx	F-13
Oil	ND	834	1670	mg/kg dry	10	04/04/23 02:18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 89 %	Limits: 50-150 %	5 <i>10</i>	04/04/23 02:18	NWTPH-Dx	S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx									
Sample Detection Reporting Date Analyte Result Limit Units Dilution Analyzed Method Ref. Notes									
FC-032023-2081 (A3C0842-01RE1)				Matrix: Solid	ł	Batch:	23C1025	V-16	
Gasoline Range Organics	98500	17500	34900	ug/kg dry	50	03/27/23 18:53	NWTPH-Gx (MS)		
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recover	ry: 110 % 103 %	Limits: 50-150 % 50-150 %	5 1 5 1	03/27/23 18:53 03/27/23 18:53	NWTPH-Gx (MS) NWTPH-Gx (MS)		

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custody document. This analytical report must be reproduced in its entirety.

The results in this report apply to the samples analyzed in accordance with the chain of



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Sevenson Environmental Services, In	c.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3C0842 - 05 03 23 1321

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-032023-2081 (A3C0842-01RE1)				Matrix: Sol	id	Batch:	23C1025	V-16
Acetone	ND	3490	6990	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Acrylonitrile	ND	349	699	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Benzene	168	34.9	69.9	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Bromobenzene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Bromochloromethane	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Bromodichloromethane	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Bromoform	ND	349	699	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Bromomethane	ND	3490	3490	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
2-Butanone (MEK)	ND	1750	3490	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
n-Butylbenzene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
sec-Butylbenzene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
tert-Butylbenzene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Carbon disulfide	ND	1750	3490	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Carbon tetrachloride	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Chlorobenzene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Chloroethane	ND	1750	3490	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Chloroform	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Chloromethane	ND	873	1750	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
2-Chlorotoluene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
4-Chlorotoluene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Dibromochloromethane	ND	349	699	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	873	1750	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Dibromomethane	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
1,2-Dichlorobenzene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
1,3-Dichlorobenzene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
1,4-Dichlorobenzene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
Dichlorodifluoromethane	ND	349	699	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
1,1-Dichloroethane	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
1,1-Dichloroethene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
cis-1,2-Dichloroethene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	
trans-1,2-Dichloroethene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	

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

Sevenson Environmental Services,	Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3C0842 - 05 03 23 1321	l

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D									
	Sample	Detection	Reporting			Date			
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes	
FC-032023-2081 (A3C0842-01RE1)				Matrix: Sol	id	Batch:	23C1025	V-16	
1,2-Dichloropropane	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,3-Dichloropropane	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
2,2-Dichloropropane	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,1-Dichloropropene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
cis-1,3-Dichloropropene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
trans-1,3-Dichloropropene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Ethylbenzene	279	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Hexachlorobutadiene	ND	349	699	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
2-Hexanone	ND	3490	3490	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Isopropylbenzene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
4-Isopropyltoluene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Methylene chloride	ND	1750	3490	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
4-Methyl-2-pentanone (MiBK)	ND	3490	3490	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Methyl tert-butyl ether (MTBE)	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Naphthalene	521	349	699	ug/kg dry	50	03/27/23 18:53	5035A/8260D	J	
n-Propylbenzene	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Styrene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,1,1,2-Tetrachloroethane	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,1,2,2-Tetrachloroethane	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Tetrachloroethene (PCE)	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Toluene	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,2,3-Trichlorobenzene	ND	873	1750	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,2,4-Trichlorobenzene	ND	873	1750	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,1,1-Trichloroethane	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,1,2-Trichloroethane	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Trichloroethene (TCE)	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
Trichlorofluoromethane	ND	349	699	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,2,3-Trichloropropane	ND	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,2,4-Trimethylbenzene	409	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
1,3,5-Trimethylbenzene	175	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	J	
Vinyl chloride	ND	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D		
m,p-Xylene	227	175	349	ug/kg dry	50	03/27/23 18:53	5035A/8260D	J	
o-Xylene	147	87.3	175	ug/kg dry	50	03/27/23 18:53	5035A/8260D	J	

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3C0842 - 05 03 23 1321

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D									
Analyte	Sample Result	Detection Limit	Reporting Limit	U	Inits	Dilution	Date Analyzed	Method Ref.	Notes
FC-032023-2081 (A3C0842-01RE1)				Mat	rix: Solic	ł	Batch:	23C1025	V-16
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 109 %	Limits:	80-120 %	1	03/27/23 18:53	5035A/8260D	
Toluene-d8 (Surr)			94 %		80-120 %	1	03/27/23 18:53	5035A/8260D	
4-Bromofluorobenzene (Surr)			95 %		79-120 %	1	03/27/23 18:53	5035A/8260D	

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Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3C0842 - 05 03 23 132	1

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
FC-032023-2081 (A3C0842-01)				Matrix: Solid		Batch: 2	23D0153	CONT
Benzene	ND	6.25	12.5	ug/L	50	04/05/23 13:13	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	04/05/23 13:13	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	04/05/23 13:13	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	04/05/23 13:13	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	04/05/23 13:13	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/05/23 13:13	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	04/05/23 13:13	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	04/05/23 13:13	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	04/05/23 13:13	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	04/05/23 13:13	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	04/05/23 13:13	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 102 %	Limits: 80-120 %	1	04/05/23 13:13	1311/8260D	
Toluene-d8 (Surr)			100 %	80-120 %	1	04/05/23 13:13	1311/8260D	
4-Bromofluorobenzene (Surr)			109 %	80-120 %	1	04/05/23 13:13	1311/8260D	

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

Sevenson	Environmental	Services,	Inc.
2749 Loci	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3C0842 - 05 03 23 132	1

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-032023-2081 (A3C0842-01)				Matrix: Sol	id	Batch:	23C1019	CONT
Acenaphthene	27400	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Acenaphthylene	ND	3330	3330	ug/kg dry	200	03/27/23 19:18	EPA 8270E	R-02
Anthracene	29800	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Benz(a)anthracene	19800	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Benzo(a)pyrene	26200	1670	3330	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Benzo(b)fluoranthene	19100	1670	3330	ug/kg dry	200	03/27/23 19:18	EPA 8270E	B-02
Benzo(k)fluoranthene	7710	1670	3330	ug/kg dry	200	03/27/23 19:18	EPA 8270E	M-05
Benzo(g,h,i)perylene	14000	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Chrysene	25500	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Dibenz(a,h)anthracene	1520	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	J
Fluoranthene	94000	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Fluorene	21300	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Indeno(1,2,3-cd)pyrene	12500	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
1-Methylnaphthalene	9380	2230	4440	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2-Methylnaphthalene	4580	2230	4440	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Naphthalene	2260	2230	4440	ug/kg dry	200	03/27/23 19:18	EPA 8270E	J, B
Phenanthrene	149000	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Pyrene	111000	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Carbazole	1990	1670	3330	ug/kg dry	200	03/27/23 19:18	EPA 8270E	J
Dibenzofuran	2640	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2-Chlorophenol	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
4-Chloro-3-methylphenol	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2,4-Dichlorophenol	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2,4-Dimethylphenol	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2,4-Dinitrophenol	ND	27800	55600	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	27800	55600	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2-Methylphenol	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
3+4-Methylphenol(s)	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2-Nitrophenol	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
4-Nitrophenol	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Pentachlorophenol (PCP)	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Phenol	ND	2230	4440	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	

Apex Laboratories



Apex Laboratories, LLC

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

Sevens	on Environ	nental Ser	vices, Inc.
2749 L	ockport Roa	ad	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3C0842 - 05 03 23 1321

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-032023-2081 (A3C0842-01)				Matrix: Sol	id	Batch:	23C1019	CONT
2356 Tetrachlorophenol	ND	5560	11100	ua/ka dru	200	03/27/23 19:18	EPA 8270E	
2.4.5 Trichlorophenol	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2.4.6 Trichlorophenol	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Bic(2 athylheyyl)phthalate	ND	16700	33300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Butyl benzyl phthalate	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Diethylphthalate	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Dimethylphthalate	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Din butylphthalate	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Di-n-octyl phthalate	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
N-Nitrosodimethylamine	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	2780	5560	ug/kg dry ug/kg dry	200	03/27/23 19:18	EPA 8270E	
N-Nitrosodinhenvlamine	ND	5560	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	2780	5560	ug/kg drv	200	03/27/23 19:18	EPA 8270E	
2.2'-Oxybis(1-Chloropropane)	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Hexachlorobenzene	ND	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Hexachlorobutadiene	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Hexachlorocyclopentadiene	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Hexachloroethane	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2-Chloronaphthalene	ND	1110	2230	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
1,2,4-Trichlorobenzene	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
4-Bromophenyl phenyl ether	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Aniline	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
4-Chloroaniline	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2-Nitroaniline	ND	22300	44400	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
3-Nitroaniline	ND	22300	44400	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
4-Nitroaniline	ND	22300	44400	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Nitrobenzene	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2,4-Dinitrotoluene	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
2,6-Dinitrotoluene	ND	11100	22300	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Benzoic acid	ND	139000	278000	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Benzyl alcohol	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	

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Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3C0842 - 05 03 23 1321

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-032023-2081 (A3C0842-01)				Matrix: Solid	k	Batch: 2	23C1019	CONT
Isophorone	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Azobenzene (1,2-DPH)	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	27800	55600	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
3,3'-Dichlorobenzidine	ND	22300	44400	ug/kg dry	200	03/27/23 19:18	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	27800	55600	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
1,3-Dinitrobenzene	ND	27800	55600	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
1,4-Dinitrobenzene	ND	27800	55600	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Pyridine	ND	5560	11100	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
1,2-Dichlorobenzene	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
1,3-Dichlorobenzene	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
1,4-Dichlorobenzene	ND	2780	5560	ug/kg dry	200	03/27/23 19:18	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recov	very: 64 %	Limits: 37-122 %	200	03/27/23 19:18	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			84 %	44-120 %	200	03/27/23 19:18	EPA 8270E	S-05
Phenol-d6 (Surr)			56 %	33-122 %	200	03/27/23 19:18	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			<i>99 %</i>	54-127 %	200	03/27/23 19:18	EPA 8270E	S-05
2-Fluorophenol (Surr)			37 %	35-120 %	200	03/27/23 19:18	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			275 %	39-132 %	200	03/27/23 19:18	EPA 8270E	S-05

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

Sevenson Environmental Services, Inc.	Project: <u>G</u>	J asco Filtercak <u>e</u>	
2749 Lockport Road	Project Number: 11	11323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: C	Chip Byrd	A3C0842 - 05 03 23 1321

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-032023-2081 (A3C0842-01)				Matrix: Sol	id			
Batch: 23C1191								
Arsenic	9760	2250	4500	ug/kg dry	10	03/30/23 21:24	EPA 6020B	CONT
Barium	220000	2250	4500	ug/kg dry	10	03/30/23 21:24	EPA 6020B	CONT
Cadmium	ND	450	900	ug/kg dry	10	03/30/23 21:24	EPA 6020B	CONT
Chromium	ND	2250	4500	ug/kg dry	10	03/30/23 21:24	EPA 6020B	CONT
Lead	635	450	900	ug/kg dry	10	03/30/23 21:24	EPA 6020B	CONT,J
Mercury	ND	180	360	ug/kg dry	10	03/30/23 21:24	EPA 6020B	CONT
Selenium	ND	2250	4500	ug/kg dry	10	03/30/23 21:24	EPA 6020B	CONT
Silver	ND	450	900	ug/kg dry	10	03/30/23 21:24	EPA 6020B	CONT

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

Sevenson Environmental Services, Inc.	Project: <u>G</u>	J asco Filtercak <u>e</u>	
2749 Lockport Road	Project Number: 11	11323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: C	Chip Byrd	A3C0842 - 05 03 23 1321

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting	¥7 .		Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-032023-2081 (A3C0842-01)				Matrix: So	olid			
Batch: 23C1102								
Arsenic	ND	50.0	100	ug/L	10	03/29/23 13:57	1311/6020B	CONT,Q-44a
Barium	ND	2500	5000	ug/L	10	03/29/23 13:57	1311/6020B	CONT,Q-44a
Cadmium	ND	50.0	100	ug/L	10	03/29/23 13:57	1311/6020B	CONT,Q-44a
Chromium	ND	50.0	100	ug/L	10	03/29/23 13:57	1311/6020B	CONT,Q-44a
Lead	ND	25.0	50.0	ug/L	10	03/29/23 13:57	1311/6020B	CONT,Q-44a
Mercury	ND	3.75	7.00	ug/L	10	03/29/23 13:57	1311/6020B	CONT,Q-44a
Selenium	ND	50.0	100	ug/L	10	03/29/23 13:57	1311/6020B	CONT,Q-44a
Silver	ND	50.0	100	ug/L	10	03/29/23 13:57	1311/6020B	CONT,Q-44a

Apex Laboratories

Darwin Thomas, Business Development Director



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

<u>Sevenson Environmental Services, Inc.</u>	Project:	<u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3C0842 - 05 03 23 1321

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	
FC-032023-2081 (A3C0842-01RE1)				Matrix: Solid		Batch: 23C1248		CONT	
Total Cyanide	4050	208	416	ug/kg dry	1	03/31/23 14:49	D7511-12		

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3C0842 - 05 03 23 1321

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-032023-2081 (A3C0842-01)				Matrix: Solid		Batch: 23C0983		CONT
% Solids	23.9	1.00	1.00	%	1	03/25/23 11:50	EPA 8000D	

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Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3C0842 - 05 03 23 1321
		MDLE DEGLUTE	

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311												
	Sample	Detection	Reporting			Date						
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes				
FC-032023-2081 (A3C0842-01)				Matrix: So	olid	Batch:	23C1029	CONT				
TCLP Extraction	PREP			N/A	1	03/27/23 15:35	EPA 1311					
TCLP ZHE Extraction	0.00			N/A	1	04/03/23 14:27	EPA 1311 ZHE					

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		D	iesel and/o	or Oil Hyd	rocarbor	ns by NW	FPH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0059 - EPA 3546 (F	uels)						Sol	lid				
Blank (23D0059-BLK1)			Prepareo	d: 04/03/23	4:53 Ana	lyzed: 04/04	/23 01:37					
NWTPH-Dx												
Diesel	ND	10.0	20.0	mg/kg w	et 1							
Oil	ND	20.0	40.0	mg/kg w	et 1							
Surr: o-Terphenyl (Surr)		Rec	overy: 86 %	Limits: 50	-150 %	Dili	ution: 1x					
LCS (23D0059-BS1)			Prepareo	d: 04/03/23 1	4:53 Ana	lyzed: 04/04	/23 01:58					
NWTPH-Dx												
Diesel	103	10.0	20.0	mg/kg w	et 1	125		83	38-132%			
Surr: o-Terphenyl (Surr)		Rec	overy: 87 %	Limits: 50	-150 %	Dili	ution: 1x					
Duplicate (23D0059-DUP1)			Prepareo	d: 04/03/23	4:53 Ana	lyzed: 04/04	/23 02:58					CONT
QC Source Sample: FC-032023-20	081 (A3C08	<u>42-01)</u>										
<u>NWTPH-Dx</u>												
Diesel	2160	405	811	mg/kg di	y 10		2120			2	30%	F-1
Oil	ND	811	1620	mg/kg di	y 10		ND				30%	
Surr: o-Terphenyl (Surr)		Rec	overy: 85 %	Limits: 50	-150 %	Dili	ution: 10x					S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: **111323** Project Manager: **Chip Byrd**

Project:

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasco -- Filtercake

	Gasolin	e Range Hy	drocarbo	ons (Ben	zene throu	igh Naph ն	thalene)	by NWTF	PH-Gx			
Analyte	Result	Detection I Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0957 - EPA 5035A							Soi	il				
Blank (23C0957-BLK1)			Preparec	1: 03/24/23	08:46 Anal	yzed: 03/24/	/23 10:36			_		
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Recovery	v: 104 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			102 %		0-150 %		"					
LCS (23C0957-BS2)			Preparec	1: 03/24/23	08:46 Anal	yzed: 03/24/	/23 10:04					
NWTPH-Gx (MS)												
Gasoline Range Organics	22600	2500	5000	ug/kg w	vet 50	25000		90	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Recovery	v: 105 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			101 %	5,	0-150 %							
Duplicate (23C0957-DUP1)			Preparec	1: 03/21/23	10:40 Anal	yzed: 03/24/	/23 11:27					
QC Source Sample: Non-SDG (A3	<u>C0780-02)</u>											
Gasoline Range Organics	ND	6040	12100	ug/kg d	'ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recover	v: 101 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			102 %	5	0-150 %		"					
Duplicate (23C0957-DUP2)			Preparec	1: 03/22/23	10:35 Anal	yzed: 03/24/	/23 12:18					
QC Source Sample: Non-SDG (A3	<u>C0846-01)</u>											
Gasoline Range Organics	ND	3920	7840	ug/kg d	'ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recover	·: 103 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)		-	104 %	50	0-150 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasco -- Filtercake

	Gasolin	e Range Hy	/drocarbo	ons (Ben	zene throu	igh Naph	thalene)	by NWTF	PH-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soi	il				
Blank (23C1025-BLK1)			Preparec	1: 03/27/23	08:14 Anal	yzed: 03/27/	/23 10:47		_			
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Recove	ry: 101 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)		<u></u>	102 %	5	0-150 %		"					
LCS (23C1025-BS2)			Preparec	1: 03/27/23	08:14 Anal	yzed: 03/27/	/23 10:17	_		_		
NWTPH-Gx (MS)												
Gasoline Range Organics	23500	2500	5000	ug/kg w	vet 50	25000		94	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Recove	ry: 101 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			101 %	5	0-150 %		"					
Duplicate (23C1025-DUP1)			Preparec	1: 03/24/23	09:05 Anal	yzed: 03/27/	/23 12:30			_		
QC Source Sample: Non-SDG (A3	<u>C0889-01)</u>											
Gasoline Range Organics	ND	3060	6120	ug/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recove	ry: 109 %	Limits: 5	0-150 %	Dilt	ution: 1x					
1,4-Difluorobenzene (Sur)			101 %	5	0-150 %		"					
Duplicate (23C1025-DUP2)			Preparec	1: 03/22/23	10:45 Anal	yzed: 03/27/	/23 14:12			_	_	
QC Source Sample: Non-SDG (A3	<u>C0905-01)</u>											
Gasoline Range Organics	ND	2780	5550	ug/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recove	ry: 103 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			101 %	5	0-150 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

				· · · ·								
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0957 - EPA 5035A							Soil					
Blank (23C0957-BLK1)			Prepared	: 03/24/23 08:	46 Anal	lyzed: 03/24/	23 10:36					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

Batch 23C0957 - EPA 5035A Blank (23C0957-BLK1) 1,2-Dichloropropane ND 1,3-Dichloropropane ND 2,2-Dichloropropane ND 1,1-Dichloropropane ND 1,1-Dichloropropane ND cis-1,3-Dichloropropene ND trans-1,3-Dichloropropene ND Ethylbenzene ND Hexachlorobutadiene ND 2-Hexanone ND Isopropylbenzene ND 4-Isopropyltoluene ND Methylene chloride ND Methyl tert-butyl ether (MTBE) ND Naphthalene ND n-Propylbenzene ND Styrene ND 1,1,2.7-tetrachloroethane ND 1,1,2.7-tetrachloroethane ND 1,2,3-Trichlorobenzene ND 1,2,4-Trichlorobenzene ND 1,1,2-Trichloroethane ND 1,1,2-Trichloroethane ND 1,1,1-Trichloroethane ND 1,1,2.7-Tichloroethane ND 1,1,2.7-Trichloroethane ND 1,1,2.7-Trichloroetha	12.5 25.0 25.0 25.0 25.0 25.0 25.0	Prepared 25.0 50.0 50.0	: 03/24/23 08: ug/kg wet ug/kg wet	:46 Anal	vzed: 03/24/	Soil			
Blank (23C0957-BLK1) 1,2-Dichloropropane ND 1,3-Dichloropropane ND 2,2-Dichloropropane ND 1,1-Dichloropropane ND 1,1-Dichloropropene ND cis-1,3-Dichloropropene ND trans-1,3-Dichloropropene ND trans-1,3-Dichloropropene ND Ethylbenzene ND Hexachlorobutadiene ND 2-Hexanone ND Isopropylbenzene ND 4-Isopropyltoluene ND Methylene chloride ND 4-Methyl-2-pentanone (MiBK) ND Methyl tert-butyl ether (MTBE) ND Naphthalene ND n-Propylbenzene ND Styrene ND 1,1,2-Tetrachloroethane ND 1,1,2-Tetrachloroethane ND 1,2,3-Trichlorobenzene ND 1,2,4-Trichlorobenzene ND 1,1,2-Trichloroethane ND 1,1,2-Trichloroethane ND 1,1,2-Trichloroethane ND 1,1,2-Trichloroethane ND 1,1,	12.5 25.0 25.0 25.0 25.0 25.0 25.0	Prepared 25.0 50.0 50.0	: 03/24/23 08: ug/kg wet ug/kg wet	:46 Anal	vzed: 03/24/				
1,2-DichloropropaneND1,3-DichloropropaneND2,2-DichloropropaneND2,2-DichloropropaneND1,1-DichloropropeneNDcis-1,3-DichloropropeneNDtrans-1,3-DichloropropeneNDEthylbenzeneNDHexachlorobutadieneND2-HexanoneNDIsopropylbenzeneND4-IsopropyltolueneNDMethylene chlorideNDMethyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneND1,1,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2,3-TrichloroethaneNDTrichlorofluoromethaneND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND1,2,3-TrichloropenaeND	12.5 25.0 25.0 25.0 25.0 25.0 25.0	25.0 50.0 50.0	ug/kg wet ug/kg wet	50	yzeu. 05/24/	23 10:36			
1,3-DichloropropaneND2,2-DichloropropaneND2,2-DichloropropeneNDcis-1,3-DichloropropeneNDtrans-1,3-DichloropropeneNDEthylbenzeneNDHexachlorobutadieneND2-HexanoneNDIsopropylbenzeneND4-IsopropyltolueneNDMethylene chlorideNDMethyl-2-pentanone (MiBK)NDNaphthaleneNDN-PropylbenzeneNDNgNDMethyl tert-butyl ether (MTBE)NDNaphthaleneND1,1,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2,3-TrichloroethaneNDTrichlorofluoromethaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND1,2,3-TrichloroptaneND	25.0 25.0 25.0 25.0 25.0	50.0 50.0	ug/kg wet	50			 	 	
2,2-DichloropropaneND1,1-DichloropropeneNDtrans-1,3-DichloropropeneNDtrans-1,3-DichloropropeneNDEthylbenzeneNDHexachlorobutadieneND2-HexanoneNDIsopropylbenzeneND4-IsopropylbenzeneND4-IsopropylbenzeneNDMethylene chlorideNDMethyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneND1,1,2,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2,3-TrichloroethaneNDTrichlorofluoromethaneND1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,2,3-TrichloropropaneND	25.0 25.0 25.0 25.0	50.0	-	50			 	 	
1,1-DichloropropeneNDcis-1,3-DichloropropeneNDtrans-1,3-DichloropropeneNDEthylbenzeneNDHexachlorobutadieneND2-HexanoneNDIsopropylbenzeneND4-IsopropylbenzeneND4-IsopropylbenzeneND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneND1,1,2-TetrachloroethaneND1,1,2-TetrachloroethaneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloropropaneND	25.0 25.0 25.0	50.0	ug/kg wet	50			 	 	
cis-1,3-DichloropropeneNDEthylbenzeneNDEthylbenzeneNDHexachlorobutadieneND2-HexanoneNDIsopropylbenzeneND4-IsopropylbenzeneND4-IsopropylbenzeneND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneND1,1,2,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloropropaneND	25.0 25.0	50.0	ug/kg wet	50			 	 	
trans-1,3-DichloropropeneNDEthylbenzeneNDHexachlorobutadieneND2-HexanoneNDIsopropylbenzeneND4-IsopropylbenzeneND4-IsopropylbenzeneND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneND1,1,1,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneNDTolueneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2,3-TrichloroethaneND1,1,2,3-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloropropaneND	25.0	50.0	ug/kg wet	50			 	 	
EthylbenzeneNDHexachlorobutadieneND2-HexanoneNDIsopropylbenzeneND4-IsopropylbenzeneND4-IsopropylbenzeneNDMethylene chlorideND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneNDn-PropylbenzeneNDStyreneND1,1,2,2-TetrachloroethaneNDTetrachloroethene (PCE)ND1,2,3-TrichlorobenzeneND1,2,4-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloroethaneND1,1,2-TrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloroethaneNDTrichloroethaneND1,2,3-TrichloroethaneND1,2,3-TrichloropropaneND	· · · -	50.0	ug/kg wet	50			 	 	
HexachlorobutadieneND2-HexanoneNDIsopropylbenzeneND4-IsopropylbenzeneND4-IsopropylbenzeneNDMethylene chlorideND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneNDn-PropylbenzeneNDStyreneND1,1,2.7-EtrachloroethaneNDTolueneND1,2,3-TrichlorobenzeneND1,1,1-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND	12.5	25.0	ug/kg wet	50			 	 	
2-HexanoneNDIsopropylbenzeneND4-IsopropyltolueneNDMethylene chlorideND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneNDn-PropylbenzeneND1,1,1,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneND1,2,3-TrichlorobenzeneND1,2,4-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,2,3-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND1,2,3-TrichloropthaneND	50.0	100	ug/kg wet	50			 	 	
IsopropylbenzeneND4-IsopropyltolueneNDMethylene chlorideND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneNDn-PropylbenzeneNDStyreneND1,1,2-TetrachloroethaneNDTetrachloroethaneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	500	500	ug/kg wet	50			 	 	
A-IsopropyltolueneNDMethylene chlorideND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneNDn-PropylbenzeneNDStyreneND1,1,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneNDTolueneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	25.0	50.0	ug/kg wet	50			 	 	
Methylene chlorideND4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneNDn-PropylbenzeneNDStyreneND1,1,1,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneNDTetrachloroethene (PCE)NDTolueneND1,2,3-TrichlorobenzeneND1,2,4-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	25.0	50.0	ug/kg wet	50			 	 	
4-Methyl-2-pentanone (MiBK)NDMethyl tert-butyl ether (MTBE)NDNaphthaleneNDn-PropylbenzeneNDStyreneND1,1,2,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneNDTetrachloroethene (PCE)NDTolueneND1,2,3-TrichlorobenzeneND1,2,4-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethaneND1,1,2-TrichloroethaneNDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	250	500	ug/kg wet	50			 	 	
Methyl tert-butyl ether (MTBE)NDNaphthaleneNDn-PropylbenzeneNDStyreneND1,1,2.7EtrachloroethaneND1,1,2.7EtrachloroethaneNDTetrachloroethene (PCE)NDTolueneND1,2,3-TrichlorobenzeneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	500	500	ug/kg wet	50			 	 	
NaphthaleneNDn-PropylbenzeneNDStyreneND1,1,2.7EtrachloroethaneND1,1,2.7EtrachloroethaneNDTetrachloroethene (PCE)NDTolueneND1,2,3-TrichlorobenzeneND1,2,4-TrichloroethaneND1,1,2-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethaneND1,1,2-TrichloroethaneNDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	25.0	50.0	ug/kg wet	50			 	 	
n-Propylbenzene ND Styrene ND 1,1,1,2-Tetrachloroethane ND 1,1,2,2-Tetrachloroethane ND 1,1,2,2-Tetrachloroethane ND Tetrachloroethene (PCE) ND Toluene ND 1,2,3-Trichlorobenzene ND 1,2,4-Trichlorobenzene ND 1,1,1-Trichloroethane ND 1,1,2-Trichloroethane ND Trichloroethene (TCE) ND Trichlorofluoromethane ND 1,2,3-Trichloropropane ND	50.0	100	ug/kg wet	50			 	 	
StyreneND1,1,1,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneNDTetrachloroethene (PCE)NDTolueneND1,2,3-TrichlorobenzeneND1,2,4-TrichloroethaneND1,1,1-TrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichloroethaneND1,2,3-TrichloropropaneND	12.5	25.0	ug/kg wet	50			 	 	
1,1,1,2-TetrachloroethaneND1,1,2,2-TetrachloroethaneNDTetrachloroethene (PCE)NDTolueneND1,2,3-TrichlorobenzeneND1,2,4-TrichloroethaneND1,1,1-TrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichloroethaneNDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	25.0	50.0	ug/kg wet	50			 	 	
1,1,2,2-TetrachloroethaneNDTetrachloroethene (PCE)NDTolueneND1,2,3-TrichlorobenzeneND1,2,4-TrichloroethaneND1,1,1-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	12.5	25.0	ug/kg wet	50			 	 	
Tetrachloroethene (PCE)NDTolueneND1,2,3-TrichlorobenzeneND1,2,4-TrichlorobenzeneND1,1,1-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	25.0	50.0	ug/kg wet	50			 	 	
TolueneND1,2,3-TrichlorobenzeneND1,2,4-TrichlorobenzeneND1,1,1-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	12.5	25.0	ug/kg wet	50			 	 	
1,2,3-TrichlorobenzeneND1,2,4-TrichlorobenzeneND1,1,1-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	25.0	50.0	ug/kg wet	50			 	 	
1,2,4-TrichlorobenzeneND1,1,1-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	125	250	ug/kg wet	50			 	 	
1,1,1-TrichloroethaneND1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	125	250	ug/kg wet	50			 	 	
1,1,2-TrichloroethaneNDTrichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	12.5	25.0	ug/kg wet	50			 	 	
Trichloroethene (TCE)NDTrichlorofluoromethaneND1,2,3-TrichloropropaneND	12.5	25.0	ug/kg wet	50			 	 	
TrichlorofluoromethaneND1,2,3-TrichloropropaneND	12.5	25.0	ug/kg wet	50			 	 	
1,2,3-Trichloropropane ND	50.0	100	ug/kg wet	50			 	 	
	25.0	50.0	ug/kg wet	50			 	 	
1,2,4-Trimethylbenzene ND	25.0	50.0	ug/kg wet	50			 	 	
1,3,5-Trimethylbenzene ND	25.0	50.0	ug/kg wet	50			 	 	
Vinyl chloride ND	12.5	25.0	ug/kg wet	50			 	 	
m,p-Xylene ND		50.0	ug/kg wet	50			 	 	
o-Xylene ND	25.0	25.0	ug/kg wet	50			 	 	

Apex Laboratories



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

<u>Sevenson Environmental Servi</u>	ces, Inc.			Project:	<u>Gasco -</u>	- Filtercake	2					
2749 Lockport Road			Pro	oject Numbe	r: 111323					H	Report ID:	<u>:</u>
Niagara Falls, NY 14305			Pro	ject Manage	r: Chip B	rd			A	3C0842	2 - 05 03 23	3 1321
		QU	ALITY CO	ONTROL	(QC) SA	MPLE R	RESULT	s				
			Volatile Or	ganic Cor	npounds	by EPA 8	8260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0957 - EPA 5035A							So	il				
Blank (23C0957-BLK1)			Prepared	1: 03/24/23 0	8:46 Ana	lyzed: 03/24	/23 10:36					
Surr: Toluene-d8 (Surr)		Rec	overy: 96 %	Limits: 80-	120 % 120 %	Dil	ution: 1x "					
			20.70		120 /0							
LCS (23C0957-BS1)			Prepared	1: 03/24/23 0	8:46 Ana	lyzed: 03/24	/23 09:38					
<u>5035A/8260D</u>	1740	500	1000	4	. 50	2000		07	00.1000/			
Acetone	1/40	500	1000	ug/kg we	t 50	2000		8/	80-120%			
Acryionitrite	9/0	50.0	100	ug/kg we	1 50	1000		9/	80-120%			
Benzene	1040	5.00	10.0	ug/kg we	1 50	1000		104	80-120%			
Bromobenzene	994	12.5	25.0	ug/kg we	t 50	1000		99	80-120%			
Bromocniorometnane	1040	25.0	50.0	ug/kg we	1 50	1000		104	80-120%			
Bromodicniorometnane	1090	25.0	100	ug/kg we	1 50	1000		109	80-120%			0.54
Bromotorm Due no en ette en e	1220	50.0	500	ug/kg we	1 50	1000		122	80-120%			Q-50
2 Detension (MEK)	1520	250	500	ug/kg we	1 50	2000		152	80-120%			Q-30
2-Butanone (MEK)	1890	250	500	ug/kg we	1 50	2000		95	80-120%			
n-Butylbenzene	894	25.0	50.0	ug/kg we	1 50	1000		89	80-120%			
sec-Butylbenzene	938	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			
tert-Butylbenzene	837	25.0	50.0	ug/kg we	t 50	1000		84	80-120%			
Carbon disulfide	930	250	500	ug/kg we	t 50	1000		93	80-120%			
Carbon tetrachloride	1200	25.0	50.0	ug/kg we	t 50	1000		120	80-120%			
Chlorobenzene	9//	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			0.5
Chloroethane	1550	250	500	ug/kg we	t 50	1000		155	80-120%			Q-30
Chloroform	1070	25.0	50.0	ug/kg we	t 50	1000		107	80-120%			
	961	125	250	ug/kg we	t 50	1000		96	80-120%			
2-Chlorotoluene	936	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			
4-Chlorotoluene	921	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
Dibromochloromethane	1100	50.0	100	ug/kg we	t 50	1000		110	80-120%			
1,2-Dibromo-3-chloropropane	816	125	250	ug/kg we	t 50	1000		82	80-120%			
1,2-Dibromoethane (EDB)	972	25.0	50.0	ug/kg we	t 50	1000		97	80-120%			
Dibromomethane	1050	25.0	50.0	ug/kg we	t 50	1000		105	80-120%			
1,2-Dichlorobenzene	971	12.5	25.0	ug/kg we	t 50	1000		97	80-120%			
1,3-Dichlorobenzene	968	12.5	25.0	ug/kg we	t 50	1000		97	80-120%			
1,4-Dichlorobenzene	968	12.5	25.0	ug/kg we	t 50	1000		97	80-120%			
Dichlorodifluoromethane	1170	50.0	100	ug/kg we	t 50	1000		117	80-120%			

Apex Laboratories

1,1-Dichloroethane

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

104

80-120%

1000

1040

12.5

25.0

ug/kg wet 50



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Recul+	Detection	Reporting	Unite	Dilution	Spike	Source Result	% D EC	% REC	רופק	RPD Limit	Notes
2 mai y te	result	Limit	Liillt	Units		Amount	result	70 KEU		ILL D		indies
Batch 23C0957 - EPA 5035A							Soi	I				
LCS (23C0957-BS1)			Prepared:	: 03/24/23 08	3:46 Anal	yzed: 03/24/	23 09:38					
1,2-Dichloroethane (EDC)	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
1,1-Dichloroethene	1070	12.5	25.0	ug/kg wet	50	1000		107	80-120%			
cis-1,2-Dichloroethene	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
trans-1,2-Dichloroethene	1010	12.5	25.0	ug/kg wet	50	1000		101	80-120%			
1,2-Dichloropropane	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
1,3-Dichloropropane	960	25.0	50.0	ug/kg wet	50	1000		96	80-120%			
2,2-Dichloropropane	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
1,1-Dichloropropene	1060	25.0	50.0	ug/kg wet	50	1000		106	80-120%			
cis-1,3-Dichloropropene	962	25.0	50.0	ug/kg wet	50	1000		96	80-120%			
trans-1,3-Dichloropropene	988	25.0	50.0	ug/kg wet	50	1000		99	80-120%			
Ethylbenzene	936	12.5	25.0	ug/kg wet	50	1000		94	80-120%			
Hexachlorobutadiene	942	50.0	100	ug/kg wet	50	1000		94	80-120%			
2-Hexanone	1510	500	500	ug/kg wet	50	2000		75	80-120%			Q-5
Isopropylbenzene	932	25.0	50.0	ug/kg wet	50	1000		93	80-120%			
4-Isopropyltoluene	906	25.0	50.0	ug/kg wet	50	1000		91	80-120%			
Methylene chloride	1060	250	500	ug/kg wet	50	1000		106	80-120%			
4-Methyl-2-pentanone (MiBK)	1550	500	500	ug/kg wet	50	2000		77	80-120%			Q-5
Methyl tert-butyl ether (MTBE)	934	25.0	50.0	ug/kg wet	50	1000		93	80-120%			
Naphthalene	862	50.0	100	ug/kg wet	50	1000		86	80-120%			
n-Propylbenzene	950	12.5	25.0	ug/kg wet	50	1000		95	80-120%			
Styrene	852	25.0	50.0	ug/kg wet	50	1000		85	80-120%			
1,1,1,2-Tetrachloroethane	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
1,1,2,2-Tetrachloroethane	878	25.0	50.0	ug/kg wet	50	1000		88	80-120%			
Tetrachloroethene (PCE)	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%			
Toluene	936	25.0	50.0	ug/kg wet	50	1000		94	80-120%			
1,2,3-Trichlorobenzene	910	125	250	ug/kg wet	50	1000		91	80-120%			
1,2,4-Trichlorobenzene	941	125	250	ug/kg wet	50	1000		94	80-120%			
1,1,1-Trichloroethane	1090	12.5	25.0	ug/kg wet	50	1000		109	80-120%			
1,1,2-Trichloroethane	984	12.5	25.0	ug/kg wet	50	1000		98	80-120%			
Trichloroethene (TCE)	1170	12.5	25.0	ug/kg wet	50	1000		117	80-120%			
Trichlorofluoromethane	1620	50.0	100	ug/kg wet	50	1000		162	80-120%			Q-5
1,2,3-Trichloropropane	932	25.0	50.0	ug/kg wet	50	1000		93	80-120%			
1,2,4-Trimethylbenzene	916	25.0	50.0	ug/kg wet	50	1000		92	80-120%			
1,3,5-Trimethvlbenzene	950	25.0	50.0	ug/kg wet	50	1000		95	80-120%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0957 - EPA 5035A							Soi	<u>il</u>				
LCS (23C0957-BS1)			Prepared	1: 03/24/23 08	3:46 Anal	yzed: 03/24/	/23 09:38					
Vinyl chloride	1180	12.5	25.0	ug/kg wet	50	1000		118	80-120%			
m,p-Xylene	1910	25.0	50.0	ug/kg wet	50	2000		96	80-120%			
o-Xylene	910	12.5	25.0	ug/kg wet	50	1000		91	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 108 %	Limits: 80-1	120 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			98 %	80-1	'20 %		"					
4-Bromofluorobenzene (Surr)			96 %	79-1	20 %		"					
Duplicate (23C0957-DUP1)			Preparec	1: 03/21/23 10):40 Anal	yzed: 03/24/	/23 11:27					
OC Source Sample: Non-SDG (A3	<u>C0780-02)</u>											
Acetone	ND	1210	2420	ug/kg drv	50		ND				30%	
Acrylonitrile	ND	121	242	ug/kg dry	50		ND				30%	
Benzene	27.8	12.1	24.2	ug/kg dry	50		27.8			0	30%	
Bromobenzene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	60.4	121	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	60.4	121	ug/kg dry	50		ND				30%	
Bromoform	ND	121	242	ug/kg dry	50		ND				30%	
Bromomethane	ND	1210	1210	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	604	1210	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	60.4	121	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	60.4	121	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	60.4	121	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	604	1210	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	60.4	121	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
Chloroethane	ND	604	1210	ug/kg dry	50		ND				30%	
Chloroform	ND	60.4	121	ug/kg dry	50		ND				30%	
Chloromethane	ND	302	604	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	60.4	121	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	60.4	121	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	121	242	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	302	604	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	60.4	121	ug/kg dry	50		ND				30%	
Dibromomethane	ND	60.4	121	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
				-								

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0957 - EPA 5035A							Soi	1				
Duplicate (23C0957-DUP1)			Prepared	: 03/21/23 10):40 Ana	lyzed: 03/24	/23 11:27					
QC Source Sample: Non-SDG (A3	C0780-02)											
1,3-Dichlorobenzene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	121	242	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	30.2	60.4	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	30.2	60.4	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	30.2	60.4	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	60.4	121	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	60.4	121	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	60.4	121	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	60.4	121	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	60.4	121	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	121	242	ug/kg dry	50		ND				30%	
2-Hexanone	ND	1210	1210	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	60.4	121	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	60.4	121	ug/kg dry	50		ND				30%	
Methylene chloride	ND	604	1210	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	1210	1210	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	60.4	121	ug/kg dry	50		ND				30%	
Naphthalene	ND	121	242	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	30.2	60.4	ug/kg dry	50		ND				30%	
Styrene	ND	60.4	121	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	30.2	60.4	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	60.4	121	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	30.2	60.4	ug/kg dry	50		ND				30%	
Toluene	ND	60.4	121	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene	ND	302	604	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	302	604	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	30.2	60.4	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	30.2	60.4	ug/kg dry	50		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D Detection Reporting Spike Source % REC RPD												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0957 - EPA 5035A							Soi	<u>I</u>				
Duplicate (23C0957-DUP1)			Preparec	d: 03/21/23 1	0:40 Ana	lyzed: 03/24/	23 11:27					
QC Source Sample: Non-SDG (A3	<u>C0780-02)</u>											
Trichloroethene (TCE)	ND	30.2	60.4	ug/kg dry	y 50		ND				30%	
Trichlorofluoromethane	ND	121	242	ug/kg dry	y 50		ND				30%	
1,2,3-Trichloropropane	ND	60.4	121	ug/kg dry	v 50		ND				30%	
1,2,4-Trimethylbenzene	ND	60.4	121	ug/kg dry	v 50		ND				30%	
1,3,5-Trimethylbenzene	ND	60.4	121	ug/kg dry	y 50		ND				30%	
Vinyl chloride	ND	30.2	60.4	ug/kg dry	v 50		ND				30%	
m,p-Xylene	ND	60.4	121	ug/kg dry	v 50		ND				30%	
o-Xylene	ND	30.2	60.4	ug/kg dry	v 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 108 %	Limits: 80-	-120 %	Dilu	tion: 1x					
Toluene-d8 (Surr)			98 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3	<u>C0846-01)</u>											
Acetone	ND	784	1570	ug/kg drv	y 50		ND				30%	
Acrylonitrile	ND	78.4	157	ug/kg dry	y 50		ND				30%	
Benzene	ND	7.84	15.7	ug/kg dry	y 50		ND				30%	
Bromobenzene	ND	19.6	39.2	ug/kg dry	y 50		ND				30%	
Bromochloromethane	ND	39.2	78.4	ug/kg dry	v 50		ND				30%	
Bromodichloromethane	ND	39.2	78.4	ug/kg dry	v 50		ND				30%	
Bromoform	ND	78.4	157	ug/kg dry	y 50		ND				30%	
Bromomethane	ND	784	784	ug/kg dry	y 50		ND				30%	
2-Butanone (MEK)	ND	392	784	ug/kg dry	y 50		ND				30%	
n-Butylbenzene	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
sec-Butylbenzene	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
tert-Butylbenzene	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
Carbon disulfide	ND	392	784	ug/kg dry	y 50		ND				30%	
Carbon tetrachloride	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
Chlorobenzene	ND	19.6	39.2	ug/kg dry	y 50		ND				30%	
Chloroethane	ND	392	784	ug/kg dry	y 50		ND				30%	
Chloroform	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
Chloromethane	ND	196	392	ug/kg dry	y 50		ND				30%	
2-Chlorotoluene	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0957 - EPA 5035A							Soi	I				
Duplicate (23C0957-DUP2)			Prepared	: 03/22/23 10	:35 Anal	yzed: 03/24/	/23 12:18					
QC Source Sample: Non-SDG (A3	C0846-01)											
4-Chlorotoluene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	78.4	157	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	196	392	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Dibromomethane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,3-Dichlorobenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	78.4	157	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	78.4	157	ug/kg dry	50		ND				30%	
2-Hexanone	ND	784	784	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Methylene chloride	ND	392	784	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	784	784	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Naphthalene	ND	78.4	157	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Styrene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	19.6	39.2	ug/kg drv	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	39.2	78.4	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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
Batch 23C0957 - EPA 5035A							So	I				
Duplicate (23C0957-DUP2)			Preparec	1: 03/22/23 1	0:35 Ana	lyzed: 03/24	/23 12:18					
QC Source Sample: Non-SDG (A3	3C0846-01)											
Tetrachloroethene (PCE)	ND	19.6	39.2	ug/kg dr	y 50		ND				30%	
Toluene	ND	39.2	78.4	ug/kg dr	y 50		ND				30%	
1,2,3-Trichlorobenzene	ND	196	392	ug/kg dr	y 50		ND				30%	
1,2,4-Trichlorobenzene	ND	196	392	ug/kg dr	y 50		ND				30%	
1,1,1-Trichloroethane	ND	19.6	39.2	ug/kg dr	y 50		ND				30%	
1,1,2-Trichloroethane	ND	19.6	39.2	ug/kg dr	y 50		ND				30%	
Trichloroethene (TCE)	ND	19.6	39.2	ug/kg dr	y 50		ND				30%	
Trichlorofluoromethane	ND	78.4	157	ug/kg dr	y 50		ND				30%	
1,2,3-Trichloropropane	ND	39.2	78.4	ug/kg dr	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	39.2	78.4	ug/kg dr	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	39.2	78.4	ug/kg dr	y 50		ND				30%	
Vinyl chloride	ND	19.6	39.2	ug/kg dr	y 50		ND				30%	
m,p-Xylene	ND	39.2	78.4	ug/kg dr	y 50		ND				30%	
o-Xylene	ND	19.6	39.2	ug/kg dr	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 108 %	Limits: 80-	-120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			96 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					
Matrix Spike (23C0957-MS1)			Preparec	1: 03/22/23 1	6:37 Ana	lyzed: 03/24	/23 16:07					V-15
QC Source Sample: Non-SDG (A3	3C0802-08)											
5035A/8260D												
Acetone	3010	772	1540	ug/kg dr	y 50	3090	ND	97	36-164%			
Acrylonitrile	1640	77.2	154	ug/kg dr	y 50	1540	ND	106	65-134%			
Benzene	1800	7.72	15.4	ug/kg dr	y 50	1540	ND	116	77-121%			
Bromobenzene	1610	19.3	38.6	ug/kg dr	y 50	1540	ND	104	78-121%			
Bromochloromethane	1760	38.6	77.2	ug/kg dr	y 50	1540	ND	114	78-125%			
Bromodichloromethane	1830	38.6	77.2	ug/kg dr	y 50	1540	ND	118	75-127%			
Bromoform	2020	77.2	154	ug/kg dr	y 50	1540	ND	131	67-132%			Q-54
Bromomethane	2940	772	772	ug/kg dr	y 50	1540	ND	191	53-143%			Q-54
2-Butanone (MEK)	3250	386	772	ug/kg dr	y 50	3090	ND	105	51-148%			
n-Butylbenzene	1650	38.6	77.2	ug/kg dr	y 50	1540	ND	107	70-128%			
sec-Butylbenzene	1660	38.6	77.2	ug/kg dr	y 50	1540	ND	107	73-126%			
tert-Butylbenzene	1510	38.6	77.2	ug/kg dr	v 50	1540	ND	98	73-125%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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	
Batch 23C0957 - EPA 5035A							So	il					
Matrix Spike (23C0957-MS1)			Prepared	: 03/22/23 10	6:37 Ana	lyzed: 03/24	/23 16:07					V-15	
QC Source Sample: Non-SDG (A3	<u>C0802-08)</u>												
Carbon disulfide	1690	386	772	ug/kg dry	50	1540	ND	109	63-132%				
Carbon tetrachloride	2090	38.6	77.2	ug/kg dry	50	1540	ND	135	70-135%				
Chlorobenzene	1670	19.3	38.6	ug/kg dry	50	1540	ND	108	79-120%				
Chloroethane	3320	386	772	ug/kg dry	50	1540	ND	215	59-139%			Q-54	
Chloroform	1810	38.6	77.2	ug/kg dry	50	1540	ND	117	78-123%				
Chloromethane	1760	193	386	ug/kg dry	50	1540	ND	114	50-136%				
2-Chlorotoluene	1620	38.6	77.2	ug/kg dry	50	1540	ND	105	75-122%				
4-Chlorotoluene	1550	38.6	77.2	ug/kg dry	50	1540	ND	100	72-124%				
Dibromochloromethane	1830	77.2	154	ug/kg dry	50	1540	ND	119	74-126%				
1,2-Dibromo-3-chloropropane	1420	193	386	ug/kg dry	50	1540	ND	92	61-132%				
1,2-Dibromoethane (EDB)	1590	38.6	77.2	ug/kg dry	50	1540	ND	103	78-122%				
Dibromomethane	1740	38.6	77.2	ug/kg dry	50	1540	ND	113	78-125%				
1,2-Dichlorobenzene	1620	19.3	38.6	ug/kg dry	50	1540	ND	105	78-121%				
1,3-Dichlorobenzene	1640	19.3	38.6	ug/kg dry	50	1540	ND	106	77-121%				
1,4-Dichlorobenzene	1610	19.3	38.6	ug/kg dry	50	1540	ND	104	75-120%				
Dichlorodifluoromethane	2130	77.2	154	ug/kg dry	50	1540	ND	138	29-149%				
1,1-Dichloroethane	1810	19.3	38.6	ug/kg dry	50	1540	ND	118	76-125%				
1,2-Dichloroethane (EDC)	1750	19.3	38.6	ug/kg dry	50	1540	ND	114	73-128%				
1,1-Dichloroethene	1910	19.3	38.6	ug/kg dry	50	1540	ND	123	70-131%				
cis-1,2-Dichloroethene	1740	19.3	38.6	ug/kg dry	50	1540	ND	113	77-123%				
trans-1,2-Dichloroethene	1780	19.3	38.6	ug/kg dry	50	1540	ND	115	74-125%				
1,2-Dichloropropane	1750	19.3	38.6	ug/kg dry	50	1540	ND	113	76-123%				
1,3-Dichloropropane	1630	38.6	77.2	ug/kg dry	50	1540	ND	105	77-121%				
2,2-Dichloropropane	1710	38.6	77.2	ug/kg dry	50	1540	ND	110	67-133%				
1,1-Dichloropropene	1850	38.6	77.2	ug/kg dry	50	1540	ND	120	76-125%				
cis-1,3-Dichloropropene	1580	38.6	77.2	ug/kg dry	50	1540	ND	102	74-126%				
trans-1,3-Dichloropropene	1610	38.6	77.2	ug/kg dry	50	1540	ND	105	71-130%				
Ethylbenzene	1630	19.3	38.6	ug/kg dry	50	1540	ND	105	76-122%				
Hexachlorobutadiene	1830	77.2	154	ug/kg dry	50	1540	ND	118	61-135%				
2-Hexanone	2560	772	772	ug/kg dry	50	3090	ND	83	53-145%			Q-54	
Isopropylbenzene	1620	38.6	77.2	ug/kg drv	50	1540	ND	105	68-134%				
4-Isopropyltoluene	1590	38.6	77.2	ug/kg drv	50	1540	ND	103	73-127%				
Methylene chloride	1790	386	772	110/kg dry	50	1540	ND	116	70-128%				

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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		
Batch 23C0957 - EPA 5035A							So	il						
Matrix Spike (23C0957-MS1)			Prepared	1: 03/22/23 1	6:37 Ana	yzed: 03/24	/23 16:07					V-15		
QC Source Sample: Non-SDG (A30	<u> (0802-08)</u>													
4-Methyl-2-pentanone (MiBK)	2680	772	772	ug/kg dry	50	3090	ND	87	65-135%			Q-5		
Methyl tert-butyl ether (MTBE)	1530	38.6	77.2	ug/kg dry	50	1540	ND	99	73-125%					
Naphthalene	1670	77.2	154	ug/kg dry	50	1540	ND	108	62-129%					
n-Propylbenzene	1660	19.3	38.6	ug/kg dry	50	1540	ND	108	73-125%					
Styrene	1480	38.6	77.2	ug/kg dry	50	1540	ND	96	76-124%					
1,1,1,2-Tetrachloroethane	1770	19.3	38.6	ug/kg dry	50	1540	ND	115	78-125%					
1,1,2,2-Tetrachloroethane	1580	38.6	77.2	ug/kg dry	50	1540	ND	97	70-124%					
Tetrachloroethene (PCE)	1770	19.3	38.6	ug/kg dry	50	1540	ND	115	73-128%					
Toluene	1630	38.6	77.2	ug/kg dry	50	1540	ND	105	77-121%					
1,2,3-Trichlorobenzene	1630	193	386	ug/kg dry	50	1540	ND	106	66-130%					
1,2,4-Trichlorobenzene	1710	193	386	ug/kg dry	50	1540	ND	111	67-129%					
1,1,1-Trichloroethane	1870	19.3	38.6	ug/kg dry	50	1540	ND	121	73-130%					
1,1,2-Trichloroethane	1640	19.3	38.6	ug/kg dry	50	1540	ND	106	78-121%					
Trichloroethene (TCE)	1940	19.3	38.6	ug/kg dry	50	1540	ND	125	77-123%			Q-		
Trichlorofluoromethane	9070	77.2	154	ug/kg dry	50	1540	ND	587	62-140%			Q-5		
1,2,3-Trichloropropane	1520	38.6	77.2	ug/kg dry	50	1540	ND	99	73-125%					
1,2,4-Trimethylbenzene	1540	38.6	77.2	ug/kg dry	50	1540	ND	100	75-123%					
1,3,5-Trimethylbenzene	1590	38.6	77.2	ug/kg dry	50	1540	ND	103	73-124%					
Vinyl chloride	2180	19.3	38.6	ug/kg dry	50	1540	ND	141	56-135%			Q-		
m,p-Xylene	3240	38.6	77.2	ug/kg dry	50	3090	ND	105	77-124%					
o-Xylene	1590	19.3	38.6	ug/kg dry	50	1540	ND	103	77-123%					
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 107 %	Limits: 80-	120 %	Dilı	ution: 1x							
Toluene-d8 (Surr)			97 %	80-	120 %		"							
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units I	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23C1025 - EPA 5035A							Soil	I				
Blank (23C1025-BLK1)			Prepared	: 03/27/23 08	14 Anal	yzed: 03/27	/23 10:47					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1.2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1.2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1.1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1.2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1.1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1.2-Dichloroethene	ND	12.5	25.0	ug/kø wet	50							
trong 1.2 Dichloroothono		12.5	25.0		-0							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soi					
Blank (23C1025-BLK1)			Prepared	: 03/27/23 08	8:14 Anal	yzed: 03/27/	/23 10:47					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	500	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	500	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Stvrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1.1.2.2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1.2.3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1.1.1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	50							
o-Xylene	ND	12.5	25.0	ug/kg wet	50							
Surr: 1 4-Difluorobenzene (Surr)		Reco	verv: 108 %	Limits: 80-	120 %	Dilı	ution lr					

Apex Laboratories



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

<u>Sevenson Environmental Servi</u>	ces, Inc.			Project:	Gasco -	- Filtercake						
2749 Lockport Road			Pro	oject Numbe	r: 111323					F	Report ID:	<u>:</u>
Niagara Falls, NY 14305			Pro	ject Manage	r: Chip By	yrd			А	3C0842	- 05 03 23	3 1321
		QU	ALITY CO	ONTROL	(QC) SA	MPLE R	ESULT	s				
			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23C1025 - EPA 5035A							So	il				
Blank (23C1025-BLK1)			Prepared	1: 03/27/23 0	8:14 Ana	lyzed: 03/27	/23 10:47					
Surr: Toluene-d8 (Surr)		Rec	overy: 97 %	Limits: 80-	120 %	Dil	ution: 1x					
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"					
LCS (23C1025-BS1)			Preparec	l: 03/27/23 0	8:14 Ana	lyzed: 03/27	/23 09:51					
5035A/8260D												
Acetone	1730	500	1000	ug/kg we	t 50	2000		86	80-120%			
Acrylonitrile	934	50.0	100	ug/kg we	t 50	1000		93	80-120%			
Benzene	1040	5.00	10.0	ug/kg we	t 50	1000		104	80-120%			
Bromobenzene	976	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
Bromochloromethane	979	25.0	50.0	ug/kg we	t 50	1000		98	80-120%			
Bromodichloromethane	1110	25.0	50.0	ug/kg we	t 50	1000		111	80-120%			
Bromoform	1290	50.0	100	ug/kg we	t 50	1000		129	80-120%			Q-56
Bromomethane	1520	500	500	ug/kg we	t 50	1000		152	80-120%			Q-56
2-Butanone (MEK)	1840	250	500	ug/kg we	t 50	2000		92	80-120%			
n-Butylbenzene	920	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
sec-Butylbenzene	950	25.0	50.0	ug/kg we	t 50	1000		95	80-120%			
tert-Butylbenzene	876	25.0	50.0	ug/kg we	t 50	1000		88	80-120%			
Carbon disulfide	1020	250	500	ug/kg we	t 50	1000		102	80-120%			
Carbon tetrachloride	1210	25.0	50.0	ug/kg we	t 50	1000		121	80-120%			Q-56
Chlorobenzene	986	12.5	25.0	ug/kg we	t 50	1000		99	80-120%			
Chloroethane	1330	250	500	ug/kg we	t 50	1000		133	80-120%			Q-56
Chloroform	1070	25.0	50.0	ug/kg we	t 50	1000		107	80-120%			
Chloromethane	942	125	250	ug/kg we	t 50	1000		94	80-120%			
2-Chlorotoluene	960	25.0	50.0	ug/kg we	t 50	1000		96	80-120%			
4-Chlorotoluene	934	25.0	50.0	ug/kg we	t 50	1000		93	80-120%			
Dibromochloromethane	1160	50.0	100	ug/kg we	t 50	1000		116	80-120%			
1,2-Dibromo-3-chloropropane	850	125	250	ug/kg we	t 50	1000		85	80-120%			
1,2-Dibromoethane (EDB)	980	25.0	50.0	ug/kg we	t 50	1000		98	80-120%			
Dibromomethane	1040	25.0	50.0	ug/kg we	t 50	1000		104	80-120%			
1,2-Dichlorobenzene	975	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
1,3-Dichlorobenzene	984	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
1,4-Dichlorobenzene	978	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
Dichlorodifluoromethane	1110	50.0	100	ug/kg we	t 50	1000		111	80-120%			

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1,1-Dichloroethane

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

103

80-120%

1000

1030

12.5

25.0

ug/kg wet 50



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soi	il				
LCS (23C1025-BS1)			Prepared	l: 03/27/23 0	8:14 Anal	yzed: 03/27	/23 09:51					
1,2-Dichloroethane (EDC)	1020	12.5	25.0	ug/kg we	t 50	1000		102	80-120%			
1,1-Dichloroethene	1140	12.5	25.0	ug/kg we	t 50	1000		114	80-120%			
cis-1,2-Dichloroethene	1040	12.5	25.0	ug/kg we	t 50	1000		104	80-120%			
trans-1,2-Dichloroethene	1030	12.5	25.0	ug/kg we	t 50	1000		103	80-120%			
1,2-Dichloropropane	1030	12.5	25.0	ug/kg we	t 50	1000		103	80-120%			
1,3-Dichloropropane	976	25.0	50.0	ug/kg we	t 50	1000		98	80-120%			
2,2-Dichloropropane	1060	25.0	50.0	ug/kg we	t 50	1000		106	80-120%			
1,1-Dichloropropene	1060	25.0	50.0	ug/kg we	t 50	1000		106	80-120%			
cis-1,3-Dichloropropene	986	25.0	50.0	ug/kg we	t 50	1000		99	80-120%			
trans-1,3-Dichloropropene	1040	25.0	50.0	ug/kg we	t 50	1000		104	80-120%			
Ethylbenzene	944	12.5	25.0	ug/kg we	t 50	1000		94	80-120%			
Hexachlorobutadiene	1010	50.0	100	ug/kg we	t 50	1000		101	80-120%			
2-Hexanone	1540	500	500	ug/kg we	t 50	2000		77	80-120%			Q-5
Isopropylbenzene	952	25.0	50.0	ug/kg we	t 50	1000		95	80-120%			
4-Isopropyltoluene	931	25.0	50.0	ug/kg we	t 50	1000		93	80-120%			
Methylene chloride	1140	250	500	ug/kg we	t 50	1000		114	80-120%			
4-Methyl-2-pentanone (MiBK)	1520	500	500	ug/kg we	t 50	2000		76	80-120%			Q-5
Methyl tert-butyl ether (MTBE)	946	25.0	50.0	ug/kg we	t 50	1000		95	80-120%			
Naphthalene	901	50.0	100	ug/kg we	t 50	1000		90	80-120%			
n-Propylbenzene	952	12.5	25.0	ug/kg we	t 50	1000		95	80-120%			
Styrene	872	25.0	50.0	ug/kg we	t 50	1000		87	80-120%			
1,1,1,2-Tetrachloroethane	1110	12.5	25.0	ug/kg we	t 50	1000		111	80-120%			
1,1,2,2-Tetrachloroethane	866	25.0	50.0	ug/kg we	t 50	1000		87	80-120%			
Tetrachloroethene (PCE)	1020	12.5	25.0	ug/kg we	t 50	1000		102	80-120%			
Toluene	950	25.0	50.0	ug/kg we	t 50	1000		95	80-120%			
1,2,3-Trichlorobenzene	934	125	250	ug/kg we	t 50	1000		93	80-120%			
1,2,4-Trichlorobenzene	946	125	250	ug/kg we	t 50	1000		95	80-120%			
1,1,1-Trichloroethane	1080	12.5	25.0	ug/kg we	t 50	1000		108	80-120%			
1,1,2-Trichloroethane	995	12.5	25.0	ug/kg we	t 50	1000		100	80-120%			
Trichloroethene (TCE)	1170	12.5	25.0	ug/kg we	t 50	1000		117	80-120%			
Trichlorofluoromethane	1700	50.0	100	ug/kg we	t 50	1000		170	80-120%			Q-5
1,2,3-Trichloropropane	940	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			
1,2,4-Trimethylbenzene	930	25.0	50.0	ug/kg we	t 50	1000		93	80-120%			
1,3,5-Trimethylbenzene	940	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Com	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soi	il				
LCS (23C1025-BS1)			Prepared	1: 03/27/23 08	3:14 Ana	lyzed: 03/27/	23 09:51					
Vinyl chloride	1140	12.5	25.0	ug/kg wet	50	1000		114	80-120%			
m,p-Xylene	1920	25.0	50.0	ug/kg wet	50	2000		96	80-120%			
o-Xylene	924	12.5	25.0	ug/kg wet	50	1000		92	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 107 %	Limits: 80-1	20 %	Dilu	tion: 1x					
Toluene-d8 (Surr)			97 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-1	20 %		"					
Duplicate (23C1025-DUP1)			Prepared	1: 03/24/23 09):05 Anal	yzed: 03/27/	23 12:30					
OC Source Sample: Non-SDG (A3	C0889-01)											
Acetone	ND	612	1220	ug/kg dry	50		ND				30%	
Acrylonitrile	ND	61.2	122	ug/kg dry	50		ND				30%	
Benzene	ND	6.12	12.2	ug/kg dry	50		ND				30%	
Bromobenzene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Bromoform	ND	61.2	122	ug/kg dry	50		ND				30%	
Bromomethane	ND	612	612	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	306	612	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	306	612	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
Chloroethane	ND	306	612	ug/kg dry	50		ND				30%	
Chloroform	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Chloromethane	ND	153	306	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	61.2	122	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	153	306	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Dibromomethane	ND	30.6	61.2	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
				•								

Apex Laboratories


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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soil	I				
Duplicate (23C1025-DUP1)			Prepared	: 03/24/23 09	:05 Ana	yzed: 03/27/	/23 12:30					
QC Source Sample: Non-SDG (A3	C0889-01)											
1,3-Dichlorobenzene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	61.2	122	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	15.3	30.6	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	15.3	30.6	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	15.3	30.6	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	30.6	61.2	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	30.6	61.2	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	61.2	122	ug/kg dry	50		ND				30%	
2-Hexanone	ND	612	612	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Methylene chloride	ND	306	612	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	612	612	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Naphthalene	ND	61.2	122	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	15.3	30.6	ug/kg dry	50		ND				30%	
Styrene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	15.3	30.6	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	30.6	61.2	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	15.3	30.6	ug/kg dry	50		ND				30%	
Toluene	ND	30.6	61.2	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene	ND	153	306	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	153	306	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	15.3	30.6	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	15.3	30.6	ug/kg dry	50		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Cor	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soi	1				
Duplicate (23C1025-DUP1)			Prepared	1: 03/24/23 0	9:05 Anal	yzed: 03/27/	/23 12:30					
QC Source Sample: Non-SDG (A3	<u>C0889-01)</u>											
Trichloroethene (TCE)	ND	15.3	30.6	ug/kg dr	y 50		ND				30%	
Trichlorofluoromethane	ND	61.2	122	ug/kg dr	y 50		ND				30%	
1,2,3-Trichloropropane	ND	30.6	61.2	ug/kg dr	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	30.6	61.2	ug/kg dr	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	30.6	61.2	ug/kg dr	y 50		ND				30%	
Vinyl chloride	ND	15.3	30.6	ug/kg dr	y 50		ND				30%	
m,p-Xylene	ND	30.6	61.2	ug/kg dr	y 50		ND				30%	
o-Xylene	ND	15.3	30.6	ug/kg dr	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 107 %	Limits: 80-	-120 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			94 %	80-	·120 %		"					
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3	<u>C0905-01)</u>			. 03122123]	Anal	yzcu. 05/2/.	23 14:12					
Acetone	ND	555	1110	ug/kg dr	y 50		ND				30%	
Acrylonitrile	ND	55.5	111	ug/kg dr	y 50		ND				30%	
Benzene	ND	5.55	11.1	ug/kg dr	y 50		ND				30%	
Bromobenzene	ND	13.9	27.8	ug/kg dr	y 50		ND				30%	
Bromochloromethane	ND	27.8	55.5	ug/kg dr	y 50		ND				30%	
Bromodichloromethane	ND	27.8	55.5	ug/kg dr	y 50		ND				30%	
Bromoform	ND	55.5	111	ug/kg dr	y 50		ND				30%	
Bromomethane	ND	555	555	ug/kg dr	y 50		ND				30%	
2-Butanone (MEK)	ND	278	555	ug/kg dr	y 50		ND				30%	
n-Butylbenzene	ND	27.8	55.5	ug/kg dr	y 50		ND				30%	
sec-Butylbenzene	ND	27.8	55.5	ug/kg dr	y 50		ND				30%	
tert-Butylbenzene	ND	27.8	55.5	ug/kg dr	y 50		ND				30%	
Carbon disulfide	ND	278	555	ug/kg dr	y 50		ND				30%	
Carbon tetrachloride	ND	27.8	55.5	ug/kg dr	y 50		ND				30%	
Chlorobenzene	ND	13.9	27.8	ug/kg dr	y 50		ND				30%	
Chloroethane	ND	278	555	ug/kg dr	y 50		ND				30%	
Chloroform	ND	27.8	55.5	ug/kg dr	y 50		ND				30%	
Chloromethane	ND	139	278	ug/kg dr	y 50		ND				30%	
2-Chlorotoluene	ND	27.8	55.5	ug/kg dr	y 50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			volatile Org	Janic Com	pounds	DY EPA 8	2000					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soi	1				
Duplicate (23C1025-DUP2)			Prepared	: 03/22/23 10	:45 Anal	yzed: 03/27	/23 14:12					
QC Source Sample: Non-SDG (A3	<u> C0905-01)</u>											
4-Chlorotoluene	ND	27.8	55.5	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	55.5	111	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	139	278	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	27.8	55.5	ug/kg dry	50		ND				30%	
Dibromomethane	ND	27.8	55.5	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	13.9	27.8	ug/kg dry	50		ND				30%	
1,3-Dichlorobenzene	ND	13.9	27.8	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	13.9	27.8	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	55.5	111	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	13.9	27.8	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	13.9	27.8	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	13.9	27.8	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	13.9	27.8	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	13.9	27.8	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	13.9	27.8	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	27.8	55.5	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	27.8	55.5	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	27.8	55.5	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	27.8	55.5	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	27.8	55.5	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	13.9	27.8	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	55.5	111	ug/kg dry	50		ND				30%	
2-Hexanone	ND	555	555	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	27.8	55.5	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	27.8	55.5	ug/kg dry	50		ND				30%	
Methylene chloride	ND	278	555	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	555	555	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	27.8	55.5	ug/kg dry	50		ND				30%	
Naphthalene	ND	55.5	111	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	13.9	27.8	ug/kg dry	50		ND				30%	
Styrene	ND	27.8	55.5	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	13.9	27.8	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	27.8	55.5	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soi	I				
Duplicate (23C1025-DUP2)			Preparec	1: 03/22/23 1	0:45 Ana	lyzed: 03/27	/23 14:12					
QC Source Sample: Non-SDG (A3	C0905-01)											
Tetrachloroethene (PCE)	ND	13.9	27.8	ug/kg dry	y 50		ND				30%	
Toluene	ND	27.8	55.5	ug/kg dry	y 50		ND				30%	
1,2,3-Trichlorobenzene	ND	139	278	ug/kg dry	y 50		ND				30%	
1,2,4-Trichlorobenzene	ND	139	278	ug/kg dry	y 50		ND				30%	
1,1,1-Trichloroethane	ND	13.9	27.8	ug/kg dry	y 50		ND				30%	
1,1,2-Trichloroethane	ND	13.9	27.8	ug/kg dry	y 50		ND				30%	
Trichloroethene (TCE)	ND	13.9	27.8	ug/kg dry	y 50		ND				30%	
Trichlorofluoromethane	ND	55.5	111	ug/kg dry	y 50		ND				30%	
1,2,3-Trichloropropane	ND	27.8	55.5	ug/kg dry	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	27.8	55.5	ug/kg dry	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	27.8	55.5	ug/kg dry	y 50		ND				30%	
Vinyl chloride	ND	13.9	27.8	ug/kg dry	y 50		ND				30%	
m,p-Xylene	ND	27.8	55.5	ug/kg dry	y 50		ND				30%	
o-Xylene	ND	13.9	27.8	ug/kg dry	y <u>5</u> 0		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 106 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			96 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			99 %	79-	120 %		"					
Matrix Spike (23C1025-MS1)			Preparec	1: 03/22/23 1	0:55 Anal	lyzed: 03/27	/23 18:01					
QC Source Sample: Non-SDG (A3	C0905-02)											
5035A/8260D	_											
Acetone	2970	627	1250	ug/kg dry	y 50	2510	ND	89	36-164%			
Acrylonitrile	1230	62.7	125	ug/kg dry	y 50	1250	ND	98	65-134%			
Benzene	1410	6.27	12.5	ug/kg dry	y 50	1250	8.15	112	77-121%			
Bromobenzene	1270	15.7	31.3	ug/kg dry	y 50	1250	ND	101	78-121%			
Bromochloromethane	1340	31.3	62.7	ug/kg dry	y 50	1250	ND	107	78-125%			
Bromodichloromethane	1450	31.3	62.7	ug/kg dry	y 50	1250	ND	116	75-127%			
Bromoform	1590	62.7	125	ug/kg dry	y 50	1250	ND	127	67-132%			Q-54
Bromomethane	2270	627	627	ug/kg dry	y 50	1250	ND	181	53-143%			Q-54
2-Butanone (MEK)	2590	313	627	ug/kg dry	y 50	2510	ND	103	51-148%			
n-Butylbenzene	1220	31.3	62.7	ug/kg dry	y 50	1250	ND	97	70-128%			
sec-Butylbenzene	1260	31.3	62.7	ug/kg dry	y 50	1250	ND	100	73-126%			
tert-Butylbenzene	1120	31.3	62.7	ug/kø dry	v 50	1250	ND	89	73-125%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23C1025 - EPA 5035A							Soi	il				
Matrix Spike (23C1025-MS1)			Prepared	: 03/22/23 10):55 Ana	lyzed: 03/27	/23 18:01					
QC Source Sample: Non-SDG (A3	<u>C0905-02)</u>											
Carbon disulfide	1260	313	627	ug/kg dry	50	1250	ND	101	63-132%			
Carbon tetrachloride	1630	31.3	62.7	ug/kg dry	50	1250	ND	130	70-135%			Q-5
Chlorobenzene	1270	15.7	31.3	ug/kg dry	50	1250	ND	102	79-120%			
Chloroethane	2390	313	627	ug/kg dry	50	1250	ND	191	59-139%			Q-54
Chloroform	1420	31.3	62.7	ug/kg dry	50	1250	ND	113	78-123%			
Chloromethane	1290	157	313	ug/kg dry	50	1250	ND	103	50-136%			
2-Chlorotoluene	1250	31.3	62.7	ug/kg dry	50	1250	ND	99	75-122%			
4-Chlorotoluene	1190	31.3	62.7	ug/kg dry	50	1250	ND	95	72-124%			
Dibromochloromethane	1450	62.7	125	ug/kg dry	50	1250	ND	116	74-126%			
1,2-Dibromo-3-chloropropane	1100	157	313	ug/kg dry	50	1250	ND	88	61-132%			
1,2-Dibromoethane (EDB)	1250	31.3	62.7	ug/kg dry	50	1250	ND	99	78-122%			
Dibromomethane	1350	31.3	62.7	ug/kg dry	50	1250	ND	108	78-125%			
1,2-Dichlorobenzene	1230	15.7	31.3	ug/kg dry	50	1250	ND	98	78-121%			
1,3-Dichlorobenzene	1250	15.7	31.3	ug/kg dry	50	1250	ND	100	77-121%			
1,4-Dichlorobenzene	1240	15.7	31.3	ug/kg dry	50	1250	ND	99	75-120%			
Dichlorodifluoromethane	1580	62.7	125	ug/kg dry	50	1250	ND	126	29-149%			
1,1-Dichloroethane	1410	15.7	31.3	ug/kg dry	50	1250	ND	112	76-125%			
1,2-Dichloroethane (EDC)	1350	15.7	31.3	ug/kg dry	50	1250	ND	108	73-128%			
1,1-Dichloroethene	1480	15.7	31.3	ug/kg dry	50	1250	ND	118	70-131%			
cis-1,2-Dichloroethene	1380	15.7	31.3	ug/kg dry	50	1250	ND	110	77-123%			
trans-1,2-Dichloroethene	1380	15.7	31.3	ug/kg dry	50	1250	ND	110	74-125%			
1,2-Dichloropropane	1370	15.7	31.3	ug/kg dry	50	1250	ND	109	76-123%			
1,3-Dichloropropane	1260	31.3	62.7	ug/kg dry	50	1250	ND	101	77-121%			
2,2-Dichloropropane	1320	31.3	62.7	ug/kg dry	50	1250	ND	105	67-133%			
1,1-Dichloropropene	1450	31.3	62.7	ug/kg dry	50	1250	ND	116	76-125%			
cis-1,3-Dichloropropene	1230	31.3	62.7	ug/kg dry	50	1250	ND	98	74-126%			
trans-1,3-Dichloropropene	1270	31.3	62.7	ug/kg dry	50	1250	ND	101	71-130%			
Ethylbenzene	1260	15.7	31.3	ug/kg dry	50	1250	25.7	99	76-122%			
Hexachlorobutadiene	1250	62.7	125	ug/kg dry	50	1250	ND	100	61-135%			
2-Hexanone	1960	627	627	ug/kg dry	50	2510	ND	78	53-145%			Q-54
Isopropylbenzene	1240	31.3	62.7	ug/kg drv	50	1250	ND	99	68-134%			
4-Isopropyltoluene	1210	31.3	62.7	ug/kg drv	50	1250	ND	97	73-127%			
Methylene chloride	1350	313	627	ug/kg dry	50	1250	ND	108	70-128%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		-	Volatile Org	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1025 - EPA 5035A							Soi	il				
Matrix Spike (23C1025-MS1)			Prepared	: 03/22/23 10	0:55 Anal	yzed: 03/27/	23 18:01					
QC Source Sample: Non-SDG (A3C	20905-02)											
4-Methyl-2-pentanone (MiBK)	2030	627	627	ug/kg dry	50	2510	ND	81	65-135%			Q-5
Methyl tert-butyl ether (MTBE)	1200	31.3	62.7	ug/kg dry	, 50	1250	ND	96	73-125%			
Naphthalene	1270	62.7	125	ug/kg dry	50	1250	73.9	95	62-129%			
n-Propylbenzene	1260	15.7	31.3	ug/kg dry	, 50	1250	ND	101	73-125%			
Styrene	1110	31.3	62.7	ug/kg dry	, 50	1250	ND	89	76-124%			
1,1,1,2-Tetrachloroethane	1430	15.7	31.3	ug/kg dry	, 50	1250	ND	114	78-125%			
1,1,2,2-Tetrachloroethane	1080	31.3	62.7	ug/kg dry	50	1250	ND	86	70-124%			
Tetrachloroethene (PCE)	1360	15.7	31.3	ug/kg dry	, 50	1250	ND	108	73-128%			
Toluene	1310	31.3	62.7	ug/kg dry	, 50	1250	90.2	97	77-121%			
1,2,3-Trichlorobenzene	1190	157	313	ug/kg dry	50	1250	ND	95	66-130%			
1,2,4-Trichlorobenzene	1200	157	313	ug/kg dry	50	1250	ND	95	67-129%			
1,1,1-Trichloroethane	1460	15.7	31.3	ug/kg dry	50	1250	ND	116	73-130%			
1,1,2-Trichloroethane	1290	15.7	31.3	ug/kg dry	50	1250	ND	103	78-121%			
Trichloroethene (TCE)	1560	15.7	31.3	ug/kg dry	50	1250	ND	124	77-123%			Q-(
Trichlorofluoromethane	4570	62.7	125	ug/kg dry	50	1250	ND	365	62-140%			Q-54
1,2,3-Trichloropropane	1190	31.3	62.7	ug/kg dry	50	1250	ND	95	73-125%			
1,2,4-Trimethylbenzene	1280	31.3	62.7	ug/kg dry	50	1250	57.0	97	75-123%			
1,3,5-Trimethylbenzene	1260	31.3	62.7	ug/kg dry	50	1250	ND	100	73-124%			
Vinyl chloride	1610	15.7	31.3	ug/kg dry	50	1250	ND	128	56-135%			
m,p-Xylene	2610	31.3	62.7	ug/kg dry	50	2510	97.8	100	77-124%			
o-Xylene	1220	15.7	31.3	ug/kg dry	50	1250	38.9	94	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 108 %	Limits: 80-	120 %	Dilu	tion: 1x					
Toluene-d8 (Surr)			96 %	80-1	120 %		"					
4-Bromofluorobenzene (Surr)			96 %	79-1	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Result Limit Units Dilution % REC RPD Analyte Limit Amount Result Limits Limit Notes Batch 23D0153 - EPA 1311/5030B TCLP Volatiles Water Blank (23D0153-BLK1) Prepared: 04/05/23 10:36 Analyzed: 04/05/23 12:46 TCLPa 1311/8260D ND 6.25 12.5 ug/L 50 Benzene ND 250 500 50 2-Butanone (MEK) ug/L ---------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 50 ug/L ---25.0 1,4-Dichlorobenzene ND 12.5 ug/L 50 ---------------____ 1,1-Dichloroethene ND 12.5 25.0 50 ug/L ---ND 12.5 25.0 ug/L 1,2-Dichloroethane (EDC) 50 ---------------Tetrachloroethene (PCE) ND 12.5 25.0 ug/L 50 Trichloroethene (TCE) ND 12.5 25.0 50 ug/L ___ -------------_ _ _ Vinyl chloride ND 12.5 25.0 50 ug/L --------------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 103 % Limits: 80-120 % Dilution: 1x 100 % Toluene-d8 (Surr) 80-120 % " 4-Bromofluorobenzene (Surr) 110 % 80-120 % Prepared: 04/05/23 10:36 Analyzed: 04/05/23 11:52 LCS (23D0153-BS1) TCLPa 1311/8260D Benzene 1030 6.25 12.5 ug/L 50 1000 103 80-120% 2050 250 500 50 2000 103 80-120% 2-Butanone (MEK) ug/L ---------Carbon tetrachloride 1500 25.0 50.0 ug/L 50 1000 ---150 80-120% ------Q-56 Chlorobenzene 964 12.5 25.0 ug/L 50 1000 ---96 80-120% ------Chloroform 1040 25.050.0 ug/L 50 1000 104 80-120% 1,4-Dichlorobenzene 934 12.5 25.0 50 1000 93 80-120% ug/L ---------1,1-Dichloroethene 993 12.5 25.0 ug/L 50 1000 99 80-120% ---------1,2-Dichloroethane (EDC) 1030 12.5 25.0 ug/L 50 1000 103 80-120% ---1000 97 Tetrachloroethene (PCE) 966 12.5 25.0 ug/L 50 ---80-120% ---Trichloroethene (TCE) 1000 12.5 25.0 ug/L 50 1000 ---100 80-120% ------Vinyl chloride 961 12.5 25.0ug/L 50 1000 ----96 80-120% ---____ Surr: 1,4-Difluorobenzene (Surr) 101 % Recovery: Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 98 % 80-120 % 4-Bromofluorobenzene (Surr) 96% 80-120 %

Duplicate (23D0153-DUP1)

Prepared: 04/05/23 10:36 Analyzed: 04/05/23 13:40

CONT

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		D ()	D			0.11	G				DDD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0153 - EPA 1311/503	0B TCLP	Volatiles					Wa	ter				
Duplicate (23D0153-DUP1)			Prepared	1: 04/05/23	10:36 Anal	yzed: 04/05	/23 13:40					CONT
QC Source Sample: FC-032023-20	81 (A3C08-	<u>42-01)</u>										
<u>1311/8260D</u>												
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%	
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 104 %	Limits: 80	0-120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			101 %	80)-120 %		"					
4-Bromofluorobenzene (Surr)			108 %	80)-120 %		"					
Matrix Spike (23D0153-MS1)			Prepared	l: 04/05/23	10:36 Anal	yzed: 04/05	/23 14:35					
QC Source Sample: Non-SDG (A3 1311/8260D	<u>C0844-01)</u>											
Benzene	1000	6.25	12.5	ug/L	50	1000	ND	100	79-120%			
2-Butanone (MEK)	1990	250	500	ug/L	50	2000	ND	99	56-143%			
Carbon tetrachloride	1440	25.0	50.0	ug/L	50	1000	ND	144	72-136%			Q-54
Chlorobenzene	940	12.5	25.0	ug/L	50	1000	ND	94	80-120%			
Chloroform	1100	25.0	50.0	ug/L	50	1000	104	100	79-124%			
1,4-Dichlorobenzene	905	12.5	25.0	ug/L	50	1000	ND	90	79-120%			
1,1-Dichloroethene	964	12.5	25.0	ug/L	50	1000	ND	96	71-131%			
1,2-Dichloroethane (EDC)	988	12.5	25.0	ug/L	50	1000	ND	99	73-128%			
Tetrachloroethene (PCE)	934	12.5	25.0	ug/L	50	1000	ND	93	74-129%			
Trichloroethene (TCE)	976	12.5	25.0	ug/L	50	1000	ND	98	79-123%			
. ,												

80-120 %

98 %

Toluene-d8 (Surr)

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasco -- Filtercake

	F	Regulated	TCLP Volat	ile Orga	nic Comp	ounds by	EPA 1311	/8260D			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits RPD	RPD Limit	Notes
Batch 23D0153 - EPA 1311/503	0B TCLP	Volatiles					Wate	ər			
Matrix Spike (23D0153-MS1)			Prepared	: 04/05/23	10:36 Anal	yzed: 04/05/	23 14:35				
QC Source Sample: Non-SDG (A3	C0844-01)										
Surr: 4-Bromofluorobenzene (Surr)		Rece	overy: 96 %	Limits: 8	0-120 %	Dilı	tion: 1x				

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic (ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Sol	id				
Blank (23C1019-BLK1)			Prepared	1: 03/27/23 ()7:35 Ana	yzed: 03/27	/23 16:25					
EPA 8270E												
Acenaphthene	ND	1.33	2.67	ug/kg we	et 1							
Acenaphthylene	ND	1.33	2.67	ug/kg we	et 1							
Anthracene	ND	1.33	2.67	ug/kg we	et 1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg we	et 1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg we	et 1							
Benzo(b)fluoranthene	2.08	2.00	4.00	ug/kg we	et 1							В-02,
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg we	et 1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg we	et 1							
Chrysene	ND	1.33	2.67	ug/kg we	et 1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg we	et 1							
Fluoranthene	ND	1.33	2.67	ug/kg we	et 1							
Fluorene	ND	1.33	2.67	ug/kg we	et 1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg we	et 1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg we	et 1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg we	et 1							
Naphthalene	8.73	2.67	5.33	ug/kg we	et 1							
Phenanthrene	ND	1.33	2.67	ug/kg we	et 1							
Pyrene	ND	1.33	2.67	ug/kg we	et 1							
Carbazole	ND	2.00	4.00	ug/kg we	et 1							
Dibenzofuran	ND	1.33	2.67	ug/kg we	et 1							
2-Chlorophenol	ND	6.67	13.3	ug/kg we	et 1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg we	et 1							
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg we	et 1							
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg we	et 1							
2,4-Dinitrophenol	ND	33.3	66.7	ug/kg we	et 1							
4,6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg we	et 1							
2-Methylphenol	ND	3.33	6.67	ug/kg we	et 1							
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg we	et 1							
2-Nitrophenol	ND	13.3	26.7	ug/kg we	et 1							
4-Nitrophenol	ND	13.3	26.7	ug/kg we	et 1							
Pentachlorophenol (PCP)	ND	13.3	26.7	ug/kg we	et 1							
Phenol	ND	2.67	5.33	110/kg we	et 1							
2346-Tetrachlorophenol	ND	6.67	13.3	ug/kg W4	 >t 1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Soli	id				
Blank (23C1019-BLK1)			Prepared	: 03/27/23 07	7:35 Ana	yzed: 03/27	/23 16:25					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg wet	1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg wet	1							
Diethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Dimethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-butylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg wet	1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg wet	: 1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg wet	: 1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg wet	1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg wet	1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg wet	1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg wet	: 1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg wet	1							
Hexachloroethane	ND	3.33	6.67	ug/kg wet	: 1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg wet	1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg wet	: 1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	: 1							
Aniline	ND	6.67	13.3	ug/kg wet	1							
4-Chloroaniline	ND	3.33	6.67	ug/kg wet	1							
2-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
3-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
4-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
Nitrobenzene	ND	13.3	26.7	ug/kg wet	1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
2,6-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
Benzoic acid	ND	167	333	ug/kg wet	1							
Benzyl alcohol	ND	6.67	13.3	ug/kg wet	1							
Isophorone	ND	3.33	6.67	ug/kg wet	: 1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic (Compour	nds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Sol	lid				
Blank (23C1019-BLK1)			Prepareo	d: 03/27/23 (07:35 Ana	lyzed: 03/27	/23 16:25					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	et 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	et 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	et 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
Pyridine	ND	6.67	13.3	ug/kg we	et 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	et 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	et 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	et 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 92 %	Limits: 37	-122 %	Dilı	ution: 1x					
2-Fluorobiphenyl (Surr)			94 %	44	-120 %		"					
Phenol-d6 (Surr)			91 %	33	-122 %		"					
p-Terphenyl-d14 (Surr)			105 %	54	-127 %		"					
2-Fluorophenol (Surr)			93 %	35	-120 %		"					
2,4,6-Tribromophenol (Surr)			94 %	39	-132 %		"					Q-41
LCS (23C1019-BS1)			Prepared	d: 03/27/23 ()7:35 Ana	lyzed: 03/27/	/23 17:00					Q-18
EPA 8270E												
Acenaphthene	573	5.32	10.7	ug/kg we	et 4	533		107	40-123%			
Acenaphthylene	620	5.32	10.7	ug/kg we	et 4	533		116	32-132%			
Anthracene	632	5.32	10.7	ug/kg we	et 4	533		118	47-123%			
Benz(a)anthracene	634	5.32	10.7	ug/kg we	et 4	533		119	49-126%			
Benzo(a)pyrene	622	8.00	16.0	ug/kg we	et 4	533		117	45-129%			
Benzo(b)fluoranthene	638	8.00	16.0	ug/kg we	et 4	533		120	45-132%			В-0
Benzo(k)fluoranthene	637	8.00	16.0	ug/kg we	et 4	533		119	47-132%			
Benzo(g,h,i)pervlene	633	5.32	10.7	ug/kg we	et 4	533		119	43-134%			
Chrysene	612	5.32	10.7	ug/kg we	et 4	533		115	50-124%			
Dibenz(a,h)anthracene	615	5.32	10.7	ug/kg we	et 4	533		115	45-134%			
Fluoranthene	627	5.32	10.7	ug/kg we	et 4	533		118	50-127%			
Fluorene	608	5.32	10.7	110/ko we	et 4	533		114	43-125%			
Indeno(1 2 3-cd)nyrene	617	5 32	10.7	110/ko we	et 4	533		116	45-133%			
I-Methylnanhthalene	572	10.7	21.2	ug/kg w	т , , , ,	533		107	40 12004	-		
	1//	117 1	/ 1 1	11()/ K () (A//	ν <u>μ</u>	711		111/				

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompoun	ds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Sol	lid				
LCS (23C1019-BS1)			Prepared	: 03/27/23 0	7:35 Anal	yzed: 03/27/	/23 17:00					Q-18
Naphthalene	563	10.7	21.3	ug/kg wet	4	533		106	35-123%			
Phenanthrene	588	5.32	10.7	ug/kg wet	4	533		110	50-121%			
Pyrene	624	5.32	10.7	ug/kg wet	4	533		117	47-127%			
Carbazole	623	8.00	16.0	ug/kg wet	4	533		117	50-123%			
Dibenzofuran	601	5.32	10.7	ug/kg wet	4	533		113	44-120%			
2-Chlorophenol	574	26.7	53.2	ug/kg wet	4	533		108	34-121%			
4-Chloro-3-methylphenol	614	53.2	107	ug/kg wet	4	533		115	45-122%			
2,4-Dichlorophenol	680	26.7	53.2	ug/kg wet	4	533		127	40-122%	,		Q-29, Q-4
2,4-Dimethylphenol	644	26.7	53.2	ug/kg wet	4	533		121	30-127%			
2,4-Dinitrophenol	778	133	267	ug/kg wet	4	533		146	10-137%	,		Q-29, Q-4
4,6-Dinitro-2-methylphenol	765	133	267	ug/kg wet	4	533		143	29-132%	,		Q-2
2-Methylphenol	559	13.3	26.7	ug/kg wet	4	533		105	32-122%			
3+4-Methylphenol(s)	573	13.3	26.7	ug/kg wet	4	533		107	34-120%			
2-Nitrophenol	668	53.2	107	ug/kg wet	4	533		125	36-123%	,		Q-29, Q-4
4-Nitrophenol	656	53.2	107	ug/kg wet	4	533		123	30-132%			
Pentachlorophenol (PCP)	500	53.2	107	ug/kg wet	4	533		94	25-133%			
Phenol	597	10.7	21.3	ug/kg wet	4	533		112	34-121%			
2,3,4,6-Tetrachlorophenol	651	26.7	53.2	ug/kg wet	4	533		122	44-125%			
2,3,5,6-Tetrachlorophenol	633	26.7	53.2	ug/kg wet	4	533		119	40-120%			
2,4,5-Trichlorophenol	663	26.7	53.2	ug/kg wet	4	533		124	41-124%			
2,4,6-Trichlorophenol	638	26.7	53.2	ug/kg wet	4	533		120	39-126%			
Bis(2-ethylhexyl)phthalate	587	80.0	160	ug/kg wet	4	533		110	51-133%			
Butyl benzyl phthalate	607	53.2	107	ug/kg wet	4	533		114	48-132%			
Diethylphthalate	615	53.2	107	ug/kg wet	4	533		115	50-124%			
Dimethylphthalate	624	53.2	107	ug/kg wet	4	533		117	48-124%			
Di-n-butylphthalate	652	53.2	107	ug/kg wet	4	533		122	51-128%			
Di-n-octyl phthalate	639	53.2	107	ug/kg wet	4	533		120	45-140%			
N-Nitrosodimethylamine	470	13.3	26.7	ug/kg wet	4	533		88	23-120%			
N-Nitroso-di-n-propylamine	541	13.3	26.7	ug/kg wet	4	533		102	36-120%			
N-Nitrosodiphenylamine	593	13.3	26.7	ug/kg wet	4	533		111	38-127%			
Bis(2-Chloroethoxy) methane	558	13.3	26.7	ug/kg wet	4	533		105	36-121%			
Bis(2-Chloroethyl) ether	519	13.3	26.7	ug/kg wet	4	533		97	31-120%			
2,2'-Oxybis(1-Chloropropane)	463	13.3	26.7	ug/kg wet	4	533		87	39-120%			
Hexachlorobenzene	638	5.32	10.7	ug/kg wet	4	533		120	45-122%			
	000											

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

							<u> </u>		0/ == -		B = -	
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							So	lid				
LCS (23C1019-BS1)			Prepared	1: 03/27/23 0	7:35 Ana	lyzed: 03/27/	/23 17:00					Q-18
Hexachlorobutadiene	585	13.3	26.7	ug/kg we	t 4	533		110	32-123%			
Hexachlorocyclopentadiene	665	26.7	53.2	ug/kg we	t 4	533		125	10-140%			
Hexachloroethane	523	13.3	26.7	ug/kg we	t 4	533		98	28-120%			
2-Chloronaphthalene	598	5.32	10.7	ug/kg we	t 4	533		112	41-120%			
1,2,4-Trichlorobenzene	601	13.3	26.7	ug/kg we	t 4	533		113	34-120%			
4-Bromophenyl phenyl ether	650	13.3	26.7	ug/kg we	t 4	533		122	46-124%			
4-Chlorophenyl phenyl ether	628	13.3	26.7	ug/kg we	t 4	533		118	45-121%			
Aniline	404	26.7	53.2	ug/kg we	t 4	533		76	10-120%			Q-3
4-Chloroaniline	472	13.3	26.7	ug/kg we	t 4	533		89	17-120%			
2-Nitroaniline	607	107	213	ug/kg we	t 4	533		114	44-127%			
3-Nitroaniline	622	107	213	ug/kg we	t 4	533		117	33-120%			
4-Nitroaniline	581	107	213	ug/kg we	t 4	533		109	51-125%			
Nitrobenzene	534	53.2	107	ug/kg we	t 4	533		100	34-122%			
2,4-Dinitrotoluene	652	53.2	107	ug/kg we	t 4	533		122	48-126%			
2,6-Dinitrotoluene	613	53.2	107	ug/kg we	t 4	533		115	46-124%			
Benzoic acid	1380	668	1330	ug/kg we	t 4	1070		129	10-140%			
Benzyl alcohol	527	26.7	53.2	ug/kg we	t 4	533		99	29-122%			
sophorone	547	13.3	26.7	ug/kg we	t 4	533		103	30-122%			
Azobenzene (1,2-DPH)	508	13.3	26.7	ug/kg we	t 4	533		95	39-125%			
Bis(2-Ethylhexyl) adipate	604	133	267	ug/kg we	t 4	533		113	61-121%			
3,3'-Dichlorobenzidine	2190	107	213	ug/kg we	t 4	1070		205	22-121%			Q-29, Q-2
1,2-Dinitrobenzene	640	133	267	ug/kg we	t 4	533		120	44-120%			
1,3-Dinitrobenzene	640	133	267	ug/kg we	t 4	533		120	43-127%			
1,4-Dinitrobenzene	697	133	267	ug/kg we	t 4	533		131	37-132%			
Pyridine	352	26.7	53.2	ug/kg we	t 4	533		66	10-120%			
1,2-Dichlorobenzene	525	13.3	26.7	ug/kg we	t 4	533		98	33-120%			
.3-Dichlorobenzene	530	13.3	26.7	ug/kg we	t 4	533		99	30-120%			
.4-Dichlorobenzene	522	13.3	26.7	ug/kg we	t 4	533		98	31-120%			
Surr: Nitrobenzene-d5 (Surr)	-	Reco	werv: 96%	Limits: 37-	122 %	Dilı	ution · 4r					—
2-Fluorohinhenvl (Surr)		neer	103 %		120 %	Diii	"					
Phonol_d6 (Surve)			06 %	44-	120 /0		"					
n Townhonyl d14 (Surv)			90 70 110 07	55 51	122 /0		"					
p-terpnenyt-a14 (Surr)			119 %	34-	12/ 70		"					
2-Fluoropnenol (Surr)			98 %	33-	120 %							

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

<u>Sevenson Environmental Serv</u> 2749 Lockport Road Niagara Falls, NY 14305	ices, Inc.	nc.Project:Gasco FiltercakeProject Number:111323Report ID:Project Manager:Chip ByrdA3C0842 - 05 03 23 1321								<u>:</u> 3 1321		
		QU	ALITY CO	ONTROL	(QC) SA	AMPLE F	RESULTS	5				
		Se	mivolatile (Organic C	Compour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Sol	id				
Duplicate (23C1019-DUP1)			Prepared	: 03/27/23 0	07:35 Ana	lyzed: 03/27	7/23 18:09					
OC Source Sample: Non-SDG (A	3C0674-01)											
Acenaphthene	49000	1880	3780	ug/kg dr	v 1000		42700			14	30%	
Acenaphthylene	ND	4960	4960	ug/kg dr	y 1000		ND				30%	R-02
Anthracene	33600	1880	3780	ug/kg dr	y 1000		28600			16	30%	
Benz(a)anthracene	20800	1880	3780	ug/kg dr	y 1000		18000			15	30%	
Benzo(a)pyrene	26800	2830	5660	ug/kg dr	y 1000		24100			11	30%	
Benzo(b)fluoranthene	19400	2830	5660	ug/kg dr	y 1000		17500			10	30%	B-02
Benzo(k)fluoranthene	8610	2830	5660	ug/kg dr	y 1000		7970			8	30%	M-05
Benzo(g,h,i)perylene	15400	1880	3780	ug/kg dr	y 1000		14200			8	30%	
Chrysene	25600	1880	3780	ug/kg dr	y 1000		22200			14	30%	
Dibenz(a,h)anthracene	ND	1880	3780	ug/kg dr	y 1000		ND				30%	
Fluoranthene	89300	1880	3780	ug/kg dr	y 1000		77800			14	30%	
Fluorene	33900	1880	3780	ug/kg dr	y 1000		29500			14	30%	
Indeno(1,2,3-cd)pyrene	13500	1880	3780	ug/kg dr	y 1000		12400			8	30%	
1-Methylnaphthalene	44300	3780	7550	ug/kg dr	y 1000		36700			19	30%	
2-Methylnaphthalene	64900	3780	7550	ug/kg dr	y 1000		53600			19	30%	
Naphthalene	54900	3780	7550	ug/kg dr	y 1000		47700			14	30%	В
Phenanthrene	186000	1880	3780	ug/kg dr	y 1000		164000			12	30%	
Pyrene	109000	1880	3780	ug/kg dr	y 1000		96400			12	30%	
Carbazole	3530	2830	5660	ug/kg dr	y 1000		3390			4	30%	J
Dibenzofuran	6020	1880	3780	ug/kg dr	y 1000		5110			16	30%	
2-Chlorophenol	ND	9440	18800	ug/kg dr	y 1000		ND				30%	
4-Chloro-3-methylphenol	ND	18800	37800	ug/kg dr	y 1000		ND				30%	
2,4-Dichlorophenol	ND	9440	18800	ug/kg dr	y 1000		ND				30%	
2,4-Dimethylphenol	ND	9440	18800	ug/kg dr	y 1000		ND				30%	
2,4-Dinitrophenol	ND	47200	94400	ug/kg dr	y 1000		ND				30%	
4,6-Dinitro-2-methylphenol	ND	47200	94400	ug/kg dr	y 1000		ND				30%	
2-Methylphenol	ND	4720	9440	ug/kg dr	y 1000		ND				30%	
3+4-Methylphenol(s)	ND	4720	9440	ug/kg dr	y 1000		ND				30%	
2-Nitrophenol	ND	18800	37800	ug/kg dr	y 1000		ND				30%	
4-Nitrophenol	ND	18800	37800	ug/kg dr	y 1000		ND				30%	
Pentachlorophenol (PCP)	ND	18800	37800	ug/kg dr	y 1000		ND				30%	
Phenol	ND	3780	7550	ug/kg dr	y 1000		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile (Organic C	ompoun	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Sol	id				
Duplicate (23C1019-DUP1)			Prepared	: 03/27/23 07	7:35 Anal	yzed: 03/27	/23 18:09					
QC Source Sample: Non-SDG (A	<u>3C0674-01)</u>											
2,3,4,6-Tetrachlorophenol	ND	9440	18800	ug/kg dry	1000		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	9440	18800	ug/kg dry	1000		ND				30%	
2,4,5-Trichlorophenol	ND	9440	18800	ug/kg dry	1000		ND				30%	
2,4,6-Trichlorophenol	ND	9440	18800	ug/kg dry	1000		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	28300	56600	ug/kg dry	1000		ND				30%	
Butyl benzyl phthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
Diethylphthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
Dimethylphthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
Di-n-butylphthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
Di-n-octyl phthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
N-Nitrosodimethylamine	ND	4720	9440	ug/kg dry	1000		ND				30%	
N-Nitroso-di-n-propylamine	ND	4720	9440	ug/kg dry	1000		ND				30%	
N-Nitrosodiphenylamine	ND	9440	9440	ug/kg dry	1000		ND				30%	
Bis(2-Chloroethoxy) methane	ND	4720	9440	ug/kg dry	1000		ND				30%	
Bis(2-Chloroethyl) ether	ND	4720	9440	ug/kg dry	1000		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	4720	9440	ug/kg dry	1000		ND				30%	
Hexachlorobenzene	ND	1880	3780	ug/kg dry	1000		ND				30%	
Hexachlorobutadiene	ND	4720	9440	ug/kg dry	1000		ND				30%	
Hexachlorocyclopentadiene	ND	9440	18800	ug/kg dry	1000		ND				30%	
Hexachloroethane	ND	4720	9440	ug/kg dry	1000		ND				30%	
2-Chloronaphthalene	ND	1880	3780	ug/kg dry	1000		ND				30%	
1,2,4-Trichlorobenzene	ND	4720	9440	ug/kg dry	1000		ND				30%	
4-Bromophenyl phenyl ether	ND	4720	9440	ug/kg dry	1000		ND				30%	
4-Chlorophenyl phenyl ether	ND	4720	9440	ug/kg dry	1000		ND				30%	
Aniline	ND	9440	18800	ug/kg dry	1000		ND				30%	
4-Chloroaniline	ND	4720	9440	ug/kg dry	1000		ND				30%	
2-Nitroaniline	ND	37800	75500	ug/kg dry	1000		ND				30%	
3-Nitroaniline	ND	37800	75500	ug/kg dry	1000		ND				30%	
4-Nitroaniline	ND	37800	75500	ug/kg dry	1000		ND				30%	
Nitrobenzene	ND	18800	37800	ug/kg drv	1000		ND				30%	
2,4-Dinitrotoluene	ND	18800	37800	ug/kg dry	1000		ND				30%	
2,6-Dinitrotoluene	ND	18800	37800	ug/kg dry	1000		ND				30%	
Benzoic acid	ND	236000	472000	ug/kg dry	1000		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	compour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Sol	id				
Duplicate (23C1019-DUP1)			Prepared	1: 03/27/23 0	7:35 Ana	lyzed: 03/27	/23 18:09					
QC Source Sample: Non-SDG (A	<u>3C0674-01)</u>											
Benzyl alcohol	ND	9440	18800	ug/kg dr	y 1000		ND				30%	
Isophorone	ND	4720	9440	ug/kg dr	y 1000		ND				30%	
Azobenzene (1,2-DPH)	ND	4720	9440	ug/kg dr	y 1000		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	47200	94400	ug/kg dr	y 1000		ND				30%	
3,3'-Dichlorobenzidine	ND	37800	75500	ug/kg dr	y 1000		ND				30%	Q-52
1,2-Dinitrobenzene	ND	47200	94400	ug/kg dr	y 1000		ND				30%	
1,3-Dinitrobenzene	ND	47200	94400	ug/kg dr	y 1000		ND				30%	
1,4-Dinitrobenzene	ND	47200	94400	ug/kg dr	y 1000		ND				30%	
Pyridine	ND	9440	18800	ug/kg dr	y 1000		ND				30%	
1,2-Dichlorobenzene	ND	4720	9440	ug/kg dr	y 1000		ND				30%	
1,3-Dichlorobenzene	ND	4720	9440	ug/kg dr	y 1000		ND				30%	
1,4-Dichlorobenzene	ND	4720	9440	ug/kg dr	y 1000		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 88 %	Limits: 37-	-122 %	Dilt	ution: 1000	bx				S-05
2-Fluorobiphenyl (Surr)			121 %	44-	120 %		"					S-05
Phenol-d6 (Surr)			57%	33-	122 %		"					S-05
p-Terphenyl-d14 (Surr)			139 %	54-	127 %		"					S-05
2-Fluorophenol (Surr)			56 %	35-	120 %		"					S-05
2,4,6-Tribromophenol (Surr)			1220 %	39-	132 %		"					S-05

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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
Batch 23C1191 - EPA 3051A			<u>, </u>				Sol	id				
Blank (23C1191-BLK1)			Prepared	: 03/30/23 0	6:59 Anal	yzed: 03/30/	/23 21:14					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg we	t 10							
Barium	ND	500	1000	ug/kg we	t 10							
Cadmium	ND	100	200	ug/kg we	t 10							
Chromium	ND	500	1000	ug/kg we	t 10							
Lead	ND	100	200	ug/kg we	t 10							
Mercury	ND	40.0	80.0	ug/kg we	t 10							
Selenium	ND	500	1000	ug/kg we	t 10							
Silver	ND	100	200	ug/kg we	t 10							
LCS (23C1191-BS1)			Prepared	: 03/30/23 0	6:59 Anal	yzed: 03/30/	/23 21:19			_		
EPA 6020B												
Arsenic	48800	500	1000	ug/kg we	t 10	50000		98	80-120%			
Barium	52100	500	1000	ug/kg we	t 10	50000		104	80-120%			
Cadmium	49400	100	200	ug/kg we	t 10	50000		99	80-120%			
Chromium	47900	500	1000	ug/kg we	t 10	50000		96	80-120%			
Lead	51400	100	200	ug/kg we	t 10	50000		103	80-120%			
Mercury	981	40.0	80.0	ug/kg we	t 10	1000		98	80-120%			
Selenium	23900	500	1000	ug/kg we	t 10	25000		95	80-120%			
Silver	24500	100	200	ug/kg we	t 10	25000		98	80-120%			
Duplicate (23C1191-DUP1)			Prepared	: 03/30/23 0	6:59 Anal	yzed: 03/30/	/23 21:29					
QC Source Sample: FC-032023-20	081 (A3C084	<u>12-01)</u>										
<u>EPA 6020B</u>												
Arsenic	10200	2300	4610	ug/kg dry	/ 10		9760			5	20%	CON
Barium	225000	2300	4610	ug/kg dry	7 10		220000			2	20%	CON
Cadmium	ND	461	922	ug/kg dry	7 10		ND				20%	CON
Chromium	ND	2300	4610	ug/kg dry	/ 10		ND				20%	CON
Lead	696	461	922	ug/kg dry	/ 10		635			9	20%	CONT
Mercury	ND	184	369	ug/kg dry	r 10		ND				20%	CON
Selenium	ND	2300	4610	ug/kg dry	7 10		ND				20%	CON
Silver	ND	461	922	ug/kg drv	7 10		ND				20%	CON

Matrix Spike (23C1191-MS1)

Prepared: 03/30/23 06:59 Analyzed: 03/30/23 21:33

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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
Batch 23C1191 - EPA 3051A							So	lid				
Matrix Spike (23C1191-MS1)			Prepared	: 03/30/23 0	6:59 Ana	lyzed: 03/30)/23 21:33					
OC Source Sample: FC-032023-208	1 (A3C08-	42-01)										
<u>EPA 6020B</u>												
Arsenic	220000	2200	4410	ug/kg dry	/ 10	220000	9760	95	75-125%			CON
Barium	441000	2200	4410	ug/kg dry	/ 10	220000	220000	100	75-125%			CON
Cadmium	215000	441	881	ug/kg dry	/ 10	220000	ND	97	75-125%			CON
Chromium	207000	2200	4410	ug/kg dry	/ 10	220000	ND	94	75-125%			CON
Lead	215000	441	881	ug/kg dry	/ 10	220000	635	97	75-125%			CON
Mercury	4120	176	352	ug/kg dry	/ 10	4410	ND	94	75-125%			CON
Selenium	103000	2200	4410	ug/kg dry	/ 10	110000	ND	93	75-125%			CON
Silver	102000	441	881	ug/kg dry	10	110000	ND	93	75-125%			CON

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	OB (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1102 - EPA 1311/30	15A						Soi	il				
Blank (23C1102-BLK1)			Prepared	: 03/28/23	11:55 Anal	yzed: 03/29/	/23 13:15					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							Q-44, TCLF
Barium	ND	2500	5000	ug/L	10							Q-44, TCLF
Cadmium	ND	50.0	100	ug/L	10							Q-44, TCLF
Chromium	ND	50.0	100	ug/L	10							Q-44, TCLF
Lead	ND	25.0	50.0	ug/L	10							Q-44, TCLF
Mercury	ND	3.75	7.00	ug/L	10							Q-44, TCLF
Selenium	ND	50.0	100	ug/L	10							Q-44, TCLF
Silver	ND	50.0	100	ug/L	10							Q-44, TCLF
LCS (23C1102-BS1)			Prepared	: 03/28/23	11:55 Anal	yzed: 03/29/	/23 13:20					
<u>1311/6020B</u>												
Arsenic	5050	50.0	100	ug/L	10	5000		101	80-120%			Q-44, TCLF
Barium	10700	2500	5000	ug/L	10	10000		107	80-120%			Q-44, TCLF
Cadmium	985	50.0	100	ug/L	10	1000		98	80-120%			Q-44, TCLF
Chromium	4810	50.0	100	ug/L	10	5000		96	80-120%			Q-44, TCLF
Lead	5300	25.0	50.0	ug/L	10	5000		106	80-120%			Q-44, TCLF
Mercury	98.0	3.75	7.00	ug/L	10	100		98	80-120%			Q-44, TCLF
Selenium	1050	50.0	100	ug/L	10	1000		105	80-120%			Q-44, TCLF
Silver	955	50.0	100	ug/L	10	1000		95	80-120%			Q-44, TCLF
Duplicate (23C1102-DUP1)			Prepared	: 03/28/23	11:55 Anal	yzed: 03/29/	/23 13:31					
QC Source Sample: Non-SDG (A	<u>3C0602-03)</u>											
Arsenic	ND	50.0	100	ug/L	10		ND				20%	Q-44
Barium	ND	2500	5000	ug/L	10		ND				20%	Q-44
Cadmium	ND	50.0	100	ug/L	10		ND				20%	Q-44
Chromium	ND	50.0	100	ug/L	10		ND				20%	Q-44
Lead	ND	25.0	50.0	ug/L	10		ND				20%	Q-44
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	Q-44
Selenium	ND	50.0	100	ug/L	10		ND				20%	Q-44
Silver	ND	50.0	100	ug/L	10		ND				20%	Q-44

Matrix Spike (23C1102-MS1)

Prepared: 03/28/23 11:55 Analyzed: 03/29/23 13:36

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

irce sult % REC	% REC Limits	RPD	RPD Limit	Notes
Soil				
:36				
D 103	50-150%			Q-4
D 114	50-150%			Q-4
D 101	50-150%			Q-4
D 98	50-150%			Q-4
D 106	50-150%			Q-4
D 98	50-150%			Q-4
D 108	50-150%			Q-4
D 94	50-150%			Q-4
:03				
D 102	50-150%			CONT,Q-44
D 108	50-150%			CONT,Q-44
D 100	50-150%			CONT,Q-44
D 97	50-150%			CONT,Q-44
D 105	50-150%			CONT,Q-44
D 97	50-150%			CONT,Q-44
D 105	50-150%			CONT,Q-44
D 95	50-150%			CONT,Q-44
:13				
D 102	50-150%			0-44
D 102	50 150%			0-44
D 102	50 150%			Q-44
08 G	50 150%			0.44
D 70	50 150%			Q-44
D 108	50 150%			Q-44
D 99	50-150%			Q-44
D 10/	30-130%			Q-44
	D 102 D 102 D 108 D 100 D 97 D 105 D 97 D 105 D 97 D 105 D 95 ::13 D 102 D 102 D 109 D 103 D 98 D 108 D 99 D 107	D 94 50-150% :03 : : D 102 50-150% D 108 50-150% D 100 50-150% D 100 50-150% D 97 50-150% D 97 50-150% D 95 50-150% D 95 50-150% D 105 50-150% D 102 50-150% D 103 50-150% D 103 50-150% D 103 50-150% D 108 50-150% D 108 50-150% D 107 50-150%	D 94 50-150% :03 :03 D 102 50-150% D 108 50-150% D 100 50-150% D 97 50-150% D 105 50-150% D 97 50-150% D 105 50-150% D 105 50-150% D 105 50-150% D 105 50-150% D 102 50-150% :13	D 94 50-150% :03 D 102 50-150% D 102 50-150% D 108 50-150% D 100 50-150% D 97 50-150% D 105 50-150% D 105 50-150% D 95 50-150% D 105 50-150% D 105 50-150% D 95 50-150% D 103 50-150% D 103 50-150% D 108 50-150% D 99 50-150% D 107 50-150%

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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
Batch 23C1102 - EPA 13	11/3015A						Soi	I				
Matrix Spike (23C1102-	MS3)		Prepared	: 03/28/23	11:55 Ana	lyzed: 03/29	/23 14:13					
QC Source Sample: Non-S	DG (A3C0844-01)											
Silver	972	50.0	100	ug/L	10	1000	ND	97	50-150%			Q-44

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALITY CONTROL (QC) SAMPLE RESULTS

	Solu	ble Cyanic	le by UV Di	igestion/	Gas Diffu	ision/Amp	perometr	ic Detecti	on			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1248 - ASTM D7511-	12mod (S)					Soi	il				
Blank (23C1248-BLK1)			Prepared	: 03/31/23	08:23 Ana	lyzed: 03/31	/23 13:02					
D7511-12 Total Cyanide	ND	50.0	100	ug/kg w	vet 1							
LCS (23C1248-BS1)			Prepared	: 03/31/23	08:23 Ana	lyzed: 03/31	/23 13:04					
D7511-12 Total Cyanide	401	50.0	100	ug/kg w	vet 1	400		100	84-116%			
Matrix Spike (23C1248-MS1)			Prepared	: 03/31/23	08:23 Ana	lyzed: 03/31	/23 13:18					
QC Source Sample: Non-SDG (A3 D7511-12	C0805-02RI	<u>E1)</u>										
Total Cyanide	147000	9990	20000	ug/kg w	vet 200	399	168000	-5220	64-136%			Q-0
Matrix Spike Dup (23C1248-M	ISD1)		Prepared	: 03/31/23	08:23 Ana	lyzed: 03/31	/23 13:24					
OC Source Sample: Non-SDG (A3	C0805-02RI	<u>E1)</u>										
Total Cyanide	133000	9960	19900	ug/kg w	vet 200	398	168000	-8800	64-136%	10	47%	Q-0

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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
Batch 23C0983 - Total Solids (Dry Weig	ht)					Soi					
Duplicate (23C0983-DUP1)			Prepared	l: 03/24/23	12:33 Ana	lyzed: 03/25	5/23 11:50					CONT
QC Source Sample: FC-032023-20 EPA 8000D	81 (A3C08	<u>42-01)</u>										
% Solids	22.1	1.00	1.00	%	1		23.9			8	10%	
Duplicate (23C0983-DUP2)			Prepared	l: 03/24/23	12:33 Ana	lyzed: 03/25	5/23 11:50					
QC Source Sample: Non-SDG (A3	<u>C0844-01)</u>											
% Solids	8.93	1.00	1.00	%	1		7.88			12	10%	Q-0
Duplicate (23C0983-DUP3)			Prepared	l: 03/24/23	12:33 Ana	lyzed: 03/25	5/23 11:50					
QC Source Sample: Non-SDG (A3	C0850-01)											
% Solids	92.2	1.00	1.00	%	1		92.3			0.02	10%	

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

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

<u>Sevenson Environmental Services, In</u> 2749 Lockport Road Niagara Falls, NY 14305	<u>с.</u> Рг Рг	Project: <u>Gasco</u> - roject Number: 111323 oject Manager: Chip B		<u>Report ID:</u> A3C0842 - 05 03 23	3 1321	
	SAMPLE	PREPARATION	INFORMATION			
	Diesel and	l/or Oil Hydrocarbor	ns by NWTPH-Dx			
Prep: EPA 3546 (Fuels)				Sample	Default	RL Prep
Lab Number Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 23D0059</u> A3C0842-01 Solid	NWTPH-Dx	03/20/23 12:30	04/03/23 14:53	10.01g/5mL	10g/5mL	1.00
G	asoline Range Hydrocart	oons (Benzene thro	ugh Naphthalene) b	y NWTPH-Gx		
Prep: EPA 5035A				Sample	Default	RL Prep
Lab Number Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23C1025 A3C0842-01RE1 Solid	NWTPH-Gx (MS)	03/20/23 12:30	03/23/23 15:39	5.48g/5mL	5g/5mL	0.91
	Volatile C	Organic Compounds	s by EPA 8260D			
Prep: EPA 5035A			-	Sample	Default	RL Prep
Lab Number Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23C1025 A3C0842-01RE1 Solid	5035A/8260D	03/20/23 12:30	03/23/23 15:39	5.48g/5mL	5g/5mL	0.91
	Regulated TCLP Vol	atile Organic Comp	ounds by EPA 1311	/8260D		
Prep: EPA 1311/5030B TCLP Volati	iles			Sample	Default	RL Prep
Lab Number Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23D0153 A3C0842-01 Solid	1311/8260D	03/20/23 12:30	04/05/23 10:37	5mL/5mL	5mL/5mL	1.00
	Semivolatil	e Organic Compour	nds by EPA 8270E			
<u>Prep: EPA 3546</u>		~ ·	-	Sample	Default	RL Prep
Lab Number Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23C1019 A3C0842-01 Solid	EPA 8270E	03/20/23 12:30	03/27/23 07:35	15.03g/2mL	15g/2mL	1.00
	Total	Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3051A		-	. ,	Sample	Default	RL Prep
Lab Number Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23C1191 A3C0842-01 Solid	EPA 6020B	03/20/23 12:30	03/30/23 06:59	0.464g/50mL	0.5g/50mL	1.08

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3C0842 - 05 03 23 1321

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 1311/30154	<u> </u>				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23C1102								
A3C0842-01	Solid	1311/6020B	03/20/23 12:30	03/28/23 11:55	10mL/50mL	10mL/50mL	1.00	
	S	oluble Cyanide by U	/ Digestion/Gas Diffu	ision/Amperometric	Detection			
Prep: ASTM D7511-12	2mod (S)		-	•	Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23C1248			1	1				
A3C0842-01RE1	Solid	D7511-12	03/20/23 12:30	03/31/23 08:23	2.5095g/50mL	2.5g/50mL	1.00	
			Percent Dry Wei	ght				
				~				
Prep: Total Solids (Dry	<u>vWeight)</u>				Sample	Default	RL Prep	
Prep: Total Solids (Dry Lab Number	<u>' Weight)</u> Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23C0983	<u>v Weight)</u> Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01	<u>v Weight)</u> Matrix Solid	Method EPA 8000D	Sampled 03/20/23 12:30	Prepared 03/24/23 12:33	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01	<u>v Weight)</u> Matrix Solid	Method EPA 8000D	Sampled 03/20/23 12:30	Prepared 03/24/23 12:33 PA 1311	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01	<u>v Weight)</u> Matrix Solid	Method EPA 8000D	Sampled 03/20/23 12:30 CLP Extraction by E	Prepared 03/24/23 12:33 PA 1311	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01 Prep: EPA 1311 (TCLF	<u>v Weight)</u> Matrix Solid	Method EPA 8000D	Sampled 03/20/23 12:30 CLP Extraction by E	Prepared 03/24/23 12:33 PA 1311	Sample Initial/Final Sample Initial/Final	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C1029	<u>v Weight)</u> Matrix Solid 2) Matrix	Method EPA 8000D T Method	Sampled 03/20/23 12:30 CLP Extraction by E Sampled	Prepared 03/24/23 12:33 PA 1311 Prepared	Sample Initial/Final Sample Initial/Final	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C1029 A3C0842-01	<u>v Weight)</u> Matrix Solid 2) Matrix Solid	Method EPA 8000D T Method EPA 1311	Sampled 03/20/23 12:30 CLP Extraction by E Sampled 03/20/23 12:30	Prepared 03/24/23 12:33 PA 1311 Prepared 03/27/23 15:35	Sample Initial/Final Sample Initial/Final 100g/2000g	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C1029 A3C0842-01 Prep: EPA 1311 TCLP.	<u>v Weight)</u> Matrix Solid 2) Matrix Solid /ZHE	Method EPA 8000D T Method EPA 1311	Sampled 03/20/23 12:30 CLP Extraction by E Sampled 03/20/23 12:30	Prepared 03/24/23 12:33 PA 1311 Prepared 03/27/23 15:35	Sample Initial/Final Sample Initial/Final 100g/2000g Sample	Default Initial/Final Default Initial/Final 100g/2000g Default	RL Prep Factor NA RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C1029 A3C0842-01 Prep: EPA 1311 TCLP Lab Number	<u>v Weight)</u> Matrix Solid 2) Matrix Solid /ZHE Matrix	Method EPA 8000D T Method EPA 1311 Method	Sampled 03/20/23 12:30 CLP Extraction by E Sampled 03/20/23 12:30 Sampled	Prepared 03/24/23 12:33 PA 1311 Prepared 03/27/23 15:35 Prepared	Sample Initial/Final Sample Initial/Final 100g/2000g Sample Initial/Final	Default Initial/Final Default Initial/Final 100g/2000g Default Initial/Final	RL Prep Factor NA RL Prep Factor NA RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23C0983 A3C0842-01 Prep: EPA 1311 (TCLF Lab Number Batch: 23C1029 A3C0842-01 Prep: EPA 1311 TCLP Lab Number Batch: 23D0056	<u>v Weight)</u> Matrix Solid 2) Matrix Solid /ZHE Matrix	Method EPA 8000D T Method EPA 1311 Method	Sampled 03/20/23 12:30 CLP Extraction by E Sampled 03/20/23 12:30 Sampled	Prepared 03/24/23 12:33 PA 1311 Prepared 03/27/23 15:35 Prepared	Sample Initial/Final Sample Initial/Final 100g/2000g Sample Initial/Final	Default Initial/Final Default Initial/Final 100g/2000g Default Initial/Final	RL Prep Factor NA RL Prep Factor NA RL Prep Factor	

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

QUALIFIER DEFINITIONS

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

Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)

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В

B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
CONT	The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Quality System.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
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.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-04	Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-29	Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-44	Room temperature during the 18 hr. TCLP tumbling procedure exceeded EPA recommended temperature range by no more than +/-2 degrees C for a maximum of 4 hours
Q-44a	Room temperature during the 18 hr. TCLP tumbling procedure exceeded EPA recommended temperature range by no more than +/-2 degrees C for a maximum of 4 hours.
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 +1%. 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 +13%. 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 +2%. 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 +30%. 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 +32%. The results are reported as Estimated Values.
Apex Labor	ratories The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

<u>Sevenson En</u> 2749 Lockpo Niagara Fall	<u>vironmental Services, Inc.</u> rt Road s, NY 14305	Project: Project Number: Project Manager:	<u>Gasco Filtercake</u> : 111323 : Chip Byrd	<u>Report ID:</u> A3C0842 - 05 03 23 1321
Q-54e	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ery for this analyte fa	iled the +/-20% criteria liste	d in EPA method 8260/8270 by +35%. The
Q-54f	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ery for this analyte fa	iled the +/-20% criteria liste	d in EPA method 8260/8270 by +42%. The
Q-54g	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ery for this analyte fa	iled the +/-20% criteria liste	d in EPA method 8260/8270 by +50%. The
Q-54h	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ery for this analyte fa	iled the +/-20% criteria liste	d in EPA method 8260/8270 by +9%. The
Q-54i	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ery for this analyte fa	iled the +/-20% criteria liste	d in EPA method 8260/8270 by -3%. The
Q-54j	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ery for this analyte fa	iled the +/-20% criteria liste	d in EPA method 8260/8270 by -4%. The
Q-54k	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ery for this analyte fa	iled the +/-20% criteria liste	d in EPA method 8260/8270 by -5%. The
Q-55	Daily CCV/LCS recovery for this analyte was be detection at the reporting level.	elow the +/-20% crite	eria listed in EPA 8260, how	ever there is adequate sensitivity to ensure
Q-56	Daily CCV/LCS recovery for this analyte was ab	pove the +/-20% crite	eria listed in EPA 8260	
R-02	The Reporting Limit for this analyte has been rai	ised to account for in	terference from coeluting or	rganic compounds present in the sample.
S-05	Surrogate recovery is estimated due to sample di	ilution required for h	igh analyte concentration an	d/or matrix interference.
TCLP	This batch QC sample was prepared with TCLP	or SPLP fluid from p	preparation batch 23C1029.	
TCLPa	This batch QC sample was prepared with TCLP	or SPLP fluid from p	preparation batch 23D0056.	
V-15	Sample aliquot was subsampled from the sample sampling.	e container. The subs	ampled aliquot was preserve	ed in the laboratory within 48 hours of
V-16	Sample aliquot was subsampled from the sample	e container in the lab	oratory. The subsampled ali	quot was not preserved within 48 hours of

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sampling.



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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.

- <u>" dry"</u> 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 ½ the Reporting Limit (RL). -For Blank hits falling between ½ 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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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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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Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0842 - 05 03 23 1321

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 <u>exception</u> of any analyte(s) listed below:

Apex Lab	<u>oratories</u>				
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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



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

Sevenson Environmental Ser	rvices, Inc. Project: <u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3C0842 - 05 03 23 1321
Niagara Falls, NY 14305 Client: Project/I Delivery Date/time Delivered Cooler II Chain of Signed/da Temperat Custody = Received Temp. bla Ice type Condition Cooler ou Green do Out of ter Sample I All sample	Project Manager: Chip Byrd APEX LABS COOLER RECEIPT FORM Sevention Environmental Services, Inc. Element WO#: A3 (DSA2 Project #: Gesce F:/tereake//111323 Info: e received: $\frac{1}{23/23}$ (2) 13 a.5 By: AJM d by: Apex_Client_ESS_FedEx_UPS_Radio_Morgan_SDS_Evergreen_Other Inspection nspection Date/time inspected: $3/23/23$ (2) (4 5 3) By: AJM Custody included? Yes // No	A3C0842 - 05 03 23 1321
Bottle lab	wels/COCs agree? Yes X No Comments: tainer discrepancies form initiated? Yes No Comments: rs/volumes received appropriate for analysis? Yes X No Comments: vials have visible headspace? Yes No NA X ts nples: pH checked: Yes No NA X pH appropriate? Yes No NAX ts: al information: py: Witness: Cooler Inspected by: form Y-003 I	

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

Thursday, May 4, 2023 Chip Byrd Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305

RE: A3D1359 - Gasco -- Filtercake - 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 A3D1359, which was received by the laboratory on 4/19/2023 at 7:57:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information

Default Cooler

(See Cooler Receipt Form for details) 3.2 degC

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtercake	
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3D1359 - 05 04 23 1558

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION						
Client Sample ID Laboratory ID Matrix Date Sampled Date Received						
FC-041623-2245	A3D1359-01	Solid	04/16/23 22:45	04/19/23 07:57		

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3D1359 - 05 04 23 1558

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
FC-041623-2245 (A3D1359-01)				Matrix: Solid	d	Batch:	23D1174	CONT
Diesel	2570000	183000	365000	ug/kg dry	5	04/29/23 00:03	NWTPH-Dx	F-13
Oil	ND	365000	731000	ug/kg dry	5	04/29/23 00:03	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ery: 100 %	Limits: 50-150 %	5 5	04/29/23 00:03	NWTPH-Dx	S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx									
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.								Notes	
FC-041623-2245 (A3D1359-01RE1)	Matrix: Solid Batch: 23D0858					23D0858	V-16		
Gasoline Range Organics	63800	15000	30000	ug/kg dry	50	04/21/23 15:34	NWTPH-Gx (MS)		
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recove	ery: 108 % 96 %	Limits: 50-150 % 50-150 %		04/21/23 15:34 04/21/23 15:34	NWTPH-Gx (MS) NWTPH-Gx (MS)		

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

Sevenson Environmental Services, In	IC.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3D1359 - 05 04 23 1558

ANALYTICAL SAMPLE RESULTS

	Volatile Organic Compounds by EPA 8260D										
	Sample	Detection	Reporting			Date					
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes			
FC-041623-2245 (A3D1359-01RE1)				Matrix: Sol	lid	Batch: 23D0858		V-16			
Acetone	ND	3000	6010	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Acrylonitrile	ND	300	601	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Benzene	72.1	30.0	60.1	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Bromobenzene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Bromochloromethane	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Bromodichloromethane	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Bromoform	ND	300	601	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Bromomethane	ND	3000	3000	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
2-Butanone (MEK)	ND	1500	3000	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
n-Butylbenzene	ND	300	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
sec-Butylbenzene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
tert-Butylbenzene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Carbon disulfide	ND	1500	3000	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Carbon tetrachloride	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Chlorobenzene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Chloroethane	ND	1500	3000	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Chloroform	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Chloromethane	ND	751	1500	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
2-Chlorotoluene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
4-Chlorotoluene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Dibromochloromethane	ND	300	601	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,2-Dibromo-3-chloropropane	ND	751	1500	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,2-Dibromoethane (EDB)	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Dibromomethane	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,2-Dichlorobenzene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,3-Dichlorobenzene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,4-Dichlorobenzene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Dichlorodifluoromethane	ND	300	601	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,1-Dichloroethane	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,2-Dichloroethane (EDC)	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,1-Dichloroethene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
cis-1,2-Dichloroethene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
trans-1,2-Dichloroethene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				

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

Sevenson Environmental Services, In	ic.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:	
A3D1359 - 05 04 23	1558

ANALYTICAL SAMPLE RESULTS

	Volatile Organic Compounds by EPA 8260D										
	Sample	Detection	Reporting			Date					
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes			
FC-041623-2245 (A3D1359-01RE1)				Matrix: Sol	lid	Batch: 23D0858		V-16			
1,2-Dichloropropane	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,3-Dichloropropane	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
2,2-Dichloropropane	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,1-Dichloropropene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
cis-1,3-Dichloropropene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
trans-1,3-Dichloropropene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Ethylbenzene	ND	150	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Hexachlorobutadiene	ND	300	601	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
2-Hexanone	ND	1500	3000	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Isopropylbenzene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
4-Isopropyltoluene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Methylene chloride	ND	1500	3000	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
4-Methyl-2-pentanone (MiBK)	ND	1500	3000	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Methyl tert-butyl ether (MTBE)	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Naphthalene	ND	751	751	ug/kg dry	50	04/21/23 15:34	5035A/8260D	R-06			
n-Propylbenzene	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Styrene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,1,1,2-Tetrachloroethane	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,1,2,2-Tetrachloroethane	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Tetrachloroethene (PCE)	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Toluene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,2,3-Trichlorobenzene	ND	751	1500	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,2,4-Trichlorobenzene	ND	751	1500	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,1,1-Trichloroethane	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,1,2-Trichloroethane	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Trichloroethene (TCE)	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Trichlorofluoromethane	ND	300	601	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,2,3-Trichloropropane	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
1,2,4-Trimethylbenzene	ND	451	451	ug/kg dry	50	04/21/23 15:34	5035A/8260D	R-06			
1,3,5-Trimethylbenzene	ND	300	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
Vinyl chloride	ND	75.1	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
m,p-Xylene	ND	150	300	ug/kg dry	50	04/21/23 15:34	5035A/8260D				
o-Xylene	ND	150	150	ug/kg dry	50	04/21/23 15:34	5035A/8260D				

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3D1359 - 05 04 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D									
Analyte	Sample Result	Detection Limit	Reporting Limit	U	Inits	Dilution	Date Analyzed	Method Ref.	Notes
FC-041623-2245 (A3D1359-01RE1)				Mat	rix: Solic	ł	Batch:	23D0858	V-16
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 106 %	Limits:	80-120 %	1	04/21/23 15:34	5035A/8260D	
Toluene-d8 (Surr)			94 %		80-120 %	1	04/21/23 15:34	5035A/8260D	
4-Bromofluorobenzene (Surr)			104 %		79-120 %	1	04/21/23 15:34	5035A/8260D	

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3D1359 - 05 04 23	1558

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	
FC-041623-2245 (A3D1359-01)				Matrix: Solid	Matrix: Solid Batch: 23D0867				
Benzene	ND	6.25	12.5	ug/L	50	04/22/23 12:44	1311/8260D		
2-Butanone (MEK)	ND	250	500	ug/L	50	04/22/23 12:44	1311/8260D		
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	04/22/23 12:44	1311/8260D		
Chlorobenzene	ND	12.5	25.0	ug/L	50	04/22/23 12:44	1311/8260D		
Chloroform	ND	25.0	50.0	ug/L	50	04/22/23 12:44	1311/8260D		
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/22/23 12:44	1311/8260D		
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	04/22/23 12:44	1311/8260D		
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	04/22/23 12:44	1311/8260D		
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	04/22/23 12:44	1311/8260D		
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	04/22/23 12:44	1311/8260D		
Vinyl chloride	ND	12.5	25.0	ug/L	50	04/22/23 12:44	1311/8260D		
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 95 %	Limits: 80-120 %	1	04/22/23 12:44	1311/8260D		
Toluene-d8 (Surr)			102 %	80-120 %	1	04/22/23 12:44	1311/8260D		
4-Bromofluorobenzene (Surr)			104 %	80-120 %	1	04/22/23 12:44	1311/8260D		

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

Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3D1359 - 05 04 23 1558

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-041623-2245 (A3D1359-01)				Matrix: Sol	id	Batch:	23D1170	CONT
Acenaphthene	23000	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Acenaphthylene	ND	4130	4130	ug/kg dry	200	04/29/23 01:25	EPA 8270E	R-02
Anthracene	26900	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Benz(a)anthracene	18800	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Benzo(a)pyrene	19600	1500	3010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Benzo(b)fluoranthene	16200	1500	3010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Benzo(k)fluoranthene	6090	1500	3010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Chrysene	25200	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Fluoranthene	86800	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Fluorene	17600	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
1-Methylnaphthalene	5710	2010	4010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2-Methylnaphthalene	ND	2010	4010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Naphthalene	ND	2010	4010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Phenanthrene	143000	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Pyrene	102000	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Carbazole	ND	1500	3010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Dibenzofuran	1880	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	J
2-Chlorophenol	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
4-Chloro-3-methylphenol	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2,4-Dichlorophenol	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2,4-Dimethylphenol	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2,4-Dinitrophenol	ND	25000	50100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	25000	50100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2-Methylphenol	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
3+4-Methylphenol(s)	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2-Nitrophenol	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
4-Nitrophenol	ND	20100	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Pentachlorophenol (PCP)	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Phenol	ND	2010	4010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2,4,5-Trichlorophenol	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
2,4,6-Trichlorophenol	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

<u>Re</u>	por	tΙ	<u>D:</u>	
A3D1359 -	05	04	23	1558

ANALYTICAL SAMPLE RESULTS

	Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
FC-041623-2245 (A3D1359-01)				Matrix: Sol	id	Batch:	23D1170	CONT	
Bis(2-ethylhexyl)phthalate	ND	15000	30100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Butyl benzyl phthalate	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Diethylphthalate	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Dimethylphthalate	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Di-n-butylphthalate	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Di-n-octyl phthalate	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
N-Nitrosodimethylamine	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
N-Nitroso-di-n-propylamine	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
N-Nitrosodiphenylamine	ND	5010	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Bis(2-Chloroethoxy) methane	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Bis(2-Chloroethyl) ether	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
2,2'-Oxybis(1-Chloropropane)	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Hexachlorobenzene	ND	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Hexachlorobutadiene	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Hexachlorocyclopentadiene	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Hexachloroethane	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
2-Chloronaphthalene	ND	1000	2010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
1,2,4-Trichlorobenzene	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
4-Bromophenyl phenyl ether	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
4-Chlorophenyl phenyl ether	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Aniline	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
4-Chloroaniline	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
2-Nitroaniline	ND	20100	40100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
3-Nitroaniline	ND	20100	40100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
4-Nitroaniline	ND	20100	40100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Nitrobenzene	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
2,4-Dinitrotoluene	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
2,6-Dinitrotoluene	ND	10000	20100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Benzoic acid	ND	126000	250000	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Benzyl alcohol	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Isophorone	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Azobenzene (1,2-DPH)	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E		
Bis(2-Ethylhexyl) adipate	ND	25000	50100	ug/kg dry	200	04/29/23 01:25	EPA 8270E		

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Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:								
A3D1359 - 05	04	23	1558					

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-041623-2245 (A3D1359-01)				Matrix: Solid		Batch:	23D1170	CONT
3,3'-Dichlorobenzidine	ND	20100	40100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	25000	50100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
1,3-Dinitrobenzene	ND	25000	50100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
1,4-Dinitrobenzene	ND	25000	50100	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Pyridine	ND	5010	10000	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
1,2-Dichlorobenzene	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
1,3-Dichlorobenzene	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
1,4-Dichlorobenzene	ND	2500	5010	ug/kg dry	200	04/29/23 01:25	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery	v: 92 %	Limits: 37-122 %	200	04/29/23 01:25	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			75 %	44-120 %	200	04/29/23 01:25	EPA 8270E	S-05
Phenol-d6 (Surr)			47 %	33-122 %	200	04/29/23 01:25	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			111 %	54-127 %	200	04/29/23 01:25	EPA 8270E	S-05
2-Fluorophenol (Surr)			69 %	35-120 %	200	04/29/23 01:25	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			294 %	39-132 %	200	04/29/23 01:25	EPA 8270E	S-05
FC-041623-2245 (A3D1359-01RE2)				Matrix: Solid		Batch: 2	23D1170	CONT
Benzo(g,h,i)perylene	11900	2000	4010	ug/kg dry	400	05/02/23 01:29	EPA 8270E	
Dibenz(a,h)anthracene	ND	2000	4010	ug/kg dry	400	05/02/23 01:29	EPA 8270E	
Indeno(1,2,3-cd)pyrene	10200	2000	4010	ug/kg dry	400	05/02/23 01:29	EPA 8270E	

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3D1359 - 05 04 23 1558

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-041623-2245 (A3D1359-01)				Matrix: Sol	id			
Batch: 23D0850								
Arsenic	6360	2050	4100	ug/kg dry	10	04/22/23 02:24	EPA 6020B	CONT
Cadmium	ND	410	819	ug/kg dry	10	04/22/23 02:24	EPA 6020B	CONT
Chromium	ND	2050	4100	ug/kg dry	10	04/22/23 02:24	EPA 6020B	CONT
Selenium	ND	2050	4100	ug/kg dry	10	04/22/23 02:24	EPA 6020B	CONT
FC-041623-2245 (A3D1359-01RE1)				Matrix: Sol	id			
Batch: 23D0850								
Barium	178000	2050	4100	ug/kg dry	10	04/24/23 22:53	EPA 6020B	CONT
Lead	ND	410	819	ug/kg dry	10	04/24/23 22:53	EPA 6020B	CONT
Mercury	ND	164	328	ug/kg dry	10	04/24/23 22:53	EPA 6020B	CONT
Silver	ND	410	819	ug/kg dry	10	04/24/23 22:53	EPA 6020B	CONT

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3D1359 - 05 04 23 1558

ANALYTICAL SAMPLE RESULTS

		TCLP Meta	als by EPA 60	20B (ICPMS	3)			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-041623-2245 (A3D1359-01)				Matrix: So	olid			
Batch: 23D0989								
Arsenic	ND	50.0	100	ug/L	10	04/26/23 00:25	1311/6020B	CONT
Barium	ND	2500	5000	ug/L	10	04/26/23 00:25	1311/6020B	CONT
Cadmium	ND	50.0	100	ug/L	10	04/26/23 00:25	1311/6020B	CONT
Chromium	ND	50.0	100	ug/L	10	04/26/23 00:25	1311/6020B	CONT
Lead	ND	25.0	50.0	ug/L	10	04/26/23 00:25	1311/6020B	CONT
Mercury	ND	3.75	7.00	ug/L	10	04/26/23 00:25	1311/6020B	CONT
Selenium	ND	50.0	100	ug/L	10	04/26/23 00:25	1311/6020B	CONT
Silver	ND	50.0	100	ug/L	10	04/26/23 00:25	1311/6020B	CONT

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

Sevenson Environmental Services, Inc.	Project:	<u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3D1359 - 05 04 23 1558

ANALYTICAL SAMPLE RESULTS

So	luble Cyanide	by UV Diges	stion/Gas Dif	fusion/Ampe	rometric [Detection						
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.Note												
FC-041623-2245 (A3D1359-01RE1)				Matrix: Sol	id	Batch:	23D0855	CONT				
Total Cyanide 6400 943 1890 ug/kg dry 5 04/21/23 16:33 D75												

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

Sevenson Environmental Services, Inc.	Project: Gasco Filt	ercake
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3D1359 - 05 04 23 1558

ANALYTICAL SAMPLE RESULTS

	Percent Dry Weight												
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.No													
FC-041623-2245 (A3D1359-01)				Matrix: So	23D0767	CONT							
% Solids	26.4	1.00	1.00	%	1	04/20/23 04:12	EPA 8000D						

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Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtercake	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3D1359 - 05 04 23 1558
	ANALYTICAL SAMPLE RESULTS	
	TCLP Extraction by EPA 1311 (ZHE)	

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-041623-2245 (A3D1359-01)				Matrix: So	olid	Batch:	23D0833	CONT
TCLP ZHE Extraction	0.00			N/A	1	04/20/23 14:37	EPA 1311 ZHE	
TCLP Extraction	PREP			N/A	1	04/24/23 15:22	EPA 1311	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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	
Batch 23D1174 - EPA 3546 (F	uels)						Sol	id					
Blank (23D1174-BLK1)			Preparec	l: 04/28/23	13:09 Ana	lyzed: 04/28	/23 22:20						
NWTPH-Dx													
Diesel	ND	10000	20000	ug/kg we	et 1								
Oil	ND	20000	40000	ug/kg we	et 1								
Surr: o-Terphenyl (Surr)		Reco	very: 86 %	Limits: 50	-150 %	Dili	ution: 1x						
LCS (23D1174-BS1)			Prepared	l: 04/28/23	13:09 Ana	lyzed: 04/28	/23 22:40						
NWTPH-Dx													
Diesel	127000	10000	20000	ug/kg we	et 1	125000		102	38-132%				
Surr: o-Terphenyl (Surr)		Reco	very: 90 %	Limits: 50	-150 %	Dili	ution: 1x						
Duplicate (23D1174-DUP1)			Preparec	l: 04/28/23	13:09 Anal	lyzed: 04/28	/23 23:22					CONT	
QC Source Sample: FC-041623-22	245 (A3D135	<u>i9-01)</u>											
NWTPH-Dx													
Diesel	2760000	188000	377000	ug/kg dr	y 5		2570000			7	30%	F-1	
Oil	ND	377000	753000	ug/kg dr	у 5		ND				30%		
Surr: o-Terphenyl (Surr)		Recov	ery: 100 %	Limits: 50	-150 %	Dili	ution: 5x					S-05	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: **111323** Project Manager: **Chip Byrd**

Project:

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasco -- Filtercake

	Gasolin	ne Range H	lydrocarbo	ons (Ben	zene throu	igh Naphi	thalene)	by NWTP	PH-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							Soi	il				
Blank (23D0810-BLK1)			Prepared	1: 04/20/23	08:47 Anal	yzed: 04/20/	/23 11:33					
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	2500	5000	ug/kg w	ret 50							
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 97 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			103 %	50	0-150 %		"					
LCS (23D0810-BS2)			Preparec	1: 04/20/23	08:47 Anal	yzed: 04/20/	/23 10:55					
NWTPH-Gx (MS)												
Gasoline Range Organics	25500	2500	5000	ug/kg w	vet 50	25000		102	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 98 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			104 %	50	0-150 %		"					
Duplicate (23D0810-DUP1)			Preparec	1: 04/19/23	10:56 Anal	yzed: 04/20/	/23 12:50					
QC Source Sample: Non-SDG (A3	D1373-01)											
Gasoline Range Organics	ND	3120	6240	ug/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 96 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			101 %	50	0-150 %		"					
Duplicate (23D0810-DUP2)			Preparec	1: 04/14/23	13:45 Anal	yzed: 04/20/	/23 13:41					
QC Source Sample: Non-SDG (A3	D1230-08)											
Gasoline Range Organics	3470	3340	6690	ug/kg d	ry 50		3540			2	30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 99%	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			101 %	50	0-150 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolin	ie Range H	ydrocarbc	ons (Ben:	zene throu	igh Naph	thalene)	by NWTF	'H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0858 - EPA 5035A							Soi	1				
Blank (23D0858-BLK1)			Preparec	1: 04/21/23	08:35 Anal	yzed: 04/21	/23 11:17				_	
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 96 %	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			100 %	51	0-150 %		"					
LCS (23D0858-BS2)			Prepared	1: 04/21/23	08:35 Anal	yzed: 04/21	/23 10:47					
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	24000	2500	5000	ug/kg w	vet 50	25000		96	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 98 %	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			100 %	5.	0-150 %		"					
Duplicate (23D0858-DUP1)			Prepared	1: 04/20/23	14:28 Anal	yzed: 04/21	/23 12:08					
QC Source Sample: Non-SDG (A3	D1419-01)											
Gasoline Range Organics	1500000	22100	44300	ug/kg d	'ry 200		1620000			8	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recove	ery: 101 %	Limits: 5	0-150 %	Dili	ution: 1x					
1,4-Difluorobenzene (Sur)			98 %	50	0-150 %		"					
Duplicate (23D0858-DUP2)			Prepared	1: 04/14/23	12:30 Anal	yzed: 04/21	/23 18:09					
QC Source Sample: Non-SDG (A3	<u>D1230-06</u>)											
Gasoline Range Organics	417000	32700	65300	ug/kg d	'ry 500		428000			3	30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 99%	Limits: 5	0-150 %	Dili	ution: 1x					
1,4-Difluorobenzene (Sur)			97 %	51	9-150 %	- "	"					
				U U								

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
7 mary to	result	Liiiit	Liiiit			7 milount	Testart		Emito		Emit	
Batch 23D0810 - EPA 5035A							Soi					
Blank (23D0810-BLK1)			Prepared	: 04/20/23 08	47 Ana	lyzed: 04/20	/23 11:33					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1 2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

| Batch 23D0810 - EPA 5035A Blank (23D0810-BLK1) 1,2-Dichloropropane N 1,3-Dichloropropane N 2,2-Dichloropropane N 1,1-Dichloropropane N 1,1-Dichloropropene N cis-1,3-Dichloropropene N trans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N 1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N <tr td=""> N <th>D
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Ethylbenzene N
Hexachlorobutadiene N
2-Hexanone N
Isopropylbenzene N
4-Isopropylbenzene N
4-Isopropyltoluene N
Methylene chloride N
4-Methyl-2-pentanone (MiBK) N
Methyl tert-butyl ether (MTBE) N
Naphthalene N
n-Propylbenzene N
1,1,2,2-Tetrachloroethane N
1,1,2,2-Tetrachloroethane N
1,2,3-Trichlorobenzene N
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</td><td></td></td></tr> <tr><td>Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N Tetrachloroethane N 1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N</td><td></td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
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</td><td></td></tr> <tr><td>4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2.7-Etrachloroethane N 1,1,2.7-Tetrachloroethane N Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N</td><td>D</td><td>250</td><td>500</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N Tetrachloroethane N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N</td><td>D</td><td>250</td><td>500</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>Naphthalene N n-Propylbenzene N Styrene N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N Totuene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N</td><td>D</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>n-Propylbenzene N
Styrene N
1,1,1,2-Tetrachloroethane N
1,1,2,2-Tetrachloroethane N
Tetrachloroethene (PCE) N
Toluene N
1,2,3-Trichlorobenzene N
1,2,4-Trichlorobenzene N
1,1,1-Trichloroethane N
1,1,2-Trichloroethane N
1,2,3-Trichloroethane N
1,2,3-Trichloroethane N
1,1,2-Trichloroethane N
1,2,3-Trichloroethane N
1,3,3-Trichloroethane N
1,3,3-Trichloroeth</td><td>D</td><td>50.0</td><td>100</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>Styrene N 1,1,2,-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N</td><td>D</td><td>12.5</td><td>25.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,1,1,2-TetrachloroethaneN1,1,2,2-TetrachloroethaneNTetrachloroethene (PCE)NTolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N</td><td>D</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,1,2,2-TetrachloroethaneNTetrachloroethene (PCE)NTolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N</td><td>D</td><td>12.5</td><td>25.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N</td><td>D</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>TolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N</td><td>D</td><td>12.5</td><td>25.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N</td><td>D</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)NTrichloroethene (TCE)N</td><td>D</td><td>125</td><td>250</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)NTrichloroethene (TCE)N</td><td>D</td><td>125</td><td>250</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,1,2-TrichloroethaneNTrichloroethene (TCE)N</td><td>D</td><td>12.5</td><td>25.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>Trichloroethene (TCE) N</td><td>D</td><td>12.5</td><td>25.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>m:11 (1)</td><td>D</td><td>12.5</td><td>25.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>Irichlorofluoromethane N</td><td>D</td><td>50.0</td><td>100</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,2,3-Trichloropropane N</td><td>D</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,2,4-Trimethylbenzene N</td><td>D</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>1,3,5-Trimethylbenzene N</td><td>D</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>Vinyl chloride N</td><td></td><td>12.5</td><td>25.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>m,p-Xylene N</td><td>D</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> <tr><td>o-Xylene N</td><td>D
D</td><td>12.5</td><td>25.0</td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></tr> | D
D
D
D
D
D
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D
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D
D
D
D
D | 12.5
25.0
25.0
25.0
25.0
25.0
12.5
50.0
250
250 | Prepared
25.0
50.0
50.0
50.0
50.0
50.0
25.0
100 | : 04/20/23 08
ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet | :47 Ana
50
50
50
50
50
50 | yzed: 04/20/

 | Soi l
23 11:33

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 |
 | | Blank (23D0810-BLK1) 1,2-Dichloropropane N 1,3-Dichloropropane N 2,2-Dichloropropane N 1,1-Dichloropropane N 1,1-Dichloropropene N cis-1,3-Dichloropropene N trans-1,3-Dichloropropene N ttrans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N Methylene chloride N Naphthalene N n-Propylbenzene N Naphthalene N n,1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,1,2,3-Trichlorobenzene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N | D
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D
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D | 12.5
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12.5
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250
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25.0
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ug/kg wet
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 |
 | | 1,2-Dichloropropane N 1,2-Dichloropropane N 1,3-Dichloropropane N 2,2-Dichloropropane N 1,1-Dichloropropane N 1,1-Dichloropropene N cis-1,3-Dichloropropene N trans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane | D
D
D
D
D
D
D
D
D
D
D | 12.5
25.0
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25.0
25.0
12.5
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250
250 | 25.0
50.0
50.0
50.0
50.0
50.0
25.0
100 | ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet | 50
50
50
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50 |

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 | | 1,3-DichloropropaneN2,2-DichloropropaneN2,2-DichloropropaneN1,1-DichloropropeneNcis-1,3-DichloropropeneNtrans-1,3-DichloropropeneNEthylbenzeneNHexachlorobutadieneN2-HexanoneNIsopropylbenzeneN4-IsopropylbenzeneN4-IsopropylbenzeneNMethylene chlorideNMethyl-2-pentanone (MiBK)NMethyl tert-butyl ether (MTBE)NNaphthaleneN1,1,2-TetrachloroethaneN1,1,2,2-TetrachloroethaneN1,2,3-TrichlorobenzeneN1,2,4-TrichloroethaneN1,1,2-TrichloroethaneN | D
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D | 25.0
25.0
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25.0
12.5
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50.0
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25.0
100 | ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet | 50
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50
50 | | |
 |
 | | 2,2-Dichloropropane N 1,1-Dichloropropene N (is-1,3-Dichloropropene N trans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N 4-Isopropylbenzene N Methylene chloride N 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,2-Trichloroethane N < | D
D
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D
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D | 25.0
25.0
25.0
12.5
50.0
250
250 | 50.0
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50.0
25.0
100 | ug/kg wet
ug/kg wet
ug/kg wet
ug/kg wet | 50
50
50 | | |
 | | | 1,1-DichloropropeneN1,1-DichloropropeneNcis-1,3-DichloropropeneNtrans-1,3-DichloropropeneNEthylbenzeneNHexachlorobutadieneN2-HexanoneNIsopropylbenzeneN4-IsopropylbenzeneN4-IsopropyltolueneNMethylene chlorideN4-Methyl-2-pentanone (MiBK)NMethyl tert-butyl ether (MTBE)NNaphthaleneN1,1,2,2-TetrachloroethaneN1,1,2,2-TetrachloroethaneN1,2,3-TrichlorobenzeneN1,2,4-TrichloroethaneN1,1,2-TrichloroethaneN | D
D
D
D
D
D
D | 25.0
25.0
12.5
50.0
250
250 | 50.0
50.0
50.0
25.0
100 | ug/kg wet
ug/kg wet
ug/kg wet | 50
50
50 | | | | | | cis-1,3-Dichloropropene N
trans-1,3-Dichloropropene N
Ethylbenzene N
Hexachlorobutadiene N
2-Hexanone N
Isopropylbenzene N
4-Isopropylbenzene N
4-Isopropyltoluene N
Methylene chloride N
4-Methyl-2-pentanone (MiBK) N
Methyl tert-butyl ether (MTBE) N
Naphthalene N
n-Propylbenzene N
1,1,2,2-Tetrachloroethane N
1,1,2,2-Tetrachloroethane N
1,2,3-Trichlorobenzene N
1,2,4-Trichlorobenzene N
1,1,2-Trichloroethane N
1,1,2-Trichloroet | D
D
D
D
D
D | 25.0
25.0
12.5
50.0
250 | 50.0
50.0
25.0
100 | ug/kg wet
ug/kg wet | 50 | | |
 |
 | | trans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropylbenzene N Methylene chloride N Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N | D
D
D
D
D | 25.0
12.5
50.0
250 | 50.0
25.0
100 | ug/kg wet | 50 | | |
 |
 | | EthylbenzeneNHexachlorobutadieneN2-HexanoneNIsopropylbenzeneN4-IsopropylbenzeneN4-IsopropyltolueneNMethylene chlorideN4-Methyl-2-pentanone (MiBK)NMethyl tert-butyl ether (MTBE)NNaphthaleneNn-PropylbenzeneNStyreneN1,1,2,2-TetrachloroethaneNTetrachloroethene (PCE)NTolueneN1,2,3-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-Trichloroethane | D
D
D
D | 12.5
50.0
250 | 25.0
100 | ug/kg wet | 50 | | |
 |
 | | Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropylbenzene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,2-Trichloroethane N | D
D
D
D | 50.0
250 | 100 | ug/kg wet | 50 | | |
 |
 | | 2-Hexanone N Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N styrene N 1,1,2-Tetrachloroethane N retrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N N N 1,1,1-Trichloroethane N N N <t< td=""><td>D
D
D</td><td>250</td><td></td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
</td><td>
</td><td></td></t<> | D
D
D | 250 | | ug/kg wet | 50 | | |
 |
 | | Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Maphthalene N n-Propylbenzene N 1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N | D
D | 25.0 | 500 | ug/kg wet | 50 | | |
 |
 | | 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Maphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N Tetrachloroethane N 1,1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N N N N N N N N N N N N N N N N N N </td <td>D</td> <td>25.0</td> <td>50.0</td> <td>ug/kg wet</td> <td>50</td> <td></td> <td></td> <td>
</td> <td>
</td> <td></td> | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N Tetrachloroethane N 1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N | | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2.7-Etrachloroethane N 1,1,2.7-Tetrachloroethane N Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N | D | 250 | 500 | ug/kg wet | 50 | | |
 |
 | | Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N Tetrachloroethane N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N | D | 250 | 500 | ug/kg wet | 50 | | |
 |
 | | Naphthalene N n-Propylbenzene N Styrene N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N Totuene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | n-Propylbenzene N
Styrene N
1,1,1,2-Tetrachloroethane N
1,1,2,2-Tetrachloroethane N
Tetrachloroethene (PCE) N
Toluene N
1,2,3-Trichlorobenzene N
1,2,4-Trichlorobenzene N
1,1,1-Trichloroethane N
1,1,2-Trichloroethane N
1,2,3-Trichloroethane N
1,2,3-Trichloroethane N
1,1,2-Trichloroethane N
1,2,3-Trichloroethane N
1,3,3-Trichloroethane N
1,3,3-Trichloroeth | D | 50.0 | 100 | ug/kg wet | 50 | | |
 |
 | | Styrene N 1,1,2,-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
 |
 | | 1,1,1,2-TetrachloroethaneN1,1,2,2-TetrachloroethaneNTetrachloroethene (PCE)NTolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | 1,1,2,2-TetrachloroethaneNTetrachloroethene (PCE)NTolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
 |
 | | Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | TolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
 |
 | | 1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | 1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)NTrichloroethene (TCE)N | D | 125 | 250 | ug/kg wet | 50 | | |
 |
 | | 1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)NTrichloroethene (TCE)N | D | 125 | 250 | ug/kg wet | 50 | | |
 |
 | | 1,1,2-TrichloroethaneNTrichloroethene (TCE)N | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
 |
 | | Trichloroethene (TCE) N | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
 |
 | | m:11 (1) | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
 |
 | | Irichlorofluoromethane N | D | 50.0 | 100 | ug/kg wet | 50 | | |
 |
 | | 1,2,3-Trichloropropane N | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | 1,2,4-Trimethylbenzene N | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | 1,3,5-Trimethylbenzene N | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | Vinyl chloride N | | 12.5 | 25.0 | ug/kg wet | 50 | | |
 |
 | | m,p-Xylene N | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | o-Xylene N | D
D | 12.5 | 25.0 | ug/kg wet | 50 | | |
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| Blank (23D0810-BLK1) 1,2-Dichloropropane N 1,3-Dichloropropane N 2,2-Dichloropropane N 1,1-Dichloropropane N 1,1-Dichloropropene N cis-1,3-Dichloropropene N trans-1,3-Dichloropropene N ttrans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N Methylene chloride N Naphthalene N n-Propylbenzene N Naphthalene N n,1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,1,2,3-Trichlorobenzene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N

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| 1,2-Dichloropropane N 1,2-Dichloropropane N 1,3-Dichloropropane N 2,2-Dichloropropane N 1,1-Dichloropropane N 1,1-Dichloropropene N cis-1,3-Dichloropropene N trans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane

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| 1,3-DichloropropaneN2,2-DichloropropaneN2,2-DichloropropaneN1,1-DichloropropeneNcis-1,3-DichloropropeneNtrans-1,3-DichloropropeneNEthylbenzeneNHexachlorobutadieneN2-HexanoneNIsopropylbenzeneN4-IsopropylbenzeneN4-IsopropylbenzeneNMethylene chlorideNMethyl-2-pentanone (MiBK)NMethyl tert-butyl ether (MTBE)NNaphthaleneN1,1,2-TetrachloroethaneN1,1,2,2-TetrachloroethaneN1,2,3-TrichlorobenzeneN1,2,4-TrichloroethaneN1,1,2-TrichloroethaneN

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| 2,2-Dichloropropane N 1,1-Dichloropropene N (is-1,3-Dichloropropene N trans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N 4-Isopropylbenzene N Methylene chloride N 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,2-Trichloroethane N <

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100 | ug/kg wet
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| 1,1-DichloropropeneN1,1-DichloropropeneNcis-1,3-DichloropropeneNtrans-1,3-DichloropropeneNEthylbenzeneNHexachlorobutadieneN2-HexanoneNIsopropylbenzeneN4-IsopropylbenzeneN4-IsopropyltolueneNMethylene chlorideN4-Methyl-2-pentanone (MiBK)NMethyl tert-butyl ether (MTBE)NNaphthaleneN1,1,2,2-TetrachloroethaneN1,1,2,2-TetrachloroethaneN1,2,3-TrichlorobenzeneN1,2,4-TrichloroethaneN1,1,2-TrichloroethaneN

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| cis-1,3-Dichloropropene N
trans-1,3-Dichloropropene N
Ethylbenzene N
Hexachlorobutadiene N
2-Hexanone N
Isopropylbenzene N
4-Isopropylbenzene N
4-Isopropyltoluene N
Methylene chloride N
4-Methyl-2-pentanone (MiBK) N
Methyl tert-butyl ether (MTBE) N
Naphthalene N
n-Propylbenzene N
1,1,2,2-Tetrachloroethane N
1,1,2,2-Tetrachloroethane N
1,2,3-Trichlorobenzene N
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1,1,2-Trichloroet | D
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| trans-1,3-Dichloropropene N Ethylbenzene N Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropylbenzene N Methylene chloride N Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N

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| EthylbenzeneNHexachlorobutadieneN2-HexanoneNIsopropylbenzeneN4-IsopropylbenzeneN4-IsopropyltolueneNMethylene chlorideN4-Methyl-2-pentanone (MiBK)NMethyl tert-butyl ether (MTBE)NNaphthaleneNn-PropylbenzeneNStyreneN1,1,2,2-TetrachloroethaneNTetrachloroethene (PCE)NTolueneN1,2,3-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-Trichloroethane

 | D
D
D
D | 12.5
50.0
250 | 25.0
100 | ug/kg wet | 50 | | |
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| Hexachlorobutadiene N 2-Hexanone N Isopropylbenzene N 4-Isopropylbenzene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,2-Trichloroethane N

 | D
D
D
D | 50.0
250 | 100 | ug/kg wet | 50 | | |
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| 2-Hexanone N Isopropylbenzene N 4-Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N styrene N 1,1,2-Tetrachloroethane N retrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N N N 1,1,1-Trichloroethane N N N <t< td=""><td>D
D
D</td><td>250</td><td></td><td>ug/kg wet</td><td>50</td><td></td><td></td><td>
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 | D
D
D | 250 | | ug/kg wet | 50 | | |
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| Isopropylbenzene N 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Maphthalene N n-Propylbenzene N 1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N

 | D
D | 25.0 | 500 | ug/kg wet | 50 | | |
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| 4-Isopropyltoluene N Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Maphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N Tetrachloroethane N 1,1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N N N N N N N N N N N N N N N N N N </td <td>D</td> <td>25.0</td> <td>50.0</td> <td>ug/kg wet</td> <td>50</td> <td></td> <td></td> <td>
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 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
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| Methylene chloride N 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2,2-Tetrachloroethane N Tetrachloroethane N 1,2,2-Tetrachloroethane N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N

 | | 25.0 | 50.0 | ug/kg wet | 50 | | |
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| 4-Methyl-2-pentanone (MiBK) N Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,2.7-Etrachloroethane N 1,1,2.7-Tetrachloroethane N Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N

 | D | 250 | 500 | ug/kg wet | 50 | | |
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| Methyl tert-butyl ether (MTBE) N Naphthalene N n-Propylbenzene N Styrene N 1,1,1,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N Tetrachloroethane N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N

 | D | 250 | 500 | ug/kg wet | 50 | | |
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| Naphthalene N n-Propylbenzene N Styrene N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N 1,1,2Tetrachloroethane N Totuene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N 1,1,2-Trichloroethane N

 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| n-Propylbenzene N
Styrene N
1,1,1,2-Tetrachloroethane N
1,1,2,2-Tetrachloroethane N
Tetrachloroethene (PCE) N
Toluene N
1,2,3-Trichlorobenzene N
1,2,4-Trichlorobenzene N
1,1,1-Trichloroethane N
1,1,2-Trichloroethane N
1,2,3-Trichloroethane N
1,2,3-Trichloroethane N
1,1,2-Trichloroethane N
1,2,3-Trichloroethane N
1,3,3-Trichloroethane N
1,3,3-Trichloroeth | D | 50.0 | 100 | ug/kg wet | 50 | | |
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| Styrene N 1,1,2,-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N 1,1,2,2-Tetrachloroethane N Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichloroethane N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N

 | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
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| 1,1,1,2-TetrachloroethaneN1,1,2,2-TetrachloroethaneNTetrachloroethene (PCE)NTolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N

 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
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| 1,1,2,2-TetrachloroethaneNTetrachloroethene (PCE)NTolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N

 | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
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| Tetrachloroethene (PCE) N Toluene N 1,2,3-Trichlorobenzene N 1,2,4-Trichlorobenzene N 1,1,1-Trichloroethane N 1,1,2-Trichloroethane N Trichloroethene (TCE) N

 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
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| TolueneN1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N

 | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
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| 1,2,3-TrichlorobenzeneN1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)N

 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
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| 1,2,4-TrichlorobenzeneN1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)NTrichloroethene (TCE)N

 | D | 125 | 250 | ug/kg wet | 50 | | |
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| 1,1,1-TrichloroethaneN1,1,2-TrichloroethaneNTrichloroethene (TCE)NTrichloroethene (TCE)N

 | D | 125 | 250 | ug/kg wet | 50 | | |
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| 1,1,2-TrichloroethaneNTrichloroethene (TCE)N

 | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
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| Trichloroethene (TCE) N

 | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
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 | D | 12.5 | 25.0 | ug/kg wet | 50 | | |
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| Irichlorofluoromethane N

 | D | 50.0 | 100 | ug/kg wet | 50 | | |
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| 1,2,3-Trichloropropane N

 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 1,2,4-Trimethylbenzene N

 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 1,3,5-Trimethylbenzene N

 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
 |
 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Vinyl chloride N

 | | 12.5 | 25.0 | ug/kg wet | 50 | | |
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| m,p-Xylene N

 | D | 25.0 | 50.0 | ug/kg wet | 50 | | |
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| o-Xylene N

 | D
D | 12.5 | 25.0 | ug/kg wet | 50 | | |
 |
 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Apex Laboratories



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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3D1359 - 05 04 23 1558 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 23D0810 - EPA 5035A Soil Blank (23D0810-BLK1) Prepared: 04/20/23 08:47 Analyzed: 04/20/23 11:33 Surr: Toluene-d8 (Surr) Recovery: 99% Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 98 % 79-120 % LCS (23D0810-BS1) Prepared: 04/20/23 08:47 Analyzed: 04/20/23 10:30 5035A/8260D Acetone 1960 500 1000 ug/kg wet 50 2000 98 80-120% ---Acrylonitrile 1040 50.0 100 50 1000 104 80-120% ug/kg wet ---------Benzene 1060 5.00 10.0 ug/kg wet 50 1000 106 80-120% ---25.0 1000 1000 12.5 50 100 80-120% Bromobenzene ug/kg wet ----------Bromochloromethane 1050 25.0 50.0 ug/kg wet 50 1000 105 80-120% ---------952 25.0 50.0 1000 95 Bromodichloromethane ug/kg wet 50 ---80-120% ------Bromoform 995 50.0 100 ug/kg wet 50 1000 100 80-120% Bromomethane 1260 500 500 ug/kg wet 50 1000 126 80-120% Q-56 ---------2-Butanone (MEK) 1840 250 500 ug/kg wet 50 2000 92 80-120% ---1010 25.0 50.0 50 1000 101 80-120% n-Butylbenzene ug/kg wet ---------sec-Butylbenzene 996 25.050.0 ug/kg wet 50 1000 100 80-120% --tert-Butvlbenzene 945 25.0 50.0 50 1000 94 80-120% ug/kg wet ----------Carbon disulfide 1220 250 500 ug/kg wet 50 1000 ---122 80-120% ------Q-56 Carbon tetrachloride 934 25.0 50.0 ug/kg wet 50 1000 93 80-120% ---------Chlorobenzene 1020 12.5 25.0ug/kg wet 50 1000 102 80-120% ---Chloroethane 1490 250 500 50 1000 149 80-120% O-56 ug/kg wet ---------1000 80-120% Chloroform 1030 25.050.0 ug/kg wet 50 103 ------Chloromethane 1050 125 250 50 1000 105 80-120% ug/kg wet ---------2-Chlorotoluene 1020 25.050.0 ug/kg wet 50 1000 ---102 80-120% ____ 4-Chlorotoluene 984 25.0 50.0 ug/kg wet 50 1000 98 80-120% ---------50.0 100 Dibromochloromethane 1020 ug/kg wet 50 1000 102 80-120% --------ug/kg wet 1,2-Dibromo-3-chloropropane 876 125 250 50 1000 88 80-120% ---1,2-Dibromoethane (EDB) 1020 1000 102 25.050.0 ug/kg wet 50 80-120% ---Dibromomethane 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% ---------1,2-Dichlorobenzene 1010 12.5 25.0ug/kg wet 50 1000 ----101 80-120% ____ ---1,3-Dichlorobenzene 1010 12.5 25.0 ug/kg wet 50 1000 101 80-120% ---------1,4-Dichlorobenzene 996 12.5 25.0 50 1000 100 80-120% ug/kg wet ___ Q-56 Dichlorodifluoromethane 1230 50.0 100 ug/kg wet 50 1000 123 80-120% ------1,1-Dichloroethane 1020 12.5 25.0 1000 102 80-120% ug/kg wet 50 ---------

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							Soi	il				
LCS (23D0810-BS1)			Prepared	: 04/20/23 0	8:47 Ana	yzed: 04/20	/23 10:30					
1,2-Dichloroethane (EDC)	990	12.5	25.0	ug/kg we	t 50	1000		99	80-120%			
1,1-Dichloroethene	1300	12.5	25.0	ug/kg we	t 50	1000		130	80-120%			Q-3
cis-1,2-Dichloroethene	994	12.5	25.0	ug/kg we	t 50	1000		99	80-120%			
trans-1,2-Dichloroethene	994	12.5	25.0	ug/kg we	t 50	1000		99	80-120%			
1,2-Dichloropropane	1060	12.5	25.0	ug/kg we	t 50	1000		106	80-120%			
1,3-Dichloropropane	1030	25.0	50.0	ug/kg we	t 50	1000		103	80-120%			
2,2-Dichloropropane	920	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
1,1-Dichloropropene	1070	25.0	50.0	ug/kg we	t 50	1000		107	80-120%			
cis-1,3-Dichloropropene	930	25.0	50.0	ug/kg we	t 50	1000		93	80-120%			
trans-1,3-Dichloropropene	950	25.0	50.0	ug/kg we	t 50	1000		95	80-120%			
Ethylbenzene	1020	12.5	25.0	ug/kg we	t 50	1000		102	80-120%			
Hexachlorobutadiene	940	50.0	100	ug/kg we	t 50	1000		94	80-120%			
2-Hexanone	1670	250	500	ug/kg we	t 50	2000		84	80-120%			
Isopropylbenzene	949	25.0	50.0	ug/kg we	t 50	1000		95	80-120%			
4-Isopropyltoluene	1010	25.0	50.0	ug/kg we	t 50	1000		101	80-120%			
Methylene chloride	1100	250	500	ug/kg we	t 50	1000		110	80-120%			
4-Methyl-2-pentanone (MiBK)	1790	250	500	ug/kg we	t 50	2000		90	80-120%			
Methyl tert-butyl ether (MTBE)	974	25.0	50.0	ug/kg we	t 50	1000		97	80-120%			
Naphthalene	952	50.0	100	ug/kg we	t 50	1000		95	80-120%			
n-Propylbenzene	1030	12.5	25.0	ug/kg we	t 50	1000		103	80-120%			
Styrene	982	25.0	50.0	ug/kg we	t 50	1000		98	80-120%			
1,1,1,2-Tetrachloroethane	943	12.5	25.0	ug/kg we	t 50	1000		94	80-120%			
1,1,2,2-Tetrachloroethane	1010	25.0	50.0	ug/kg we	t 50	1000		101	80-120%			
Tetrachloroethene (PCE)	1000	12.5	25.0	ug/kg we	t 50	1000		100	80-120%			
Toluene	961	25.0	50.0	ug/kg we	t 50	1000		96	80-120%			
1,2,3-Trichlorobenzene	1060	125	250	ug/kg we	t 50	1000		106	80-120%			
1,2,4-Trichlorobenzene	1020	125	250	ug/kg we	t 50	1000		102	80-120%			
1,1,1-Trichloroethane	1000	12.5	25.0	ug/kg we	t 50	1000		100	80-120%			
1,1,2-Trichloroethane	1040	12.5	25.0	ug/kg we	t 50	1000		104	80-120%			
Trichloroethene (TCE)	1080	12.5	25.0	ug/kg we	t 50	1000		108	80-120%			
Trichlorofluoromethane	1470	50.0	100	ug/kg we	t 50	1000		147	80-120%			Q-:
1,2,3-Trichloropropane	1040	25.0	50.0	ug/kg we	t 50	1000		104	80-120%			
1,2,4-Trimethylbenzene	1040	25.0	50.0	ug/kg we	t 50	1000		104	80-120%			
1,3,5-Trimethylbenzene	1030	25.0	50.0	ug/kg we	t 50	1000		103	80-120%			

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Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							Soi	il				
LCS (23D0810-BS1)			Prepared	1: 04/20/23 08	3:47 Ana	yzed: 04/20/	/23 10:30					
Vinyl chloride	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
m,p-Xylene	2010	25.0	50.0	ug/kg wet	50	2000		101	80-120%			
o-Xylene	980	12.5	25.0	ug/kg wet	50	1000		98	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 104 %	Limits: 80-1	20 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			100 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			95 %	79-1	20 %		"					
Duplicate (23D0810-DUP1)			Prepared	1: 04/19/23 10):56 Anal	yzed: 04/20/	/23 12:50					
OC Source Sample: Non-SDG (A3	D1373-01)											
Acetone	ND	624	1250	ug/kg dry	50		ND				30%	
Acrylonitrile	ND	62.4	125	ug/kg dry	50		ND				30%	
Benzene	ND	6.24	12.5	ug/kg dry	50		ND				30%	
Bromobenzene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Bromoform	ND	62.4	125	ug/kg dry	50		ND				30%	
Bromomethane	ND	624	624	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	312	624	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	312	624	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
Chloroethane	ND	312	624	ug/kg dry	50		ND				30%	
Chloroform	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Chloromethane	ND	156	312	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	62.4	125	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	156	312	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Dibromomethane	ND	31.2	62.4	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	15.6	31.2	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							Soi	1				
Duplicate (23D0810-DUP1)			Prepared	: 04/19/23 10):56 Anal	yzed: 04/20/	/23 12:50					
QC Source Sample: Non-SDG (A3	D1373-01)											
1,3-Dichlorobenzene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	62.4	125	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	15.6	31.2	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	15.6	31.2	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	15.6	31.2	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	31.2	62.4	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	31.2	62.4	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	62.4	125	ug/kg dry	50		ND				30%	
2-Hexanone	ND	312	624	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Methylene chloride	ND	312	624	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	312	624	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Naphthalene	ND	62.4	125	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	15.6	31.2	ug/kg dry	50		ND				30%	
Styrene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	15.6	31.2	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	31.2	62.4	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	15.6	31.2	ug/kg dry	50		ND				30%	
Toluene	ND	31.2	62.4	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene	ND	156	312	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	156	312	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	15.6	31.2	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	15.6	31.2	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							Soi	il				
Duplicate (23D0810-DUP1)			Preparec	1: 04/19/23 1	0:56 Ana	lyzed: 04/20/	/23 12:50					
QC Source Sample: Non-SDG (A3	D1373-01)											
Trichloroethene (TCE)	ND	15.6	31.2	ug/kg dry	y 50		ND				30%	
Trichlorofluoromethane	ND	62.4	125	ug/kg dry	y 50		ND				30%	
1,2,3-Trichloropropane	ND	31.2	62.4	ug/kg dry	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	31.2	62.4	ug/kg dry	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	31.2	62.4	ug/kg dry	y 50		ND				30%	
Vinyl chloride	ND	15.6	31.2	ug/kg dry	y 50		ND				30%	
m,p-Xylene	ND	31.2	62.4	ug/kg dry	y 50		ND				30%	
o-Xylene	ND	15.6	31.2	ug/kg dry	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 104 %	Limits: 80-	-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			<i>99 %</i>	80-	-120 %		"					
4-Bromofluorobenzene (Surr)			99 %	79-	-120 %		"					
QC Source Sample: Non-SDG (A3	<u>D1230-08)</u>											
Acetone	ND	669	1340	ug/kg dry	y 50		ND				30%	
Acrylonitrile	ND	66.9	134	ug/kg dry	y 50		ND				30%	
Benzene	ND	6.69	13.4	ug/kg dry	y 50		ND				30%	
Bromobenzene	ND	16.7	33.4	ug/kg dry	y 50		ND				30%	
Bromochloromethane	ND	33.4	66.9	ug/kg dry	y 50		ND				30%	
Bromodichloromethane	ND	33.4	66.9	ug/kg dry	y 50		ND				30%	
Bromoform	ND	66.9	134	ug/kg dry	y 50		ND				30%	
Bromomethane	ND	669	669	ug/kg dry	y 50		ND				30%	
2-Butanone (MEK)	ND	334	669	ug/kg dry	y 50		ND				30%	
n-Butylbenzene	ND	33.4	66.9	ug/kg dry	y 50		ND				30%	
sec-Butylbenzene	ND	33.4	66.9	ug/kg dry	y 50		ND				30%	
tert-Butylbenzene	ND	33.4	66.9	ug/kg dry	y 50		ND				30%	
Carbon disulfide	ND	334	669	ug/kg dry	y 50		ND				30%	
Carbon tetrachloride	ND	33.4	66.9	ug/kg dry	y 50		ND				30%	
Chlorobenzene	ND	16.7	33.4	ug/kg dry	y 50		ND				30%	
Chloroethane	ND	334	669	ug/kg dry	y 50		ND				30%	
Chloroform	ND	33.4	66.9	ug/kg dry	y 50		ND				30%	
Chloromethane	ND	167	334	ug/kg dry	y 50		ND				30%	
2-Chlorotoluene	ND	33.4	66.9	ug/kg dry	y 50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							Soi					
Duplicate (23D0810-DUP2)			Prepared	: 04/14/23 13	:45 Anal	yzed: 04/20/	/23 13:41					
QC Source Sample: Non-SDG (A3	D1230-08)											
4-Chlorotoluene	ND	33.4	66.9	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	66.9	134	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	167	334	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	33.4	66.9	ug/kg dry	50		ND				30%	
Dibromomethane	ND	33.4	66.9	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
1,3-Dichlorobenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	66.9	134	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	16.7	33.4	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	16.7	33.4	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	16.7	33.4	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	33.4	66.9	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	33.4	66.9	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	33.4	66.9	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	33.4	66.9	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	33.4	66.9	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	66.9	134	ug/kg dry	50		ND				30%	
2-Hexanone	ND	334	669	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	33.4	66.9	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	33.4	66.9	ug/kg dry	50		ND				30%	
Methylene chloride	ND	334	669	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	334	669	ug/kg drv	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	33.4	66.9	ug/kg dry	50		ND				30%	
Naphthalene	ND	66.9	134	ug/kg drv	50		ND				30%	
n-Propylbenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
Styrene	ND	33.4	66.9	ug/kg drv	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	16.7	33.4	ug/kg drv	50		ND				30%	
1.1.2.2-Tetrachloroethane	ND	33.4	66.9	ug/kg drv	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							Soi	1				
Duplicate (23D0810-DUP2)			Prepared	1: 04/14/23 1	3:45 Anal	lyzed: 04/20/	/23 13:41					
QC Source Sample: Non-SDG (A3	3D1230-08)											
Tetrachloroethene (PCE)	ND	16.7	33.4	ug/kg dry	, 50		ND				30%	
Toluene	ND	33.4	66.9	ug/kg dry	⁷ 50		ND				30%	
1,2,3-Trichlorobenzene	ND	167	334	ug/kg dry	⁷ 50		ND				30%	
1,2,4-Trichlorobenzene	ND	167	334	ug/kg dry	⁷ 50		ND				30%	
1,1,1-Trichloroethane	ND	16.7	33.4	ug/kg dry	[,] 50		ND				30%	
1,1,2-Trichloroethane	ND	16.7	33.4	ug/kg dry	[,] 50		ND				30%	
Trichloroethene (TCE)	ND	16.7	33.4	ug/kg dry	[,] 50		ND				30%	
Trichlorofluoromethane	ND	66.9	134	ug/kg dry	[,] 50		ND				30%	
1,2,3-Trichloropropane	ND	33.4	66.9	ug/kg dry	[,] 50		ND				30%	
1,2,4-Trimethylbenzene	ND	33.4	66.9	ug/kg dry	50		ND				30%	
1,3,5-Trimethylbenzene	ND	33.4	66.9	ug/kg dry	, 50		ND				30%	
Vinyl chloride	ND	16.7	33.4	ug/kg dry	50		ND				30%	
m,p-Xylene	ND	33.4	66.9	ug/kg dry	[,] 50		ND				30%	
o-Xylene	ND	16.7	33.4	ug/kg dry	[,] 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 102 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			98 %	80	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					
Matrix Spike (23D0810-MS1)			Prepared	l: 04/18/23 12	2:00 Anal	lyzed: 04/20/	/23 15:48					
QC Source Sample: Non-SDG (A3	3D1336-01)											
<u>5035A/8260D</u>												
Acetone	2340	625	1250	ug/kg dry	50	2500	ND	94	36-164%			
Acrylonitrile	1190	62.5	125	ug/kg dry	50	1250	ND	95	65-134%			
Benzene	1350	6.25	12.5	ug/kg dry	50	1250	ND	108	77-121%			
Bromobenzene	1320	15.6	31.3	ug/kg dry	50	1250	ND	106	78-121%			
Bromochloromethane	1290	31.3	62.5	ug/kg dry	50	1250	ND	103	78-125%			
Bromodichloromethane	1220	31.3	62.5	ug/kg dry	50	1250	ND	98	75-127%			
Bromoform	1270	62.5	125	ug/kg dry	50	1250	ND	102	67-132%			
Bromomethane	1730	625	625	ug/kg dry	50	1250	ND	138	53-143%			Q-54
2-Butanone (MEK)	2210	313	625	ug/kg dry	7 50	2500	ND	89	51-148%			
n-Butylbenzene	1500	31.3	62.5	ug/kg dry	50	1250	ND	120	70-128%			
sec-Butylbenzene	1410	31.3	62.5	ug/kg dry	50	1250	ND	112	73-126%			
tert-Butylbenzene	1300	31.3	62.5	ug/kg dry	⁷ 50	1250	ND	104	73-125%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							Soi	1				
Matrix Spike (23D0810-MS1)			Prepared:	04/18/23 12	:00 Anal	yzed: 04/20/	/23 15:48					
QC Source Sample: Non-SDG (A3)	D1336-01)											
Carbon disulfide	1600	313	625	ug/kg dry	50	1250	ND	128	63-132%			Q-54
Carbon tetrachloride	1360	31.3	62.5	ug/kg dry	50	1250	ND	109	70-135%			
Chlorobenzene	1330	15.6	31.3	ug/kg dry	50	1250	ND	106	79-120%			
Chloroethane	1810	313	625	ug/kg dry	50	1250	ND	145	59-139%			Q-54
Chloroform	1340	31.3	62.5	ug/kg dry	50	1250	ND	107	78-123%			
Chloromethane	1330	156	313	ug/kg dry	50	1250	ND	106	50-136%			
2-Chlorotoluene	1350	31.3	62.5	ug/kg dry	50	1250	ND	108	75-122%			
4-Chlorotoluene	1270	31.3	62.5	ug/kg dry	50	1250	ND	102	72-124%			
Dibromochloromethane	1370	62.5	125	ug/kg dry	50	1250	ND	110	74-126%			
1,2-Dibromo-3-chloropropane	1120	156	313	ug/kg dry	50	1250	ND	89	61-132%			
1,2-Dibromoethane (EDB)	1270	31.3	62.5	ug/kg dry	50	1250	ND	102	78-122%			
Dibromomethane	1330	31.3	62.5	ug/kg dry	50	1250	ND	107	78-125%			
1,2-Dichlorobenzene	1290	15.6	31.3	ug/kg dry	50	1250	ND	103	78-121%			
1,3-Dichlorobenzene	1290	15.6	31.3	ug/kg dry	50	1250	ND	103	77-121%			
1,4-Dichlorobenzene	1290	15.6	31.3	ug/kg dry	50	1250	ND	103	75-120%			
Dichlorodifluoromethane	1730	62.5	125	ug/kg dry	50	1250	ND	138	29-149%			Q-54
1,1-Dichloroethane	1310	15.6	31.3	ug/kg dry	50	1250	ND	105	76-125%			
1,2-Dichloroethane (EDC)	1290	15.6	31.3	ug/kg dry	50	1250	ND	103	73-128%			
1,1-Dichloroethene	1670	15.6	31.3	ug/kg dry	50	1250	ND	133	70-131%			Q-54
cis-1,2-Dichloroethene	1270	15.6	31.3	ug/kg dry	50	1250	ND	101	77-123%			
trans-1,2-Dichloroethene	1310	15.6	31.3	ug/kg dry	50	1250	ND	105	74-125%			
1,2-Dichloropropane	1320	15.6	31.3	ug/kg dry	50	1250	ND	105	76-123%			
1,3-Dichloropropane	1270	31.3	62.5	ug/kg dry	50	1250	ND	102	77-121%			
2,2-Dichloropropane	1170	31.3	62.5	ug/kg dry	50	1250	ND	94	67-133%			
1,1-Dichloropropene	1420	31.3	62.5	ug/kg dry	50	1250	ND	114	76-125%			
cis-1,3-Dichloropropene	1210	31.3	62.5	ug/kg dry	50	1250	ND	97	74-126%			
trans-1,3-Dichloropropene	1200	31.3	62.5	ug/kg dry	50	1250	ND	96	71-130%			
Ethylbenzene	1320	15.6	31.3	ug/kg dry	50	1250	ND	105	76-122%			
Hexachlorobutadiene	2060	62.5	125	ug/kg dry	50	1250	ND	165	61-135%			Q-0
2-Hexanone	2100	313	625	ug/kg dry	50	2500	ND	84	53-145%			
Isopropylbenzene	1300	31.3	62.5	ug/kg dry	50	1250	ND	104	68-134%			
4-Isopropyltoluene	1430	31.3	62.5	ug/kg dry	50	1250	ND	114	73-127%			
Methylene chloride	1410	313	625	ug/ko drv	50	1250	ND	112	70-128%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		V	olatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0810 - EPA 5035A							So	il				
Matrix Spike (23D0810-MS1)			Prepared	1: 04/18/23 1	2:00 Ana	lyzed: 04/20	/23 15:48					
QC Source Sample: Non-SDG (A3	D1336-01)											
4-Methyl-2-pentanone (MiBK)	2210	313	625	ug/kg dry	y 50	2500	ND	89	65-135%			
Methyl tert-butyl ether (MTBE)	1240	31.3	62.5	ug/kg dry	y 50	1250	ND	99	73-125%			
Naphthalene	1310	62.5	125	ug/kg dry	y 50	1250	ND	105	62-129%			
n-Propylbenzene	1360	15.6	31.3	ug/kg dry	y 50	1250	ND	108	73-125%			
Styrene	1290	31.3	62.5	ug/kg dry	y 50	1250	ND	103	76-124%			
1,1,1,2-Tetrachloroethane	1260	15.6	31.3	ug/kg dry	y 50	1250	ND	101	78-125%			
1,1,2,2-Tetrachloroethane	1180	31.3	62.5	ug/kg dry	y 50	1250	ND	94	70-124%			
Tetrachloroethene (PCE)	1370	15.6	31.3	ug/kg dry	y 50	1250	ND	109	73-128%			
Toluene	1240	31.3	62.5	ug/kg dry	y 50	1250	ND	100	77-121%			
1,2,3-Trichlorobenzene	1370	156	313	ug/kg dry	y 50	1250	ND	110	66-130%			
1,2,4-Trichlorobenzene	1410	156	313	ug/kg dry	y 50	1250	ND	113	67-129%			
1,1,1-Trichloroethane	1360	15.6	31.3	ug/kg dry	y 50	1250	ND	109	73-130%			
1,1,2-Trichloroethane	1320	15.6	31.3	ug/kg dry	y 50	1250	ND	106	78-121%			
Trichloroethene (TCE)	1460	15.6	31.3	ug/kg dry	y 50	1250	ND	117	77-123%			
Trichlorofluoromethane	2620	62.5	125	ug/kg dry	y 50	1250	ND	209	62-140%			Q-54
1,2,3-Trichloropropane	1260	31.3	62.5	ug/kg dry	y 50	1250	ND	101	73-125%			
1,2,4-Trimethylbenzene	1350	31.3	62.5	ug/kg dry	y 50	1250	ND	108	75-123%			
1,3,5-Trimethylbenzene	1360	31.3	62.5	ug/kg dry	y 50	1250	ND	109	73-124%			
Vinyl chloride	1480	15.6	31.3	ug/kg dry	y 50	1250	ND	118	56-135%			
m,p-Xylene	2640	31.3	62.5	ug/kg dry	y 50	2500	ND	106	77-124%			
o-Xylene	1310	15.6	31.3	ug/kg dry	y 50	1250	ND	105	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Recove	ery: 104 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			96 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0858 EDA 5035A							Soi					
Datch 23D0050 - EFA 5055A				04/01/02.00	25 4	1.04/21	00 11 17					
Blank (25D0858-BLK1)			Prepared	: 04/21/23 08	:35 Ana	lyzed: 04/21	/23 11:17					
<u>5035A/8260D</u>	ND	500	1000	wa/ka wat	50							
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1.2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1.1-Dichloroethene	ND	12.5	25.0	ug/kø wet	50							
cis-1.2-Dichloroethene	ND	12.5	25.0	110/ko wet	50							
	ND	12.5	25.0	"", ", ", ", ", ", ", ", ", ", ", ", ",	50							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0858 - EPA 5035A							Soi	I				
Blank (23D0858-BLK1)			Prepared	: 04/21/23 0	8:35 Anal	yzed: 04/21	/23 11:17					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	t 50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	t 50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	t 50							
2-Hexanone	ND	250	500	ug/kg wet	t 50							
lsopropylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	t 50							
Methylene chloride	ND	250	500	ug/kg wet	t 50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	t 50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	t 50							
Naphthalene	ND	50.0	100	ug/kg wet	t 50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	t 50							
Styrene	ND	25.0	50.0	ug/kg wet	t 50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	t 50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	t 50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	t 50							
Toluene	ND	25.0	50.0	ug/kg wet	t 50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	t 50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	t 50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	t 50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	t 50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	t 50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	t 50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	t 50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	t 50							
o-Xvlene	ND	12.5	25.0	uo/ko wei	50							

Apex Laboratories



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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3D1359 - 05 04 23 1558 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 23D0858 - EPA 5035A Soil Blank (23D0858-BLK1) Prepared: 04/21/23 08:35 Analyzed: 04/21/23 11:17 Surr: Toluene-d8 (Surr) Recovery: 101 % Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 99% 79-120 % LCS (23D0858-BS1) Prepared: 04/21/23 08:35 Analyzed: 04/21/23 10:21 5035A/8260D Acetone 1960 500 1000 ug/kg wet 50 2000 98 80-120% ---Acrylonitrile 1000 50.0 100 50 1000 100 80-120% ug/kg wet ---------Benzene 1010 5.00 10.0 ug/kg wet 50 1000 101 80-120% ---25.0 1040 12.5 50 1000 104 80-120% Bromobenzene ug/kg wet ----------Bromochloromethane 1080 25.0 50.0 ug/kg wet 50 1000 108 80-120% ---------25.0 50.0 1000 Bromodichloromethane 1110 ug/kg wet 50 ---111 80-120% ------Bromoform 1250 50.0 100 ug/kg wet 50 1000 125 80-120% O-56 Bromomethane 1050 500 500 ug/kg wet 50 1000 105 80-120% ---------2-Butanone (MEK) 1940 250 500 ug/kg wet 50 2000 97 80-120% ---1080 25.0 50.0 50 1000 108 80-120% n-Butylbenzene ug/kg wet ---------sec-Butylbenzene 1080 25.050.0 ug/kg wet 50 1000 108 80-120% --tert-Butylbenzene 1020 25.0 50.0 50 1000 102 80-120% ug/kg wet ----------Carbon disulfide 1150 250 500 ug/kg wet 50 1000 ---115 80-120% ------Carbon tetrachloride 1210 25.0 50.0 ug/kg wet 50 1000 121 80-120% Q-56 ---------Chlorobenzene 1030 12.5 25.0ug/kg wet 50 1000 103 80-120% ---Chloroethane 1150 250 500 50 1000 115 80-120% ug/kg wet ---------1000 80-120% Chloroform 1050 25.050.0 ug/kg wet 50 105 ------Chloromethane 994 125 250 50 1000 99 80-120% ug/kg wet ---------2-Chlorotoluene 1040 25.050.0 ug/kg wet 50 1000 ---104 80-120% ---4-Chlorotoluene 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% ---------50.0 100 Q-56 Dibromochloromethane 1240 ug/kg wet 50 1000 124 80-120% --------ug/kg wet 1,2-Dibromo-3-chloropropane 1120 125 250 50 1000 112 80-120% ---1,2-Dibromoethane (EDB) 1000 1100 25.050.0 ug/kg wet 50 110 80-120% ---Dibromomethane 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% ---------1,2-Dichlorobenzene 1040 12.5 25.0ug/kg wet 50 1000 ----104 80-120% ____ ---1,3-Dichlorobenzene 1050 12.5 25.0 ug/kg wet 50 1000 105 80-120% ---------1,4-Dichlorobenzene 1020 12.5 25.0 50 1000 102 80-120% ug/kg wet ___ Q-56 Dichlorodifluoromethane 1240 50.0 100 ug/kg wet 50 1000 124 80-120% ------1,1-Dichloroethane 1080 12.5 25.0 1000 108 80-120% ug/kg wet 50 ---------

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			volatile Org	janic Com	pounds	DY EPA 8	5260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0858 - EPA 5035A							Soi	il				
LCS (23D0858-BS1)			Prepared	: 04/21/23 08	8:35 Ana	lyzed: 04/21	/23 10:21					
1,2-Dichloroethane (EDC)	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
1,1-Dichloroethene	1170	12.5	25.0	ug/kg wet	50	1000		117	80-120%			
cis-1,2-Dichloroethene	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
trans-1,2-Dichloroethene	1070	12.5	25.0	ug/kg wet	50	1000		107	80-120%			
1,2-Dichloropropane	1050	12.5	25.0	ug/kg wet	50	1000		105	80-120%			
1,3-Dichloropropane	1050	25.0	50.0	ug/kg wet	50	1000		105	80-120%			
2,2-Dichloropropane	1150	25.0	50.0	ug/kg wet	50	1000		115	80-120%			
1,1-Dichloropropene	1080	25.0	50.0	ug/kg wet	50	1000		108	80-120%			
cis-1,3-Dichloropropene	1080	25.0	50.0	ug/kg wet	50	1000		108	80-120%			
trans-1,3-Dichloropropene	1160	25.0	50.0	ug/kg wet	50	1000		116	80-120%			
Ethylbenzene	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
Hexachlorobutadiene	1080	50.0	100	ug/kg wet	50	1000		108	80-120%			
2-Hexanone	1920	250	500	ug/kg wet	50	2000		96	80-120%			
Isopropylbenzene	1060	25.0	50.0	ug/kg wet	50	1000		106	80-120%			
4-Isopropyltoluene	1080	25.0	50.0	ug/kg wet	50	1000		108	80-120%			
Methylene chloride	1040	250	500	ug/kg wet	50	1000		104	80-120%			
4-Methyl-2-pentanone (MiBK)	1910	250	500	ug/kg wet	50	2000		96	80-120%			
Methyl tert-butyl ether (MTBE)	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
Naphthalene	954	50.0	100	ug/kg wet	50	1000		95	80-120%			
n-Propylbenzene	1050	12.5	25.0	ug/kg wet	50	1000		105	80-120%			
Styrene	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
1,1,1,2-Tetrachloroethane	1110	12.5	25.0	ug/kg wet	50	1000		111	80-120%			
1,1,2,2-Tetrachloroethane	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
Tetrachloroethene (PCE)	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
Toluene	1020	25.0	50.0	ug/kg wet	50	1000		102	80-120%			
1,2,3-Trichlorobenzene	1040	125	250	ug/kg wet	50	1000		104	80-120%			
1,2,4-Trichlorobenzene	1020	125	250	ug/kg wet	50	1000		102	80-120%			
1,1,1-Trichloroethane	1120	12.5	25.0	ug/kg wet	50	1000		112	80-120%			
1,1,2-Trichloroethane	1040	12.5	25.0	ug/kg wet	50	1000		104	80-120%			
Trichloroethene (TCE)	1080	12.5	25.0	ug/kg wet	50	1000		108	80-120%			
Trichlorofluoromethane	1250	50.0	100	ug/kg wet	50	1000		125	80-120%			
1.2.3-Trichloropropane	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
1.2.4-Trimethylbenzene	1070	25.0	50.0	ug/kg wet	50	1000		107	80-120%			
1.3.5-Trimethylbenzene	1070	25.0	50.0	110/kg wet	50	1000		107	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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
Batch 23D0858 - EPA 5035A							So	il				
LCS (23D0858-BS1)			Prepared	1: 04/21/23 0	8:35 Ana	lyzed: 04/21	/23 10:21					
Vinyl chloride	1160	12.5	25.0	ug/kg we	t 50	1000		116	80-120%			
m,p-Xylene	2090	25.0	50.0	ug/kg we	t 50	2000		105	80-120%			
o-Xylene	1010	12.5	25.0	ug/kg we	t 50	1000		101	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 101 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			101 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					
Duplicate (23D0858-DUP1)			Preparec	1: 04/20/23 1	4:28 Ana	lyzed: 04/21	/23 12:08					
OC Source Sample: Non-SDG (A3	D1419-01)											
Acetone	ND	4430	8860	ug/kg dry	200		ND				30%	
Acrylonitrile	ND	443	886	ug/kg dry	200		ND				30%	
Benzene	ND	44.3	88.6	ug/kg dry	200		ND				30%	
Bromobenzene	ND	111	221	ug/kg dry	200		ND				30%	
Bromochloromethane	ND	221	443	ug/kg dry	200		ND				30%	
Bromodichloromethane	ND	221	443	ug/kg dry	200		ND				30%	
Bromoform	ND	443	886	ug/kg dry	200		ND				30%	
Bromomethane	ND	4430	4430	ug/kg dry	200		ND				30%	
2-Butanone (MEK)	ND	2210	4430	ug/kg dry	200		ND				30%	
n-Butylbenzene	5050	221	443	ug/kg dry	200		5460			8	30%	M-0
sec-Butylbenzene	1450	221	443	ug/kg dry	200		1520			4	30%	
tert-Butylbenzene	ND	221	443	ug/kg dry	200		ND				30%	
Carbon disulfide	ND	2210	4430	ug/kg dry	200		ND				30%	
Carbon tetrachloride	ND	221	443	ug/kg dry	200		ND				30%	
Chlorobenzene	ND	111	221	ug/kg dry	200		ND				30%	
Chloroethane	ND	2210	4430	ug/kg dry	200		ND				30%	
Chloroform	ND	221	443	ug/kg dry	200		ND				30%	
Chloromethane	ND	1110	2210	ug/kg dry	200		ND				30%	
2-Chlorotoluene	ND	221	443	ug/kg dry	200		ND				30%	
4-Chlorotoluene	ND	221	443	ug/kg dry	200		ND				30%	
Dibromochloromethane	ND	443	886	ug/kg dry	200		ND				30%	
1,2-Dibromo-3-chloropropane	ND	1110	2210	ug/kg dry	200		ND				30%	
1,2-Dibromoethane (EDB)	ND	221	443	ug/kg dry	200		ND				30%	
Dibromomethane	ND	221	443	ug/kg dry	200		ND				30%	
1,2-Dichlorobenzene	ND	111	221	ug/kg dry	200		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Detection	Reporting			Snike	Source		% PEC		רוסק	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23D0858 - EPA 5035A							Soi	I				
Duplicate (23D0858-DUP1)			Prepared	: 04/20/23 1	4:28 Ana	lyzed: 04/21/	/23 12:08					
QC Source Sample: Non-SDG (A3	D1419-01)											
1,3-Dichlorobenzene	ND	111	221	ug/kg dry	200		ND				30%	
1,4-Dichlorobenzene	ND	111	221	ug/kg dry	200		ND				30%	
Dichlorodifluoromethane	ND	443	886	ug/kg dry	200		ND				30%	
1,1-Dichloroethane	ND	111	221	ug/kg dry	200		ND				30%	
1,2-Dichloroethane (EDC)	ND	111	221	ug/kg dry	200		ND				30%	
1,1-Dichloroethene	ND	111	221	ug/kg dry	200		ND				30%	
cis-1,2-Dichloroethene	ND	111	221	ug/kg dry	200		ND				30%	
trans-1,2-Dichloroethene	ND	111	221	ug/kg dry	200		ND				30%	
1,2-Dichloropropane	ND	111	221	ug/kg dry	200		ND				30%	
1,3-Dichloropropane	ND	221	443	ug/kg dry	200		ND				30%	
2,2-Dichloropropane	ND	221	443	ug/kg dry	200		ND				30%	
1,1-Dichloropropene	ND	221	443	ug/kg dry	200		ND				30%	
cis-1,3-Dichloropropene	ND	221	443	ug/kg dry	200		ND				30%	
trans-1,3-Dichloropropene	ND	221	443	ug/kg dry	200		ND				30%	
Ethylbenzene	292	111	221	ug/kg dry	200		310			6	30%	
Hexachlorobutadiene	ND	443	886	ug/kg dry	200		ND				30%	
2-Hexanone	ND	2210	4430	ug/kg dry	200		ND				30%	
Isopropylbenzene	301	221	443	ug/kg dry	200		310			3	30%	
4-Isopropyltoluene	2130	221	443	ug/kg dry	200		2230			5	30%	M-0
Methylene chloride	ND	2210	4430	ug/kg dry	200		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	2210	4430	ug/kg dry	200		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	221	443	ug/kg dry	200		ND				30%	
Naphthalene	3810	443	886	ug/kg dry	200		4100			7	30%	M-0
n-Propylbenzene	744	111	221	ug/kg dry	200		793			6	30%	
Styrene	ND	221	443	ug/kg dry	200		ND				30%	
1,1,1,2-Tetrachloroethane	ND	111	221	ug/kg dry	200		ND				30%	
1,1,2,2-Tetrachloroethane	ND	221	443	ug/kg dry	200		ND				30%	
Tetrachloroethene (PCE)	ND	111	221	ug/kg dry	200		ND				30%	
Toluene	ND	443	443	ug/kg dry	200		ND				30%	
1,2,3-Trichlorobenzene	ND	1110	2210	ug/kg dry	200		ND				30%	
1,2,4-Trichlorobenzene	ND	1110	2210	ug/kg dry	200		ND				30%	
1,1,1-Trichloroethane	ND	111	221	ug/kg dry	200		ND				30%	
1.1.2-Trichloroethane	ND	886	886	ug/kg drv	200		ND				30%	R-0

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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
Batch 23D0858 - EPA 5035A							Soi	I				
Duplicate (23D0858-DUP1)			Prepared	1: 04/20/23 1	4:28 Ana	lyzed: 04/21	/23 12:08					
QC Source Sample: Non-SDG (A3	D1419-01)											
Trichloroethene (TCE)	ND	111	221	ug/kg dr	y 200		ND				30%	
Trichlorofluoromethane	ND	443	886	ug/kg dr	y 200		ND				30%	
1,2,3-Trichloropropane	ND	443	443	ug/kg dr	y 200		ND				30%	
1,2,4-Trimethylbenzene	11200	221	443	ug/kg dr	y 200		11600			3	30%	
1,3,5-Trimethylbenzene	9360	221	443	ug/kg dr	y 200		9660			3	30%	
Vinyl chloride	ND	111	221	ug/kg dr	y 200		ND				30%	
m,p-Xylene	2770	221	443	ug/kg dr	y 200		2860			3	30%	
o-Xylene	3520	111	221	ug/kg dr	y 200		3640			3	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 105 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			97 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			101 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3	D1230-06)											
Acetone	ND	6530	13100	ug/kg dr	y 500		ND				30%	
Acrylonitrile	ND	653	1310	ug/kg dr	y 500		ND				30%	
Benzene	84.9	65.3	131	ug/kg dr	y 500		84.9			0	30%	
Bromobenzene	ND	163	327	ug/kg dr	y 500		ND				30%	
Bromochloromethane	ND	327	653	ug/kg dr	y 500		ND				30%	
Bromodichloromethane	ND	327	653	ug/kg dr	y 500		ND				30%	
Bromoform	ND	653	1310	ug/kg dr	y 500		ND				30%	
Bromomethane	ND	6530	6530	ug/kg dr	y 500		ND				30%	
2-Butanone (MEK)	ND	3270	6530	ug/kg dr	y 500		ND				30%	
n-Butylbenzene	1880	327	653	ug/kg dr	y 500		1990			5	30%	M-0
sec-Butylbenzene	425	327	653	ug/kg dr	y 500		470			10	30%	
tert-Butylbenzene	ND	327	653	ug/kg dr	y 500		ND				30%	
Carbon disulfide	ND	3270	6530	ug/kg dr	y 500		ND				30%	
Carbon tetrachloride	ND	327	653	ug/kg dr	y 500		ND				30%	
Chlorobenzene	ND	163	327	ug/kg dr	y 500		ND				30%	
Chloroethane	ND	3270	6530	ug/kg dr	y 500		ND				30%	
Chloroform	ND	327	653	ug/kg dr	y 500		ND				30%	
Chloromethane	ND	1630	3270	ug/kg dr	y 500		ND				30%	
2-Chlorotoluene	ND	327	653	ug/kg dr	y 500		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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
Batch 23D0858 - EPA 5035A							Soi	I				
Duplicate (23D0858-DUP2)			Prepared	: 04/14/23 12	:30 Ana	yzed: 04/21/	/23 18:09					
QC Source Sample: Non-SDG (A3	D1230-06)											
4-Chlorotoluene	ND	327	653	ug/kg dry	500		ND				30%	
Dibromochloromethane	ND	653	1310	ug/kg dry	500		ND				30%	
1,2-Dibromo-3-chloropropane	ND	1630	3270	ug/kg dry	500		ND				30%	
1,2-Dibromoethane (EDB)	ND	327	653	ug/kg dry	500		ND				30%	
Dibromomethane	ND	327	653	ug/kg dry	500		ND				30%	
1,2-Dichlorobenzene	ND	163	327	ug/kg dry	500		ND				30%	
1,3-Dichlorobenzene	ND	163	327	ug/kg dry	500		ND				30%	
1,4-Dichlorobenzene	ND	163	327	ug/kg dry	500		ND				30%	
Dichlorodifluoromethane	ND	653	1310	ug/kg dry	500		ND				30%	
1,1-Dichloroethane	ND	163	327	ug/kg dry	500		ND				30%	
1,2-Dichloroethane (EDC)	ND	163	327	ug/kg dry	500		ND				30%	
1,1-Dichloroethene	ND	163	327	ug/kg dry	500		ND				30%	
cis-1,2-Dichloroethene	ND	163	327	ug/kg dry	500		ND				30%	
trans-1,2-Dichloroethene	ND	163	327	ug/kg dry	500		ND				30%	
1,2-Dichloropropane	ND	163	327	ug/kg dry	500		ND				30%	
1,3-Dichloropropane	ND	327	653	ug/kg dry	500		ND				30%	
2,2-Dichloropropane	ND	327	653	ug/kg dry	500		ND				30%	
1,1-Dichloropropene	ND	327	653	ug/kg dry	500		ND				30%	
cis-1,3-Dichloropropene	ND	327	653	ug/kg dry	500		ND				30%	
trans-1,3-Dichloropropene	ND	327	653	ug/kg dry	500		ND				30%	
Ethylbenzene	1620	163	327	ug/kg dry	500		1730			7	30%	
Hexachlorobutadiene	ND	653	1310	ug/kg dry	500		ND				30%	
2-Hexanone	ND	3270	6530	ug/kg dry	500		ND				30%	
Isopropylbenzene	699	327	653	ug/kg dry	500		745			6	30%	
4-Isopropyltoluene	ND	327	653	ug/kg dry	500		ND				30%	
Methylene chloride	ND	3270	6530	ug/kg dry	500		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	3270	6530	ug/kg dry	500		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	327	653	ug/kg dry	500		ND				30%	
Naphthalene	4940	653	1310	ug/kg dry	500		4930			0.1	30%	
n-Propylbenzene	3470	163	327	ug/kg drv	500		3700			6	30%	
Styrene	ND	327	653	ug/kg dry	500		ND				30%	
1,1,1,2-Tetrachloroethane	ND	163	327	ug/kg dry	500		ND				30%	
1,1,2,2-Tetrachloroethane	ND	327	653	ug/kg dry	500		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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
Batch 23D0858 - EPA 5035A							So	il				
Duplicate (23D0858-DUP2)			Preparec	1: 04/14/23 1	2:30 Ana	lyzed: 04/21	/23 18:09					
QC Source Sample: Non-SDG (A3	D1230-06)											
Tetrachloroethene (PCE)	ND	163	327	ug/kg dry	y 500		ND				30%	
Toluene	503	327	653	ug/kg dry	y 500		542			8	30%	
1,2,3-Trichlorobenzene	ND	1630	3270	ug/kg dry	y 500		ND				30%	
1,2,4-Trichlorobenzene	ND	1630	3270	ug/kg dry	y 500		ND				30%	
1,1,1-Trichloroethane	ND	163	327	ug/kg dry	y 500		ND				30%	
1,1,2-Trichloroethane	ND	163	327	ug/kg dry	y 500		ND				30%	
Trichloroethene (TCE)	ND	163	327	ug/kg dry	y 500		ND				30%	
Trichlorofluoromethane	ND	653	1310	ug/kg dry	y 500		ND				30%	
1,2,3-Trichloropropane	ND	327	653	ug/kg dry	y 500		ND				30%	
1,2,4-Trimethylbenzene	8720	327	653	ug/kg dry	y 500		9140			5	30%	
1,3,5-Trimethylbenzene	1980	327	653	ug/kg dry	y 500		2100			6	30%	
Vinyl chloride	ND	163	327	ug/kg dry	y 500		ND				30%	
m,p-Xylene	2080	327	653	ug/kg dry	y 500		2200			5	30%	
o-Xylene	222	163	327	ug/kg dry	y 500		222			0	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recover	ry: 106 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			99 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			102 %	79-	120 %		"					
Matrix Spike (23D0858-MS1)			Preparec	1: 04/17/23 1	0:00 Ana	lyzed: 04/21	/23 14:43					
QC Source Sample: Non-SDG (A3	<u>5D1271-01)</u>											
<u>5035A/8260D</u>												
Acetone	23700	6410	12800	ug/kg dry	y 500	25600	ND	93	36-164%			
Acrylonitrile	12500	641	1280	ug/kg dry	y 500	12800	ND	97	65-134%			
Benzene	14000	64.1	128	ug/kg dry	y 500	12800	506	105	77-121%			
Bromobenzene	13800	160	320	ug/kg dry	y 500	12800	ND	108	78-121%			
Bromochloromethane	12900	320	641	ug/kg dry	y 500	12800	ND	101	78-125%			
Bromodichloromethane	13900	320	641	ug/kg dry	y 500	12800	ND	108	75-127%			
Bromoform	15600	641	1280	ug/kg dry	y 500	12800	ND	122	67-132%			Q-54
Bromomethane	15500	6410	6410	ug/kg dry	y 500	12800	ND	121	53-143%			
2-Butanone (MEK)	23900	3200	6410	ug/kg dry	y 500	25600	ND	93	51-148%			
n-Butylbenzene	27100	320	641	ug/kg dry	y 500	12800	12900	111	70-128%			
sec-Butylbenzene	20300	320	641	ug/kg dry	y 500	12800	5610	115	73-126%			
tert-Butylbenzene	13600	320	641	ug/kg dry	y 500	12800	ND	106	73-125%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Org	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0858 - EPA 5035A							Soi					
Matrix Spike (23D0858-MS1)			Prepared	1: 04/17/23 1	0:00 Anal	yzed: 04/21/	/23 14:43					
QC Source Sample: Non-SDG (A3	D1271-01)											
Carbon disulfide	14500	3200	6410	ug/kg dry	7 500	12800	ND	113	63-132%			
Carbon tetrachloride	15800	320	641	ug/kg dry	7 500	12800	ND	123	70-135%			Q-5
Chlorobenzene	13600	160	320	ug/kg dry	7 500	12800	ND	106	79-120%			
Chloroethane	13700	3200	6410	ug/kg dry	7 500	12800	ND	107	59-139%			
Chloroform	13500	320	641	ug/kg dry	7 500	12800	ND	105	78-123%			
Chloromethane	12100	1600	3200	ug/kg dry	7 500	12800	ND	94	50-136%			
2-Chlorotoluene	14200	320	641	ug/kg dry	7 500	12800	ND	111	75-122%			
4-Chlorotoluene	13000	320	641	ug/kg dry	7 500	12800	ND	102	72-124%			
Dibromochloromethane	15200	641	1280	ug/kg dry	7 500	12800	ND	119	74-126%			Q-54
1,2-Dibromo-3-chloropropane	14700	1600	3200	ug/kg dry	7 500	12800	ND	115	61-132%			
1,2-Dibromoethane (EDB)	14000	320	641	ug/kg dry	7 500	12800	ND	109	78-122%			
Dibromomethane	13700	320	641	ug/kg dry	7 500	12800	ND	107	78-125%			
1,2-Dichlorobenzene	13800	160	320	ug/kg dry	7 500	12800	ND	108	78-121%			
1,3-Dichlorobenzene	13900	160	320	ug/kg dry	7 500	12800	ND	108	77-121%			
1,4-Dichlorobenzene	13300	160	320	ug/kg dry	7 500	12800	ND	104	75-120%			
Dichlorodifluoromethane	15400	641	1280	ug/kg dry	7 500	12800	ND	120	29-149%			Q-54
1,1-Dichloroethane	13700	160	320	ug/kg dry	7 500	12800	ND	107	76-125%			
1,2-Dichloroethane (EDC)	13100	160	320	ug/kg dry	7 500	12800	ND	102	73-128%			
1,1-Dichloroethene	14500	160	320	ug/kg dry	7 500	12800	ND	113	70-131%			
cis-1,2-Dichloroethene	13500	160	320	ug/kg dry	7 500	12800	ND	105	77-123%			
trans-1,2-Dichloroethene	13900	160	320	ug/kg dry	7 500	12800	ND	109	74-125%			
1,2-Dichloropropane	13800	160	320	ug/kg dry	7 500	12800	ND	107	76-123%			
1,3-Dichloropropane	12900	320	641	ug/kg dry	7 500	12800	ND	100	77-121%			
2,2-Dichloropropane	13800	320	641	ug/kg dry	7 500	12800	ND	108	67-133%			
1,1-Dichloropropene	14600	320	641	ug/kg dry	7 500	12800	ND	114	76-125%			
cis-1,3-Dichloropropene	13100	320	641	ug/kg dry	7 500	12800	ND	102	74-126%			
trans-1,3-Dichloropropene	13500	320	641	ug/kg dry	7 500	12800	ND	105	71-130%			
Ethylbenzene	26600	160	320	ug/kg dry	7 500	12800	13600	101	76-122%			
Hexachlorobutadiene	17300	641	1280	ug/kg dry	7 500	12800	ND	135	61-135%			
2-Hexanone	22400	3200	6410	ug/kg drv	7 500	25600	ND	87	53-145%			
Isopropylbenzene	18500	320	641	ug/kg drv	7 500	12800	4110	113	68-134%			
4-Isopropyltoluene	26500	320	641	ug/kg drv	500	12800	3360	180	73-127%			Q-(
Methylene chloride	14100	3200	6410	ug/kg dry	7 500	12800	ND	110	70-128%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Vo	latile Or	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection R Limit	eporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0858 - EPA 5035A							So	il				
Matrix Spike (23D0858-MS1)			Prepared	d: 04/17/23 1	0:00 Ana	lyzed: 04/21	/23 14:43					
QC Source Sample: Non-SDG (A3I	<u>01271-01)</u>											
4-Methyl-2-pentanone (MiBK)	25400	3200	6410	ug/kg dry	500	25600	ND	99	65-135%			
Methyl tert-butyl ether (MTBE)	13200	320	641	ug/kg dry	500	12800	ND	103	73-125%			
Naphthalene	25200	641	1280	ug/kg dry	500	12800	11800	105	62-129%			
n-Propylbenzene	24700	160	320	ug/kg dry	500	12800	11300	104	73-125%			
Styrene	14200	320	641	ug/kg dry	500	12800	ND	111	76-124%			
1,1,1,2-Tetrachloroethane	14000	160	320	ug/kg dry	500	12800	ND	109	78-125%			
1,1,2,2-Tetrachloroethane	12400	320	641	ug/kg dry	500	12800	ND	97	70-124%			
Tetrachloroethene (PCE)	15100	160	320	ug/kg dry	500	12800	ND	118	73-128%			
Toluene	13500	320	641	ug/kg dry	500	12800	589	101	77-121%			
1,2,3-Trichlorobenzene	14400	1600	3200	ug/kg dry	500	12800	ND	112	66-130%			
1,2,4-Trichlorobenzene	14100	1600	3200	ug/kg dry	500	12800	ND	110	67-129%			
1,1,1-Trichloroethane	14500	160	320	ug/kg dry	500	12800	ND	113	73-130%			
1,1,2-Trichloroethane	15100	160	320	ug/kg dry	500	12800	2040	102	78-121%			
Trichloroethene (TCE)	15400	160	320	ug/kg dry	500	12800	ND	120	77-123%			
Trichlorofluoromethane	14700	641	1280	ug/kg dry	500	12800	ND	115	62-140%			Q-54
1,2,3-Trichloropropane	13100	320	641	ug/kg dry	500	12800	ND	99	73-125%			
1,2,4-Trimethylbenzene	80900	320	641	ug/kg dry	500	12800	69400	90	75-123%			
1,3,5-Trimethylbenzene	33700	320	641	ug/kg dry	500	12800	19800	108	73-124%			
Vinyl chloride	14800	160	320	ug/kg dry	500	12800	ND	115	56-135%			
m,p-Xylene	83000	320	641	ug/kg dry	500	25600	57900	98	77-124%			
o-Xylene	36500	160	320	ug/kg dry	500	12800	23500	101	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Recovery	: 107 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			98 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			102 %	79-	120 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 23D0867 - EPA 1311/5030B TCLP Volatiles Water Blank (23D0867-BLK1) Prepared: 04/21/23 09:31 Analyzed: 04/22/23 10:28 TCLP 1311/8260D ND 6.25 12.5 ug/L 50 Benzene ND 250 500 50 2-Butanone (MEK) ug/L ---------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 50 ug/L ---1,4-Dichlorobenzene ND 12.5 25.0 50 ug/L ---------____ ---____ 1,1-Dichloroethene ND 12.5 25.0 50 ug/L ---ND 12.5 25.0 1,2-Dichloroethane (EDC) ug/L 50 ---------------Tetrachloroethene (PCE) ND 12.5 25.0 ug/L 50 Trichloroethene (TCE) ND 12.5 25.0 50 ug/L ___ -------------_ _ _ Vinyl chloride ND 12.5 25.0 50 ug/L --------------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 94 % Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 101 % 80-120 % " 4-Bromofluorobenzene (Surr) 105 % 80-120 % LCS (23D0867-BS1) Prepared: 04/21/23 09:31 Analyzed: 04/22/23 09:34 TCLP 1311/8260D 906 91 Benzene 6.25 12.5 ug/L 50 1000 80-120% 2-Butanone (MEK) 2090 250 500 50 2000 104 80-120% ug/L ---------Carbon tetrachloride 1060 25.0 50.0 ug/L 50 1000 ---106 80-120% ---Chlorobenzene 998 12.5 25.0 ug/L 50 1000 ---100 80-120% ------Chloroform 960 25.050.0 ug/L 50 1000 96 80-120% 1,4-Dichlorobenzene 974 12.5 25.0 ug/L 50 1000 97 80-120% ---------1,1-Dichloroethene 976 12.5 25.0 ug/L 50 1000 98 80-120% ---------1,2-Dichloroethane (EDC) 1100 12.5 25.0 ug/L 50 1000 110 80-120% ---947 1000 95 Tetrachloroethene (PCE) 12.5 25.0 ug/L 50 ---80-120% ---Trichloroethene (TCE) 884 12.5 25.0 ug/L 50 1000 88 80-120% ---------Vinyl chloride 823 12.5 25.0ug/L 50 1000 ----82 80-120% ---____

Duplicate (23D0867-DUP1)

4-Bromofluorobenzene (Surr)

Surr: 1,4-Difluorobenzene (Surr)

Toluene-d8 (Surr)

Prepared: 04/21/23 09:31 Analyzed: 04/22/23 11:22

Limits: 80-120 %

80-120 %

80-120 %

93 %

99 %

89%

Recovery:

COMP

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Dilution: 1x



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Result Limit Units Dilution % REC RPD Analyte Limit Amount Result Limits Limit Notes Batch 23D0867 - EPA 1311/5030B TCLP Volatiles Water Duplicate (23D0867-DUP1) Prepared: 04/21/23 09:31 Analyzed: 04/22/23 11:22 COMP QC Source Sample: Non-SDG (A3D1191-04) ND 6.25 12.5 ug/L 50 ND 30% Benzene ---------ND 250 500 2-Butanone (MEK) ug/L 50 ---ND ------30% ug/L Carbon tetrachloride ND 25.0 50.0 50 ND ---30% ------Chlorobenzene ND 12.5 25.0 ug/L 50 ND 30% ------Chloroform ND 25.0 50.0 50 ND 30% ug/L ---------____ ND 25.0 1,4-Dichlorobenzene 12.5 ug/L 50 ND 30% ug/L 1,1-Dichloroethene ND 12.5 25.0 50 ND 30% -------------1,2-Dichloroethane (EDC) ND 30% 12.5 25.0 ug/L 50 ---ND -----------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% Surr: 1,4-Difluorobenzene (Surr) Recovery: 94 % Limits: 80-120 % Dilution: 1x 80-120 % Toluene-d8 (Surr) 102 % 4-Bromofluorobenzene (Surr) 104 % 80-120 % " Matrix Spike (23D0867-MS1) Prepared: 04/21/23 09:31 Analyzed: 04/22/23 13:11 CONT QC Source Sample: FC-041623-2245 (A3D1359-01) 1311/8260D 952 6.25 50 1000 ND 95 Benzene 12.5 ug/L 79-120% 250 2-Butanone (MEK) 2120 500 ug/L 50 2000 ND 106 56-143% ------Carbon tetrachloride 1170 25.0 50.0 50 1000 ND 72-136% ug/L 117 ------12.5 25.0 1000 80-120% Chlorobenzene 1030 ug/L 50 ND 103 998 1000 79-124% Chloroform 25.050.0 ug/L 50 ND 100 ------1,4-Dichlorobenzene 986 12.5 25.0 ug/L 50 1000 ND 99 79-120% ------12.5 25.0 1000 1,1-Dichloroethene 1100 ND 110 71-131% ug/L 50 ------1,2-Dichloroethane (EDC) 1140 12.5 1000 ND 114 73-128% 25.0 ug/L 50 Tetrachloroethene (PCE) 1020 12.5 25.0ug/L 50 1000 ND 102 74-129% ------Trichloroethene (TCE) 978 12.5 25.0 1000 ND 98 79-123% ug/L 50 ------Vinyl chloride 916 12.5 25.0 1000 ND 92 58-137% ug/L 50 ------Surr: 1,4-Difluorobenzene (Surr) 94 % Limits: 80-120 % Dilution: 1x Recovery: Toluene-d8 (Surr) 98 % 80-120 % "

80-120 %

88 %

Apex Laboratories

4-Bromofluorobenzene (Surr)



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic Co	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D1170 - EPA 3546							Sol	d				
Blank (23D1170-BLK1)			Prepared	: 04/28/23 13	:05 Ana	lyzed: 04/28/	/23 22:36					
EPA 8270E												
Acenaphthene	ND	1.33	2.67	ug/kg wet	1							
Acenaphthylene	ND	1.33	2.67	ug/kg wet	1							
Anthracene	ND	1.33	2.67	ug/kg wet	1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg wet	1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg wet	1							
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg wet	1							
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg wet	1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg wet	1							
Chrysene	ND	1.33	2.67	ug/kg wet	1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg wet	1							
Fluoranthene	ND	1.33	2.67	ug/kg wet	1							
Fluorene	ND	1.33	2.67	ug/kg wet	1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg wet	1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg wet	1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg wet	1							
Naphthalene	ND	2.67	5.33	ug/kg wet	1							
Phenanthrene	ND	1.33	2.67	ug/kg wet	1							
Pvrene	ND	1.33	2.67	ug/kg wet	1							
Carbazole	ND	2.00	4.00	ug/kg wet	1							
Dibenzofuran	ND	1.33	2.67	ug/kg wet	1							
2-Chlorophenol	ND	6.67	13.3	ug/kg wet	1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg wet	1							
2.4-Dichlorophenol	ND	6.67	13.3	ug/kg wet	1							
2.4-Dimethylphenol	ND	6.67	13.3	ug/kg wet	1							
2 4-Dinitrophenol	ND	33.3	66.7	ug/kg wet	1							
4 6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg wet	1							
2-Methylphenol	ND	3 33	6 67	ug/kg wet	1							
3+4 Methylphenol(s)	ND	3 33	6.67	ug/kg wet	1							
2-Nitronhenol	ND	13.3	26.7	ug/kg wet	1							
4-Nitrophenol		13.5	26.7	ug/kg wet	1							
Pentachlorophenol (DCD)		13.3	20.7	ug/kg wet	1							
Dhanal		13.3	20.7	ug/kg wet	1							
7 1 4 6 Totuo ale la manifestaria 1		2.0/	5.55 12.2	ug/kg wet	1							
2,3,4,0-1etrachiorophenol	ND	0.0/	13.3	ug/kg wet	1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

				-	•	-						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D1170 - EPA 3546							So	id				
Blank (23D1170-BLK1)			Prepared	: 04/28/23 1	3:05 Ana	lyzed: 04/28	/23 22:36					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg we	et 1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg we	et 1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg we	t 1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg we	t 1							
Diethylphthalate	ND	13.3	26.7	ug/kg we	et 1							
Dimethylphthalate	ND	13.3	26.7	ug/kg we	et 1							
Di-n-butylphthalate	16.0	13.3	26.7	ug/kg we	et 1							J, B-0
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg we	t 1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg we	et 1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg we	t 1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg we	t 1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg we	t 1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg we	t 1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg we	t 1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg we	t 1							
Hexachloroethane	ND	3.33	6.67	ug/kg we	t 1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg we	t 1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg we	t 1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg we	et 1							
Aniline	ND	6.67	13.3	ug/kg we	t 1							
4-Chloroaniline	ND	3.33	6.67	ug/kg we	t 1							
2-Nitroaniline	ND	26.7	53.3	ug/kg we	t 1							
3-Nitroaniline	ND	26.7	53.3	ug/kg we	t 1							
4-Nitroaniline	ND	26.7	53.3	ug/kg we	t 1							
Nitrobenzene	ND	13.3	26.7	ug/kg we	t 1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg we	t 1							
2.6-Dinitrotoluene	ND	13.3	26.7	ug/ko we	- t 1							
Benzoic acid	ND	167	333	110/ko wa	t 1							
Benzyl alcohol		6.67	12 2	ug/kg we	et 1							
Isonhorona		2 2 2 2	13.3 6.67	ug/kg wt	I .t 1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	Compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D1170 - EPA 3546							So	lid				
Blank (23D1170-BLK1)			Prepare	d: 04/28/23 1	3:05 Ana	yzed: 04/28	8/23 22:36					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	t 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	t 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Rece	overy: 79%	Limits: 37-	-122 %	Dili	ution: 1x					
2-Fluorobiphenyl (Surr)			83 %	44-	120 %		"					
Phenol-d6 (Surr)			83 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			102 %	54-	127 %		"					
2-Fluorophenol (Surr)			85 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			87 %	39-	132 %		"					
LCS (23D1170-BS1)			Prepare	d: 04/28/23 1	3:05 Anal	yzed: 04/28	8/23 23:10					Q-18
EPA 8270E						-						
Acenaphthene	569	5.32	10.7	ug/kg we	t 4	533		107	40-123%			
Acenaphthylene	593	5.32	10.7	ug/kg we	t 4	533		111	32-132%			
Anthracene	595	5.32	10.7	ug/kg we	t 4	533		111	47-123%			
Benz(a)anthracene	584	5.32	10.7	ug/kg we	t 4	533		109	49-126%			
Benzo(a)pyrene	542	8.00	16.0	ug/kg we	t 4	533		102	45-129%			
Benzo(b)fluoranthene	553	8.00	16.0	ug/kg we	t 4	533		104	45-132%			
Benzo(k)fluoranthene	558	8.00	16.0	ug/kg we	t 4	533		105	47-132%			
Benzo(g,h,i)perylene	442	5.32	10.7	ug/kg we	t 4	533		83	43-134%			
Chrysene	596	5.32	10.7	ug/kg we	t 4	533		112	50-124%			
- Dibenz(a,h)anthracene	578	5.32	10.7	ug/kg we	t 4	533		108	45-134%			
Fluoranthene	598	5.32	10.7	ug/kg we	t 4	533		112	50-127%			
Fluorene	609	5.32	10.7	ug/kg we	t 4	533		114	43-125%			
Indeno(1.2.3-cd)pyrene	489	5.32	10.7	ug/kg we	t 4	533		92	45-133%			
1-Methylnaphthalene	584	10.7	21.3	110/kg we	t 4	533		109	40-120%			
2-Methylnaphthalene	613	10.7	21.3	110/ko we	t 4	533		115	38-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompoun	nds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D1170 - EPA 3546							Sol	id				
LCS (23D1170-BS1)			Prepared	: 04/28/23 1	3:05 Anal	yzed: 04/28/	/23 23:10					Q-18
Naphthalene	550	10.7	21.3	ug/kg we	t 4	533		103	35-123%			
Phenanthrene	562	5.32	10.7	ug/kg we	t 4	533		105	50-121%			
Pyrene	589	5.32	10.7	ug/kg we	t 4	533		110	47-127%			
Carbazole	629	8.00	16.0	ug/kg we	t 4	533		118	50-123%			
Dibenzofuran	609	5.32	10.7	ug/kg we	t 4	533		114	44-120%			
2-Chlorophenol	590	26.7	53.2	ug/kg we	t 4	533		111	34-121%			
4-Chloro-3-methylphenol	597	53.2	107	ug/kg we	t 4	533		112	45-122%			
2,4-Dichlorophenol	627	26.7	53.2	ug/kg we	t 4	533		118	40-122%			Q-4
2,4-Dimethylphenol	720	26.7	53.2	ug/kg we	t 4	533		135	30-127%			Q-29, Q-4
2,4-Dinitrophenol	276	133	267	ug/kg we	t 4	533		52	10-137%			
4,6-Dinitro-2-methylphenol	369	133	267	ug/kg we	t 4	533		69	29-132%			
2-Methylphenol	590	13.3	26.7	ug/kg we	t 4	533		111	32-122%			
3+4-Methylphenol(s)	569	13.3	26.7	ug/kg we	t 4	533		107	34-120%			
2-Nitrophenol	593	53.2	107	ug/kg we	t 4	533		111	36-123%			
4-Nitrophenol	551	53.2	107	ug/kg we	t 4	533		103	30-132%			
Pentachlorophenol (PCP)	563	53.2	107	ug/kg we	t 4	533		106	25-133%			
Phenol	595	10.7	21.3	ug/kg we	t 4	533		112	34-121%			Q-4
2,3,4,6-Tetrachlorophenol	634	26.7	53.2	ug/kg we	t 4	533		119	44-125%			
2,3,5,6-Tetrachlorophenol	630	26.7	53.2	ug/kg we	t 4	533		118	40-120%			
2,4,5-Trichlorophenol	664	26.7	53.2	ug/kg we	t 4	533		125	41-124%			Q-29, Q-4
2,4,6-Trichlorophenol	612	26.7	53.2	ug/kg we	t 4	533		115	39-126%			
Bis(2-ethylhexyl)phthalate	592	80.0	160	ug/kg we	t 4	533		111	51-133%			
Butyl benzyl phthalate	620	53.2	107	ug/kg we	t 4	533		116	48-132%			
Diethylphthalate	581	53.2	107	ug/kg we	t 4	533		109	50-124%			
Dimethylphthalate	595	53.2	107	ug/kg we	t 4	533		112	48-124%			
Di-n-butylphthalate	609	53.2	107	ug/kg we	t 4	533		114	51-128%			В-(
Di-n-octyl phthalate	560	53.2	107	ug/kg we	t 4	533		105	45-140%			
N-Nitrosodimethylamine	407	13.3	26.7	ug/kg we	t 4	533		76	23-120%			Q-3
N-Nitroso-di-n-propylamine	519	13.3	26.7	ug/kg we	t 4	533		97	36-120%			
N-Nitrosodiphenylamine	598	13.3	26.7	ug/kg we	t 4	533		112	38-127%			
Bis(2-Chloroethoxy) methane	510	13.3	26.7	ug/kg we	t 4	533		96	36-121%			
Bis(2-Chloroethyl) ether	488	13.3	26.7	ug/kg we	t 4	533		91	31-120%			
2,2'-Oxybis(1-Chloropropane)	423	13.3	26.7	ug/kg we	t 4	533		79	39-120%			
Hexachlorobenzene	601	5.32	10.7	ug/kg we	t 4	533		113	45-122%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
	1.05411	Luint	t	5					2		t	1.000
Batch 23D1170 - EPA 3546							So	lid				
LCS (23D1170-BS1)			Preparec	1: 04/28/23 1	3:05 Ana	yzed: 04/28	/23 23:10					Q-18
Hexachlorobutadiene	577	13.3	26.7	ug/kg we	t 4	533		108	32-123%			
Hexachlorocyclopentadiene	357	26.7	53.2	ug/kg we	t 4	533		67	10-140%			
Hexachloroethane	507	13.3	26.7	ug/kg we	t 4	533		95	28-120%			
2-Chloronaphthalene	593	5.32	10.7	ug/kg we	t 4	533		111	41-120%			
1,2,4-Trichlorobenzene	575	13.3	26.7	ug/kg we	t 4	533		108	34-120%			
4-Bromophenyl phenyl ether	628	13.3	26.7	ug/kg we	t 4	533		118	46-124%			
4-Chlorophenyl phenyl ether	618	13.3	26.7	ug/kg we	t 4	533		116	45-121%			
Aniline	416	26.7	53.2	ug/kg we	t 4	533		78	10-120%			
4-Chloroaniline	440	13.3	26.7	ug/kg we	t 4	533		82	17-120%			
2-Nitroaniline	621	107	213	ug/kg we	t 4	533		116	44-127%			
3-Nitroaniline	660	107	213	ug/kg we	t 4	533		124	33-120%			Q-29, Q-4
4-Nitroaniline	601	107	213	ug/kg we	t 4	533		113	51-125%			
Nitrobenzene	518	53.2	107	ug/kg we	t 4	533		97	34-122%			
2,4-Dinitrotoluene	616	53.2	107	ug/kg we	t 4	533		116	48-126%			
2,6-Dinitrotoluene	601	53.2	107	ug/kg we	t 4	533		113	46-124%			
Benzoic acid	873	668	668	ug/kg we	t 4	1070		82	10-140%			
Benzyl alcohol	531	26.7	53.2	ug/kg we	t 4	533		100	29-122%			
Isophorone	520	13.3	26.7	ug/kg we	t 4	533		98	30-122%			
Azobenzene (1,2-DPH)	529	13.3	26.7	ug/kg we	t 4	533		99	39-125%			
Bis(2-Ethylhexyl) adipate	592	133	267	ug/kg we	t 4	533		111	61-121%			
3,3'-Dichlorobenzidine	2610	107	213	ug/kg we	t 4	1070		245	22-121%			Q-29, Q-3
1,2-Dinitrobenzene	613	133	267	ug/kg we	t 4	533		115	44-120%			
1,3-Dinitrobenzene	636	133	267	ug/kg we	t 4	533		119	43-127%			Q-4
1,4-Dinitrobenzene	606	133	267	ug/kg we	t 4	533		114	37-132%			
Pyridine	479	26.7	53.2	ug/kg we	t 4	533		90	10-120%			
1,2-Dichlorobenzene	535	13.3	26.7	ug/kg we	t 4	533		100	33-120%			
1,3-Dichlorobenzene	522	13.3	26.7	ug/kg we	t 4	533		98	30-120%			
1,4-Dichlorobenzene	520	13.3	26.7	ug/kg we	t 4	533		98	31-120%			
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 96%	Limits: 37-	122 %	Dilı	ution: 4x					
2-Fluorobiphenyl (Surr)			108 %	44-	120 %		"					
Phenol-d6 (Surr)			105 %	33-	122 %		"					
p-Terphenvl-d14 (Surr)			119 %	54-	127 %		"					
2-Fluoronhenol (Surr)			104 %	35-	120 %		"					
2 4 6 Tuikney			107.0/	20	122 0/		,,					

Apex Laboratories



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

<u>Sevenson Environmental Serv</u> 2749 Lockport Road Niagara Falls, NY 14305	<u>vices, Inc.</u>		Pro	Project: oject Numbe ject Manage	<u>Gasco -</u> r: 111323 r: Chip By	<u>- Filtercake</u> yrd	<u>.</u>		A	<u>I</u> A3D1359	<u>Report ID</u> - 05 04 2	<u>:</u> 3 1558
		QU	ALITY CO	ONTROL	(QC) SA	MPLE R	RESULTS	8				
		Se	mivolatile	Organic C	compour	ids by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D1170 - EPA 3546							Sol	id				
Duplicate (23D1170-DUP3)			Prepared	l: 04/28/23 1	3:05 Ana	lyzed: 05/02	2/23 02:37					PRO
OC Source Sample: Non-SDG (A	3D1330-05R	E2)										
Acenaphthene	ND	131	131	ug/kg we	t 50		ND				30%	
Acenaphthylene	ND	65.1	131	ug/kg we	t 50		ND				30%	
Anthracene	ND	65.1	131	ug/kg we	t 50		ND				30%	
Benz(a)anthracene	ND	65.1	131	ug/kg we	t 50		ND				30%	
Benzo(a)pyrene	ND	97.8	196	ug/kg we	t 50		ND				30%	
Benzo(b)fluoranthene	ND	97.8	196	ug/kg we	t 50		ND				30%	
Benzo(k)fluoranthene	ND	97.8	196	ug/kg we	t 50		ND				30%	
Benzo(g,h,i)perylene	ND	65.1	131	ug/kg we	t 50		ND				30%	
Chrysene	ND	65.1	131	ug/kg we	t 50		ND				30%	
Dibenz(a,h)anthracene	ND	65.1	131	ug/kg we	t 50		ND				30%	
Fluoranthene	ND	65.1	131	ug/kg we	t 50		ND				30%	
Fluorene	ND	171	171	ug/kg we	t 50		ND				30%	R-02
Indeno(1,2,3-cd)pyrene	ND	65.1	131	ug/kg we	t 50		ND				30%	
1-Methylnaphthalene	180	131	261	ug/kg we	t 50		203			12	30%	i
2-Methylnaphthalene	131	131	261	ug/kg we	t 50		151			14	30%	j
Naphthalene	ND	131	261	ug/kg we	t 50		ND				30%	
Phenanthrene	164	65.1	131	ug/kg we	t 50		202			21	30%	
Pyrene	137	65.1	131	ug/kg we	t 50		160			15	30%	
Carbazole	ND	97.8	196	ug/kg we	t 50		ND				30%	
Dibenzofuran	ND	65.1	131	ug/kg we	t 50		ND				30%	
2-Chlorophenol	ND	326	651	ug/kg we	t 50		ND				30%	
4-Chloro-3-methylphenol	ND	651	1310	ug/kg we	t 50		ND				30%	
2.4-Dichlorophenol	ND	326	651	ug/kg we	t 50		ND				30%	
2.4-Dimethylphenol	ND	326	651	ug/kg we	t 50		ND				30%	
2.4-Dinitrophenol	ND	1630	3260	ug/kg we	t 50		ND				30%	
4.6-Dinitro-2-methylphenol	ND	1630	3260	ug/kg we	t 50		ND				30%	
2-Methylphenol	ND	163	326	ug/kg we	t 50		ND				30%	
3+4-Methylphenol(s)	ND	163	326	ug/kg we	t 50		ND				30%	
2-Nitrophenol	ND	651	1310	ug/kg we	t 50		ND				30%	
4-Nitrophenol	ND	1310	1310	ug/kg we	t 50		ND				30%	
Pentachlorophenol (PCP)	ND	651	1310	ug/kg we	t 50		ND				30%	
Phenol	ND	131	261	ug/kg we	t 50		ND				30%	
				0 0 // •								

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

AndycDetection LimitPepteric LimitOnloSpikeSp			Se	mivolatile	Organic C	ompour	nds by EP	A 8270E					
Batch 23D1170-DIP3 Prepared: 04/28/23 13/05 Analyzed: 05/02/23 02:37 PRO OT_server Sample: Nn=-NSG(A3D123-WETE) Value Sample: Nn=-NSG(A3D123-WETE) 23.5.6.Tetrachlorophenol ND 326 651 ug/kg wet 50 ND 30% 24.5.5.7.Enchallorophenol ND 326 651 ug/kg wet 50 ND 30% 4.4.5.7.Enchorophenol ND 326 651 ug/kg wet 50 ND 30% 50 Cethylphthallate ND 651 1310 ug/kg wet 50 ND 30% 50-redylphthalate ND 651 1310 ug/kg wet 50 ND 30% 50-redylphthalate ND	Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Depicate (23D1170-DUPS) Prepared: Analyzet: Other Standy Standy Analyzet: Other Standy Standy Standy 23.4.6. Terachlorophenol ND 326 651 ug/kg wet 50 ND 30% 24.5. Tertachlorophenol ND 326 651 ug/kg wet 50 ND 30% 24.6. Trichlorophenol ND 651 ug/kg wet 50 ND 30% Sig-Cethylkeylylphthalate ND 651 1310 ug/kg wet 50 ND 30% Sinchylphthalate ND 651 1310 ug/kg wet 50 ND 30% Sinchylphthalate ND 651 1310 ug/kg wet 50 ND 30% Sinchylphthalate ND 651 1310 ug/kg wet 50 <	Batch 23D1170 - EPA 3546							Sol	id				
OC Source Sample: Non-SIGG (ABD133U-USRE2) USR USR Inc ND Inc Inc	Duplicate (23D1170-DUP3)			Prepared	: 04/28/23 1	3:05 Ana	lyzed: 05/02	/23 02:37					PRO
23,45-Tertachlorophenol ND 326 651 ug/kg wet 50 ND 30% 2,3,5,6-Tetrachlorophenol ND 326 651 ug/kg wet 50 ND 30% 2,4,6-Trichlorophenol ND 651 651 ug/kg wet 50 ND 30% 2,4,6-Trichlorophenol ND 651 1310 ug/kg wet 50 ND 30% 2,4,6-Trichlorophenol ND 651 1310 ug/kg wet 50 ND 30% 2,6,2-Trichlorophtalate ND 651 1310 ug/kg wet 50 ND 30% 2,6-brityhthalate ND 651 1310 ug/kg wet 50 ND 30% 2,6-brityhthalate ND 651 1310 ug/kg wet 50 ND 30% 2,6-brityhthtalate	QC Source Sample: Non-SDG (A.	3D1330-05R	<u>E2)</u>										
2,3,5,6 C51 ug/kg wet 50 ND 30% 2,4,5-Trichlorophenol ND 326 C51 ug/kg wet 50 ND 30% 2,4,6-Trichlorophenol ND C51 ug/kg wet 50 ND 30% 3ix(2-cthylhexyl)phthalate ND C51 1310 ug/kg wet 50 ND 30% Dimethylphthalate ND C51 1310 ug/kg wet 50 ND 30% Dimethylphthalate ND C51 1310 ug/kg wet 50 ND 30% Dimethylphthalate ND C51 1310 ug/kg wet 50 ND 30% Oin-oxtlphthalate ND C51 1310 ug/kg wet 50 ND 30% N-Nitrosodimethylamine ND 163 326 ug/kg wet <td< td=""><td>2,3,4,6-Tetrachlorophenol</td><td>ND</td><td>326</td><td>651</td><td>ug/kg we</td><td>t 50</td><td></td><td>ND</td><td></td><td></td><td></td><td>30%</td><td></td></td<>	2,3,4,6-Tetrachlorophenol	ND	326	651	ug/kg we	t 50		ND				30%	
24,5-Trichlorophenol ND 326 651 ug/kg wet 50 ND 30% 24,6-Trichlorophenol ND 651 651 ug/kg wet 50 ND 30% Sig2-eth/hexylphthalate ND 651 1310 ug/kg wet 50 ND 30% Sinch/phthalate ND 651 1310 ug/kg wet 50 ND 30% Sinch/phthalate ND 651 1310 ug/kg wet 50 ND 30% Din-butylphthalate ND 651 1310 ug/kg wet 50 ND 30% N-Nirosodimehylphanine ND 163 326 ug/kg wet 50 ND 30% N-Nirosodimehylphanine ND 163 326 ug/kg wet 50 ND 30% Si2-Chlorosthylphanine	2,3,5,6-Tetrachlorophenol	ND	326	651	ug/kg we	t 50		ND				30%	
24.6 - Trichlorophenol ND 651 651 ug/kg wet 50 ND 30% 3is(2-chtylhextylphthalate ND 978 1960 ug/kg wet 50 ND 30% 2istyl benzyl phthalate ND 651 1310 ug/kg wet 50 ND 30% Direhtylphthalate ND 651 1310 ug/kg wet 50 ND 30% Direhtylphthalate ND 651 1310 ug/kg wet 50 ND 30% Direhtylphthalate ND 651 1310 ug/kg wet 50 ND 30% Sin-oxtyl phthalate ND 163 326 ug/kg wet 50 ND 30% V-Nitrosodinehtylamine ND 163 326 ug/kg wet 50 ND 30% Sis(2-Chloroethyl) ether ND	2,4,5-Trichlorophenol	ND	326	651	ug/kg we	t 50		ND				30%	
3is(2-chtylphext)phthalate ND 978 1960 ug/kg wet 50 ND 30% 3utyl benzyl phthalate ND 651 1310 ug/kg wet 50 ND 30% Dien-bylphthalate ND 651 1310 ug/kg wet 50 ND 30% Dien-bylphthalate ND 651 1310 ug/kg wet 50 ND 30% Oin-octyl phthalate ND 651 1310 ug/kg wet 50 ND 30% V-Nitrosodinehylamine ND 163 326 ug/kg wet 50 ND 30% V-Nitrosodiphenylamine ND 163 326 ug/kg wet 50 ND 30% Sig(2-Chloroethxy) methane ND 163 326 ug/kg wet 50 ND 30% Sig(2-Chloroethx	2,4,6-Trichlorophenol	ND	651	651	ug/kg we	t 50		ND				30%	
Baryl phthalate ND 651 1310 ug/kg wet 50 ND 30% Dichtylphthalate ND 651 1310 ug/kg wet 50 ND 30% Dichtylphthalate ND 651 1310 ug/kg wet 50 ND 30% Din-butylphthalate ND 651 1310 ug/kg wet 50 ND 30% V-Nitrosodimethylamine ND 163 326 ug/kg wet 50 ND 30% N-Nitrosodiphenylamine ND 163 326 ug/kg wet 50 ND 30% Sig(2-Chloroethxy) nethane ND 163 326 ug/kg wet 50 ND 30% Lexachloroethxy nethane ND 163 326 ug/kg wet 50 ND 30% <td< td=""><td>Bis(2-ethylhexyl)phthalate</td><td>ND</td><td>978</td><td>1960</td><td>ug/kg we</td><td>t 50</td><td></td><td>ND</td><td></td><td></td><td></td><td>30%</td><td></td></td<>	Bis(2-ethylhexyl)phthalate	ND	978	1960	ug/kg we	t 50		ND				30%	
Diethylphthalate ND 651 1310 ug/kg wet 50 ND 30% Dimethylphthalate ND 651 1310 ug/kg wet 50 ND 30% Din-butylphthalate ND 651 1310 ug/kg wet 50 ND 30% Din-butylphthalate ND 651 1310 ug/kg wet 50 ND 30% N-Nitrosodimethylamine ND 163 326 ug/kg wet 50 ND 30% N-Nitrosodiphenylamine ND 163 326 ug/kg wet 50 ND 30% Sig(2-Chloroethyl) ether ND 163 326 ug/kg wet 50 ND 30% L2-Coxptis(1-Chloroptopane) ND 163 326 ug/kg wet <t< td=""><td>Butyl benzyl phthalate</td><td>ND</td><td>651</td><td>1310</td><td>ug/kg we</td><td>t 50</td><td></td><td>ND</td><td></td><td></td><td></td><td>30%</td><td></td></t<>	Butyl benzyl phthalate	ND	651	1310	ug/kg we	t 50		ND				30%	
Dimethylphthalate ND 651 1310 ug/kg wet 50 ND 30% Din-octylphthalate ND 651 1310 ug/kg wet 50 ND 30% Din-octyl phthalate ND 651 1310 ug/kg wet 50 ND 30% V-Nitrosodinethylamine ND 163 326 ug/kg wet 50 ND 30% V-Nitrosodiphenylamine ND 163 326 ug/kg wet 50 ND 30% V-Nitrosodiphenylamine ND 163 326 ug/kg wet 50 ND 30% Q-Coxybi(I-Chloroptopane) ND 163 326 ug/kg wet 50 ND 30% 4exachlorobtadiene ND 163 326 ug/kg wet	Diethylphthalate	ND	651	1310	ug/kg we	t 50		ND				30%	
Din-butylphthalateND 651 1310 ug/kg wet 50 ND 30% Din-butylphthalateND 651 1310 ug/kg wet 50 ND 30% N-NitrosodimethylamineND 163 326 ug/kg wet 50 ND 30% N-NitrosodimethylamineND 163 326 ug/kg wet 50 ND 30% N-NitrosodimethylamineND 163 326 ug/kg wet 50 ND 30% N-Nitrosodinethyl) etherND 163 326 ug/kg wet 50 ND 30% 2/2-Oxybis(1-Chloroptopane)ND 163 326 ug/kg wet 50 ND 30% 4:exachlorobetzzeneND 65.1 131 ug/kg wet 50 ND 30% 4:exachlorobetzeneND 65.1 131 ug/kg wet 50 ND $$ 30% 4:exachlorobetzeneND 163 326 ug/kg wet 50 ND $$ $$ 30% 4:exachlorobetzeneND 65.1 131 ug/kg wet 50 $$ ND $$ $$ 30% 4:exachlorobetzeneND 163 326 ug/kg wet 50 $$	Dimethylphthalate	ND	651	1310	ug/kg we	t 50		ND				30%	
Din-octyl phthalate ND 651 1310 ug/kg wet 50 ND 30% N-Nitrosodimethylamine ND 163 326 ug/kg wet 50 ND 30% N-Nitrosodimethylamine ND 163 326 ug/kg wet 50 ND 30% N-Nitrosodimethylamine ND 163 326 ug/kg wet 50 ND 30% Sis(2-Chloroethxy) methane ND 163 326 ug/kg wet 50 ND 30% 2.2-Oxybis(1-Chloropropane) ND 163 326 ug/kg wet 50 ND 30% 4exachlorobutadiene ND 65.1 131 ug/kg wet 50 ND 30% 4exachlorobutadiene ND 65.1 131 ug/kg wet 50 ND 30%	Di-n-butylphthalate	ND	651	1310	ug/kg we	t 50		ND				30%	
N-Nitrosodimethylamine ND 163 326 ug/kg wet 50 ND 30% N-Nitrosodihenylamine ND 163 326 ug/kg wet 50 ND 30% N-Nitrosodihenylamine ND 783 ug/kg wet 50 ND 30% R- 3is(2-Chloroethoxy) methane ND 163 326 ug/kg wet 50 ND 30% 2/2-Oxybic/Lohoroethyl) ether ND 163 326 ug/kg wet 50 ND 30% 4-exachlorobuzdiene ND 163 326 ug/kg wet 50 ND 30% 4-exachlorobuzdiene ND 163 326 ug/kg wet 50 ND 30% 2-Choronaphthalene ND 163 326 ug/kg wet	Di-n-octyl phthalate	ND	651	1310	ug/kg we	t 50		ND				30%	
N-Nitroso-din-propylamine ND 163 326 ug/kg wet 50 ND 30% N-Nitrosodiphenylamine ND 783 783 ug/kg wet 50 ND 30% R- 3is(2-Chloroethoxy) methane ND 163 326 ug/kg wet 50 ND 30% R- 3is(2-Chloroethyl) ether ND 163 326 ug/kg wet 50 ND 30% 4-exachlorobenzene ND 163 326 ug/kg wet 50 ND 30% 4-exachlorobenzene ND 163 326 ug/kg wet 50 ND 30% 4-exachlorobenzene ND 163 326 ug/kg wet 50 ND 30% 4-exachlorobenzene ND 163 326 ug/kg wet 50 ND 30%	N-Nitrosodimethylamine	ND	163	326	ug/kg we	t 50		ND				30%	
N-N-Nitrosodiphenylamine ND 783 783 ug/kg wet 50 ND 30% R- 3is(2-Chloroethoxy) methane ND 163 326 ug/kg wet 50 ND 30% R- 3is(2-Chloroethy) ether ND 163 326 ug/kg wet 50 ND 30% R- 2,2-Oxybis(1-Chloropropane) ND 163 326 ug/kg wet 50 ND 30% Hexachlorobenzene ND 163 326 ug/kg wet 50 ND 30% Hexachlorocyclopentadiene ND 163 326 ug/kg wet 50 ND 30% L2,4-Trichlorobenzene ND 65.1 131 ug/kg wet 50 ND 30% L2,4-Trichlorobenzene ND 163 326 ug/kg wet 50 ND <td>N-Nitroso-di-n-propylamine</td> <td>ND</td> <td>163</td> <td>326</td> <td>ug/kg we</td> <td>t 50</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	N-Nitroso-di-n-propylamine	ND	163	326	ug/kg we	t 50		ND				30%	
Bis(2-Chloroethoxy) methane ND 163 326 ug/kg wet 50 ND 30% Bis(2-Chloroethyl) ether ND 163 326 ug/kg wet 50 ND 30% 2.2^{-} Oxybis(1-Chloropropane) ND 163 326 ug/kg wet 50 ND 30% Hexachlorobenzene ND 65.1 131 ug/kg wet 50 ND 30% Hexachlorobenzene ND 163 326 ug/kg wet 50 ND 30% Hexachlorobenzene ND 163 326 ug/kg wet 50 ND 30% Lexachloroethane ND 163 326 ug/kg wet 50 ND 30% L2,4-Trichlorobenzene ND 163 326 ug/kg wet 50 ND 30% L2	N-Nitrosodiphenylamine	ND	783	783	ug/kg we	t 50		ND				30%	R-(
Bis(2-Chloroethyl) etherND163326ug/kg wet50ND30% $2,2^{-Oxybis(1-Chloropropane)$ ND163326ug/kg wet50ND30%HexachlorobenzeneND65.1131ug/kg wet50ND30%HexachlorobutadieneND163326ug/kg wet50ND30%HexachlorocyclopentadieneND163326ug/kg wet50ND30%HexachlorochhaneND163326ug/kg wet50ND30%HexachlorochhaneND163326ug/kg wet50ND30%2-ChloronaphthaleneND163326ug/kg wet50ND30%2-Chloronaphthyl phenyl etherND163326ug/kg wet50ND30%4-Chlorophenyl phenyl etherND163326ug/kg wet50ND30%4-Chlorophenyl phenyl etherND163326ug/kg wet50ND30%4-Chlorophenyl phenyl etherND163326ug/kg wet50ND30%4-Chlorophenyl phenyl etherND	Bis(2-Chloroethoxy) methane	ND	163	326	ug/kg we	t 50		ND				30%	
2,2-Oxybis(1-Chloropropane) ND 163 326 ug/kg wet 50 ND 30% Hexachlorobenzene ND 65.1 131 ug/kg wet 50 ND 30% Hexachlorobutadiene ND 163 326 ug/kg wet 50 ND 30% Hexachlorocyclopentadiene ND 163 326 ug/kg wet 50 ND 30% Hexachlorocthane ND 163 326 ug/kg wet 50 ND 30% 2-Chloronaphthalene ND 65.1 131 ug/kg wet 50 ND 30% 4-Bromophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chlorophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chloropheny	Bis(2-Chloroethyl) ether	ND	163	326	ug/kg we	t 50		ND				30%	
Hexachlorobenzene ND 65.1 131 ug/kg wet 50 ND 30% Hexachlorobutadiene ND 163 326 ug/kg wet 50 ND 30% Hexachlorocyclopentadiene ND 326 651 ug/kg wet 50 ND 30% Hexachlorocyclopentadiene ND 163 326 ug/kg wet 50 ND 30% 2-Chloronaphthalene ND 163 326 ug/kg wet 50 ND 30% 2.2-Chloronaphthalene ND 163 326 ug/kg wet 50 ND 30% 4-2-Bromophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% Aniline ND 163 326 ug/kg wet 50 ND 30% 2-Nitroaniline <td< td=""><td>2,2'-Oxybis(1-Chloropropane)</td><td>ND</td><td>163</td><td>326</td><td>ug/kg we</td><td>t 50</td><td></td><td>ND</td><td></td><td></td><td></td><td>30%</td><td></td></td<>	2,2'-Oxybis(1-Chloropropane)	ND	163	326	ug/kg we	t 50		ND				30%	
HexachlorobutadieneND 163 326 ug/kg wet 50 ND $$ 30% HexachlorocyclopentadieneND 326 651 ug/kg wet 50 ND 30% HexachlorocyclopentadieneND 163 326 ug/kg wet 50 ND 30% LexachlorochaneND 65.1 131 ug/kg wet 50 ND 30% 2-ChloronaphthaleneND 163 326 ug/kg wet 50 ND 30% 4.2,4-TrichlorobenzeneND 163 326 ug/kg wet 50 ND 30% 4-Bromophenyl phenyl etherND 163 326 ug/kg wet 50 ND 30% 4-Chlorophenyl phenyl etherND 163 326 ug/kg wet 50 ND 30% 4-ChloroanilineND 1310 2610 ug/kg wet 50 ND 30% 2-NitroanilineND 1310 2610 ug/kg wet 50 ND 30% 4-NitrobenzeneND 651 1310 ug/kg wet 50 ND 30% 2,4-DinitrotolueneND 651 1310 ug/kg wet 50 ND<	Hexachlorobenzene	ND	65.1	131	ug/kg we	t 50		ND				30%	
Hexachlorocyclopentadiene ND 326 651 ug/kg wet 50 ND 30% Hexachlorochane ND 163 326 ug/kg wet 50 ND 30% 2-Chloronaphthalene ND 65.1 131 ug/kg wet 50 ND 30% 2-Chloronaphthalene ND 163 326 ug/kg wet 50 ND 30% 4-Bromophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chlorophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chlorophinyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chloroaniline ND 163 326 ug/kg wet 50 ND 30% 3-Nitroaniline <td>Hexachlorobutadiene</td> <td>ND</td> <td>163</td> <td>326</td> <td>ug/kg we</td> <td>t 50</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	Hexachlorobutadiene	ND	163	326	ug/kg we	t 50		ND				30%	
Hexachloroethane ND 163 326 ug/kg wet 50 ND 30% 2-Chloronaphthalene ND 65.1 131 ug/kg wet 50 ND 30% 1,2,4-Trichlorobenzene ND 163 326 ug/kg wet 50 ND 30% 4-Bromophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chlorophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% Aniline ND 326 651 ug/kg wet 50 ND 30% 4-Chloroaniline ND 163 326 ug/kg wet 50 ND 30% 2-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% A+Nitroaniline ND	Hexachlorocyclopentadiene	ND	326	651	ug/kg we	t 50		ND				30%	
2-Chloronaphthalene ND 65.1 131 ug/kg wet 50 ND 30% 1,2,4-Trichlorobenzene ND 163 326 ug/kg wet 50 ND 30% 4-Bromophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chlorophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% Aniline ND 326 651 ug/kg wet 50 ND 30% 4-Chloroaniline ND 163 326 ug/kg wet 50 ND 30% 2-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 3-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND	Hexachloroethane	ND	163	326	ug/kg we	t 50		ND				30%	
1,2,4-Trichlorobenzene ND 163 326 ug/kg wet 50 ND 30% 4-Bromophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chlorophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% Aniline ND 326 651 ug/kg wet 50 ND 30% 4-Chloroaniline ND 163 326 ug/kg wet 50 ND 30% 2-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 3-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND	2-Chloronaphthalene	ND	65.1	131	ug/kg we	t 50		ND				30%	
4-Bromophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% 4-Chlorophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% Aniline ND 326 651 ug/kg wet 50 ND 30% 4-Chloroaniline ND 163 326 ug/kg wet 50 ND 30% 2-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 3-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 3-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 651 1310 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND 6	1,2,4-Trichlorobenzene	ND	163	326	ug/kg we	t 50		ND				30%	
4-Chlorophenyl phenyl ether ND 163 326 ug/kg wet 50 ND 30% Aniline ND 326 651 ug/kg wet 50 ND 30% 4-Chloroaniline ND 163 326 ug/kg wet 50 ND 30% 2-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 2-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 3-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% Vitrobenzene ND 651 1310 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND	4-Bromophenyl phenyl ether	ND	163	326	ug/kg we	t 50		ND				30%	
Aniline ND 326 651 ug/kg wet 50 ND 30% 4-Chloroaniline ND 163 326 ug/kg wet 50 ND 30% 2-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 3-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% Nitrobenzene ND 651 1310 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 13	4-Chlorophenyl phenyl ether	ND	163	326	ug/kg we	t 50		ND				30%	
H-Chloroaniline ND 163 326 ug/kg wet 50 ND 30% 2-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 3-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% Nitrobenzene ND 651 1310 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651	Aniline	ND	326	651	ug/kg we	t 50		ND				30%	
ND 1310 2610 ug/kg wet 50 ND 30% 3-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% Nitrobenzene ND 651 1310 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% Benzoic acid ND 8170 16300	4-Chloroaniline	ND	163	326	ug/kg we	t 50		ND				30%	
ND 1310 2610 ug/kg wet 50 ND 30% 4-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% Nitrobenzene ND 651 1310 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% Benzoic acid ND 8170 16300 ug/kg wet 50 ND 30%	2-Nitroaniline	ND	1310	2610	ug/kg we	t 50		ND				30%	
A-Nitroaniline ND 1310 2610 ug/kg wet 50 ND 30% Nitrobenzene ND 651 1310 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% Benzoic acid ND 8170 16300 ug/kg wet 50 ND 30%	3-Nitroaniline	ND	1310	2610	ug/kg we	t 50		ND				30%	
Nitrobenzene ND 651 1310 ug/kg wet 50 ND 30% 2,4-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% Benzoic acid ND 8170 16300 ug/kg wet 50 ND 30%	4-Nitroaniline	ND	1310	2610	ug/kg we	t 50		ND				30%	
2,4-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% 2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% Benzoic acid ND 8170 16300 ug/kg wet 50 ND 30%	Nitrobenzene	ND	651	1310	ug/kg we	t 50		ND				30%	
2,6-Dinitrotoluene ND 651 1310 ug/kg wet 50 ND 30% Benzoic acid ND 8170 16300 ug/kg wet 50 ND 30%	2,4-Dinitrotoluene	ND	651	1310	ug/kg we	t 50		ND				30%	
Benzoic acid ND 8170 16300 ug/kg wet 50 ND 30%	2,6-Dinitrotoluene	ND	651	1310	ug/kg we	t 50		ND				30%	
	Benzoic acid	ND	8170	16300	ug/kg we	t 50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D1170 - EPA 3546							Sol	id				
Duplicate (23D1170-DUP3)			Preparec	1: 04/28/23 1	3:05 Ana	lyzed: 05/02	/23 02:37					PRO
QC Source Sample: Non-SDG (A.	3D1330-05R	E2)										
Benzyl alcohol	ND	326	651	ug/kg we	t 50		ND				30%	
Isophorone	ND	163	326	ug/kg we	t 50		ND				30%	
Azobenzene (1,2-DPH)	ND	163	326	ug/kg we	t 50		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	1630	3260	ug/kg we	t 50		ND				30%	
3,3'-Dichlorobenzidine	ND	1310	2610	ug/kg we	t 50		ND				30%	Q-52
1,2-Dinitrobenzene	ND	1630	3260	ug/kg we	t 50		ND				30%	
1,3-Dinitrobenzene	ND	1630	3260	ug/kg we	t 50		ND				30%	
1,4-Dinitrobenzene	ND	1630	3260	ug/kg we	t 50		ND				30%	
Pyridine	ND	326	651	ug/kg we	t 50		ND				30%	
1,2-Dichlorobenzene	ND	163	326	ug/kg we	t 50		ND				30%	
1,3-Dichlorobenzene	ND	163	326	ug/kg we	t 50		ND				30%	
1,4-Dichlorobenzene	ND	163	326	ug/kg we	t 50		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 43 %	Limits: 37-	122 %	Dilı	ution: 50x					S-05
2-Fluorobiphenyl (Surr)			57%	44-	120 %		"					S-05
Phenol-d6 (Surr)			14 %	33-	122 %		"					S-05
p-Terphenyl-d14 (Surr)			74 %	54-	127 %		"					S-05
2-Fluorophenol (Surr)			%	35-	120 %		"					S-01
2,4,6-Tribromophenol (Surr)			%	39-	132 %		"					S-01

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by l	EPA 602	OB (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0850 - EPA 3051A							So	lid				
Blank (23D0850-BLK1)			Prepared	: 04/21/23 0	7:18 Ana	lyzed: 04/22	/23 01:54					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg we	t 10							
Barium	ND	500	1000	ug/kg we	t 10							
Cadmium	ND	100	200	ug/kg we	t 10							
Chromium	ND	500	1000	ug/kg we	t 10							
Selenium	ND	500	1000	ug/kg we	t 10							
Blank (23D0850-BLK2)			Prepared	: 04/21/23 0	7:18 Ana	lyzed: 04/24	/23 22:23					
EPA 6020B												
Lead	ND	100	200	ug/kg we	t 10							Q-1
Mercury	ND	40.0	80.0	ug/kg we	t 10							Q-1
Silver	ND	100	200	ug/kg we	t 10							Q-1
LCS (23D0850-BS1)			Prepared	: 04/21/23 0	7:18 Ana	lyzed: 04/22	/23 01:59					
EPA 6020B												
Arsenic	46600	500	1000	ug/kg we	t 10	50000		93	80-120%			
Cadmium	47100	100	200	ug/kg we	t 10	50000		94	80-120%			
Chromium	48800	500	1000	ug/kg we	t 10	50000		98	80-120%			
Selenium	22300	500	1000	ug/kg we	t 10	25000		89	80-120%			
LCS (23D0850-BS2)			Prepared	: 04/21/23 0	7:18 Ana	lyzed: 04/24	/23 22:28					
EPA 6020B												
Barium	53000	500	1000	ug/kg we	t 10	50000		106	80-120%			Q-1
Lead	51200	100	200	ug/kg we	t 10	50000		102	80-120%			Q-1
Mercury	907	40.0	80.0	ug/kg we	t 10	1000		91	80-120%			Q-1
Silver	23100	100	200	ug/kg we	t 10	25000		93	80-120%			Q-1
Duplicate (23D0850-DUP1)			Prepared	: 04/21/23 0	7:18 Ana	lyzed: 04/22	/23 02:09					
QC Source Sample: Non-SDG (A3	D0921-06)											
Arsenic	6520	504	1010	ug/kg we	t 10		8020			21	20%	Q-0
Cadmium	264	101	202	ug/kg we	t 10		310			16	20%	
Chromium	16700	504	1010	ug/kg we	t 10		17900			6	20%	
Selenium	714	504	1010	ug/kg we	t 10		577			21	20%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by l	EPA 6020	DB (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0850 - EPA 3051A							Sol	lid				
Duplicate (23D0850-DUP2)			Prepared	: 04/21/23 0	7:18 Ana	lyzed: 04/24	/23 22:38					
QC Source Sample: Non-SDG (A3)	D0921-06RI	E <u>1)</u>										
Barium	157000	504	1010	ug/kg we	t 10		117000			29	20%	Q-04, Q-10
Lead	5860	101	202	ug/kg we	t 10		7250			21	20%	Q-04, Q-16
Mercury	61.8	40.3	80.6	ug/kg we	t 10		52.2			17	20%	J, Q-16
Silver	120	101	202	ug/kg we	t 10		123			2	20%	J, Q-10
Matrix Spike (23D0850-MS1)			Prepared	: 04/21/23 0	7:18 Ana	lyzed: 04/22	/23 02:14					
QC Source Sample: Non-SDG (A3)	<u>D0921-06)</u>											
EPA 6020B	43700	195	071	ug/kg wa	+ 10	48500	8020	74	75 1250/			0.0
Cadmium	43700	40 <i>3</i> 97 1	971 194	ug/kg we	t 10	48500	310	/4 85	75 125%			Q-0-
Chromium	62300	485	971	ug/kg we	t 10	48500	17900	85 92	75-125%			
Selenium	19300	485	971	ug/kg we	t 10	24300	577	77	75-125%			
Matrix Spike (23D0850-MS2)			Prepared	: 04/21/23 0	7:18 Ana	lyzed: 04/24	/23 22:43					
QC Source Sample: Non-SDG (A3)	D0921-06RI	<u>21)</u>										
EPA 6020B												
Barium	170000	485	971	ug/kg we	t 10	48500	117000	109	75-125%			Q-16
Lead	47000	97.1	194	ug/kg we	t 10	48500	7250	82	75-125%			Q-10
Mercury	822	38.8	77.7	ug/kg we	t 10	971	52.2	79	75-125%			Q-16
Silver	19200	97.1	194	ug/kg we	t 10	24300	123	79	75-125%			Q-10

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0989 - EPA 1311/30	15A						So	lid				
Blank (23D0989-BLK1)			Prepared	: 04/25/23	10:58 Anal	yzed: 04/25	/23 23:31					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							TCLP
Barium	ND	2500	5000	ug/L	10							TCLF
Cadmium	ND	50.0	100	ug/L	10							TCLP
Chromium	ND	50.0	100	ug/L	10							TCLF
Lead	ND	25.0	50.0	ug/L	10							TCLF
Mercury	ND	3.75	7.00	ug/L	10							TCLF
Selenium	ND	50.0	100	ug/L	10							TCLF
Silver	ND	50.0	100	ug/L	10							TCLP
LCS (23D0989-BS1)			Prepared	: 04/25/23	10:58 Anal	yzed: 04/25	3/23 23:35					
<u>1311/6020B</u>												
Arsenic	5370	50.0	100	ug/L	10	5000		107	80-120%			TCLP
Barium	10700	2500	5000	ug/L	10	10000		107	80-120%			TCLP
Cadmium	1070	50.0	100	ug/L	10	1000		107	80-120%			TCLP
Chromium	5240	50.0	100	ug/L	10	5000		105	80-120%			TCLP
Lead	5780	25.0	50.0	ug/L	10	5000		116	80-120%			TCLF
Mercury	107	3.75	7.00	ug/L	10	100		107	80-120%			TCLF
Selenium	1030	50.0	100	ug/L	10	1000		103	80-120%			TCLF
Silver	990	50.0	100	ug/L	10	1000		99	80-120%			TCLP
Duplicate (23D0989-DUP1)			Prepared	: 04/25/23	10:58 Anal	yzed: 04/25	/23 23:50					
QC Source Sample: Non-SDG (A.	3D1198-02)											
Arsenic	ND	50.0	100	ug/L	10		ND				20%	
Barium	ND	2500	5000	ug/L	10		ND				20%	
Cadmium	ND	50.0	100	ug/L	10		ND				20%	
Chromium	ND	50.0	100	ug/L	10		ND				20%	
Lead	ND	25.0	50.0	ug/L	10		ND				20%	
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	
Selenium	ND	50.0	100	ug/L	10		ND				20%	
Silver	ND	50.0	100	ug/L	10		ND				20%	

Matrix Spike (23D0989-MS1)

Prepared: 04/25/23 10:58 Analyzed: 04/25/23 23:55

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte Detection Limit Reporting Limit Dilution Spike Amount Source Result % REC % REC % RED Mark Limit Not Limit Bath 2200989 - EPA 1311/3015A Prepared: 0/25/23 Joint Analyzed: 0/25/23 23.55 OC Source Sample: Non-SDG (A3D198-021) Prepared: 0/25/23 Joint Not Marin 0400 50.0 100 ug/L 10 5000 ND 99 50-150% Construct Sample: Non-SDG (A3D198-021) Interval 9000 ug/L 10 1000 ND 99 50-150% Cadmium 982 50.0 100 ug/L 10 1000 ND 98 50-150% Chand 3200 20.0 ug/L 10 1000 ND 98 50-150% Chand 970 50.0 100 ug/L 10 1000 ND 90 50-150%<				TCLP N	letals by	EPA 602	DB (ICPM	S)						
<th column<="" th=""><th>Analyte</th><th>Result</th><th>Detection Limit</th><th>Reporting Limit</th><th>Units</th><th>Dilution</th><th>Spike Amount</th><th>Source Result</th><th>% REC</th><th>% REC Limits</th><th>RPD</th><th>RPD Limit</th><th>Notes</th></th>	<th>Analyte</th> <th>Result</th> <th>Detection Limit</th> <th>Reporting Limit</th> <th>Units</th> <th>Dilution</th> <th>Spike Amount</th> <th>Source Result</th> <th>% REC</th> <th>% REC Limits</th> <th>RPD</th> <th>RPD Limit</th> <th>Notes</th>	Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Prepared: 04/25/23 10.58Analyzet: 04/25/23 23.55Operation 23.05.6 (A3D1198-02)Sector 23.05.6 (A3D1198-02)Marrino940050.01050.01050.0ND9850.010000ND9850.010050.010050.010050.0100ND9850.0100ND9850.0100ND <th colspa<="" td=""><td>Batch 23D0989 - EPA 1311/301</td><td>5A</td><td></td><td></td><td></td><td></td><td></td><td>So</td><td>lid</td><td></td><td></td><td></td><td></td></th>	<td>Batch 23D0989 - EPA 1311/301</td> <td>5A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>So</td> <td>lid</td> <td></td> <td></td> <td></td> <td></td>	Batch 23D0989 - EPA 1311/301	5A						So	lid				
OC Source Sample: Non-SDG (A3D1198-02) Difference of the second of the se	Matrix Spike (23D0989-MS1)			Prepared	: 04/25/23	10:58 Anal	yzed: 04/25	/23 23:55						
Difference Properties Properies Properies Properies	QC Source Sample: Non-SDG (A3I	01198-02)												
Arsenic 4940 50.0 100 ug/L 10 5000 ND 99 50-150% Barium 10800 2500 5000 ug/L 10 1000 ND 108 50-150% Chromium 4850 50.0 100 ug/L 10 5000 ND 97 50-150% Lead 50.0 100 ug/L 10 5000 ND 97 50-150% Mercury 99.3 3.75 7.00 ug/L 10 100 ND 98 50-150% Selenium 978 50.0 100 ug/L 10 1000 ND 90 50-150% Silver Areits Spike (23D0989-MS2) 50.0 100 ug/L 10 5000 ND 100 50-150% Occsouree Sample: Non-SDG (A3D135*-015** Frepa	<u>1311/6020B</u>													
Barium 10800 2500 5000 ug/L 10 10000 ND 98 50-150% Cadmium 4850 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5200 25.0 50.0 ug/L 10 5000 ND 97 50-150% Mercury 99.3 3.75 7.00 ug/L 10 1000 ND 98 50-150% Selenium 978 50.0 100 ug/L 10 1000 ND 90 50-150% Selenium 978 50.0 100 ug/L 10 1000 ND 90 50-150% Matrix Spike (23D0989-MS2) Prepared: 04/25/23 10.58 Analyzed: 04/26/23 0:10 100 ND 90 50-150% Matrix Spike (23D0989-MS2)	Arsenic	4940	50.0	100	ug/L	10	5000	ND	99	50-150%				
Cadmium 982 50.0 100 ug/L 10 100 ND 98 50-150% Chromium 4850 50.0 100 ug/L 10 5000 ND 97 50-150% Mercury 99.3 3.75 7.00 ug/L 10 100 ND 99 50-150% Selenium 978 50.0 100 ug/L 10 1000 ND 90 50-150% Silver 897 50.0 100 ug/L 10 1000 ND 90 50-150% Matrix Spike (23D0989-MS2) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:10	Barium	10800	2500	5000	ug/L	10	10000	ND	108	50-150%				
Chromium 4850 50.0 100 ug/L 10 5000 ND 97 50-150% Lead 5200 25.0 50.0 ug/L 10 5000 ND 104 50-150% Mercury 99.3 3.75 7.00 ug/L 10 1000 ND 98 50-150% Selenium 978 50.0 100 ug/L 10 1000 ND 98 50-150% Silver 897 50.0 100 ug/L 10 1000 ND 90 50-150% Matrix Spike (23D0989-MS2) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:10 C Source Sample: Non-SDG (A3D1357-01) 131160200 Barium 10200 2500 5000 ug/L 10 5000 ND 100 50-150% Barium 10200 2500 100 ug/L 10 5000 ND 100 50-150% Cadmium 995 50.0 100 ug/L 10 1000 ND 100 50-150% Chromium 4880 50.0 100 ug/L 10 5000 ND 104 50-150% Selenium 995 50.0 100 ug/L 10 5000 ND 104 50-150% Ead 5190 25.0 50.0 ug/L 10 5000 ND 104 50-150% Selenium 988 50.0 100 ug/L 10 1000 ND 98 50-150% Selenium 989 50.0 100 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 99 50-150% Matrix Spike (23D0989-MIS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 0:29 Mercury 98.3 3.75 7.00 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 99 50-150% Matrix Spike (23D0989-MIS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 0:29 Mercury 98.3 50.5 50.0 ug/L 10 5000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 5000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 5000 ND 99 50-150% Matrix Spike (23D0989-MIS3) Mercury 986 50.0 100 ug/L 10 5000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 5000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 5000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 5000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 5000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 5000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 5000 ND 99 50-150% Silver 910 50.	Cadmium	982	50.0	100	ug/L	10	1000	ND	98	50-150%				
Lad S200 25.0 50.0 ug/L 10 5000 ND 104 50-150% Mercury 99.3 3.75 7.00 ug/L 10 1000 ND 99 50-150% Silver 897 50.0 100 ug/L 10 1000 ND 99 50-150% Matrix Spike (23D0989-MS2) Prepared: 04/25/23 0.158 Analyzed: 04/26/23 00:10 ND 90 50-150% Assatic 4990 50.0 100 ug/L 10 5000 ND 102 50-150% Assatic 4990 50.0 100 ug/L 10 10000 ND 102 50-150% Cadmium 995 50.0 100 ug/L 10 1000 ND 98 50-150% Lead 5190 25.0	Chromium	4850	50.0	100	ug/L	10	5000	ND	97	50-150%				
Mercury 99,3 3.75 7.00 ug/L 10 100 ND 99 50.150% Selenium 978 50.0 100 ug/L 10 1000 ND 98 50.150% Silver 897 50.0 100 ug/L 10 1000 ND 98 50.150% Matrix Spike (23D0989-MS2) Prepared: 04/25/23 10:2 50-150% Source Sample: Nms.NDG (A3D1357-01) Prepared: 04/26/23 00:10 50.150% Arsenic 4990 50.0 100 ug/L 10 1000 ND 100 50-150% Cadmium 995 50.0 100 ug/L 10 1000 ND 98 50-150% Lad 5190 25.0 50.0 ug/L 10 <td< td=""><td>Lead</td><td>5200</td><td>25.0</td><td>50.0</td><td>ug/L</td><td>10</td><td>5000</td><td>ND</td><td>104</td><td>50-150%</td><td></td><td></td><td></td></td<>	Lead	5200	25.0	50.0	ug/L	10	5000	ND	104	50-150%				
Selenium 978 50.0 100 ug/L 10 1000 ND 98 50-150% Silver 897 50.0 100 ug/L 10 1000 ND 98 50-150% Matrix Spike (23D0989-MS2) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:10 Matrix Spike (23D0989-MS2) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:10 Marin 10200 2500 5000 ug/L 10 5000 ND 100 50-150% Cadmium 995 50.0 100 ug/L 10 10000 ND 100 50-150% Cadmium 995 50.0 100 ug/L 10 10000 ND 98 50-150% Lead 5190 25.0 50.0 ug/L 10 1000 ND 98 50-150% Selenium 989 50.0 100 ug/L 10 100	Mercury	99.3	3.75	7.00	ug/L	10	100	ND	99	50-150%				
Silver 897 50.0 100 ug/L 10 1000 ND 90 50-150% Matrix Spike (23D0989-MS2) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:10 OC Source Sample: Non-SDG (A3D1357-01) Image: Sample: Non-SDG (A3D1357-01) Image: Sample: Non-SDG (A3D1357-01) Image: Sample: Agenic 4990 50.0 100 ug/L 10 5000 ND 100 50-150% Assenic 4990 50.0 100 ug/L 10 10000 ND 100 50-150% Cadmium 995 50.0 100 ug/L 10 1000 ND 98 50-150% Lead 5190 25.0 50.0 ug/L 10 1000 ND 98 50-150% Metrix Spike (23D0989-MS3) Prepared: 04/25/23 10:23 10:00 ND </td <td>Selenium</td> <td>978</td> <td>50.0</td> <td>100</td> <td>ug/L</td> <td>10</td> <td>1000</td> <td>ND</td> <td>98</td> <td>50-150%</td> <td></td> <td></td> <td></td>	Selenium	978	50.0	100	ug/L	10	1000	ND	98	50-150%				
Matrix Spike (23D0989-MS2) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:10 OC Source Sample: Non-SDG (A3D1357-01) 1311/60200 Assnic 4990 50.0 100 ug/L 10 5000 ND 100 50-150% Barium 10200 2500 5000 ug/L 10 1000 ND 100 50-150% Cadmium 995 50.0 100 ug/L 10 1000 ND 100 50-150% Cadmium 995 50.0 100 ug/L 10 1000 ND 100 50-150% Cadmium 995 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5190 25.0 50.0 ug/L 10 1000 ND 98 50-150% Stelenium 989 50.0 100 <td>Silver</td> <td>897</td> <td>50.0</td> <td>100</td> <td>ug/L</td> <td>10</td> <td>1000</td> <td>ND</td> <td>90</td> <td>50-150%</td> <td></td> <td></td> <td></td>	Silver	897	50.0	100	ug/L	10	1000	ND	90	50-150%				
OC Source Sample: Non-SDG (A3D1357-01) J31160208 Arsenic 4990 50.0 100 ug/L 10 5000 ND 100 50.150% Barium 10200 2500 5000 ug/L 10 10000 ND 102 50.150% Cadmium 995 50.0 100 ug/L 10 1000 ND 100 50.150% Chromium 4880 50.0 ug/L 10 5000 ND 98 50.150% Lead 5190 25.0 50.0 ug/L 10 100 ND 98 50.150% Mercury 98.3 3.75 7.00 ug/L 10 100 ND 99 50.150% Selenium 989 50.0 100 ug/L 10 1000 ND 91	Matrix Spike (23D0989-MS2)			Prepared	: 04/25/23	10:58 Anal	yzed: 04/26	/23 00:10						
Interview Arsenic 4990 50.0 100 ug/L 10 5000 ND 100 50-150% Barium 10200 2500 5000 ug/L 10 10000 ND 102 50-150% Cadmium 995 50.0 100 ug/L 10 1000 ND 100 50-150% Chromium 4880 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5190 25.0 50.0 ug/L 10 5000 ND 98 50-150% Mercury 98.3 3.75 7.00 ug/L 10 1000 ND 98 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 91 50-150% Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10.58 Analyzed: 04/26/23 00:29 S0-150%	QC Source Sample: Non-SDG (A31	<u>D1357-01)</u>												
Arsence 4990 50.0 100 ug/L 10 5000 ND 100 50-150% Barium 10200 2500 5000 ug/L 10 10000 ND 102 50-150% Cadmium 995 50.0 100 ug/L 10 1000 ND 102 50-150% Chromium 4880 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5190 25.0 50.0 ug/L 10 5000 ND 98 50-150% Mercury 98.3 3.75 7.00 ug/L 10 100 ND 98 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 91 50-150% Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS	<u>1311/6020B</u>	1000		100	~	10			100					
Barum 10200 2500 5000 ug/L 10 10000 ND 102 50.150% $$ $$ Cadmium 995 50.0 100 ug/L 10 1000 ND 100 50.150% $$ $$ Chromium 4880 50.0 100 ug/L 10 5000 ND 98 50.150% $$ $$ Lead 5190 25.0 50.0 ug/L 10 5000 ND 104 $50-150\%$ $$ $$ Mercury 98.3 3.75 7.00 ug/L 10 100 ND 98 $50-150\%$ $$ $$ Selenium 989 50.0 100 ug/L 10 1000 ND 99 $50-150\%$ $$ $$ Matrix Spike (23D0989-MS3)Prepared: $04/25/23$ $10:58$ Analyzed: $04/26/23$ $00:29$ $$ $Matrix Spike (23D0989-MS3)$ Prepared: $04/25/23$ $10:58$ Analyzed: $04/26/23$ $00:29$ $$ $Matrix Spike (23D0989-MS3)$ Prepared: $04/25/23$ $10:58$ Analyzed: $04/26/23$ $00:29$ $$ $Matrix Spike (23D0989-MS3)$ Prepared: $04/25/23$ $10:58$ Analyzed: $04/26/23$ $00:29$ $$ $Matrix Spike (23D0989-MS3)$ Prepared: $04/25/23$ $10:50$ ND 99 $50-150\%$ $$	Arsenic	4990	50.0	100	ug/L	10	5000	ND	100	50-150%				
Cadmium 995 50.0 100 ug/L 10 100 ND 100 50-150% Chromium 4880 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5190 25.0 50.0 ug/L 10 5000 ND 98 50-150% Mercury 98.3 3.75 7.00 ug/L 10 1000 ND 98 50-150% Selenium 98 50.0 100 ug/L 10 1000 ND 99 50-150%	Barium	10200	2500	5000	ug/L	10	10000	ND	102	50-150%				
Chromium 4880 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5190 25.0 50.0 ug/L 10 5000 ND 104 50-150% Mercury 98.3 3.75 7.00 ug/L 10 100 ND 98 50-150% Sclenium 989 50.0 100 ug/L 10 1000 ND 98 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 91 50-150% Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 QC Source Sample: FC-041623-2245 (A3D1359-01) 11 1000 ND 99 50-150% Barium 10100 2500 5000 ug/L 10 10000 ND 99 50-150% Cadmium 986 50.0 1	Cadmium	995	50.0	100	ug/L	10	1000	ND	100	50-150%				
Lead 5190 25.0 50.0 ug/L 10 5000 ND 104 50-150% Mercury 98.3 3.75 7.00 ug/L 10 100 ND 98 50-150% Selenium 989 50.0 100 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 91 50-150% Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29	Chromium	4880	50.0	100	ug/L	10	5000	ND	98	50-150%				
Mercury 98.3 3.75 7.00 ug/L 10 100 ND 98 50-150% Selenium 989 50.0 100 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 91 50-150% Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29	Lead	5190	25.0	50.0	ug/L	10	5000	ND	104	50-150%				
Selenium 989 50.0 100 ug/L 10 1000 ND 99 50-150% Silver 910 50.0 100 ug/L 10 1000 ND 91 50-150% Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 QC Source Sample: FC-041623-2245 (A3D1359-01) 1311/6020B Arsenic 4970 50.0 100 ug/L 10 5000 ND 99 50-150% Barium 10100 2500 5000 ug/L 10 10000 ND 99 50-150% Cadmium 986 50.0 100 ug/L 10 1000 ND 99 50-150% Chromium 4890 50.0 100 ug/L 10 1000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 98 50-150%	Mercury	98.3	3.75	7.00	ug/L	10	100	ND	98	50-150%				
Silver 910 50.0 100 ug/L 10 1000 ND 91 50-150% Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 QC Source Sample: FC-041623-2245 (A3D1359-01) 101 5000 ND 99 50-150% Barium 10100 2500 5000 ug/L 10 10000 ND 99 50-150% Cadmium 986 50.0 100 ug/L 10 10000 ND 99 50-150% Chromium 4890 50.0 100 ug/L 10 1000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 98 50-150% Mercury 96.2 3.75 7.00 ug/L 10 5000 ND 96 50-150% Selenium 974 50.0 1	Selenium	989	50.0	100	ug/L	10	1000	ND	99	50-150%				
Matrix Spike (23D0989-MS3) Prepared: 04/25/23 10:58 Analyzed: 04/26/23 00:29 OC Source Sample: FC-041623-2245 (A3D1359-01) Second State Second State Second State 1311/6020B Arsenic 4970 50.0 100 ug/L 10 5000 ND 99 50-150% Barium 10100 2500 5000 ug/L 10 10000 ND 99 50-150% Cadmium 986 50.0 100 ug/L 10 1000 ND 99 50-150% Chromium 4890 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 96 50-150% Mercury 96.2 3.75 7.00 ug/L 10 100 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 100 ND	Silver	910	50.0	100	ug/L	10	1000	ND	91	50-150%				
OC Source Sample: FC-041623-2245 (A3D1359-01) 1311/6020B Arsenic 4970 50.0 100 ug/L 10 5000 ND 99 50-150% Barium 10100 2500 5000 ug/L 10 10000 ND 101 50-150% Cadmium 986 50.0 100 ug/L 10 1000 ND 99 50-150% Chromium 4890 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 1000 ND 97 50-1	Matrix Spike (23D0989-MS3)			Prepared	: 04/25/23	10:58 Anal	yzed: 04/26	/23 00:29						
Introduction 4970 50.0 100 ug/L 10 5000 ND 99 50-150% Barium 10100 2500 5000 ug/L 10 10000 ND 101 50-150% Cadmium 986 50.0 100 ug/L 10 1000 ND 99 50-150% Chromium 4890 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 96 50-150% Mercury 96.2 3.75 7.00 ug/L 10 100 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 100 ND 97 50-150%	OC Source Sample: FC-041623-224	15 (A3D135	<u>59-01)</u>											
Arsenic 49/0 50.0 100 ug/L 10 5000 ND 99 50-150% Barium 10100 2500 5000 ug/L 10 10000 ND 101 50-150% Cadmium 986 50.0 100 ug/L 10 1000 ND 99 50-150% Chromium 4890 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 96 50-150% Mercury 96.2 3.75 7.00 ug/L 10 100 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 100 ND 97 50-150%	<u>1311/6020B</u>	4070	50.0	100	. /1	10	5000		00	50 1500/			00	
Barum 10100 2500 5000 ug/L 10 10000 ND 101 50-150% Cadmium 986 50.0 100 ug/L 10 1000 ND 99 50-150% Chromium 4890 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 96 50-150% Mercury 96.2 3.75 7.00 ug/L 10 100 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 1000 ND 97 50-150%	Arsenic	49/0	50.0	100	ug/L	10	5000	ND	99 101	50-150%			CON	
Cadmium 986 50.0 100 ug/L 10 1000 ND 99 50-150% Chromium 4890 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 101 50-150% Mercury 96.2 3.75 7.00 ug/L 10 100 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 1000 ND 97 50-150%	Barium	10100	2500	5000	ug/L	10	10000	ND	101	50-150%			CON	
Chromium 4890 50.0 100 ug/L 10 5000 ND 98 50-150% Lead 5030 25.0 50.0 ug/L 10 5000 ND 101 50-150% Mercury 96.2 3.75 7.00 ug/L 10 100 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 100 ND 97 50-150%		986	50.0	100	ug/L	10	1000	ND	99	50-150%			CON	
Lead 5030 25.0 50.0 ug/L 10 5000 ND 101 50-150% Mercury 96.2 3.75 7.00 ug/L 10 100 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 1000 ND 97 50-150%	Chromium	4890	50.0	100	ug/L	10	5000	ND	98	50-150%			CON	
Mercury 96.2 3.75 7.00 ug/L 10 100 ND 96 50-150% Selenium 974 50.0 100 ug/L 10 100 ND 97 50-150%	Lead	5030	25.0	50.0	ug/L	10	5000	ND	101	50-150%			CON	
Selenium 974 50.0 100 ug/L 10 1000 ND 97 50-150%	Mercury	96.2	3.75	7.00	ug/L	10	100	ND	96	50-150%			CON	
	Selenium	974	50.0	100	ug/L	10	1000	ND	97	50-150%			CON	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323**

Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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
Batch 23D0989 - EPA 1311/	3015A						Soli	id				
Matrix Spike (23D0989-MS	53)		Prepared	: 04/25/23	10:58 Ana	lyzed: 04/26	/23 00:29					
QC Source Sample: FC-04162	3-2245 (A3D13	59-01 <u>)</u>										
Silver	880	50.0	100	ug/L	10	1000	ND	88	50-150%			CON

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

	Solu	ble Cyanic	le by UV Di	gestion	/Gas Diffu	sion/Amp	erometr	ic Detecti	on			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0855 - ASTM D7	511-12mod (S))					Soi	1				
Blank (23D0855-BLK1)		_	Prepared	: 04/21/23	08:10 Ana	lyzed: 04/21	/23 14:04		_	_	_	
<u>D7511-12</u> Total Cyanide	ND	50.0	100	ug/kg w	vet 1							
LCS (23D0855-BS1)			Prepared	: 04/21/23	08:10 Ana	lyzed: 04/21	/23 14:06					
D7511-12 Total Cyanide	399	50.0	100	ug/kg w	vet 1	400		100	84-116%			
Matrix Spike (23D0855-MS	S 3)		Prepared	: 04/21/23	08:10 Ana	lyzed: 04/21	/23 17:17					
QC Source Sample: Non-SDC D7511-12	G (A3D1373-01RF	<u>E2)</u>										
Total Cyanide	4840	533	1070	ug/kg d	lry 10	426	ND	1130	64-136%			Q-02, Q-1
Matrix Spike Dup (23D085	5-MSD3)		Prepared	: 04/21/23	08:10 Ana	lyzed: 04/21	/23 17:41					
OC Source Sample: Non-SDG	<u> (A3D1373-01RE</u>	<u>52)</u>										
Total Cyanide	802	531	1060	ug/kg d	lry 10	425	ND	189	64-136%	143	47%	J, A-01, Q-02 Q-1

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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
Batch 23D0767 - Total Solids (Dry Weight) - 2022 Soil												
Duplicate (23D0767-DUP1)			Prepared:	04/19/23	11:44 Analy	yzed: 04/20/2	23 04:12					
<u>OC Source Sample: Non-SDG (A31</u> % Solids	<u>)1282-01)</u> 80.8	1.00	1.00	%	1		83.6			3	10%	
Duplicate (23D0767-DUP2)			Prepared:	04/19/23	11:44 Analy	yzed: 04/20/2	23 04:12					
<u>QC</u> Source Sample: Non-SDG (A3D	<u>1295-01)</u>											
% Solids	91.9	1.00	1.00	%	1		92.2			0.3	10%	
Duplicate (23D0767-DUP3)			Prepared:	04/19/23	18:03 Anal	yzed: 04/20/.	23 04:12					
QC Source Sample: Non-SDG (A3L	<u>)1378-01)</u>											
% Solids	80.9	1.00	1.00	%	1		80.9			0.06	10%	

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

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

<u>Sevenson Environmental</u> 2749 Lockport Road Niagara Falls, NY 14305	Services, Inc.	Pi Pro	Project:Gasco FiltercakeProject Number:111323Project Manager:Chip Byrd					
	SAMPLE PREPARATION INFORMATION							
		Diesel and	l/or Oil Hydrocarbor	is by NWTPH-Dx				
Prep: EPA 3546 (Fuels)					Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
<u>Batch: 23D1174</u> A3D1359-01	Solid	NWTPH-Dx	04/16/23 22:45	04/28/23 13:09	10.36g/5mL	10g/5mL	0.97	
	Gaso	line Range Hydrocart	oons (Benzene throu	ugh Naphthalene) by	y NWTPH-Gx			
Prep: EPA 5035A					Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23D0858 A3D1359-01RE1	Solid	NWTPH-Gx (MS)	04/16/23 22:45	04/19/23 11:36	5.87g/5mL	5g/5mL	0.85	
		Volatile C	Organic Compounds	by EPA 8260D				
Prep: EPA 5035A					Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23D0858 A3D1359-01RE1	Solid	5035A/8260D	04/16/23 22:45	04/19/23 11:36	5.87g/5mL	5g/5mL	0.85	
		Regulated TCLP Vol	atile Organic Comp	ounds by EPA 1311	/8260D			
Prep: EPA 1311/5030B T	CLP Volatiles			-	Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23D0867 A3D1359-01	Solid	1311/8260D	04/16/23 22:45	04/21/23 16:27	5mL/5mL	5mL/5mL	1.00	
		Semivolatile	e Organic Compour	ids by EPA 8270E				
Prep: EPA 3546					Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23D1170								
A3D1359-01	Solid	EPA 8270E	04/16/23 22:45	04/28/23 13:05	15.11g/2mL	15g/2mL	0.99	
A3D1359-01RE2	Solid	EPA 8270E	04/16/23 22:45	04/28/23 13:05	15.11g/2mL	15g/2mL	0.99	
		Total	Metals by EPA 602	0B (ICPMS)				
Prep: EPA 3051A					Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23D0850								
Apex Laboratories			The results	in this report apply to the sa	mples analvzed in ad	ccordance with the chain	of	

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

Sevenson Environment	tal Services, Inc.		Project: <u>Gasco -</u>	Filtercake			
2749 Lockport Road		Ι	Project Number: 111323		Report ID:	<u>.</u>	
Niagara Falls, NY 143	05	Р	roject Manager: Chip B	yrd		A3D1359 - 05 04 23	3 1558
		SAMPLE	E PREPARATION I	INFORMATION			
		Tota	Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3051A					Samula	Default	DI Drop
	N (- 1		G 1 1		Initial/Final	Initial/Final	Factor
	Solid	FPA 6020B	04/16/23 22:45	04/21/23 07:18	0.462g/50mI	0.5g/50mI	1.08
A3D1359-01 A3D1359-01RF1	Solid	EPA 6020B	04/16/23 22:43	04/21/23 07:18	0.462g/50mL	0.5g/50mL	1.08
	20114		0 11 10/20 22:10	0 11 20 0 7.10	0.1028/001112	0.09.001112	1.00
		TCLI	P Metals by EPA 602	20B (ICPMS)			
Prep: EPA 1311/3015	4				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23D0989			1	1			
A3D1359-01	Solid	1311/6020B	04/16/23 22:45	04/25/23 10:58	10mL/50mL	10mL/50mL	1.00
	Sr	luble Cyanida by LI	/ Digestion/Cas Diff	usion/Amporomotric	Detection		
		Suble Cyanide by O	Digestion/Gas Dint	usion/Amperometric	Detection		
Prep: ASTM D7511-12	<u>2mod (S)</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23D0855	Solid	D7511-12	04/16/23 22:45	04/21/23 08:10	2 5000g/50mI	2.5a/50mI	1.00
AJD1337-01RE1	Solid	D7311 12	10/25 22.45	04/21/25 00:10	2.5077g/50mL	2.5g/50mL	1.00
			Percent Dry We	ight			
Prep: Total Solids (Dry	/ Weight) - 2022				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23D0767			*	*			
A3D1359-01	Solid	EPA 8000D	04/16/23 22:45	04/19/23 11:44			NA
		Т	CLP Extraction by F	PA 1311			
Prep: EPA 1311 (TCL	ןכ				Sample	Default	RI Pren
Lab Needbar		Math - 1	Committe d	Durana d	Initial/Final	Initial/Final	Factor
Batch: 23D0927	Matrix	Method	Sampled	Prepared	filitius f filur	initia) i inai	1 dotor
A3D1359-01	Solid	EPA 1311	04/16/23 22:45	04/24/23 15:22	100g/2000g	100g/2000g	NA
<u>Prep: EPA 1311 T</u> CLP	ZHE				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23D0833			-				
A3D1359-01	Solid	EPA 1311 ZHE	04/16/23 22:45	04/20/23 14:37	25.6g/501.8g	25g/500g	NA

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

QUALIFIER DEFINITIONS

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

Apex Laboratories

A-01	Run at same dilution as MS3.
B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
COMP	Analyzed sample is a composite of discrete samples that was performed in the laboratory.
CONT	The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Quality System.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
PRO	Sample has undergone sample processing prior to extraction and analysis.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-04	Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-16	Reanalysis of an original Batch QC sample.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-29	Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
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 +1%. 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 +10%. 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 +2%. 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 +27%. 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 +29%. The results are reported as Estimated Values.
Apex Labor	The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Sevenson Env	ironmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockpor	t Road	Project Number:	111323	Report ID:
Niagara Falls	NY 14305	Project Manager:	Chip Byrd	A3D1359 - 05 04 23 1558
Q-54e	Daily Continuing Calibration Verification recorresults are reported as Estimated Values.	very for this analyte fai	led the +/-20% criteria listed in I	EPA method 8260/8270 by +3%. The
Q-54f	Daily Continuing Calibration Verification recorresults are reported as Estimated Values.	very for this analyte fai	led the +/-20% criteria listed in I	EPA method 8260/8270 by +4%. The
Q-54g	Daily Continuing Calibration Verification recorresults are reported as Estimated Values.	very for this analyte fai	led the +/-20% criteria listed in F	EPA method 8260/8270 by +5%. The
Q-54h	Daily Continuing Calibration Verification recorresults are reported as Estimated Values.	very for this analyte fai	led the +/-20% criteria listed in F	EPA method 8260/8270 by +6%. The
Q-56	Daily CCV/LCS recovery for this analyte was	above the +/-20% crite	ria listed in EPA 8260	
R-02	The Reporting Limit for this analyte has been r	raised to account for int	erference from coeluting organic	compounds present in the sample.
R-06	Reporting level raised due to possible carryove	r from a previous samp	ble.	
S-01	Surrogate recovery for this sample is not availa interference.	ble due to sample dilu	ion required from high analyte c	oncentration and/or matrix
S-05	Surrogate recovery is estimated due to sample	dilution required for hi	gh analyte concentration and/or 1	natrix interference.
TCLP	This batch QC sample was prepared with TCL	P or SPLP fluid from p	reparation batch 23D0833.	
TCLPa	This batch QC sample was prepared with TCL	P or SPLP fluid from p	reparation batch 23D0927.	
V-16	Sample aliquot was subsampled from the samp sampling.	le container in the labo	ratory. The subsampled aliquot v	was not preserved within 48 hours of

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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.

- <u>" dry"</u> 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 ½ the Reporting Limit (RL). -For Blank hits falling between ½ 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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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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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Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3D1359 - 05 04 23 1558

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 <u>exception</u> of any analyte(s) listed below:

Apex Lab	<u>oratories</u>				
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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



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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: <u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3D1359 - 05 04 23 1558
Client: <u>Sel/eh</u> Project/Project #: _ <u>Delivery Info</u> : Date/time received: _ <u>Delivered by: Apex _</u> <u>Cooler Inspection</u> Chain of Custody inc Signed/dated by clien	APEX LABS COOLER RECEIPT FORM JON FN/1/WNMENTa [Jew/100 Delement WO#: A3D] Ga5CO - Monthily Filtevake [JS4/19/23 4/19/23@ 757 By:Rk Client_ESS_FedEx_UPS_Radio_Morgan_SDS_Everg Date/time inspected: 4/19/23@ 904 By: Date/time inspected: 4/19/23@ 904 By: fuded? YesNo Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler	1359 /// 323 greenOther oler #6_Cooler #7
Temperature (°C) Custody seals? (Y/N Received on ice? (Y/N Temp. blanks? (Y/N) Ice type: (Gel/Real/O Condition (In/Out): Cooler out of temp? (Green dots applied to Out of temperature sa <u>Sample Inspection</u> :	$\begin{array}{c} \hline \hline$	
Bottle labels/COCs ag $\bigcirc \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	ree? Yes <u>No Y</u> Comments: <u>Chita, All Plads</u> 3-2094 pancies form initiated? Yes <u>No X</u> eccived appropriate for analysis? Yes <u>Y</u> No <u>Comments</u> : <u></u>	Sup alla C-OH+
Do VOA vials have vi Comments Water samples: pH ch Comments:	sible headspace? Yes No NA X ecked: Yes No NA Y pH appropriate? Yes No NA Y	
Additional information	n:	
Labeled by:	Witness: Cooler Inspected by	y:
Kinp	DJS Enp	Form Y-003 R-00 -

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Apex Laboratories, LLC

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

Monday, June 19, 2023 Chip Byrd Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305

RE: A3E1675 - Gasco -- Filtercake - 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 A3E1675, which was received by the laboratory on 5/24/2023 at 9:57:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler 3.0 degC

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

Sevenson Environmental Services, Inc.	Project: Gas	isco Filtercake	
2749 Lockport Road	Project Number: 111	1323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chi	iip Byrd	A3E1675 - 06 19 23 0903

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION					
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	
FC-052323-2115	A3E1675-01	Solid	05/23/23 22:00	05/24/23 09:57	

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3E1675 - 06 19 23 0903

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
FC-052323-2115 (A3E1675-01)				Matrix: Soli	d	Batch:	23F0153	
Diesel	7130000	1490000	2970000	ug/kg dry	40	06/07/23 01:52	NWTPH-Dx	F-13
Oil	ND	2970000	5950000	ug/kg dry	40	06/07/23 01:52	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Rec	covery: %	Limits: 50-150 %	<i>6 40</i>	06/07/23 01:52	NWTPH-Dx	S-01

Apex Laboratories

Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

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
FC-052323-2115 (A3E1675-01RE1)				Matrix: Solid	b	Batch:	23E1239	V-15
Gasoline Range Organics	152000	16200	32400	ug/kg dry	50	05/31/23 13:44	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recover	ry: 104 % 100 %	Limits: 50-150 % 50-150 %	5 1 5 1	05/31/23 13:44 05/31/23 13:44	NWTPH-Gx (MS) NWTPH-Gx (MS)	

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

Sevens	on Environ	nental Ser	vices, Inc.
2749 L	ockport Roa	ad	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3E1675 - 06 19 23 0903

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-052323-2115 (A3E1675-01RE1)				Matrix: Sol	lid	Batch:	23E1239	V-15
Acetone	ND	3240	6480	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Benzene	104	32.4	64.8	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Bromobenzene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Bromochloromethane	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Bromodichloromethane	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Bromoform	ND	648	648	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Bromomethane	ND	3240	3240	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
2-Butanone (MEK)	ND	1620	3240	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
n-Butylbenzene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
sec-Butylbenzene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
tert-Butylbenzene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Carbon disulfide	ND	1620	3240	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Chlorobenzene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Chloroethane	ND	1620	3240	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Chloroform	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Chloromethane	ND	1620	1620	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
2-Chlorotoluene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
4-Chlorotoluene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Dibromochloromethane	ND	324	648	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	810	1620	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Dibromomethane	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2-Dichlorobenzene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,3-Dichlorobenzene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,4-Dichlorobenzene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Dichlorodifluoromethane	ND	648	648	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,1-Dichloroethane	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,1-Dichloroethene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
cis-1,2-Dichloroethene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
trans-1,2-Dichloroethene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2-Dichloropropane	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,3-Dichloropropane	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	

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

Sevens	on Env	vironmental	Services,	Inc.
2749 L	ockpor	t Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3E1675 - 06 19 23 0903

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-052323-2115 (A3E1675-01RE1)				Matrix: Solic	1	Batch:	23E1239	V-15
2,2-Dichloropropane	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,1-Dichloropropene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
cis-1,3-Dichloropropene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
trans-1,3-Dichloropropene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Ethylbenzene	308	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Hexachlorobutadiene	ND	324	648	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
2-Hexanone	ND	1620	3240	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Isopropylbenzene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
4-Isopropyltoluene	172	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	J
Methylene chloride	ND	1620	3240	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1620	3240	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Naphthalene	651	324	648	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
n-Propylbenzene	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Styrene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Tetrachloroethene (PCE)	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Toluene	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2,3-Trichlorobenzene	ND	810	1620	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2,4-Trichlorobenzene	ND	810	1620	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,1,1-Trichloroethane	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,1,2-Trichloroethane	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Trichloroethene (TCE)	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Trichlorofluoromethane	ND	648	648	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2,3-Trichloropropane	ND	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,2,4-Trimethylbenzene	697	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
1,3,5-Trimethylbenzene	246	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	J
Vinyl chloride	ND	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
m,p-Xylene	194	162	324	ug/kg dry	50	05/31/23 13:44	5035A/8260D	J
o-Xylene	204	81.0	162	ug/kg dry	50	05/31/23 13:44	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Reco	very: 96 %	Limits: 80-120 %	1	05/31/23 13:44	5035A/8260D	
Toluene-d8 (Surr)			99 %	80-120 %	1	05/31/23 13:44	5035A/8260D	

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

Sevenson Environmental Services, Inc.	Project: Gasco Filterc	<u>ake</u>			
2749 Lockport Road	Project Number: 111323	Report ID:			
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3E1675 - 06 19 23 0903			
ANALYTICAL SAMPLE RESULTS					

Volatile Organic Compounds by EPA 8260D									
Analyte	Sample	Detection Limit	Reporting Limit	Unit	te I	Dilution	Date Analyzed	Method Ref	Notes
FC-052323-2115 (A3E1675-01RE1)	Kesuit			Matrix: Solid			Batch: 23E1239		V-15
Surrogate: 4-Bromofluorobenzene (Surr)		Reco	very: 98 %	Limits: 7	9-120 %	1	05/31/23 13:44	5035A/8260D	

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

Sevenson Environmental Services, In	ıc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3E1675 - 06 19 23 0903

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
FC-052323-2115 (A3E1675-01)				Matrix: Solid	Matrix: Solid		Batch: 23F0093	
Benzene	ND	6.25	12.5	ug/L	50	06/03/23 01:50	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	06/03/23 01:50	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	06/03/23 01:50	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	06/03/23 01:50	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	06/03/23 01:50	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	06/03/23 01:50	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	06/03/23 01:50	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	06/03/23 01:50	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	06/03/23 01:50	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	06/03/23 01:50	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	06/03/23 01:50	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 103 %	Limits: 80-120 %	1	06/03/23 01:50	1311/8260D	
Toluene-d8 (Surr)			102 %	80-120 %	1	06/03/23 01:50	1311/8260D	
4-Bromofluorobenzene (Surr)			102 %	80-120 %	1	06/03/23 01:50	1311/8260D	

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

Sevenson Environmental Servic	es, Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3E1675 - 06 19 23 0903

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-052323-2115 (A3E1675-01)				Matrix: Sol	Matrix: Solid		23F0172	
Acenaphthene	82600	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Acenaphthylene	ND	5620	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Anthracene	67900	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Benz(a)anthracene	36400	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Benzo(a)pyrene	39000	4210	8410	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Benzo(b)fluoranthene	30500	4210	8410	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Benzo(k)fluoranthene	12100	4210	8410	ug/kg dry	200	06/06/23 17:45	EPA 8270E	M-05
Benzo(g,h,i)perylene	25400	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Chrysene	52600	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Dibenz(a,h)anthracene	ND	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	Q-37, Q-42
Fluoranthene	198000	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Fluorene	57400	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Indeno(1,2,3-cd)pyrene	21500	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
1-Methylnaphthalene	30500	5620	11200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2-Methylnaphthalene	22500	5620	11200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Naphthalene	ND	5620	11200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Phenanthrene	399000	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Pyrene	232000	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Carbazole	ND	4210	8410	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Dibenzofuran	7130	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2-Chlorophenol	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
4-Chloro-3-methylphenol	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,4-Dichlorophenol	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,4-Dimethylphenol	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,4-Dinitrophenol	ND	70000	140000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	70000	140000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2-Methylphenol	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
3+4-Methylphenol(s)	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2-Nitrophenol	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
4-Nitrophenol	ND	56200	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Pentachlorophenol (PCP)	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Phenol	ND	5620	11200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	

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

Sevenson Environmental Services, Inc.	•
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3E1675 - 06 19 23 0903	5

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-052323-2115 (A3E1675-01)				Matrix: Sol	id	Batch:	23F0172	
2,3,5,6-Tetrachlorophenol	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,4,5-Trichlorophenol	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,4,6-Trichlorophenol	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	42100	84100	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Butyl benzyl phthalate	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Diethylphthalate	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Dimethylphthalate	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Di-n-butylphthalate	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Di-n-octyl phthalate	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
N-Nitrosodimethylamine	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
N-Nitrosodiphenylamine	ND	14000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Hexachlorobenzene	ND	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Hexachlorobutadiene	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Hexachlorocyclopentadiene	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Hexachloroethane	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2-Chloronaphthalene	ND	2800	5620	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
1,2,4-Trichlorobenzene	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
4-Bromophenyl phenyl ether	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Aniline	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
4-Chloroaniline	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2-Nitroaniline	ND	56200	112000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
3-Nitroaniline	ND	56200	112000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
4-Nitroaniline	ND	56200	112000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Nitrobenzene	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,4-Dinitrotoluene	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
2,6-Dinitrotoluene	ND	28000	56200	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Benzoic acid	ND	351000	700000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Benzyl alcohol	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	

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

Sevenson Environmental Services, In	ic.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3E1675 - 06 19 23 0903

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-052323-2115 (A3E1675-01)				Matrix: Solid	d	Batch:	23F0172	
Isophorone	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Azobenzene (1,2-DPH)	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	70000	140000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
3,3'-Dichlorobenzidine	ND	56200	112000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	70000	140000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
1,3-Dinitrobenzene	ND	70000	140000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
1,4-Dinitrobenzene	ND	70000	140000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Pyridine	ND	14000	28000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
1,2-Dichlorobenzene	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
1,3-Dichlorobenzene	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
1,4-Dichlorobenzene	ND	7000	14000	ug/kg dry	200	06/06/23 17:45	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recov	very: 92 %	Limits: 37-122 %	200	06/06/23 17:45	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			101 %	44-120 %	200	06/06/23 17:45	EPA 8270E	S-05
Phenol-d6 (Surr)			78 %	33-122 %	200	06/06/23 17:45	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			104 %	54-127 %	200	06/06/23 17:45	EPA 8270E	S-05
2-Fluorophenol (Surr)			68 %	35-120 %	200	06/06/23 17:45	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			261 %	39-132 %	200	06/06/23 17:45	EPA 8270E	S-05

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3E1675 - 06 19 23 0903

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)							
	Sample	Detection	Reporting	Date							
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes			
FC-052323-2115 (A3E1675-01)		Matrix: Solid									
Batch: 23E1101											
Arsenic	8360	2090	4180	ug/kg dry	10	05/25/23 18:50	EPA 6020B				
Barium	211000	2090	4180	ug/kg dry	10	05/25/23 18:50	EPA 6020B				
Cadmium	ND	418	835	ug/kg dry	10	05/25/23 18:50	EPA 6020B				
Chromium	ND	2090	4180	ug/kg dry	10	05/25/23 18:50	EPA 6020B				
Lead	ND	418	835	ug/kg dry	10	05/25/23 18:50	EPA 6020B				
Mercury	ND	167	334	ug/kg dry	10	05/25/23 18:50	EPA 6020B				
Selenium	ND	2090	4180	ug/kg dry	10	05/25/23 18:50	EPA 6020B				
Silver	ND	418	835	ug/kg dry	10	05/25/23 18:50	EPA 6020B				

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Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	Report ID:
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3E1675 - 06 19 23 0903

ANALYTICAL SAMPLE RESULTS

		TCLP Meta	Is by EPA 60	20B (ICPMS	3)			
Analyte	SampleDetectionReportingDateResultLimitLimitUnitsDilutionAnalyzed					Date Analyzed	Method Ref.	Notes
FC-052323-2115 (A3E1675-01)				Matrix: So	olid			
Batch: 23F0042								
Arsenic	ND	50.0	100	ug/L	10	06/02/23 23:29	1311/6020B	
Barium	ND	2500	5000	ug/L	10	06/02/23 23:29	1311/6020B	
Cadmium	ND	50.0	100	ug/L	10	06/02/23 23:29	1311/6020B	
Chromium	ND	50.0	100	ug/L	10	06/02/23 23:29	1311/6020B	
Lead	ND	25.0	50.0	ug/L	10	06/02/23 23:29	1311/6020B	
Mercury	ND	3.75	7.00	ug/L	10	06/02/23 23:29	1311/6020B	
Selenium	ND	50.0	100	ug/L	10	06/02/23 23:29	1311/6020B	
FC-052323-2115 (A3E1675-01RE1)				Matrix: So	olid			
Batch: 23F0141								
Silver	ND	50.0	100	ug/L	10	06/05/23 21:28	1311/6020B	

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3E1675 - 06 19 23 0903

ANALYTICAL SAMPLE RESULTS

	Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection												
Sample Detection Reporting Date Analyte Result Limit Limit Units Dilution Analyzed Method Ref. Notes													
FC-052323-2115 (A3E1675-01)				Matrix: Sol	id	Batch:	23F0064						
Total Cyanide	Otol Cyanide 5130 947 1890 ug/kg dry 5 06/02/23 15:17 D7511-12												

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

Sevenson Environmental Services, Inc.	Project:	<u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3E1675 - 06 19 23 0903

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight											
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.Note											
FC-052323-2115 (A3E1675-01)				Matrix: So	olid	Batch:	23E1075				
% Solids	26.3 1.00 1.00 % 1 05/26/23 06:10 EPA 8000D										

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtercake	
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3E1675 - 06 19 23 0903
	ANALYTICAL SAMPLE RESULTS	

TCLP Extraction by EPA 1311											
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.Notes											
FC-052323-2115 (A3E1675-01)				Matrix: So	olid	Batch:	23E1235				
TCLP Extraction	PREP			N/A N/A	1	05/31/23 16:00	EPA 1311 EPA 1311 ZHE				

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

		Di	esel and/o	or Oil Hyd	rocarbor	ns by NW	TPH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0153 - EPA 3546 (F	uels)						Sol	id				
Blank (23F0153-BLK1)			Prepared	: 06/06/23	08:08 Ana	lyzed: 06/07	/23 01:12					
<u>NWTPH-Dx</u>												
Diesel	ND	10000	20000	ug/kg w	et 1							
Oil	ND	20000	40000	ug/kg w	et 1							
Surr: o-Terphenyl (Surr)		Recov	ery: 109 %	Limits: 50)-150 %	Dili	ution: 1x					
LCS (23F0153-BS1)			Prepared	: 06/06/23	08:08 Ana	lyzed: 06/07	/23 01:32					
NWTPH-Dx												
Diesel	113000	10000	20000	ug/kg w	et 1	125000		90	38-132%			
Surr: o-Terphenyl (Surr)		Recov	ery: 101 %	Limits: 50	0-150 %	Dili	ution: 1x					
Duplicate (23F0153-DUP1)			Prepared	: 06/06/23	08:08 Ana	lyzed: 06/07	//23 02:33					
QC Source Sample: FC-052323-2	115 (A3E167	<u>5-01)</u>										
NWTPH-Dx												
Diesel	6060000	1490000	2990000	ug/kg dı	y 40		7130000			16	30%	I
Oil	ND	2990000	5970000	ug/kg dı	y 40		ND				30%	
Surr: o-Terphenyl (Surr)		Re	covery: %	Limits: 50)-150 %	Dili	ution: 40x					S-01

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolin	ne Range H	ydrocarbo	ons (Ben	zene throu	ugh Naphi	halene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							Soi	il				
Blank (23E1188-BLK1)			Preparec	1: 05/30/23	09:58 Anal	yzed: 05/30/	23 11:33					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	ret 50							
Surr: 4-Bromofluorobenzene (Sur)		Recove	ery: 105 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			100 %	5	0-150 %		"					
LCS (23E1188-BS2)			Preparec	1: 05/30/23	09:58 Anal	yzed: 05/30/	23 11:03			_	_	
NWTPH-Gx (MS)												
Gasoline Range Organics	24800	2500	5000	ug/kg w	ret 50	25000		99	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 97 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			100 %	5.	0-150 %		"					
Duplicate (23E1188-DUP1)			Preparec	1: 05/23/23	08:45 Anal	yzed: 05/30/	23 12:24					
QC Source Sample: Non-SDG (A3	E1787-01)											
Gasoline Range Organics	ND	4470	8930	ug/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recove	ery: 103 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			101 %	50	9-150 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasoli	ne Range H	lydrocarbo	ons (Benz	ene thro	ugh Naph	thalene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1239 - EPA 5035A							Soi	I				
Blank (23E1239-BLK1)			Prepare	d: 05/31/23	0:37 Ana	lyzed: 05/31	/23 12:02					
<u>NWTPH-Gx (MS)</u> Gasoline Range Organics	ND	2500	5000	ug/kg we	et 50							
Surr: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Reco	overy: 99% 103%	Limits: 50 50-	-150 % -150 %	Dili	ution: 1x "					
LCS (23E1239-BS2)			Prepare	d: 05/31/23	10:37 Ana	lyzed: 05/31	/23 11:31					
<u>NWTPH-Gx (MS)</u> Gasoline Range Organics	25900	2500	5000	ug/kg we	et 50	25000		104	80-120%			
Surr: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Reco	overy: 99 % 103 %	Limits: 50 50-	-150 % -150 %	Dili	ution: 1x "					
Duplicate (23E1239-DUP1)			Prepare	d: 05/30/23 1	19:35 Ana	lyzed: 05/31	/23 15:26					H-01, V-16
QC Source Sample: Non-SDG (A3	<u>E1174-01)</u>											
Gasoline Range Organics	105000	0 2910	5820	ug/kg dr	y 50		1030000			2	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recon	very: 103 %	Limits: 50	-150 %	Dilt	ution: 1x					
1,4-Difluorobenzene (Sur)			100 %	50-	-150 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							Soi	1				
Blank (23E1188-BLK1)			Prepared	: 05/30/23 0	9:58 Ana	lyzed: 05/30	/23 11:33					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	t 50							
Acrylonitrile	ND	50.0	100	ug/kg wet	t 50							
Benzene	ND	5.00	10.0	ug/kg wet	t 50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	t 50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	t 50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	t 50							
Bromoform	ND	100	100	ug/kg wet	t 50							Q-54
Bromomethane	ND	500	500	ug/kg wet	t 50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	t 50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
Carbon disulfide	ND	250	500	ug/kg wet	t 50							
Carbon tetrachloride	ND	50.0	50.0	ug/kg wet	t 50							Q-54
Chlorobenzene	ND	12.5	25.0	ug/kg wet	t 50							
Chloroethane	ND	250	500	ug/kg wet	t 50							
Chloroform	ND	25.0	50.0	ug/kg wet	t 50							
Chloromethane	ND	125	250	ug/kg wet	t 50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	t 50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	t 50							
Dibromochloromethane	ND	100	100	ug/kg wet	t 50							
1,2-Dibromo-3-chloropropane	ND	250	250	ug/kg wet	t 50							Q-54
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	t 50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	t 50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	t 50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	t 50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	t 50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	t 50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	t 50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	t 50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	t 50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	t 50							
trans-1 2-Dichloroethene	ND	12.5	25.0	110/ko wei	50							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

				game een		,						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							Soi	I				
Blank (23E1188-BLK1)			Preparec	1: 05/30/23 0	9:58 Anal	yzed: 05/30	/23 11:33					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg we	t 50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg we	t 50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg we	t 50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg we	t 50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg we	t 50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg we	t 50							
Ethylbenzene	ND	12.5	25.0	ug/kg we	t 50							
Hexachlorobutadiene	ND	50.0	100	ug/kg we	t 50							
2-Hexanone	ND	250	500	ug/kg we	t 50							
Isopropylbenzene	ND	25.0	50.0	ug/kg we	t 50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg we	t 50							
Methylene chloride	ND	250	500	ug/kg we	t 50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg we	t 50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg we	t 50							
Naphthalene	ND	50.0	100	ug/kg we	t 50							
n-Propylbenzene	ND	12.5	25.0	ug/kg we	t 50							
Styrene	ND	25.0	50.0	ug/kg we	t 50							
1,1,1,2-Tetrachloroethane	ND	25.0	25.0	ug/kg we	t 50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg we	t 50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg we	t 50							
Toluene	ND	25.0	50.0	ug/kg we	t 50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg we	t 50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg we	t 50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg we	t 50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg we	t 50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg we	t 50							
Trichlorofluoromethane	ND	100	100	ug/kg we	t 50							Q-5
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg we	t 50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg we	t 50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg we	t 50							
Vinyl chloride	ND	12.5	25.0	ug/kg we	t 50							
m,p-Xylene	ND	25.0	50.0	ug/kg we	t 50							
o-Xylene	ND	12.5	25.0	ug/kg we	t 50							

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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3E1675 - 06 19 23 0903 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 23E1188 - EPA 5035A Soil Blank (23E1188-BLK1) Prepared: 05/30/23 09:58 Analyzed: 05/30/23 11:33 Surr: Toluene-d8 (Surr) Recovery: 98 % Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 100 % 79-120 % LCS (23E1188-BS1) Prepared: 05/30/23 09:58 Analyzed: 05/30/23 10:37 5035A/8260D Acetone 1930 500 1000 ug/kg wet 50 2000 96 80-120% ---Acrylonitrile 975 50.0 100 50 1000 98 80-120% ug/kg wet ---------Benzene 980 5.00 10.0 ug/kg wet 50 1000 98 80-120% ---25.0 1020 12.5 50 1000 102 80-120% Bromobenzene ug/kg wet ----------Bromochloromethane 1010 25.0 50.0 ug/kg wet 50 1000 101 80-120% ---------25.0 50.0 1000 83 Bromodichloromethane 830 ug/kg wet 50 ---80-120% ------Bromoform 566 100 100 ug/kg wet 50 1000 57 80-120% Q-54g Bromomethane 980 500 500 ug/kg wet 50 1000 98 80-120% ---------2-Butanone (MEK) 1970 250 500 ug/kg wet 50 2000 99 80-120% ---1050 25.0 50.0 50 1000 105 80-120% n-Butylbenzene ug/kg wet ---------sec-Butylbenzene 1080 25.050.0 ug/kg wet 50 1000 108 80-120% --tert-Butvlbenzene 1080 25.0 50.0 50 1000 108 80-120% ug/kg wet ----------Carbon disulfide 958 250 500 ug/kg wet 50 1000 ----96 80-120% ------Q-54d Carbon tetrachloride 658 50.0 50.0 ug/kg wet 50 1000 66 80-120% ---------Chlorobenzene 1010 12.5 25.0ug/kg wet 50 1000 101 80-120% ---Chloroethane 917 250 500 50 1000 92 80-120% ug/kg wet ---------1000 80-120% Chloroform 976 25.050.0 ug/kg wet 50 98 ------Chloromethane 822 125 250 50 1000 82 80-120% ug/kg wet ---------2-Chlorotoluene 1050 25.050.0 ug/kg wet 50 1000 ---105 80-120% ____ 4-Chlorotoluene 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% ---------100 O-55 Dibromochloromethane 737 100 ug/kg wet 50 1000 74 80-120% --------ug/kg wet Q-54c 1,2-Dibromo-3-chloropropane 667 250 250 50 1000 67 80-120% ------1,2-Dibromoethane (EDB) 952 25.0 1000 95 50.0 ug/kg wet 50 80-120% Dibromomethane 1020 25.0 50.0 ug/kg wet 50 1000 102 80-120% ---------1,2-Dichlorobenzene 1040 12.5 25.0ug/kg wet 50 1000 ----104 80-120% ------1,3-Dichlorobenzene 1040 12.5 25.0 ug/kg wet 50 1000 104 80-120% ---------1,4-Dichlorobenzene 1010 12.5 25.0 50 1000 101 80-120% ug/kg wet ___ Dichlorodifluoromethane 891 50.0 100 ug/kg wet 50 1000 89 80-120% ------1,1-Dichloroethane 1000 12.5 25.0 1000 100 80-120% ug/kg wet 50 ------

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

L						,						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							So	il				
LCS (23E1188-BS1)			Prepared	: 05/30/23 09	:58 Ana	lyzed: 05/30	/23 10:37					
1,2-Dichloroethane (EDC)	1040	12.5	25.0	ug/kg wet	50	1000		104	80-120%			
1,1-Dichloroethene	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%			
cis-1,2-Dichloroethene	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
trans-1,2-Dichloroethene	998	12.5	25.0	ug/kg wet	50	1000		100	80-120%			
1,2-Dichloropropane	977	12.5	25.0	ug/kg wet	50	1000		98	80-120%			
1,3-Dichloropropane	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
2,2-Dichloropropane	902	25.0	50.0	ug/kg wet	50	1000		90	80-120%			
1,1-Dichloropropene	1030	25.0	50.0	ug/kg wet	50	1000		103	80-120%			
cis-1,3-Dichloropropene	972	25.0	50.0	ug/kg wet	50	1000		97	80-120%			
trans-1,3-Dichloropropene	947	25.0	50.0	ug/kg wet	50	1000		95	80-120%			
Ethylbenzene	994	12.5	25.0	ug/kg wet	50	1000		99	80-120%			
Hexachlorobutadiene	1010	50.0	100	ug/kg wet	50	1000		101	80-120%			
2-Hexanone	1990	250	500	ug/kg wet	50	2000		99	80-120%			
Isopropylbenzene	1060	25.0	50.0	ug/kg wet	50	1000		106	80-120%			
4-Isopropyltoluene	1100	25.0	50.0	ug/kg wet	50	1000		110	80-120%			
Methylene chloride	996	250	500	ug/kg wet	50	1000		100	80-120%			
4-Methyl-2-pentanone (MiBK)	2070	250	500	ug/kg wet	50	2000		103	80-120%			
Methyl tert-butyl ether (MTBE)	974	25.0	50.0	ug/kg wet	50	1000		97	80-120%			
Naphthalene	1080	50.0	100	ug/kg wet	50	1000		108	80-120%			
n-Propylbenzene	1050	12.5	25.0	ug/kg wet	50	1000		105	80-120%			
Styrene	1050	25.0	50.0	ug/kg wet	50	1000		105	80-120%			
1,1,1,2-Tetrachloroethane	710	25.0	25.0	ug/kg wet	50	1000		71	80-120%			Q-5
1,1,2,2-Tetrachloroethane	934	25.0	50.0	ug/kg wet	50	1000		93	80-120%			
Tetrachloroethene (PCE)	1040	12.5	25.0	ug/kg wet	50	1000		104	80-120%			
Toluene	957	25.0	50.0	ug/kg wet	50	1000		96	80-120%			
1,2,3-Trichlorobenzene	1040	125	250	ug/kg wet	50	1000		104	80-120%			
1,2,4-Trichlorobenzene	1010	125	250	ug/kg wet	50	1000		101	80-120%			
1,1,1-Trichloroethane	926	12.5	25.0	ug/kg wet	50	1000		93	80-120%			
1,1,2-Trichloroethane	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
Trichloroethene (TCE)	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
Trichlorofluoromethane	470	100	100	ug/kg wet	50	1000		47	80-120%			Q-54
1,2,3-Trichloropropane	1020	25.0	50.0	ug/kg wet	50	1000		102	80-120%			
1,2,4-Trimethylbenzene	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
1,3,5-Trimethylbenzene	1080	25.0	50.0	ug/kg wet	50	1000		108	80-120%			
-												

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	s by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							So	il				
LCS (23E1188-BS1)			Prepareo	1: 05/30/23 0	9:58 Ana	lyzed: 05/30	/23 10:37					
Vinyl chloride	974	12.5	25.0	ug/kg wet	t 50	1000		97	80-120%			
m,p-Xylene	1980	25.0	50.0	ug/kg wet	t 50	2000		99	80-120%			
o-Xylene	1000	12.5	25.0	ug/kg wet	t 50	1000		100	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 96%	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			100 %	80	120 %		"					
4-Bromofluorobenzene (Surr)			100 %	79	120 %		"					
Duplicate (23E1188-DUP1)			Preparec	d: 05/23/23 0	8:45 Ana	lyzed: 05/30	/23 12:24					
OC Source Sample: Non-SDG (A3	E1787-01)											
Acetone	ND	893	1790	ug/kg dry	50		ND				30%	
Acrylonitrile	ND	89.3	179	ug/kg dry	50		ND				30%	
Benzene	ND	8.93	17.9	ug/kg dry	50		ND				30%	
Bromobenzene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Bromoform	ND	179	179	ug/kg dry	50		ND				30%	Q-54
Bromomethane	ND	893	893	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	447	893	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	447	893	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	89.3	89.3	ug/kg dry	50		ND				30%	Q-54
Chlorobenzene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
Chloroethane	ND	447	893	ug/kg dry	50		ND				30%	
Chloroform	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Chloromethane	ND	223	447	ug/kg dry	50		ND				30%	
2-Chlorotoluene	45.5	44.7	89.3	ug/kg dry	50		48.2			6	30%	
4-Chlorotoluene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	179	179	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	447	447	ug/kg dry	50		ND				30%	Q-54
1,2-Dibromoethane (EDB)	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Dibromomethane	ND	44.7	89.3	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	22.3	44.7	ug/kg dry	50		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							Soi	I				
Duplicate (23E1188-DUP1)			Prepared	: 05/23/23 08	:45 Anal	yzed: 05/30/	/23 12:24					
QC Source Sample: Non-SDG (A3	E1787-01)											
1,3-Dichlorobenzene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	89.3	179	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	22.3	44.7	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	22.3	44.7	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	22.3	44.7	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	44.7	89.3	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	44.7	89.3	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	89.3	179	ug/kg dry	50		ND				30%	
2-Hexanone	ND	447	893	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Methylene chloride	ND	447	893	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	447	893	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Naphthalene	ND	89.3	179	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
Styrene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	44.7	44.7	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	22.3	44.7	ug/kg dry	50		ND				30%	
Toluene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene	ND	223	447	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	223	447	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	22.3	44.7	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	22.3	44.7	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							Soi	I				
Duplicate (23E1188-DUP1)			Preparec	1: 05/23/23 0	8:45 Anal	yzed: 05/30	/23 12:24					
QC Source Sample: Non-SDG (A3)	<u>E1787-01)</u>											
Trichloroethene (TCE)	ND	22.3	44.7	ug/kg dry	50		ND				30%	
Trichlorofluoromethane	ND	179	179	ug/kg dry	50		ND				30%	Q-5
1,2,3-Trichloropropane	ND	44.7	89.3	ug/kg dry	50		ND				30%	
1,2,4-Trimethylbenzene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
1,3,5-Trimethylbenzene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
Vinyl chloride	ND	22.3	44.7	ug/kg dry	50		ND				30%	
m,p-Xylene	ND	44.7	89.3	ug/kg dry	50		ND				30%	
o-Xylene	ND	22.3	44.7	ug/kg dry	50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 97%	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			100 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			100 %	79-	120 %		"					
<u>QC Source Sample: Non-SDG (A3)</u> 5035A/8260D	<u>E1763-01)</u>											
Acetone	3110	765	1530	ua/ka dri	50	3060	ND	102	36-164%			
Acrylonitrile	1560	76.5	153	ug/ko dry	, 50	1530	ND	102	65-134%			
Benzene	1580	7.65	15.3	ug/kg dry	50	1530	ND	102	77-121%			
Bromobenzene	1590	19.1	38.2	ug/kø dry	50	1530	ND	103	78-121%			
Bromochloromethane	1640	38.2	76.5	ug/kø dry	50	1530	ND	107	78-125%			
Bromodichloromethane	1390	38.2	76.5	ug/kg dry	50	1530	ND	91	75-127%			
Bromoform	994	153	153	ug/kg drv	50	1530	ND	65	67-132%			Q-54
Bromomethane	1470	765	765	ug/kg dry	50	1530	ND	96	53-143%			· · · ·
2-Butanone (MEK)	3140	382	765	ug/kg dry	50	3060	ND	103	51-148%			
n-Butylbenzene	1720	38.2	76.5	ug/kg dry	50	1530	ND	112	70-128%			
sec-Butylbenzene	1750	38.2	76.5	ug/kg dry	50	1530	ND	114	73-126%			
tert-Butylbenzene	1740	38.2	76.5	ug/kg dry	50	1530	ND	114	73-125%			
Carbon disulfide	1420	382	765	ug/kg dry	50	1530	ND	93	63-132%			
Carbon tetrachloride	1190	76.5	76.5	ug/kg dry	50	1530	ND	77	70-135%			Q-54
Chlorobenzene	1610	19.1	38.2	ug/kg drv	50	1530	ND	105	79-120%			
Chloroethane	1670	382	765	ug/kg drv	50	1530	ND	109	59-139%			
Chloroform	1570	38.2	76.5	ug/kg dry	50	1530	ND	102	78-123%			
Chloromethane	1030	191	382	110/ko dry	50	1530	ND	67	50-136%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							Soi	I				
Matrix Spike (23E1188-MS1)			Prepared:	05/23/23 09	:30 Anal	yzed: 05/30/	/23 17:55					
QC Source Sample: Non-SDG (A3)	E1763-01)											
2-Chlorotoluene	1650	38.2	76.5	ug/kg dry	50	1530	ND	108	75-122%			
4-Chlorotoluene	1670	38.2	76.5	ug/kg dry	50	1530	ND	109	72-124%			
Dibromochloromethane	1310	153	153	ug/kg dry	50	1530	ND	86	74-126%			Q-54
1,2-Dibromo-3-chloropropane	1130	382	382	ug/kg dry	50	1530	ND	74	61-132%			Q-54
1,2-Dibromoethane (EDB)	1530	38.2	76.5	ug/kg dry	50	1530	ND	100	78-122%			
Dibromomethane	1610	38.2	76.5	ug/kg dry	50	1530	ND	105	78-125%			
1,2-Dichlorobenzene	1640	19.1	38.2	ug/kg dry	50	1530	ND	107	78-121%			
1,3-Dichlorobenzene	1660	19.1	38.2	ug/kg dry	50	1530	ND	109	77-121%			
1,4-Dichlorobenzene	1580	19.1	38.2	ug/kg dry	50	1530	ND	103	75-120%			
Dichlorodifluoromethane	776	76.5	153	ug/kg dry	50	1530	ND	51	29-149%			
1,1-Dichloroethane	1600	19.1	38.2	ug/kg dry	50	1530	ND	104	76-125%			
1,2-Dichloroethane (EDC)	1680	19.1	38.2	ug/kg dry	50	1530	ND	110	73-128%			
1,1-Dichloroethene	1650	19.1	38.2	ug/kg dry	50	1530	ND	108	70-131%			
cis-1,2-Dichloroethene	1640	19.1	38.2	ug/kg dry	50	1530	ND	107	77-123%			
trans-1,2-Dichloroethene	1600	19.1	38.2	ug/kg dry	50	1530	ND	105	74-125%			
1,2-Dichloropropane	1570	19.1	38.2	ug/kg dry	50	1530	ND	103	76-123%			
1,3-Dichloropropane	1630	38.2	76.5	ug/kg dry	50	1530	ND	106	77-121%			
2,2-Dichloropropane	1350	38.2	76.5	ug/kg dry	50	1530	ND	88	67-133%			
1,1-Dichloropropene	1680	38.2	76.5	ug/kg dry	50	1530	ND	110	76-125%			
cis-1,3-Dichloropropene	1500	38.2	76.5	ug/kg dry	50	1530	ND	98	74-126%			
trans-1,3-Dichloropropene	1420	38.2	76.5	ug/kg dry	50	1530	ND	93	71-130%			
Ethylbenzene	1590	19.1	38.2	ug/kg dry	50	1530	ND	104	76-122%			
Hexachlorobutadiene	1650	76.5	153	ug/kg dry	50	1530	ND	108	61-135%			
2-Hexanone	3080	382	765	ug/kg dry	50	3060	ND	101	53-145%			
lsopropylbenzene	1670	38.2	76.5	ug/kg drv	50	1530	ND	109	68-134%			
4-Isopropyltoluene	1750	38.2	76.5	ug/kg drv	50	1530	ND	114	73-127%			
Methylene chloride	1590	382	765	ug/kg drv	50	1530	ND	104	70-128%			
4-Methyl-2-pentanone (MiBK)	3220	382	765	ug/kg drv	50	3060	ND	105	65-135%			
Methyl tert-butyl ether (MTBE)	1500	38.2	76.5	ug/kg drv	50	1530	ND	98	73-125%			
Naphthalene	1630	76.5	153	ug/kg drv	50	1530	ND	106	62-129%			
n-Propylbenzene	1710	19.1	38.2	ug/kg drv	50	1530	ND	112	73-125%			
Styrene	1650	38.2	76.5	ug/kg drv	50	1530	ND	108	76-124%			
- 1 1 1 2-Tetrachlaraethana	1250	28.2	28.2	110/ka dor	50	1530	ND	82	78-1250/			0.54

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1188 - EPA 5035A							So	il				
Matrix Spike (23E1188-MS1)			Preparec	1: 05/23/23 0	9:30 Ana	lyzed: 05/30	/23 17:55					
QC Source Sample: Non-SDG (A3)	E1763-01)											
1,1,2,2-Tetrachloroethane	1520	38.2	76.5	ug/kg dr	y 50	1530	ND	99	70-124%			
Tetrachloroethene (PCE)	1650	19.1	38.2	ug/kg dr	y 50	1530	ND	108	73-128%			
Toluene	1550	38.2	76.5	ug/kg dr	y 50	1530	ND	101	77-121%			
1,2,3-Trichlorobenzene	1610	191	382	ug/kg dr	y 50	1530	ND	105	66-130%			
1,2,4-Trichlorobenzene	1580	191	382	ug/kg dr	y 50	1530	ND	103	67-129%			
1,1,1-Trichloroethane	1530	19.1	38.2	ug/kg dr	y 50	1530	ND	100	73-130%			
1,1,2-Trichloroethane	1630	19.1	38.2	ug/kg dr	y 50	1530	ND	106	78-121%			
Trichloroethene (TCE)	1650	19.1	38.2	ug/kg dr	y 50	1530	ND	108	77-123%			
Trichlorofluoromethane	1910	153	153	ug/kg dr	y 50	1530	ND	125	62-140%			Q-54
1,2,3-Trichloropropane	1640	38.2	76.5	ug/kg dr	y 50	1530	ND	107	73-125%			
1,2,4-Trimethylbenzene	1670	38.2	76.5	ug/kg dr	y 50	1530	ND	109	75-123%			
1,3,5-Trimethylbenzene	1720	38.2	76.5	ug/kg dr	y 50	1530	ND	113	73-124%			
Vinyl chloride	1400	19.1	38.2	ug/kg dr	y 50	1530	ND	91	56-135%			
m,p-Xylene	3200	38.2	76.5	ug/kg dr	y 50	3060	ND	104	77-124%			
o-Xylene	1600	19.1	38.2	ug/kg dr	y 50	1530	ND	104	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 97 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			101 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection	Reporting Limit	Units	Dilution	Spike	Source Result	% REC	% REC	RPD	RPD Limit	Notes
Analyte	Result	Limit	Linit	Cints	Difution	Amount	Result	70 KLC	Linits	KI D	Liiiit	Notes
Batch 23E1239 - EPA 5035A							Soi	l				
Blank (23E1239-BLK1)			Prepared	: 05/31/23 10	:37 Ana	lyzed: 05/31/	/23 12:02					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	100	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	50.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	250	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	100	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1 2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1239 - EPA 5035A							Soi	l				
Blank (23E1239-BLK1)			Prepared	: 05/31/23 10	0:37 Ana	yzed: 05/31/	/23 12:02					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	100	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	50							
o-Xvlene	ND	12.5	25.0	ug/kg wet	50							

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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3E1675 - 06 19 23 0903 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 23E1239 - EPA 5035A Soil Blank (23E1239-BLK1) Prepared: 05/31/23 10:37 Analyzed: 05/31/23 12:02 Surr: Toluene-d8 (Surr) Recovery: 102 % Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 97% 79-120 % LCS (23E1239-BS1) Prepared: 05/31/23 10:37 Analyzed: 05/31/23 11:06 5035A/8260D Acetone 1990 500 1000 ug/kg wet 50 2000 99 80-120% ---Acrylonitrile 989 50.0 100 50 1000 99 80-120% ug/kg wet ---------Benzene 988 5.00 10.0 ug/kg wet 50 1000 99 80-120% ---25.0 996 12.5 50 1000 100 80-120% Bromobenzene ug/kg wet ---------Bromochloromethane 1030 25.0 50.0 ug/kg wet 50 1000 103 80-120% ---------934 25.0 50.0 93 Bromodichloromethane ug/kg wet 50 1000 ---80-120% ------Bromoform 689 100 100 ug/kg wet 50 1000 69 80-120% O-55 Bromomethane 936 500 500 ug/kg wet 50 1000 94 80-120% ---------2-Butanone (MEK) 2020 250 500 ug/kg wet 50 2000 101 80-120% ---1070 25.0 50.0 50 1000 107 80-120% n-Butylbenzene ug/kg wet ---------sec-Butylbenzene 1080 25.050.0 ug/kg wet 50 1000 108 80-120% --tert-Butvlbenzene 1070 25.0 50.0 50 1000 107 80-120% ug/kg wet ----------Carbon disulfide 876 250 500 ug/kg wet 50 1000 ----88 80-120% ------Carbon tetrachloride 771 50.0 50.0 ug/kg wet 50 1000 77 80-120% Q-55 ---------Chlorobenzene 1010 12.5 25.0ug/kg wet 50 1000 101 80-120% ---Chloroethane 1010 250 500 50 1000 101 80-120% ug/kg wet ---------1000 80-120% Chloroform 983 25.050.0 ug/kg wet 50 98 ------Chloromethane 634 250 250 50 1000 63 80-120% Q-55 ug/kg wet ---------2-Chlorotoluene 1030 25.050.0 ug/kg wet 50 1000 ---103 80-120% 4-Chlorotoluene 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% ---------50.0 100 Dibromochloromethane 882 ug/kg wet 50 1000 88 80-120% --------ug/kg wet 1,2-Dibromo-3-chloropropane 808 125 250 50 1000 81 80-120% ---1,2-Dibromoethane (EDB) 996 1000 25.050.0 ug/kg wet 50 100 80-120% ---Dibromomethane 1020 25.0 50.0 ug/kg wet 50 1000 102 80-120% ---------1,2-Dichlorobenzene 1040 12.5 25.0ug/kg wet 50 1000 ----104 80-120% ____ ---1,3-Dichlorobenzene 1040 12.5 25.0 ug/kg wet 50 1000 104 80-120% ---------1,4-Dichlorobenzene 1000 12.5 25.0 50 1000 100 80-120% ug/kg wet ___ Q-55 Dichlorodifluoromethane 458 100 100 ug/kg wet 50 1000 46 80-120% ------1,1-Dichloroethane 996 12.5 25.0 1000 100 80-120% ug/kg wet 50 ---------

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1239 - EPA 5035A							Soi	I				
LCS (23E1239-BS1)			Prepared	: 05/31/23 1	0:37 Ana	lyzed: 05/31	/23 11:06					
1,2-Dichloroethane (EDC)	1060	12.5	25.0	ug/kg wet	t 50	1000		106	80-120%			
1,1-Dichloroethene	1000	12.5	25.0	ug/kg wet	t 50	1000		100	80-120%			
cis-1,2-Dichloroethene	1030	12.5	25.0	ug/kg wet	t 50	1000		103	80-120%			
trans-1,2-Dichloroethene	986	12.5	25.0	ug/kg wet	t 50	1000		99	80-120%			
1,2-Dichloropropane	999	12.5	25.0	ug/kg wet	t 50	1000		100	80-120%			
1,3-Dichloropropane	1050	25.0	50.0	ug/kg wet	t 50	1000		105	80-120%			
2,2-Dichloropropane	942	25.0	50.0	ug/kg wet	t 50	1000		94	80-120%			
1,1-Dichloropropene	1030	25.0	50.0	ug/kg wet	t 50	1000		103	80-120%			
cis-1,3-Dichloropropene	998	25.0	50.0	ug/kg wet	t 50	1000		100	80-120%			
trans-1,3-Dichloropropene	953	25.0	50.0	ug/kg wet	t 50	1000		95	80-120%			
Ethylbenzene	1000	12.5	25.0	ug/kg wet	t 50	1000		100	80-120%			
Hexachlorobutadiene	1010	50.0	100	ug/kg wet	t 50	1000		101	80-120%			
2-Hexanone	2050	250	500	ug/kg wet	t 50	2000		103	80-120%			
Isopropylbenzene	1050	25.0	50.0	ug/kg wet	t 50	1000		105	80-120%			
4-Isopropyltoluene	1090	25.0	50.0	ug/kg wet	t 50	1000		109	80-120%			
Methylene chloride	996	250	500	ug/kg wet	t 50	1000		100	80-120%			
4-Methyl-2-pentanone (MiBK)	2070	250	500	ug/kg wet	t 50	2000		104	80-120%			
Methyl tert-butyl ether (MTBE)	950	25.0	50.0	ug/kg wet	t 50	1000		95	80-120%			
Naphthalene	1040	50.0	100	ug/kg wet	t 50	1000		104	80-120%			
n-Propylbenzene	1060	12.5	25.0	ug/kg wet	t 50	1000		106	80-120%			
Styrene	1050	25.0	50.0	ug/kg wet	t 50	1000		105	80-120%			
1,1,1,2-Tetrachloroethane	840	12.5	25.0	ug/kg wet	t 50	1000		84	80-120%			
1,1,2,2-Tetrachloroethane	980	25.0	50.0	ug/kg wet	t 50	1000		98	80-120%			
Tetrachloroethene (PCE)	1020	12.5	25.0	ug/kg wet	t 50	1000		102	80-120%			
Toluene	970	25.0	50.0	ug/kg wet	t 50	1000		97	80-120%			
1,2,3-Trichlorobenzene	1040	125	250	ug/kg wet	t 50	1000		104	80-120%			
1,2,4-Trichlorobenzene	1010	125	250	ug/kg wet	t 50	1000		101	80-120%			
1,1,1-Trichloroethane	961	12.5	25.0	ug/kg wet	t 50	1000		96	80-120%			
1,1,2-Trichloroethane	1030	12.5	25.0	ug/kg wet	t 50	1000		103	80-120%			
Trichloroethene (TCE)	1010	12.5	25.0	ug/kg wet	t 50	1000		101	80-120%			
Trichlorofluoromethane	516	100	100	ug/kg wet	t 50	1000		52	80-120%			Q-5
1,2,3-Trichloropropane	1030	25.0	50.0	ug/kg wet	t 50	1000		103	80-120%			
1,2,4-Trimethylbenzene	1040	25.0	50.0	ug/kg wet	t 50	1000		104	80-120%			
1,3,5-Trimethylbenzene	1070	25.0	50.0	ug/kg wet	t 50	1000		107	80-120%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	s by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1239 - EPA 5035A							So	il				
LCS (23E1239-BS1)			Prepareo	d: 05/31/23 1	0:37 Ana	lyzed: 05/31	/23 11:06					
Vinyl chloride	842	12.5	25.0	ug/kg wet	t 50	1000		84	80-120%			
m,p-Xylene	2020	25.0	50.0	ug/kg wet	t 50	2000		101	80-120%			
o-Xylene	1000	12.5	25.0	ug/kg wet	t 50	1000		100	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 97 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			101 %	80	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79	120 %		"					
Duplicate (23E1239-DUP1)			Preparec	1: 05/30/23 1	9:35 Ana	lyzed: 05/31	/23 15:26					H-01, V-16
OC Source Sample: Non-SDG (A3	E1174-01)											
Acetone	ND	582	1160	ug/kg dry	50		ND				30%	
Acrylonitrile	ND	58.2	116	ug/kg dry	50		ND				30%	
Benzene	ND	5.82	11.6	ug/kg dry	50		ND				30%	
Bromobenzene	ND	14.6	29.1	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	29.1	58.2	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	29.1	58.2	ug/kg dry	50		ND				30%	
Bromoform	ND	116	116	ug/kg dry	50		ND				30%	
Bromomethane	ND	582	582	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	291	582	ug/kg dry	50		ND				30%	
n-Butylbenzene	3650	29.1	58.2	ug/kg dry	50		3710			1	30%	M-0
sec-Butylbenzene	2110	29.1	58.2	ug/kg dry	50		2120			0.6	30%	
tert-Butylbenzene	ND	29.1	58.2	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	291	582	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	58.2	58.2	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	14.6	29.1	ug/kg dry	50		ND				30%	
Chloroethane	ND	291	582	ug/kg dry	50		ND				30%	
Chloroform	ND	29.1	58.2	ug/kg dry	50		ND				30%	
Chloromethane	ND	291	291	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	29.1	58.2	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	29.1	58.2	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	58.2	116	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	146	291	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	29.1	58.2	ug/kg dry	50		ND				30%	
Dibromomethane	ND	29.1	58.2	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	14.6	29.1	ug/kg dry	50		ND				30%	

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Corr	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1239 - EPA 5035A							Soi	1				
Duplicate (23E1239-DUP1)			Prepared	: 05/30/23 19	9:35 Anal	yzed: 05/31/	/23 15:26					H-01, V-16
QC Source Sample: Non-SDG (A3	E1174-01)											
1,3-Dichlorobenzene	ND	14.6	29.1	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	14.6	29.1	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	116	116	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	14.6	29.1	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	14.6	29.1	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	14.6	29.1	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	14.6	29.1	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	14.6	29.1	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	14.6	29.1	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	29.1	58.2	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	29.1	58.2	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	29.1	58.2	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	29.1	58.2	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	29.1	58.2	ug/kg dry	50		ND				30%	
Ethylbenzene	603	14.6	29.1	ug/kg dry	50		606			0.6	30%	
Hexachlorobutadiene	ND	58.2	116	ug/kg dry	50		ND				30%	
2-Hexanone	ND	291	582	ug/kg dry	50		ND				30%	
Isopropylbenzene	582	29.1	58.2	ug/kg dry	50		576			0.9	30%	
4-Isopropyltoluene	1820	29.1	58.2	ug/kg dry	50		1610			12	30%	M-0
Methylene chloride	ND	291	582	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	949	949	ug/kg dry	50		ND				30%	R-0
Methyl tert-butyl ether (MTBE)	ND	29.1	58.2	ug/kg drv	50		ND				30%	
Naphthalene	ND	2460	2460	ug/kg dry	50		2590			***	30%	R-0
n-Propylbenzene	2060	14.6	29.1	ug/kg dry	50		2090			2	30%	
Styrene	ND	29.1	58.2	ug/kg drv	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	14.6	29.1	ug/kg drv	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	81.5	81.5	ug/kg drv	50		ND				30%	R-0
Tetrachloroethene (PCE)	ND	14.6	29.1	ug/kg drv	50		ND				30%	
Toluene	171	29.1	58.2	ug/kg drv	50		172			1	30%	
1,2,3-Trichlorobenzene	ND	291	291	ug/kg drv	50		ND				30%	
1,2,4-Trichlorobenzene	ND	146	291	ug/kg drv	50		ND				30%	
1,1,1-Trichloroethane	ND	14.6	29.1	ug/kg drv	50		ND				30%	
1,1,2-Trichloroethane	ND	268	268	ug/kg dry	50		ND				30%	R-0

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1239 - EPA 5035A							So	I				
Duplicate (23E1239-DUP1)			Prepared	1: 05/30/23 1	9:35 Ana	lyzed: 05/31	/23 15:26					H-01, V-16
QC Source Sample: Non-SDG (A3	<u>E1174-01)</u>											
Trichloroethene (TCE)	ND	14.6	29.1	ug/kg dr	y 50		ND				30%	
Trichlorofluoromethane	ND	116	116	ug/kg dr	y 50		ND				30%	
1,2,3-Trichloropropane	ND	751	751	ug/kg dr	y 50		ND				30%	R-0
1,2,4-Trimethylbenzene	15000	29.1	58.2	ug/kg dr	y 50		15300			2	30%	
1,3,5-Trimethylbenzene	4450	29.1	58.2	ug/kg dr	y 50		4480			0.8	30%	
Vinyl chloride	ND	14.6	29.1	ug/kg dr	y 50		ND				30%	
m,p-Xylene	3070	29.1	58.2	ug/kg dr	y 50		3090			0.8	30%	
o-Xylene	1890	14.6	29.1	ug/kg dr	y 50		1890			0.2	30%	
Surr: 1,4-Difluorobenzene (Surr)		Rec	overy: 96 %	Limits: 80-	-120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			101 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3 50354/8260D	<u>E1756-01)</u>											
<u>5035A/8260D</u>	2(00	505	1100	/1 1	50	2200	ND	112	26 1640/			
Acetone	1220	595	1190	ug/kg ur	y 50	2380	ND	102	50-10470 65 1240/			
Benzene	1230	5 95	119	ug/kg ur	y 50	1190	ND	105 06	77 121%			
Bromohenzene	1140	14.0	20.7	ug/kg ur	y 50	1190	ND	100	78 121%			
Bromochloromethane	1170	29.7	59.5	ug/kg ur	y 50	1190	ND	06	78 125%			
Bromodichloromethane	1050	29.7	59.5	ug/kg dr	y 50	1190	ND	88	75-127%			
Bromoform	844	119	119	110/ko dr	, 50 v 50	1190	ND	71	67-132%			O-54
Bromomethane	1070	595	595	ug/kg dr	y 50	1190	ND	89	53-143%			
2-Butanone (MEK)	2640	297	595	ug/kg dr	y 50	2380	ND	111	51-148%			
n-Butylbenzene	1290	29.7	59.5	ug/kg dr	v 50	1190	ND	108	70-128%			
sec-Butylbenzene	1280	29.7	59.5	ug/kg dr	v 50	1190	ND	108	73-126%			
tert-Butvlbenzene	1290	29.7	59.5	ug/kg dr	v 50	1190	ND	108	73-125%			
Carbon disulfide	982	297	595	ug/kg dr	y 50	1190	ND	82	63-132%			
Carbon tetrachloride	939	59.5	59.5	ug/kg dr	y 50	1190	ND	79	70-135%			Q-54
Chlorobenzene	1210	14.9	29.7	ug/kg dr	y 50	1190	ND	102	79-120%			
Chloroethane	982	297	595	ug/kg dr	y 50	1190	ND	82	59-139%			
Chloroform	1140	29.7	59.5	ug/kg dr	y 50	1190	ND	96	78-123%			
Chloromethane	636	297	297	ug/kg dr	v 50	1190	ND	53	50-136%			Q-54

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1239 - EPA 5035A							Soi	I				
Matrix Spike (23E1239-MS1)			Prepared	: 05/25/23 1	0:30 Ana	yzed: 05/31/	/23 17:08					
QC Source Sample: Non-SDG (A3E	E1756-01)											
2-Chlorotoluene	1210	29.7	59.5	ug/kg dry	50	1190	ND	102	75-122%			
4-Chlorotoluene	1220	29.7	59.5	ug/kg dry	50	1190	ND	102	72-124%			
Dibromochloromethane	1060	59.5	119	ug/kg dry	50	1190	ND	89	74-126%			
1,2-Dibromo-3-chloropropane	1150	149	297	ug/kg dry	50	1190	ND	96	61-132%			
1,2-Dibromoethane (EDB)	1230	29.7	59.5	ug/kg dry	50	1190	ND	103	78-122%			
Dibromomethane	1190	29.7	59.5	ug/kg dry	50	1190	ND	100	78-125%			
1,2-Dichlorobenzene	1240	14.9	29.7	ug/kg dry	50	1190	ND	104	78-121%			
1,3-Dichlorobenzene	1210	14.9	29.7	ug/kg dry	50	1190	ND	102	77-121%			
1,4-Dichlorobenzene	1180	14.9	29.7	ug/kg dry	50	1190	ND	99	75-120%			
Dichlorodifluoromethane	458	119	119	ug/kg dry	50	1190	ND	38	29-149%			Q-54
1,1-Dichloroethane	1160	14.9	29.7	ug/kg dry	50	1190	ND	98	76-125%			
1,2-Dichloroethane (EDC)	1250	14.9	29.7	ug/kg dry	50	1190	ND	105	73-128%			
1,1-Dichloroethene	1170	14.9	29.7	ug/kg dry	50	1190	ND	98	70-131%			
cis-1,2-Dichloroethene	1190	14.9	29.7	ug/kg dry	50	1190	ND	100	77-123%			
trans-1,2-Dichloroethene	1160	14.9	29.7	ug/kg dry	50	1190	ND	97	74-125%			
1,2-Dichloropropane	1150	14.9	29.7	ug/kg dry	50	1190	ND	97	76-123%			
1,3-Dichloropropane	1250	29.7	59.5	ug/kg dry	50	1190	ND	105	77-121%			
2,2-Dichloropropane	1030	29.7	59.5	ug/kg dry	50	1190	ND	87	67-133%			
1,1-Dichloropropene	1240	29.7	59.5	ug/kg dry	50	1190	ND	104	76-125%			
cis-1,3-Dichloropropene	1140	29.7	59.5	ug/kg dry	50	1190	ND	95	74-126%			
trans-1,3-Dichloropropene	1100	29.7	59.5	ug/kg dry	50	1190	ND	93	71-130%			
Ethylbenzene	1200	14.9	29.7	ug/kg dry	50	1190	ND	100	76-122%			
Hexachlorobutadiene	1290	59.5	119	ug/kg dry	50	1190	ND	108	61-135%			
2-Hexanone	2950	297	595	ug/kg dry	50	2380	ND	124	53-145%			
Isopropylbenzene	1270	29.7	59.5	ug/kg dry	50	1190	ND	107	68-134%			
4-Isopropyltoluene	1330	29.7	59.5	ug/kg dry	50	1190	33.9	109	73-127%			
Methylene chloride	1110	297	595	ug/kg dry	50	1190	ND	93	70-128%			
4-Methyl-2-pentanone (MiBK)	2780	297	595	ug/kg dry	50	2380	ND	117	65-135%			
Methyl tert-butyl ether (MTBE)	1160	29.7	59.5	ug/kg dry	50	1190	ND	97	73-125%			
Naphthalene	1430	59.5	119	ug/kg drv	50	1190	ND	120	62-129%			
n-Propylbenzene	1250	14.9	29.7	ug/kg drv	50	1190	ND	105	73-125%			
Styrene	1230	29.7	59.5	ug/kg drv	50	1190	ND	103	76-124%			
1.1.1.2-Tetrachloroethane	1030	14.9	29.7	ug/kg drv	50	1190	ND	86	78-125%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1239 - EPA 5035A							Soi	il				
Matrix Spike (23E1239-MS1)			Prepared	1: 05/25/23 1	0:30 Anal	yzed: 05/31/	/23 17:08					
QC Source Sample: Non-SDG (A3	E1756-01)											
1,1,2,2-Tetrachloroethane	1210	29.7	59.5	ug/kg dry	7 50	1190	ND	102	70-124%			
Tetrachloroethene (PCE)	1240	14.9	29.7	ug/kg dry	7 50	1190	ND	104	73-128%			
Toluene	1150	29.7	59.5	ug/kg dry	7 50	1190	ND	97	77-121%			
1,2,3-Trichlorobenzene	1250	149	297	ug/kg dry	7 50	1190	ND	105	66-130%			
1,2,4-Trichlorobenzene	1230	149	297	ug/kg dry	7 50	1190	ND	104	67-129%			
1,1,1-Trichloroethane	1160	14.9	29.7	ug/kg dry	7 50	1190	ND	97	73-130%			
1,1,2-Trichloroethane	1240	14.9	29.7	ug/kg dry	7 50	1190	ND	104	78-121%			
Trichloroethene (TCE)	1230	14.9	29.7	ug/kg dry	7 50	1190	ND	103	77-123%			
Trichlorofluoromethane	460	119	119	ug/kg dry	7 50	1190	ND	39	62-140%			Q-54
1,2,3-Trichloropropane	1290	29.7	59.5	ug/kg dry	7 50	1190	ND	108	73-125%			
1,2,4-Trimethylbenzene	1220	29.7	59.5	ug/kg dry	7 50	1190	ND	102	75-123%			
1,3,5-Trimethylbenzene	1260	29.7	59.5	ug/kg dry	7 50	1190	ND	106	73-124%			
Vinyl chloride	899	14.9	29.7	ug/kg dry	7 50	1190	ND	75	56-135%			
m,p-Xylene	2370	29.7	59.5	ug/kg dry	7 50	2380	ND	100	77-124%			
o-Xylene	1200	14.9	29.7	ug/kg dry	7 50	1190	ND	101	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	wery: 96%	Limits: 80-	120 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			102 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			99 %	79-	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection Reporting Spike % REC RPD Source Dilution Analyte Result Limit Units Amount Result % REC Limits RPD Limit Limit Notes Water Batch 23F0093 - EPA 1311/5030B TCLP Volatiles Blank (23F0093-BLK1) Prepared: 06/02/23 14:47 Analyzed: 06/03/23 01:28 TCLPa 1311/8260D Benzene ND 6.25 12.5 ug/L 50 50 ND 250 500 2-Butanone (MEK) ug/L ---------Carbon tetrachloride ND 25.0 50.0 ug/L 50 ----------Chlorobenzene ND 12.5 25.0 50 ug/L -------------___ Chloroform ND 25.0 50.0 ug/L 50 ---ND 1,4-Dichlorobenzene ug/L 12.5 25.0 50 ----------------1,1-Dichloroethene ND 12.5 25.0 ug/L 50 ___ ---1,2-Dichloroethane (EDC) 12.5 25.0 ND 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 ____ ----------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 102 % Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 102 % 80-120 % " 4-Bromofluorobenzene (Surr) 104 % 80-120 % LCS (23F0093-BS1) Prepared: 06/02/23 14:47 Analyzed: 06/03/23 00:43 TCLPa

<u>1311/8260D</u>											
Benzene	1080	6.25	12.5	ug/L	50	1000		108	80-120%	 	
2-Butanone (MEK)	2010	250	500	ug/L	50	2000		100	80-120%	 	
Carbon tetrachloride	1220	25.0	50.0	ug/L	50	1000		122	80-120%	 	Q-56
Chlorobenzene	1030	12.5	25.0	ug/L	50	1000		103	80-120%	 	
Chloroform	1060	25.0	50.0	ug/L	50	1000		106	80-120%	 	
1,4-Dichlorobenzene	1040	12.5	25.0	ug/L	50	1000		104	80-120%	 	
1,1-Dichloroethene	1230	12.5	25.0	ug/L	50	1000		123	80-120%	 	Q-56
1,2-Dichloroethane (EDC)	1100	12.5	25.0	ug/L	50	1000		110	80-120%	 	
Tetrachloroethene (PCE)	1040	12.5	25.0	ug/L	50	1000		104	80-120%	 	
Trichloroethene (TCE)	1060	12.5	25.0	ug/L	50	1000		106	80-120%	 	
Vinyl chloride	1080	12.5	25.0	ug/L	50	1000		108	80-120%	 	
Surr: 1,4-Difluorobenzene (Surr)		Recovery	: 100 %	Limits: 80-1	20 %	Dilu	tion: 1x				
Toluene-d8 (Surr)			99 %	80-1	20 %		"				
4-Bromofluorobenzene (Surr)			92 %	80-1	20 %		"				

Duplicate (23F0093-DUP1)

Prepared: 06/02/23 14:47 Analyzed: 06/03/23 02:13

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
		Volatilas					10/01	tor				
Daicii 2370033 - EPA 1311/503		volatiles	Duone	1. 06/02/22	14.47 4	was d. 06/02	22 02.12	101				
			Preparec	1: 00/02/23	14:4/ Anal	iyzea: 06/03/	23 02:13					
QC Source Sample: FC-052323-21	15 (A3E167	<u>/5-01)</u>										
<u>1311/8260D</u>		(D =	10.5	~	-						2024	
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%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 101 %	Limits: 80	0-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			102 %	80)-120 %		"					
4-Bromofluorobenzene (Surr)			102 %	80)-120 %		"					
Matrix Spike (23F0093-MS1)			Preparec	1: 06/02/23	14:47 Anal	yzed: 06/03	/23 02:57					
QC Source Sample: Non-SDG (A3	<u>E1681-01)</u>											
<u>1311/8260D</u>				-			·					
Benzene	1050	6.25	12.5	ug/L	50	1000	ND	105	79-120%			
2-Butanone (MEK)	2120	250	500	ug/L	50	2000	ND	106	56-143%			
Carbon tetrachloride	1220	25.0	50.0	ug/L	50	1000	ND	122	72-136%			Q-5
Chlorobenzene	1010	12.5	25.0	ug/L	50	1000	ND	101	80-120%			
Chloroform	1160	25.0	50.0	ug/L	50	1000	103	106	79-124%			
1,4-Dichlorobenzene	1010	12.5	25.0	ug/L	50	1000	ND	101	79-120%			
1,1-Dichloroethene	1180	12.5	25.0	ug/L	50	1000	ND	118	71-131%			Q-54
1,2-Dichloroethane (EDC)	1070	12.5	25.0	ug/L	50	1000	ND	107	73-128%			
Tetrachloroethene (PCE)	990	12.5	25.0	ug/L	50	1000	ND	99	74-129%			
Trichloroethene (TCE)	990	12.5	25.0	ug/L	50	1000	ND	99	79-123%			
Vinyl chloride	1100	12.5	25.0	ug/L	50	1000	ND	110	58-137%			
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 100 %	Limits: 80	0-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			98 %	80)-120 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

	F	Regulated	TCLP Volat	ile Orga	nic Comp	ounds by	EPA 131 [,]	I/8260D			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits RPD	RPD Limit	Notes
Batch 23F0093 - EPA 1311/503	0B TCLP	Volatiles					Wat	er			
Matrix Spike (23F0093-MS1)			Prepared	l: 06/02/23	14:47 Anal	yzed: 06/03/	/23 02:57				
QC Source Sample: Non-SDG (A3	E1681-01)										
Surr: 4-Bromofluorobenzene (Surr)		Reco	overy: 93 %	Limits: 8	0-120 %	Dilı	ution: 1x				

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte Detection Limit Reporting Limit Onits Dilution Sprike Amount Source Result % REC % RE	Organic Compounds by EPA 8270E	mivolatile Organic C	Semi		
Bach 23F0172-EPA 5466 Solution: Solutin: Solutin: Solution: Solution: Solution: Solution: Solutin: Sol	Spike Source Units Dilution Amount Result %	Reporting Limit Units	Detection F Limit	Result	Analyte
Bank (23F0172-BLK1) Prepared: 06/06/23 11:23 Analyzed: 06/06/23 16:35 EXEXT0E Acenaphthtene ND 1.33 2.67 ug/kg wet 1 Acenaphthylene ND 1.33 2.67 ug/kg wet 1 <td< th=""><th>Solid</th><th></th><th></th><th>- EPA 3546</th><th>atch 23F017</th></td<>	Solid			- EPA 3546	atch 23F017
EFA 8270E Acenaphthene ND 1.33 2.67 ug/kg wet 1	d: 06/06/23 11:23 Analyzed: 06/06/23 16:35	Prepared: 06/06/23 11		-BLK1)	lank (23F017
Acenaphthene ND 1.33 2.67 ug/kg wet 1					<u>EPA 8270E</u>
Acenaphthylene ND 1.33 2.67 ug/kg wet 1 <	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	cenaphthene
Anthracene ND 1.33 2.67 ug/kg wet 1 \dots <th< td=""><td>ug/kg wet 1</td><td>2.67 ug/kg wet</td><td>1.33</td><td>ND</td><td>cenaphthylene</td></th<>	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	cenaphthylene
Benz(a)anthracene ND 1.33 2.67 ug/kg wet 1 \dots	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	nthracene
Benzo(a)pyrene ND 2.00 4.00 ug/kg wet 1 <	ug/kg wet 1	2.67 ug/kg wet	1.33	e ND	enz(a)anthrace
Benzo(b)fluoranthene ND 2.00 4.00 ug/kg wet 1	ug/kg wet 1	4.00 ug/kg wet	2.00	ND	enzo(a)pyrene
Benzo(k)fluoranthene ND 2.00 4.00 ug/kg wet 1 $$	ug/kg wet 1	4.00 ug/kg wet	2.00	nene ND	enzo(b)fluorai
Benzo(g,h,i)perylene ND 1.33 2.67 ug/kg wet 1 <t< td=""><td>ug/kg wet 1</td><td>4.00 ug/kg wet</td><td>2.00</td><td>nene ND</td><td>enzo(k)fluorai</td></t<>	ug/kg wet 1	4.00 ug/kg wet	2.00	nene ND	enzo(k)fluorai
ChryseneND 1.33 2.67 ug/kg wet 1 \dots <td>ug/kg wet 1</td> <td>2.67 ug/kg wet</td> <td>1.33</td> <td>ene ND</td> <td>enzo(g,h,i)per</td>	ug/kg wet 1	2.67 ug/kg wet	1.33	ene ND	enzo(g,h,i)per
Dibenz(a,h)anthraceneND 1.33 2.67 ug/kg wet 1 \dots <td>ug/kg wet 1</td> <td>2.67 ug/kg wet</td> <td>1.33</td> <td>ND</td> <td>hrysene</td>	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	hrysene
FluorantheneND 1.33 2.67 ug/kg wet 1 \dots	ug/kg wet 1	2.67 ug/kg wet	1.33	ncene ND	ibenz(a,h)anth
FluoreneND 1.33 2.67 ug/kg wet 1 \cdots <td>ug/kg wet 1</td> <td>2.67 ug/kg wet</td> <td>1.33</td> <td>ND</td> <td>luoranthene</td>	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	luoranthene
Indeno(1,2,3-cd)pyreneND 1.33 2.67 ug/kg wet 1 \dots </td <td>ug/kg wet 1</td> <td>2.67 ug/kg wet</td> <td>1.33</td> <td>ND</td> <td>luorene</td>	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	luorene
1-MethylnaphthaleneND 2.67 5.33 ug/kg wet 1 \dots	ug/kg wet 1	2.67 ug/kg wet	1.33	oyrene ND	ndeno(1,2,3-cd
2-Methylnaphthalene ND 2.67 5.33 ug/kg wet 1 <th< td=""><td>ug/kg wet 1</td><td>5.33 ug/kg wet</td><td>2.67</td><td>ene ND</td><td>-Methylnaphth</td></th<>	ug/kg wet 1	5.33 ug/kg wet	2.67	ene ND	-Methylnaphth
Naphthalene ND 2.67 5.33 ug/kg wet 1 <td>ug/kg wet 1</td> <td>5.33 ug/kg wet</td> <td>2.67</td> <td>ene ND</td> <td>-Methylnaphth</td>	ug/kg wet 1	5.33 ug/kg wet	2.67	ene ND	-Methylnaphth
Phenanthrene ND 1.33 2.67 ug/kg wet 1 <td>ug/kg wet 1</td> <td>5.33 ug/kg wet</td> <td>2.67</td> <td>ND</td> <td>aphthalene</td>	ug/kg wet 1	5.33 ug/kg wet	2.67	ND	aphthalene
Pyrene ND 1.33 2.67 ug/kg wet 1	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	henanthrene
ND 2.00 4.00 ug/kg wet 1	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	yrene
Dibenzofuran ND 1.33 2.67 ug/kg wet 1 <td>ug/kg wet 1</td> <td>4.00 ug/kg wet</td> <td>2.00</td> <td>ND</td> <td>arbazole</td>	ug/kg wet 1	4.00 ug/kg wet	2.00	ND	arbazole
2-Chlorophenol ND 6.67 13.3 ug/kg wet 1 <	ug/kg wet 1	2.67 ug/kg wet	1.33	ND	bibenzofuran
4-Chloro-3-methylphenol ND 13.3 26.7 ug/kg wet 1	ug/kg wet 1	13.3 ug/kg wet	6.67	ND	-Chlorophenol
2,4-Dichlorophenol ND 6.67 13.3 ug/kg wet 1	ug/kg wet 1	26.7 ug/kg wet	13.3	vlphenol ND	-Chloro-3-met
2,4-Dimethylphenol ND 6.67 13.3 ug/kg wet 1	ug/kg wet 1	13.3 ug/kg wet	6.67	ol ND	4-Dichloroph
ND 33.3 66.7 ug/kg wet 1	ug/kg wet 1	13.3 ug/kg wet	6.67	nol ND	4-Dimethylph
A,6-Dinito-2-methylphenol ND 33.3 66.7 ug/kg wet 1 -	ug/kg wet 1	66.7 ug/kg wet	33.3	ND	4-Dinitrophen
2-Methylphenol ND 3.33 6.67 ug/kg wet 1	ug/kg wet 1	66.7 ug/kg wet	33.3	hvlphenol ND	.6-Dinitro-2-m
	ug/kg wet 1	6.67 ug/kg wet	3.33	ND	-Methylphenol
3+4-Methylphenol(s) ND 3.33 $6.6/$ ug/kg wet 1	ug/kg wet 1	6.67 ug/kg wet	3.33	ol(s) ND	+4-Methylphe
2-Nitrophenol ND 13.3 26.7 ug/kg wet 1	ug/kg wet 1	26.7 ug/kg wet	13.3	ND	-Nitrophenol
4-Nitrophenol ND 13.3 26.7 ug/kg wet 1	ug/kg wet 1	26.7 ug/kg wet	13.3	ND	-Nitrophenol
Pentachlorophenol (PCP) ND 13.3 26.7 ug/kg wet 1	ug/kg wet 1	26.7 ug/kg wet	13.3	ol (PCP) ND	entachlorophe
Phenol ND 2.67 5.33 µg/kg wet 1	ug/kg wet 1	5.33 ug/kg wet	2.67	ND	henol
2 3 4 6-Tetrachlorophenol ND 6 67 13 3 µg/kg wet 1	10/kg wet 1	13.3 ug/kg wet	6.67	onhenol ND	346-Tetrachl

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic Co	ompour	ds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0172 - EPA 3546							Soli	id				
Blank (23F0172-BLK1)			Prepared	: 06/06/23 11:	:23 Anal	yzed: 06/06/	/23 16:35					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg wet	1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg wet	1							
Diethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Dimethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-butylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg wet	1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg wet	1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg wet	1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg wet	1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg wet	1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg wet	1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg wet	1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg wet	1							
Hexachloroethane	ND	3.33	6.67	ug/kg wet	1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg wet	1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg wet	1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
Aniline	ND	6.67	13.3	ug/kg wet	1							
4-Chloroaniline	ND	3.33	6.67	ug/kg wet	1							
2-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
3-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
4-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
Nitrobenzene	ND	13.3	26.7	ug/kg wet	1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
2,6-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
Benzoic acid	ND	167	333	ug/kg wet	1							
Benzyl alcohol	ND	6.67	13.3	ug/kg wet	1							
Isophorone	ND	3.33	6.67	ug/kg wet	1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0172 - EPA 3546							So	lid				
Blank (23F0172-BLK1)			Prepare	d: 06/06/23 1	1:23 Ana	lyzed: 06/06	/23 16:35					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	t 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	t 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Recov	ery: 100 %	Limits: 37-	122 %	Dilt	ution: 1x					
2-Fluorobiphenyl (Surr)			89 %	44-	120 %		"					
Phenol-d6 (Surr)			105 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			101 %	54-	127 %		"					
2-Fluorophenol (Surr)			93 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			66 %	39-	132 %		"					
LCS (23F0172-BS1)			Prepareo	d: 06/06/23 1	1:23 Ana	lyzed: 06/06	/23 17:10					Q-18
EPA 8270E												
Acenaphthene	506	5.32	10.7	ug/kg we	t 4	533		95	40-123%			
Acenaphthylene	517	5.32	10.7	ug/kg we	t 4	533		97	32-132%			
Anthracene	517	5.32	10.7	ug/kg we	t 4	533		97	47-123%			
Benz(a)anthracene	497	5.32	10.7	ug/kg we	t 4	533		93	49-126%			
Benzo(a)pyrene	470	8.00	16.0	ug/kg we	t 4	533		88	45-129%			
Benzo(b)fluoranthene	467	8.00	16.0	ug/kg we	t 4	533		88	45-132%			
Benzo(k)fluoranthene	465	8.00	16.0	ug/kg we	t 4	533		87	47-132%			
Benzo(g,h,i)perylene	532	5.32	10.7	ug/kg we	t 4	533		100	43-134%			
Chrysene	510	5.32	10.7	ug/kg we	t 4	533		96	50-124%			
Dibenz(a,h)anthracene	513	5.32	10.7	ug/kg we	t 4	533		96	45-134%			
Fluoranthene	517	5.32	10.7	ug/kg we	t 4	533		97	50-127%			
Fluorene	525	5.32	10.7	ug/kg we	t 4	533		98	43-125%			
Indeno(1,2,3-cd)pyrene	482	5.32	10.7	ug/kg we	t 4	533		90	45-133%			
1-Methylnaphthalene	498	10.7	21.3	ug/kg we	t 4	533		93	40-120%			
2-Methylnanhthalene	526	10.7	21.3	ug/kg we	t 4	533		99	38-122%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

	Result	Detection	р. (¹									
Analyte		Limit	Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0172 - EPA 3546							Sol	lid				
LCS (23F0172-BS1)			Prepared	: 06/06/23 1	1:23 Anal	yzed: 06/06/	/23 17:10					Q-18
Naphthalene	507	10.7	21.3	ug/kg we	t 4	533		95	35-123%			
Phenanthrene	495	5.32	10.7	ug/kg we	t 4	533		93	50-121%			
Pyrene	507	5.32	10.7	ug/kg we	t 4	533		95	47-127%			
Carbazole	582	8.00	16.0	ug/kg we	t 4	533		109	50-123%			
Dibenzofuran	521	5.32	10.7	ug/kg we	t 4	533		98	44-120%			
2-Chlorophenol	551	26.7	53.2	ug/kg we	t 4	533		103	34-121%			
4-Chloro-3-methylphenol	541	53.2	107	ug/kg we	t 4	533		101	45-122%			
2,4-Dichlorophenol	556	26.7	53.2	ug/kg we	t 4	533		104	40-122%			
2,4-Dimethylphenol	673	26.7	53.2	ug/kg we	t 4	533		126	30-127%			
2,4-Dinitrophenol	370	133	267	ug/kg we	t 4	533		69	10-137%			
4,6-Dinitro-2-methylphenol	629	133	267	ug/kg we	t 4	533		118	29-132%			
2-Methylphenol	615	13.3	26.7	ug/kg we	t 4	533		115	32-122%			
3+4-Methylphenol(s)	600	13.3	26.7	ug/kg we	t 4	533		113	34-120%			
2-Nitrophenol	602	53.2	107	ug/kg we	t 4	533		113	36-123%			
4-Nitrophenol	490	53.2	107	ug/kg we	t 4	533		92	30-132%			
Pentachlorophenol (PCP)	286	53.2	107	ug/kg we	t 4	533		54	25-133%			Q-3
Phenol	666	10.7	21.3	ug/kg we	t 4	533		125	34-121%			Q-41, Q-2
2,3,4,6-Tetrachlorophenol	457	26.7	53.2	ug/kg we	t 4	533		86	44-125%			
2,3,5,6-Tetrachlorophenol	445	26.7	53.2	ug/kg we	t 4	533		83	40-120%			
2,4,5-Trichlorophenol	545	26.7	53.2	ug/kg we	t 4	533		102	41-124%			
2,4,6-Trichlorophenol	490	26.7	53.2	ug/kg we	t 4	533		92	39-126%			
Bis(2-ethylhexyl)phthalate	504	80.0	160	ug/kg we	t 4	533		95	51-133%			
Butyl benzyl phthalate	513	53.2	107	ug/kg we	t 4	533		96	48-132%			
Diethylphthalate	525	53.2	107	ug/kg we	t 4	533		99	50-124%			
Dimethylphthalate	522	53.2	107	ug/kg we	t 4	533		98	48-124%			
Di-n-butylphthalate	538	53.2	107	ug/kg we	t 4	533		101	51-128%			
Di-n-octyl phthalate	429	53.2	107	ug/kg we	t 4	533		81	45-140%			
N-Nitrosodimethylamine	497	13.3	26.7	ug/kg we	t 4	533		93	23-120%			
N-Nitroso-di-n-propylamine	577	13.3	26.7	ug/kg we	t 4	533		108	36-120%			
N-Nitrosodiphenylamine	525	13.3	26.7	ug/kg we	t 4	533		98	38-127%			
Bis(2-Chloroethoxy) methane	547	13.3	26.7	ug/kg we	t 4	533		103	36-121%			
Bis(2-Chloroethyl) ether	541	13.3	26.7	ug/kg we	t 4	533		101	31-120%			
2.2'-Oxybis(1-Chloropropane)	615	13.3	26.7	ug/kg we	t 4	533		115	39-120%			
Hexachlorobenzene	470	5.32	10.7	110/ko we	t 4	533		88	45-122%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: **111323** Project Manager: **Chip Byrd**

Project:

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasco -- Filtercake

		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23F0172 - EPA 3546							So	lid				
LCS (23F0172-BS1)			Preparec	1: 06/06/23 1	1:23 Ana	lyzed: 06/06	/23 17:10					Q-18
Hexachlorobutadiene	448	13.3	26.7	ug/kg we	t 4	533		84	32-123%			
Hexachlorocyclopentadiene	577	26.7	53.2	ug/kg we	t 4	533		108	10-140%			
Hexachloroethane	506	13.3	26.7	ug/kg we	t 4	533		95	28-120%			
2-Chloronaphthalene	535	5.32	10.7	ug/kg we	t 4	533		100	41-120%			
1,2,4-Trichlorobenzene	475	13.3	26.7	ug/kg we	t 4	533		89	34-120%			
4-Bromophenyl phenyl ether	502	13.3	26.7	ug/kg we	t 4	533		94	46-124%			
4-Chlorophenyl phenyl ether	519	13.3	26.7	ug/kg we	t 4	533		97	45-121%			
Aniline	511	26.7	53.2	ug/kg we	t 4	533		96	10-120%			
4-Chloroaniline	392	13.3	26.7	ug/kg we	t 4	533		73	17-120%			
2-Nitroaniline	560	107	213	ug/kg we	t 4	533		105	44-127%			
3-Nitroaniline	526	107	213	ug/kg we	t 4	533		99	33-120%			
4-Nitroaniline	555	107	213	ug/kg we	t 4	533		104	51-125%			
Nitrobenzene	608	53.2	107	ug/kg we	t 4	533		114	34-122%			
2,4-Dinitrotoluene	540	53.2	107	ug/kg we	t 4	533		101	48-126%			
2,6-Dinitrotoluene	519	53.2	107	ug/kg we	t 4	533		97	46-124%			
Benzoic acid	557	480	480	ug/kg we	t 4	1070		52	10-140%			Q-:
Benzyl alcohol	587	26.7	53.2	ug/kg we	t 4	533		110	29-122%			
Isophorone	523	13.3	26.7	ug/kg we	t 4	533		98	30-122%			
Azobenzene (1,2-DPH)	587	13.3	26.7	ug/kg we	t 4	533		110	39-125%			
Bis(2-Ethylhexyl) adipate	513	133	267	ug/kg we	t 4	533		96	61-121%			
3,3'-Dichlorobenzidine	1930	107	213	ug/kg we	t 4	1070		181	22-121%			Q-52, Q-2
1,2-Dinitrobenzene	536	133	267	ug/kg we	t 4	533		100	44-120%			
1,3-Dinitrobenzene	592	133	267	ug/kg we	t 4	533		111	43-127%			Q-4
1,4-Dinitrobenzene	609	133	267	ug/kg we	t 4	533		114	37-132%			Q-4
Pyridine	476	26.7	53.2	ug/kg we	t 4	533		89	10-120%			
1,2-Dichlorobenzene	487	13.3	26.7	ug/kg we	t 4	533		91	33-120%			
1,3-Dichlorobenzene	477	13.3	26.7	ug/kg we	t 4	533		89	30-120%			
1,4-Dichlorobenzene	480	13.3	26.7	ug/kg we	t 4	533		90	31-120%			
Surr: Nitrobenzene-d5 (Surr)		Recov	very: 114 %	Limits: 37-	122 %	Dilt	ution: 4x					
2-Fluorobiphenyl (Surr)			98 %	44-	120 %		"					
Phenol-d6 (Surr)			117 %	3.3-	122 %		"					
p-Terphenvl-d14 (Surr)			99%	.54-	127 %		"					
2-Fluorophenol (Surr)			103 %	35-	120 %		"					
2 1 6 Tuibuom on Long 1 (Sum)			06.0/	20-	127 0/		"					

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

<u>Sevenson Environmental Serv</u> 2749 Lockport Road Niagara Falls, NY 14305	ices, Inc.		l Proj Proj	Project: ject Number ect Manager	<u>Gasco -</u> 111323 Chip B	Filtercake yrd	<u>-</u>		А	<u>F</u> 551675	<u>Report ID</u> - 06 19 2	<u>:</u> 3 0903
		QU	ALITY CC	NTROL	(QC) SA	AMPLE F	RESULTS	5				
		Se	mivolatile (Organic C	ompour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0172 - EPA 3546							Sol	id				
Duplicate (23F0172-DUP2)			Prepared	: 06/06/23 1	1:23 Ana	lyzed: 06/08	/23 01:39					
OC Source Sample: FC-052323-2 EPA 8270E	115 (A3E167	<u>75-01)</u>										
Acenaphthene	95600	2710	5430	ug/kg dry	200		82600			15	30%	
Acenaphthylene	ND	8140	8140	ug/kg dry	200		ND				30%	R-02
Anthracene	82000	2710	5430	ug/kg dry	200		67900			19	30%	
Benz(a)anthracene	45800	2710	5430	ug/kg dry	200		36400			23	30%	
Benzo(a)pyrene	49000	4070	8140	ug/kg dry	200		39000			23	30%	
Benzo(b)fluoranthene	37400	4070	8140	ug/kg dry	200		30500			20	30%	
Benzo(k)fluoranthene	14200	4070	8140	ug/kg dry	200		12100			16	30%	M-05
Benzo(g,h,i)perylene	31600	2710	5430	ug/kg dry	200		25400			22	30%	
Chrysene	63500	2710	5430	ug/kg dry	200		52600			19	30%	
Dibenz(a,h)anthracene	3070	2710	5430	ug/kg dry	200		ND				30%	J, Q-17
Fluoranthene	238000	2710	5430	ug/kg dry	200		198000			18	30%	
Fluorene	65900	2710	5430	ug/kg dry	200		57400			14	30%	
Indeno(1,2,3-cd)pyrene	25600	2710	5430	ug/kg dry	200		21500			17	30%	
1-Methylnaphthalene	33900	5430	10800	ug/kg dry	200		30500			10	30%	
2-Methylnaphthalene	25000	5430	10800	ug/kg dry	200		22500			11	30%	
Naphthalene	ND	5430	10800	ug/kg dry	200		ND				30%	
Phenanthrene	467000	2710	5430	ug/kg dry	200		399000			16	30%	
Pyrene	283000	2710	5430	ug/kg dry	200		232000			20	30%	
Carbazole	ND	4070	8140	ug/kg dry	200		ND				30%	
Dibenzofuran	7940	2710	5430	ug/kg dry	200		7130			11	30%	
2-Chlorophenol	ND	13600	27100	ug/kg dry	200		ND				30%	
4-Chloro-3-methylphenol	ND	27100	54300	ug/kg dry	200		ND				30%	
2,4-Dichlorophenol	ND	13600	27100	ug/kg dry	200		ND				30%	
2,4-Dimethylphenol	ND	13600	27100	ug/kg dry	200		ND				30%	
2,4-Dinitrophenol	ND	67800	136000	ug/kg dry	200		ND				30%	
4,6-Dinitro-2-methylphenol	ND	67800	136000	ug/kg dry	200		ND				30%	
2-Methylphenol	ND	6780	13600	ug/kg dry	200		ND				30%	
3+4-Methylphenol(s)	ND	6780	13600	ug/kg dry	200		ND				30%	
2-Nitrophenol	ND	27100	54300	ug/kg dry	200		ND				30%	
4-Nitrophenol	ND	54300	54300	ug/kg dry	200		ND				30%	
Pentachlorophenol (PCP)	ND	27100	54300	ug/kg dry	200		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile (Organic C	ompour	ds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0172 - EPA 3546							Sol	id				
Duplicate (23F0172-DUP2)			Prepared	: 06/06/23 1	1:23 Anal	yzed: 06/08/	/23 01:39					
QC Source Sample: FC-052323-2	115 (A3E16'	75-01)										
Phenol	ND	5430	10800	ug/kg dry	200		ND				30%	
2,3,4,6-Tetrachlorophenol	ND	13600	27100	ug/kg dry	200		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	13600	27100	ug/kg dry	200		ND				30%	
2,4,5-Trichlorophenol	ND	13600	27100	ug/kg dry	200		ND				30%	
2,4,6-Trichlorophenol	ND	13600	27100	ug/kg dry	200		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	40700	81400	ug/kg dry	200		ND				30%	
Butyl benzyl phthalate	ND	27100	54300	ug/kg dry	200		ND				30%	
Diethylphthalate	ND	27100	54300	ug/kg dry	200		ND				30%	
Dimethylphthalate	ND	27100	54300	ug/kg dry	200		ND				30%	
Di-n-butylphthalate	ND	27100	54300	ug/kg dry	200		ND				30%	
Di-n-octyl phthalate	ND	27100	54300	ug/kg dry	200		ND				30%	
N-Nitrosodimethylamine	ND	6780	13600	ug/kg dry	200		ND				30%	
N-Nitroso-di-n-propylamine	ND	6780	13600	ug/kg dry	200		ND				30%	
N-Nitrosodiphenylamine	ND	13600	13600	ug/kg dry	200		ND				30%	
Bis(2-Chloroethoxy) methane	ND	6780	13600	ug/kg dry	200		ND				30%	
Bis(2-Chloroethyl) ether	ND	6780	13600	ug/kg dry	200		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	6780	13600	ug/kg dry	200		ND				30%	
Hexachlorobenzene	ND	2710	5430	ug/kg dry	200		ND				30%	
Hexachlorobutadiene	ND	6780	13600	ug/kg dry	200		ND				30%	
Hexachlorocyclopentadiene	ND	13600	27100	ug/kg dry	200		ND				30%	
Hexachloroethane	ND	6780	13600	ug/kg dry	200		ND				30%	
2-Chloronaphthalene	ND	2710	5430	ug/kg dry	200		ND				30%	
1,2,4-Trichlorobenzene	ND	6780	13600	ug/kg dry	200		ND				30%	
4-Bromophenyl phenyl ether	ND	6780	13600	ug/kg dry	200		ND				30%	
4-Chlorophenyl phenyl ether	ND	6780	13600	ug/kg dry	200		ND				30%	
Aniline	ND	13600	27100	ug/kg dry	200		ND				30%	
4-Chloroaniline	ND	6780	13600	ug/kg dry	200		ND				30%	
2-Nitroaniline	ND	54300	108000	ug/kg dry	200		ND				30%	
3-Nitroaniline	ND	54300	108000	ug/kg dry	200		ND				30%	
4-Nitroaniline	ND	54300	108000	ug/kg drv	200		ND				30%	
Nitrobenzene	ND	27100	54300	ug/kg drv	200		ND				30%	
2,4-Dinitrotoluene	ND	27100	54300	ug/kg dry	200		ND				30%	
2,6-Dinitrotoluene	ND	27100	54300	ug/kg dry	200		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	nivolatile	Organic C	Compour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0172 - EPA 3546							Sol	id				
Duplicate (23F0172-DUP2)			Preparec	1: 06/06/23 1	1:23 Ana	lyzed: 06/08	/23 01:39					
QC Source Sample: FC-052323-2	115 (A3E16	75-01)										
Benzoic acid	ND	340000	678000	ug/kg dr	y 200		ND				30%	
Benzyl alcohol	ND	13600	27100	ug/kg dr	y 200		ND				30%	
Isophorone	ND	6780	13600	ug/kg dr	y 200		ND				30%	
Azobenzene (1,2-DPH)	ND	6780	13600	ug/kg dr	y 200		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	67800	136000	ug/kg dr	y 200		ND				30%	
3,3'-Dichlorobenzidine	ND	54300	108000	ug/kg dr	y 200		ND				30%	Q-5
1,2-Dinitrobenzene	ND	67800	136000	ug/kg dr	y 200		ND				30%	
1,3-Dinitrobenzene	ND	67800	136000	ug/kg dr	y 200		ND				30%	
1,4-Dinitrobenzene	ND	67800	136000	ug/kg dr	y 200		ND				30%	
Pyridine	ND	13600	27100	ug/kg dr	y 200		ND				30%	
1,2-Dichlorobenzene	ND	6780	13600	ug/kg dr	y 200		ND				30%	
1,3-Dichlorobenzene	ND	6780	13600	ug/kg dr	y 200		ND				30%	
1,4-Dichlorobenzene	ND	6780	13600	ug/kg dr	y 200		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Recov	ery: 103 %	Limits: 37	-122 %	Dilt	ution: 200x					S-05
2-Fluorobiphenyl (Surr)			104 %	44-	-120 %		"					S-05
Phenol-d6 (Surr)			95 %	33-	-122 %		"					S-05
p-Terphenyl-d14 (Surr)			116 %	54-	-127 %		"					S-05
2-Fluorophenol (Surr)			92 %	35-	-120 %		"					S-05
2,4,6-Tribromophenol (Surr)			291 %	39-	-132 %		"					S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by I	E PA 602 0	B (ICPMS	3)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1101 - EPA 3051A							Sol	id				
Blank (23E1101-BLK1)			Prepared	: 05/25/23 1	3:41 Anal	yzed: 05/25	/23 18:40					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg we	t 10							
Barium	ND	500	1000	ug/kg we	t 10							
Cadmium	ND	100	200	ug/kg we	t 10							
Chromium	ND	500	1000	ug/kg we	t 10							
Lead	ND	100	200	ug/kg we	t 10							
Mercury	ND	40.0	80.0	ug/kg we	t 10							
Selenium	ND	500	1000	ug/kg we	t 10							
Silver	ND	100	200	ug/kg we	t 10							
LCS (23E1101-BS1)			Prepared	: 05/25/23 1	3:41 Anal	yzed: 05/25	/23 18:45					
<u>EPA 6020B</u>												
Arsenic	48800	500	1000	ug/kg we	t 10	50000		98	80-120%			
Barium	51500	500	1000	ug/kg we	t 10	50000		103	80-120%			
Cadmium	49300	100	200	ug/kg we	t 10	50000		99	80-120%			
Chromium	50500	500	1000	ug/kg we	t 10	50000		101	80-120%			
Lead	52100	100	200	ug/kg we	t 10	50000		104	80-120%			
Mercury	967	40.0	80.0	ug/kg we	t 10	1000		97	80-120%			
Selenium	25200	500	1000	ug/kg we	t 10	25000		101	80-120%			
Silver	24200	100	200	ug/kg we	t 10	25000		97	80-120%			
Duplicate (23E1101-DUP1)			Prepared	: 05/25/23 1	3:41 Anal	yzed: 05/25	/23 18:55					
QC Source Sample: FC-052323-2	115 (A3E167	5-01)										
EPA 6020B												
Arsenic	8810	1980	3970	ug/kg dry	/ 10		8360			5	20%	
Barium	213000	1980	3970	ug/kg dry	7 10		211000			0.7	20%	
Cadmium	ND	397	793	ug/kg dry	7 10		ND				20%	
Chromium	ND	1980	3970	ug/kg dry	7 10		ND				20%	
Lead	ND	397	793	ug/kg dry	7 10		ND				20%	
Mercury	ND	159	317	ug/kg dry	7 10		ND				20%	
Selenium	ND	1980	3970	ug/kg dry	7 10		ND				20%	
Silver	ND	397	793	ug/kg dry	7 10		ND				20%	

Matrix Spike (23E1101-MS1)

Prepared: 05/25/23 13:41 Analyzed: 05/25/23 18:59

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by E	EPA 602(B (ICPM:	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1101 - EPA 3051A							Sol	id				
Matrix Spike (23E1101-MS1)			Prepared:	: 05/25/23 13	3:41 Anal	yzed: 05/25	/23 18:59					
QC Source Sample: FC-052323-211	5 (A3E167	<u>'5-01)</u>										
<u>EPA 6020B</u>												
Arsenic	194000	1930	3860	ug/kg dry	10	193000	8360	96	75-125%			
Barium	396000	1930	3860	ug/kg dry	10	193000	211000	95	75-125%			
Cadmium	186000	386	772	ug/kg dry	10	193000	ND	97	75-125%			
Chromium	186000	1930	3860	ug/kg dry	10	193000	ND	96	75-125%			
Lead	192000	386	772	ug/kg dry	10	193000	ND	99	75-125%			
Mercury	3580	154	309	ug/kg dry	10	3860	ND	93	75-125%			
Selenium	94800	1930	3860	ug/kg dry	10	96500	ND	98	75-125%			
Silver	89500	386	772	ug/kg dry	10	96500	ND	93	75-125%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	OB (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0042 - EPA 1311/3	015A						Sol	lid				
Blank (23F0042-BLK1)			Prepared	: 06/01/23	12:28 Anal	yzed: 06/02	/23 23:19					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							TCL
Barium	ND	2500	5000	ug/L	10							TCL
Cadmium	ND	50.0	100	ug/L	10							TCL
Chromium	ND	50.0	100	ug/L	10							TCL
Lead	ND	25.0	50.0	ug/L	10							TCL
Mercury	ND	3.75	7.00	ug/L	10							TCL
Selenium	ND	50.0	100	ug/L	10							TCL
Silver	ND	50.0	100	ug/L	10							Q-30, TCL
LCS (23F0042-BS1)			Prepared	: 06/01/23	12:28 Anal	yzed: 06/02	/23 23:24					
<u>1311/6020B</u>												
Arsenic	5000	50.0	100	ug/L	10	5000		100	80-120%			TCL
Barium	10200	2500	5000	ug/L	10	10000		102	80-120%			TCL
Cadmium	1010	50.0	100	ug/L	10	1000		101	80-120%			TCL
Chromium	4990	50.0	100	ug/L	10	5000		100	80-120%			TCL
Lead	5600	25.0	50.0	ug/L	10	5000		112	80-120%			TCL
Mercury	104	3.75	7.00	ug/L	10	100		104	80-120%			TCL
Selenium	1010	50.0	100	ug/L	10	1000		101	80-120%			TCL
Silver	687	50.0	100	ug/L	10	1000		69	80-120%			Q-30, TCL
Duplicate (23F0042-DUP1)			Prepared	: 06/01/23	12:28 Anal	yzed: 06/02	/23 23:34					
QC Source Sample: FC-052323	-2115 (A3E16	75-01)				<u> </u>						
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10		ND				20%	
Barium	ND	2500	5000	ug/L	10		ND				20%	
Cadmium	ND	50.0	100	ug/L	10		ND				20%	
Chromium	ND	50.0	100	ug/L	10		ND				20%	
Lead	ND	25.0	50.0	ug/L	10		ND				20%	
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	
Selenium	ND	50.0	100	ug/L	10		ND				20%	
Silver	ND	50.0	100	110/L	10		ND				20%	0-3

Matrix Spike (23F0042-MS1)

Prepared: 06/01/23 12:28 Analyzed: 06/02/23 23:39

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0042 - EPA 1311/301	5A						So	lid				
Matrix Spike (23F0042-MS1)			Prepared	: 06/01/23	12:28 Ana	lyzed: 06/02	/23 23:39					
QC Source Sample: FC-052323-21	15 (A3E167	75-01)										
<u>1311/6020B</u>												
Arsenic	5020	50.0	100	ug/L	10	5000	ND	100	50-150%			
Barium	10600	2500	5000	ug/L	10	10000	ND	106	50-150%			
Cadmium	1030	50.0	100	ug/L	10	1000	ND	103	50-150%			
Chromium	5030	50.0	100	ug/L	10	5000	ND	101	50-150%			
Lead	5510	25.0	50.0	ug/L	10	5000	ND	110	50-150%			
Mercury	107	3.75	7.00	ug/L	10	100	ND	107	50-150%			
Selenium	1050	50.0	100	ug/L	10	1000	ND	105	50-150%			
Silver	837	50.0	100	ug/L	10	1000	ND	84	50-150%			Q-30

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	2 EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0141 - EPA 1311/301	5A						Sol	id				
Blank (23F0141-BLK1)			Prepared	: 06/05/23	16:49 Ana	lyzed: 06/05	/23 21:18					
<u>1311/6020B</u> Silver	ND	50.0	100	ug/L	10							TCL
LCS (23F0141-BS1)			Prepared	: 06/05/23	16:49 Ana	lyzed: 06/05	/23 21:23					
<u>1311/6020B</u> Silver	885	50.0	100	ug/L	10	1000		88	80-120%			TCL
Duplicate (23F0141-DUP1)			Prepared	: 06/05/23	16:49 Ana	lyzed: 06/05	/23 21:33					
QC Source Sample: FC-052323-21	15 (A3E16'	7 <u>5-01RE1)</u>										
Silver	ND	50.0	100	ug/L	10		ND				20%	
Matrix Spike (23F0141-MS1)			Prepared	: 06/05/23	16:49 Ana	lyzed: 06/05	/23 21:38					
OC Source Sample: FC-052323-21	1 <u>5 (A3E16'</u>	7 <u>5-01RE1)</u>										
Silver	940	50.0	100	ug/L	10	1000	ND	94	50-150%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

	Solu	ble Cyanid	le by UV Di	gestion/	Gas Diffu	sion/Amp	erometri	c Detectio	on			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0064 - ASTM D7511-1	2mod (S)						Soil	1				
Blank (23F0064-BLK1)			Prepared	: 06/02/23	08:15 Anal	yzed: 06/02/	/23 15:11					
<u>D7511-12</u> Total Cyanide	ND	50.0	100	ug/kg w	vet 1							
LCS (23F0064-BS1)			Prepared	: 06/02/23	08:15 Anal	'yzed: 06/02/	/23 15:13					
D7511-12 Total Cyanide	355	50.0	100	ug/kg w	/et 1	400		89	84-116%			
Matrix Spike (23F0064-MS1)			Prepared	: 06/02/23	08:15 Anal	yzed: 06/02/	/23 15:19					
QC Source Sample: FC-052323-211	5 (A3E167	<u>'5-01)</u>										
Total Cyanide	6560	947	1890	ug/kg d	ry 5	1520	5130	94	64-136%			
Matrix Spike Dup (23F0064-M	SD1)		Prepared:	: 06/02/23	08:15 Anal	yzed: 06/02/	/23 15:21					
OC Source Sample: FC-052323-211	5 (A3E167	<u>'5-01)</u>										
Total Cyanide	6630	946	1890	ug/kg d	ry 5	1510	5130	99	64-136%	1	47%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Weig	ght	1	1				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E1075 - Total Solids (Dry Weigh	nt) - 2022					Soil	1				
Duplicate (23E1075-DUP1)			Prepared:	: 05/25/23	10:25 Anal	yzed: 05/26/	23 06:10					
QC Source Sample: Non-SDG (A3	3E1672-01)											
% Solids	90.1	1.00	1.00	%	1		89.2			1	10%	
Duplicate (23E1075-DUP2)			Prepared:	: 05/25/23	10:25 Anal	yzed: 05/26/	23 06:10					
QC Source Sample: Non-SDG (A3	<u>3E1672-02)</u>											
% Solids	93.3	1.00	1.00	%	1		93.0			0.3	10%	
Duplicate (23E1075-DUP3)			Prepared:	: 05/25/23	10:25 Anal	yzed: 05/26/	23 06:10					
OC Source Sample: FC-052323-2	115 (A3E167	75-01)										
<u>EPA 8000D</u> % Solids	26.4	1.00	1.00	%	1		26.3			0.2	10%	
Duplicate (23E1075-DUP4)			Prepared:	: 05/25/23	10:25 Anal	yzed: 05/26/	23 06:10					
QC Source Sample: Non-SDG (A3	3E1680-01)											
% Solids	96.9	1.00	1.00	%	1		97.1			0.2	10%	
Duplicate (23E1075-DUP5)			Prepared:	: 05/25/23	17:34 Anal	yzed: 05/26/	23 06:10					
QC Source Sample: Non-SDG (A3	3E1715-01)											
% Solids	64.4	1.00	1.00	%	1		63.2			2	10%	
Duplicate (23E1075-DUP6)			Prepared:	: 05/25/23	17:34 Anal	yzed: 05/26/	23 06:10					
QC Source Sample: Non-SDG (A3	<u>3E1744-02)</u>											
% Solids	90.7	1.00	1.00	%	1		92.6			2	10%	

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

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The results in this report apply to the samples analyzed in accordance with the chain of



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

<u>Sevenson Environments</u> 2749 Lockport Road Niagara Falls, NY 1430	al Services, Inc. 15	Pi Pr	Project: <u>Gasco</u> - roject Number: 111323 oject Manager: Chip B	<u>- Filtercake</u> yrd		<u>Report ID:</u> A3E1675 - 06 19 23	<u>.</u> 3 0903
		SAMPLE	PREPARATION I	NFORMATION			
		Diesel and	l/or Oil Hydrocarbor	s by NWTPH-Dx			
Prep: EPA 3546 (Fuel	<u>s)</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23F0153 A3E1675-01	Solid	NWTPH-Dx	05/23/23 22:00	06/06/23 08:08	10.22g/5mL	10g/5mL	0.98
	Gaso	line Range Hydrocart	oons (Benzene throu	ugh Naphthalene) b	y NWTPH-Gx		
Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23E1239 A3E1675-01RE1	Solid	NWTPH-Gx (MS)	05/23/23 22:00	05/24/23 15:10	5.16g/5mL	5g/5mL	0.97
		Volatile C	Organic Compounds	by EPA 8260D			
<u>Prep: EPA 5035A</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23E1239 A3E1675-01RE1	Solid	5035A/8260D	05/23/23 22:00	05/24/23 15:10	5.16g/5mL	5g/5mL	0.97
		Regulated TCLP Vol	atile Organic Comp	ounds by EPA 1311	/8260D		
Prep: EPA 1311/5030B	TCLP Volatiles	•	<u> </u>	-	Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23F0093 A3E1675-01	Solid	1311/8260D	05/23/23 22:00	06/02/23 14:47	5mL/5mL	5mL/5mL	1.00
		Semivolatil	e Organic Compour	ds by EPA 8270E			
Prep: EPA 3546			<u> </u>		Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23F0172 A3E1675-01	Solid	EPA 8270E	05/23/23 22:00	06/06/23 11:23	5.42g/2mL	15g/2mL	2.77
		Total	Metals by EPA 602	OB (ICPMS)			
Prep: EPA 3051A			,, 	(- -)	Sample	Default	RL Pren
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23E1101 A3E1675-01	Solid	EPA 6020B	05/23/23 22:00	05/25/23 13:41	0.455g/50mL	0.5g/50mL	1.10
Apex Laboratories			The results	in this report apply to the sa	imples analyzed in ac	cordance with the chain	of

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3E1675 - 06 19 23 0903
	SAMPLE PREPARAT	FION 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 1311/3015	<u>5A</u>				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23F0042								
A3E1675-01	Solid	1311/6020B	05/23/23 22:00	06/01/23 12:28	10mL/50mL	10mL/50mL	1.00	
Batch: 23F0141								
A3E1675-01RE1	Solid	1311/6020B	05/23/23 22:00	06/05/23 16:49	10mL/50mL	10mL/50mL	1.00	
	<u></u>	Soluble Cyanide by U	/ Digestion/Gas Diff	usion/Amperometric	Detection			
	Orment (C)	bolable Oyanide by O	Digestion/Cas Dim	usion/Amperometric			DID	
Prep: ASTM D7511-1	<u>2mod (5)</u>			~ .	Sample	Default	RL Prep	
Lab Number Batch: 23E0064	Matrix	Method	Sampled	Prepared	IIIItial/1 IIIai	IIIItial/1/IIIai	Factor	
A3E1675-01	Solid	D7511-12	05/23/23 22:00	06/02/23 08:15	2.507g/50mL	2.5g/50mL	1.00	
			Percent Dry We	ight				
Prep: Total Solids (Dr	<u>ry Weight) - 2022</u>				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23E1075								
A3E1675-01	Solid	EPA 8000D	05/23/23 22:00	05/25/23 10:25			NA	
		Т	CI P Extraction by F	-PA 1311				
Prep: EPA 1311 (TCL	P)				Sample	Default	RI Pren	
Lab Number	<u>···</u> Mat r iv	Method	Sampled	Preparad	Initial/Final	Initial/Final	Factor	
Batch: 23E1235	Ivial IX	wiction	Sampieu	Tiepareu				
A3E1675-01	Solid	EPA 1311	05/23/23 22:00	05/31/23 16:00	100g/2000.1g	100g/2000g	NA	
Prep: EPA 1311 TCLF	P/ZHE				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23F0047								
A3E1675-01	Solid	EPA 1311 ZHE	05/23/23 22:00	06/01/23 14:41	25g/504.1g	25g/500g	NA	

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

QUALIFIER DEFINITIONS

<u>Client Sample and Quality Control (QC) Sample Qualifier Definitions:</u>

Apex Laboratories

- **E** Estimated Value. The result is above the calibration range of the instrument.
- F-13 The chromatographic pattern does not resemble the fuel standard used for quantitation
- **H-01** Analyzed outside the recommended holding time.
- J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-02 Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
- M-05 Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- Q-17 RPD between original and duplicate sample is outside of established control limits.
- Q-18 Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
- Q-29 Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-30 Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
- Q-31 Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-37 Sample is non-homogenous. Sample results are less than the Reporting Level (MDL and/or MRL) and Duplicate results exceed this level. See QC Section of the report for Duplicate results.
- 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 +2%. 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 +3%. 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 -11%. 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 -13%. 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 -14%. 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 -17%. The results are reported as Estimated Values.

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Apex Laboratories, LLC

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

<u>Sevenson En</u> 2749 Lockpo Niagara Falls	<u>vironmental Services, Inc.</u> rt Road 5, NY 14305	Project: Project Numbe Project Manage	<u>Gasco Filtercake</u> r: 111323 r: Chip Byrd	<u>Report ID:</u> A3E1675 - 06 19 23 0903
Q-54f	Daily Continuing Calibration Verification recove results are reported as Estimated Values.	ry for this analyte f	ailed the +/-20% criteria listed	in EPA method 8260/8270 by -23%. The
Q-54g	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ry for this analyte f	ailed the +/-20% criteria listed	in EPA method 8260/8270 by -26%. The
Q-54h	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ry for this analyte f	ailed the +/-20% criteria listed	in EPA method 8260/8270 by -28%. The
Q-54i	Daily Continuing Calibration Verification recover results are reported as Estimated Values.	ry for this analyte f	ailed the +/-20% criteria listed	in EPA method 8260/8270 by -3%. The
Q-54j	Daily Continuing Calibration Verification recove results are reported as Estimated Values.	ry for this analyte f	ailed the +/-20% criteria listed	in EPA method 8260/8270 by -33%. The
Q-54k	Daily Continuing Calibration Verification recove results are reported as Estimated Values.	ry for this analyte f	ailed the +/-20% criteria listed	in EPA method 8260/8270 by -34%. The
Q-541	Daily Continuing Calibration Verification recove results are reported as Estimated Values.	ry for this analyte f	ailed the +/-20% criteria listed	in EPA method 8260/8270 by -6%. The
Q-54m	Daily Continuing Calibration Verification recove results are reported as Estimated Values.	ry for this analyte f	ailed the +/-20% criteria listed	in EPA method 8260/8270 by -9%. The
Q-55	Daily CCV/LCS recovery for this analyte was be detection at the reporting level.	low the +/-20% cri	teria listed in EPA 8260, howe	ver there is adequate sensitivity to ensure
Q-56	Daily CCV/LCS recovery for this analyte was ab	ove the +/-20% cri	teria listed in EPA 8260	
R-02	The Reporting Limit for this analyte has been rai	sed to account for i	nterference from coeluting org	anic compounds present in the sample.
S-01	Surrogate recovery for this sample is not availabl interference.	e due to sample dil	ution required from high analy	te concentration and/or matrix
S-05	Surrogate recovery is estimated due to sample dil	ution required for	high analyte concentration and	/or matrix interference.
TCLP	This batch QC sample was prepared with TCLP of	or SPLP fluid from	preparation batch 23E1235.	
TCLPa	This batch QC sample was prepared with TCLP of	or SPLP fluid from	preparation batch 23F0047.	
V-15	Sample aliquot was subsampled from the sample sampling.	container. The sub	sampled aliquot was preserved	l in the laboratory within 48 hours of
V-16	Sample aliquot was subsampled from the sample sampling.	container in the lal	poratory. The subsampled aliqu	uot was not preserved within 48 hours of

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

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.

- <u>" dry"</u> 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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

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).

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<u>Report ID:</u> A3E1675 - 06 19 23 0903

REPORTING NOTES AND CONVENTIONS (Cont.):

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 ½ 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.

-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, if results are not reported to the MDL.

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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<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3E1675 - 06 19 23 0903

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 <u>exception</u> of any analyte(s) listed below:

Apex Lab	<u>oratories</u>				
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Sevenson Enviro	nmental Services, Inc. Project: <u>Gasco Filtercake</u>	
2749 Lockport F	Road Project Number: 111323	Report ID:
Niagara Falls, N	Y 14305 Project Manager: Chip Byrd	A3E1675 - 06 19 23 0903
	APEX LABS COOLER RECEIPT FORM Client:	
	Cooler Inspection Date/time inspected: 5/24/23 @ N07 By: EST Chain of Custody included? Yes No	<u>#7</u>
	Bottle labels/COCs agree? Yes No ★ Comments: Yeady 245	- - - - - - - -

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

Tuesday, July 25, 2023 Chip Byrd Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305

RE: A3F1367 - Gasco -- Filtercake - 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 A3F1367, which was received by the laboratory on 6/21/2023 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: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler 1.9 degC

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3F1367 - 07 25 23 1421

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	RMATION	
Client Sample ID	Laboratory ID	Matrix	Date Sampled Date Received
FC-062023-2131	A3F1367-01	Solid	06/20/23 03:00 06/21/23 10:05

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

	Die	sel and/or O	il Hydrocarl	oons by NWTP	H-Dx			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01)				Matrix: Solie	d	Batch:	23F1026	CONT
Diesel	5690000	201000	402000	ug/kg dry	5	06/29/23 06:03	NWTPH-Dx	F-13
Oil	ND	402000	804000	ug/kg dry	5	06/29/23 06:03	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recov	very: 89 %	Limits: 50-150 %	ó 5	06/29/23 06:03	NWTPH-Dx	S-05

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

Gasolir	ne Range Hy	drocarbons (Benzene ti	nrough Naphtha	alene) by	NWTPH-Gx		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01RE1)				Matrix: Solid	b	Batch:	23F0856	V-15
Gasoline Range Organics	45100	17300	34500	ug/kg dry	50	06/23/23 16:34	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recover	ry: 112 %	Limits: 50-150 %	5 I	06/23/23 16:34	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			112 %	50-150 %	5 1	06/23/23 16:34	NWTPH-Gx (MS)	

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Sevens	on Environ	nental Ser	vices, Inc.
2749 L	ockport Roa	ad	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01RE1)				Matrix: Sol	id	Batch:	23F0856	V-15
Acetone	ND	3450	6900	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Acrylonitrile	ND	345	690	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Benzene	ND	34.5	69.0	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Bromobenzene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Bromochloromethane	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Bromodichloromethane	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Bromoform	ND	345	690	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Bromomethane	ND	3450	3450	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
2-Butanone (MEK)	ND	1730	3450	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
n-Butylbenzene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
sec-Butylbenzene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
tert-Butylbenzene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Carbon disulfide	ND	1730	3450	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Carbon tetrachloride	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Chlorobenzene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Chloroethane	ND	1730	3450	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Chloroform	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Chloromethane	ND	863	1730	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
2-Chlorotoluene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
4-Chlorotoluene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Dibromochloromethane	ND	345	690	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	863	1730	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Dibromomethane	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,2-Dichlorobenzene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,3-Dichlorobenzene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,4-Dichlorobenzene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Dichlorodifluoromethane	ND	345	690	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,1-Dichloroethane	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,1-Dichloroethene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
cis-1,2-Dichloroethene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
trans-1,2-Dichloroethene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	

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Sevenson	Environmental	Services,	Inc.
2749 Loc	knort Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3F1367 - 07 25 23	1421

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01RE1)				Matrix: Sol	id	Batch:	23F0856	V-15
1,2-Dichloropropane	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,3-Dichloropropane	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
2,2-Dichloropropane	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,1-Dichloropropene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
cis-1,3-Dichloropropene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
trans-1,3-Dichloropropene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Ethylbenzene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Hexachlorobutadiene	ND	345	690	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
2-Hexanone	ND	3450	3450	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Isopropylbenzene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
4-Isopropyltoluene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Methylene chloride	ND	1730	3450	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1730	3450	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Naphthalene	ND	345	690	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
n-Propylbenzene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Styrene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Tetrachloroethene (PCE)	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Toluene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,2,3-Trichlorobenzene	ND	863	1730	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,2,4-Trichlorobenzene	ND	863	1730	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,1,1-Trichloroethane	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,1,2-Trichloroethane	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Trichloroethene (TCE)	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Trichlorofluoromethane	ND	345	690	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,2,3-Trichloropropane	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,2,4-Trimethylbenzene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
1,3,5-Trimethylbenzene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
Vinyl chloride	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
m,p-Xylene	ND	173	345	ug/kg dry	50	06/23/23 16:34	5035A/8260D	
o-Xylene	ND	86.3	173	ug/kg dry	50	06/23/23 16:34	5035A/8260D	

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Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D									
Analyte	Sample Result	Detection Limit	Reporting Limit	U	nits	Dilution	Date Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01RE1)				Mat	rix: Solic	ł	Batch:	23F0856	V-15
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	: 104 %	Limits:	80-120 %	1	06/23/23 16:34	5035A/8260D	
Toluene-d8 (Surr)			99 %		80-120 %	1	06/23/23 16:34	5035A/8260D	
4-Bromofluorobenzene (Surr)			92 %		79-120 %	1	06/23/23 16:34	5035A/8260D	

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Sevenson Environmental Ser	vices, Inc.
2749 Locknort Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3F1367 - 07 25 23	1421

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
FC-062023-2131 (A3F1367-01)				Matrix: Solid		Batch:	23F1083	CONT
Benzene	ND	6.25	12.5	ug/L	50	06/29/23 12:12	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	06/29/23 12:12	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	06/29/23 12:12	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	06/29/23 12:12	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	06/29/23 12:12	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	06/29/23 12:12	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	06/29/23 12:12	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	06/29/23 12:12	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	06/29/23 12:12	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	06/29/23 12:12	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	06/29/23 12:12	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 103 %	Limits: 80-120 %	1	06/29/23 12:12	1311/8260D	
Toluene-d8 (Surr)			101 %	80-120 %	1	06/29/23 12:12	1311/8260D	
4-Bromofluorobenzene (Surr)			98 %	80-120 %	1	06/29/23 12:12	1311/8260D	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01)				Matrix: Sol	id	Batch:	23F1025	CONT
Acenaphthene	54700	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Acenaphthylene	ND	6300	6300	ug/kg dry	200	06/28/23 21:08	EPA 8270E	R-02
Anthracene	49600	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Benz(a)anthracene	28400	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Benzo(a)pyrene	31100	1620	3230	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Benzo(b)fluoranthene	25900	1620	3230	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Benzo(k)fluoranthene	10300	1620	3230	ug/kg dry	200	06/28/23 21:08	EPA 8270E	M-05
Benzo(g,h,i)perylene	21000	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Chrysene	38800	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Dibenz(a,h)anthracene	1840	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	J
Fluoranthene	141000	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Fluorene	36600	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Indeno(1,2,3-cd)pyrene	16000	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
1-Methylnaphthalene	13400	2160	4310	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2-Methylnaphthalene	2310	2160	4310	ug/kg dry	200	06/28/23 21:08	EPA 8270E	J
Naphthalene	ND	2160	4310	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Phenanthrene	259000	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Pyrene	169000	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Carbazole	ND	1620	3230	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Dibenzofuran	ND	3880	3880	ug/kg dry	200	06/28/23 21:08	EPA 8270E	R-02
2-Chlorophenol	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
4-Chloro-3-methylphenol	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,4-Dichlorophenol	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,4-Dimethylphenol	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,4-Dinitrophenol	ND	26900	53900	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	26900	53900	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2-Methylphenol	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
3+4-Methylphenol(s)	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2-Nitrophenol	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
4-Nitrophenol	ND	21600	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Pentachlorophenol (PCP)	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Phenol	ND	2160	4310	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc.
2749 Loci	oprt Road		

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01)				Matrix: Sol	lid	Batch:	23F1025	CONT
2,3,5,6-Tetrachlorophenol	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,4,5-Trichlorophenol	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,4,6-Trichlorophenol	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	16200	32300	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Butyl benzyl phthalate	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Diethylphthalate	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Dimethylphthalate	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Di-n-butylphthalate	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Di-n-octyl phthalate	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
N-Nitrosodimethylamine	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
N-Nitrosodiphenylamine	ND	7030	7030	ug/kg dry	200	06/28/23 21:08	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Hexachlorobenzene	ND	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Hexachlorobutadiene	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Hexachlorocyclopentadiene	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Hexachloroethane	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2-Chloronaphthalene	ND	1070	2160	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
1,2,4-Trichlorobenzene	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
4-Bromophenyl phenyl ether	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Aniline	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
4-Chloroaniline	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2-Nitroaniline	ND	21600	43100	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
3-Nitroaniline	ND	21600	43100	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
4-Nitroaniline	ND	21600	43100	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Nitrobenzene	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,4-Dinitrotoluene	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
2,6-Dinitrotoluene	ND	10700	21600	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Benzoic acid	ND	135000	269000	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Benzyl alcohol	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services,	Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Repo	rt I	D:	
A3F1367 - 07	25	23	142

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01)				Matrix: Solic	ł	Batch:	23F1025	CONT
Isophorone	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Azobenzene (1,2-DPH)	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	26900	53900	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
3,3'-Dichlorobenzidine	ND	21600	43100	ug/kg dry	200	06/28/23 21:08	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	26900	53900	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
1,3-Dinitrobenzene	ND	26900	53900	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
1,4-Dinitrobenzene	ND	26900	53900	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Pyridine	ND	5390	10700	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
1,2-Dichlorobenzene	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
1,3-Dichlorobenzene	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
1,4-Dichlorobenzene	ND	2690	5390	ug/kg dry	200	06/28/23 21:08	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recove	ery: 98 %	Limits: 37-122 %	200	06/28/23 21:08	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			99 %	44-120 %	200	06/28/23 21:08	EPA 8270E	S-05
Phenol-d6 (Surr)			80 %	33-122 %	200	06/28/23 21:08	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			102 %	54-127 %	200	06/28/23 21:08	EPA 8270E	S-05
2-Fluorophenol (Surr)			50 %	35-120 %	200	06/28/23 21:08	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			%	39-132 %	200	06/28/23 21:08	EPA 8270E	S-01

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
	Sample Detection Reporting Date							
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01)	Matrix: Solid							
Batch: 23F1041								
Arsenic	9130	2150	4310	ug/kg dry	10	06/28/23 16:07	EPA 6020B	CONT
Barium	218000	2150	4310	ug/kg dry	10	06/28/23 16:07	EPA 6020B	CONT
Cadmium	ND	431	861	ug/kg dry	10	06/28/23 16:07	EPA 6020B	CONT
Chromium	ND	2150	4310	ug/kg dry	10	06/28/23 16:07	EPA 6020B	CONT
Lead	ND	431	861	ug/kg dry	10	06/28/23 16:07	EPA 6020B	CONT
Mercury	ND	172	344	ug/kg dry	10	06/28/23 16:07	EPA 6020B	CONT
Selenium	ND	2150	4310	ug/kg dry	10	06/28/23 16:07	EPA 6020B	CONT
Silver	ND	431	861	ug/kg dry	10	06/28/23 16:07	EPA 6020B	CONT

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

Sevenson Environmental Services, Inc.	Project: Ga	asco Filtercake	
2749 Lockport Road	Project Number: 111	1323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Ch	hip Byrd	A3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01)	Matrix: Solid							
Batch: 23F0883								
Arsenic	ND	50.0	100	ug/L	10	06/23/23 23:00	1311/6020B	CONT
Barium	ND	2500	5000	ug/L	10	06/23/23 23:00	1311/6020B	CONT
Cadmium	ND	50.0	100	ug/L	10	06/23/23 23:00	1311/6020B	CONT
Chromium	ND	50.0	100	ug/L	10	06/23/23 23:00	1311/6020B	CONT
Lead	ND	25.0	50.0	ug/L	10	06/23/23 23:00	1311/6020B	CONT
Mercury	ND	3.75	7.00	ug/L	10	06/23/23 23:00	1311/6020B	CONT
Selenium	ND	50.0	100	ug/L	10	06/23/23 23:00	1311/6020B	CONT
Silver	ND	50.0	100	ug/L	10	06/23/23 23:00	1311/6020B	CONT

Apex Laboratories



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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3F1367 - 07 25 23 1421

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
FC-062023-2131 (A3F1367-01RE1)				Matrix: Sol	id	Batch:	23F0801	CONT
Total Cyanide	4100	404	808	ug/kg dry	2	06/22/23 19:49	D7511-12	Q-42

Apex Laboratories

Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: Gasco	Filtercake
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip By	rd A3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01)				Matrix: So	olid	Batch:	23F0817	CONT
% Solids	24.7		1.00	%	1	06/23/23 06:08	EPA 8000D	

Apex Laboratories

Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: Gasco Fi	<u>ltercake</u>
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3F1367 - 07 25 23 1421

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-062023-2131 (A3F1367-01)				Matrix: Solid Batch: 23F083		23F0831	CONT	
TCLP Extraction TCLP ZHE Extraction	PREP PREP			N/A N/A	1 1	06/22/23 16:35 06/28/23 14:35	EPA 1311 EPA 1311 ZHE	

Apex Laboratories


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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

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		
Batch 23F1026 - EPA 3546 (F	uels)						Sol	id						
Blank (23F1026-BLK1)			Prepared	1: 06/28/23 0)5:15 Ana	lyzed: 06/29	/23 04:00							
NWTPH-Dx														
Diesel	ND	10000	20000	ug/kg we	et 1									
Oil	ND	20000	40000	ug/kg we	et 1									
Surr: o-Terphenyl (Surr)		Reco	very: 94 %	Limits: 50	-150 %	Dilt	ution: 1x							
LCS (23F1026-BS1)			Prepared	1: 06/28/23 ()5:15 Ana	lyzed: 06/29	/23 04:20							
<u>NWTPH-Dx</u>														
Diesel	108000	10000	20000	ug/kg we	et 1	125000		86	38-132%					
Surr: o-Terphenyl (Surr)		Recov	ery: 102 %	Limits: 50	-150 %	Dilt	ution: 1x							
Duplicate (23F1026-DUP1)			Prepared	1: 06/28/23 ()5:15 Ana	lyzed: 06/29	/23 05:01							
QC Source Sample: Non-SDG (A3	3F1226-01)													
Diesel	219000	18100	36100	ug/kg dr	y 1		143000			42	30%	F-13, Q-0		
Oil	71400	36100	72200	ug/kg dr	y 1		59500			18	30%			
Surr: o-Terphenyl (Surr)		Reco	very: 36 %	Limits: 50	-150 %	Dilt	ution: 1x					S-03		

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolin	e Range Hy	drocarbo	ons (Ber	izene throu	ugh Naph	thalene)	by NWTI	PH-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A						=	Soi	il	=			
Blank (23F0807-BLK1)			Prepared	1: 06/22/23	3 08:40 Anal	lyzed: 06/22	2/23 10:52			_	_	
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg v	wet 50							
Surr: 4-Bromofluorobenzene (Sur)		Recovery	v: 101 %	Limits:	50-150 %	Dila	ution: 1x					
1,4-Difluorobenzene (Sur)			106 %	:	50-150 %		"					
LCS (23F0807-BS2)			Prepared	1: 06/22/23	08:40 Anal	lyzed: 06/22	/23 10:26					
NWTPH-Gx (MS)												
Gasoline Range Organics	28000	2500	5000	ug/kg v	vet 50	25000		112	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Recovery	v: 103 %	Limits:	50-150 %	Dila	'ution: 1x					
1,4-Difluorobenzene (Sur)			106 %		50-150 %							
Duplicate (23F0807-DUP1)			Preparec	1: 06/21/23	16:55 Anal	lyzed: 06/22	2/23 11:43					V-15
OC Source Sample: Non-SDG (A3)	F1377-01)											
Gasoline Range Organics	ND	4130	8260	ug/kg c	try 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery	v: 104 %	Limits:	50-150 %	Dih	ution: 1x					
1,4-Difluorobenzene (Sur)			107 %	:	50-150 %		"					
Duplicate (23F0807-DUP2)			Prepared	1: 06/21/23	16:36 Anal	lyzed: 06/22	/23 16:48					V-15
QC Source Sample: Non-SDG (A3)	F1375-01)											
Gasoline Range Organics	ND	80500	161000	ug/kg c	dry 500		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recover	v: 102 %	Limits: 3	50-150 %	Dili	ution: 1x					
1,4-Difluorobenzene (Sur)		×	103 %	ذ	50-150 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolin	e Range H	ydrocarbo	ons (Ben	zene throu	igh Naphi	thalene)	by NWTF	יH-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							Soi	il				
Blank (23F0856-BLK1)			Preparec	1: 06/23/23	08:53 Anal	yzed: 06/23/	/23 10:35	_		_	_	
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Recove	ery: 103 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			108 %		0-150 %		"					
LCS (23F0856-BS2)			Prepared	1: 06/23/23	08:53 Anal	yzed: 06/23/	/23 10:06					
NWTPH-Gx (MS)												
Gasoline Range Organics	26100	2500	5000	ug/kg w	vet 50	25000		104	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Recon	very: 98 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			107 %		0-150 %		"					
Duplicate (23F0856-DUP1)			Preparec	1: 06/19/23	09:30 Anal	yzed: 06/23/	/23 11:26			_	_	
QC Source Sample: Non-SDG (A3	<u>F1410-01)</u>											
Gasoline Range Organics	ND	3920	7840	ug/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recove	ery: 103 %	Limits: 5	0-150 %	Dilh	ution: 1x					
1,4-Difluorobenzene (Sur)			110 %	5	0-150 %		"					
Duplicate (23F0856-DUP2)			Prepared	1: 06/20/23	14:15 Anal	yzed: 06/23/	/23 18:15					
QC Source Sample: Non-SDG (A3	<u>F1425-01)</u>											
Gasoline Range Organics	ND	3540	7080	ug/kg d	'ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recove	ry: 106 %	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			108 %	50	0-150 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

A 1.4	D k	Detection	Reporting	T T ' 4		Spike	Source		% REC	סחח	RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23F0807 - EPA 5035A							Soi	1				
Blank (23F0807-BLK1)			Prepared	: 06/22/23 08	3:40 Ana	lyzed: 06/22/	/23 10:52					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1 2-Dichloroethene	ND	12.5	25.0	ug/kg wat	50							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							Soi					
Blank (23F0807-BLK1)			Prepared	: 06/22/23 08	:40 Ana	yzed: 06/22/	/23 10:52					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
rans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
sopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
l-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Foluene	ND	25.0	50.0	ug/kg wet	50							
,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Frichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
n,p-Xylene	ND	25.0	50.0	ug/kg wet	50							
)-Xvlene	ND	12.5	25.0	ug/kg wet	50							

Apex Laboratories



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

<u>Sevenson Environmental Servi</u> 2749 Lockport Road	ces, Inc.		Pro	Project: oject Numbe	<u>Gasco -</u> er: 111323	- Filtercake	<u>.</u>			F	Report ID:	<u>:</u>
Niagara Falls, NY 14305			Pro	ject Manage	r: Chip By	yrd			A	3F1367	- 07 25 23	3 1421
		OU				MDIED	Feint	C				
		QU	Volatilo Or		(QC) SP			5				
				ganic coi	npounus		5200D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							So	il				
Blank (23F0807-BLK1)			Prepared	1: 06/22/23 0	08:40 Ana	lyzed: 06/22	2/23 10:52					
Surr: Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr)		Reco	very: 102 % 95 %	Limits: 80- 79-	-120 % -120 %	Dili	ution: lx "					
LCS (23F0807-BS1)			Prepared	1: 06/22/23 0	08:40 Ana	lyzed: 06/22	2/23 10:01					
5035A/8260D												
Acetone	1920	500	1000	ug/kg we	et 50	2000		96	80-120%			
Acrylonitrile	997	50.0	100	ug/kg we	et 50	1000		100	80-120%			
Benzene	1020	5.00	10.0	ug/kg we	et 50	1000		102	80-120%			
Bromobenzene	940	12.5	25.0	ug/kg we	et 50	1000		94	80-120%			
Bromochloromethane	1070	25.0	50.0	ug/kg we	et 50	1000		107	80-120%			
Bromodichloromethane	1080	25.0	50.0	ug/kg we	et 50	1000		108	80-120%			
Bromoform	1030	50.0	100	ug/kg we	et 50	1000		103	80-120%			
Bromomethane	1100	500	500	ug/kg we	et 50	1000		110	80-120%			
2-Butanone (MEK)	1930	250	500	ug/kg we	et 50	2000		97	80-120%			
n-Butylbenzene	956	25.0	50.0	ug/kg we	et 50	1000		96	80-120%			
sec-Butylbenzene	982	25.0	50.0	ug/kg we	et 50	1000		98	80-120%			
tert-Butylbenzene	934	25.0	50.0	ug/kg we	et 50	1000		93	80-120%			
Carbon disulfide	915	250	500	ug/kg we	et 50	1000		92	80-120%			
Carbon tetrachloride	1140	25.0	50.0	ug/kg we	et 50	1000		114	80-120%			
Chlorobenzene	1000	12.5	25.0	ug/kg we	et 50	1000		100	80-120%			
Chloroethane	1280	250	500	ug/kg we	et 50	1000		128	80-120%			Q-56
Chloroform	1010	25.0	50.0	ug/kg we	et 50	1000		101	80-120%			
Chloromethane	917	125	250	ug/kg we	et 50	1000		92	80-120%			
2-Chlorotoluene	948	25.0	50.0	ug/kg we	et 50	1000		95	80-120%			
4-Chlorotoluene	947	25.0	50.0	ug/kg we	et 50	1000		95	80-120%			
Dibromochloromethane	1150	50.0	100	119/kg we	et 50	1000		115	80-120%			
1.2-Dibromo-3-chloropropane	972	125	250	119/kg we	et 50	1000		97	80-120%			
1.2-Dibromoethane (EDB)	992	25.0	50.0	110/ko we	et 50	1000		99	80-120%			
Dibromomethane	1040	25.0	50.0	110/ko we	et 50	1000		104	80-120%			
1 2-Dichlorobenzene	988	12.5	25.0	ug/kg we	et 50	1000		99	80-120%			
1.3-Dichlorobenzene	080	12.5	25.0	ug/kg we	st 50	1000		99	80_12070			
1 4-Dichlorobenzene	960	12.5	25.0	ug/kg we	-t 50	1000		96	80-12070			
Dichlorodifluoromethane	1000	50.0	100	ug/kg we	at 50	1000		100	80 120/0			
1.1 Dichloroethana	1030	12.5	25.0	ug/kg we	at 50	1000		103	80 12070			
1,1-Dichioloculane	1050	12.3	25.0	ug/kg We	л 30	1000		105	00-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							Soi	I				
LCS (23F0807-BS1)			Prepared	: 06/22/23 08:	40 Anal	yzed: 06/22	/23 10:01					
1,2-Dichloroethane (EDC)	1050	12.5	25.0	ug/kg wet	50	1000		105	80-120%			
1,1-Dichloroethene	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
cis-1,2-Dichloroethene	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
trans-1,2-Dichloroethene	1000	12.5	25.0	ug/kg wet	50	1000		100	80-120%			
1,2-Dichloropropane	1010	12.5	25.0	ug/kg wet	50	1000		101	80-120%			
1,3-Dichloropropane	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
2,2-Dichloropropane	985	25.0	50.0	ug/kg wet	50	1000		98	80-120%			
1,1-Dichloropropene	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
cis-1,3-Dichloropropene	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
trans-1,3-Dichloropropene	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
Ethylbenzene	958	12.5	25.0	ug/kg wet	50	1000		96	80-120%			
Hexachlorobutadiene	952	50.0	100	ug/kg wet	50	1000		95	80-120%			
2-Hexanone	1660	250	500	ug/kg wet	50	2000		83	80-120%			
Isopropylbenzene	951	25.0	50.0	ug/kg wet	50	1000		95	80-120%			
4-Isopropyltoluene	966	25.0	50.0	ug/kg wet	50	1000		97	80-120%			
Methylene chloride	1110	250	500	ug/kg wet	50	1000		111	80-120%			
4-Methyl-2-pentanone (MiBK)	1750	250	500	ug/kg wet	50	2000		88	80-120%			
Methyl tert-butyl ether (MTBE)	926	25.0	50.0	ug/kg wet	50	1000		93	80-120%			
Naphthalene	905	50.0	100	ug/kg wet	50	1000		90	80-120%			
n-Propylbenzene	969	12.5	25.0	ug/kg wet	50	1000		97	80-120%			
Styrene	943	25.0	50.0	ug/kg wet	50	1000		94	80-120%			
1,1,1,2-Tetrachloroethane	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
1,1,2,2-Tetrachloroethane	878	25.0	50.0	ug/kg wet	50	1000		88	80-120%			
Tetrachloroethene (PCE)	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
Toluene	963	25.0	50.0	ug/kg wet	50	1000		96	80-120%			
1,2,3-Trichlorobenzene	956	125	250	ug/kg wet	50	1000		96	80-120%			
1,2,4-Trichlorobenzene	896	125	250	ug/kg wet	50	1000		90	80-120%			
1,1,1-Trichloroethane	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
1,1,2-Trichloroethane	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
Trichloroethene (TCE)	1120	12.5	25.0	ug/kg wet	50	1000		112	80-120%			
Trichlorofluoromethane	826	50.0	100	ug/kg wet	50	1000		83	80-120%			
1,2,3-Trichloropropane	993	25.0	50.0	ug/kg wet	50	1000		99	80-120%			
1,2,4-Trimethylbenzene	938	25.0	50.0	ug/kg wet	50	1000		94	80-120%			
1,3,5-Trimethylbenzene	979	25.0	50.0	ug/kg wet	50	1000		98	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							Soi	il				
LCS (23F0807-BS1)			Preparec	1: 06/22/23 08	3:40 Anal	yzed: 06/22/	/23 10:01					
Vinyl chloride	1080	12.5	25.0	ug/kg wet	50	1000		108	80-120%			
m,p-Xylene	1880	25.0	50.0	ug/kg wet	50	2000		94	80-120%			
o-Xylene	900	12.5	25.0	ug/kg wet	50	1000		90	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	wery: 99%	Limits: 80-1	20 %	Dilu	tion: 1x					
Toluene-d8 (Surr)			103 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			93 %	79-1	20 %		"					
Duplicate (23F0807-DUP1)			Preparec	1: 06/21/23 16	55 Anal	yzed: 06/22/	/23 11:43					V-15
OC Source Sample: Non-SDG (A3	F1377-01)											
Acetone	ND	826	1650	ug/kg drv	50		ND				30%	
Acrylonitrile	ND	82.6	165	ug/kg dry	50		ND				30%	
Benzene	ND	8.26	16.5	ug/kg dry	50		ND				30%	
Bromobenzene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Bromoform	ND	82.6	165	ug/kg dry	50		ND				30%	
Bromomethane	ND	826	826	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	413	826	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	413	826	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
Chloroethane	ND	413	826	ug/kg dry	50		ND				30%	
Chloroform	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Chloromethane	ND	206	413	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	82.6	165	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	206	413	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Dibromomethane	ND	41.3	82.6	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	20.6	41.3	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							Soi	I				
Duplicate (23F0807-DUP1)			Prepared	: 06/21/23 1	6:55 Ana	lyzed: 06/22	/23 11:43					V-15
QC Source Sample: Non-SDG (A3	F1377-01)											
1,3-Dichlorobenzene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	82.6	165	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	20.6	41.3	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	20.6	41.3	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	20.6	41.3	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	41.3	82.6	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	41.3	82.6	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	82.6	165	ug/kg dry	50		ND				30%	
2-Hexanone	ND	413	826	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Methylene chloride	ND	413	826	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	413	826	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Naphthalene	ND	82.6	165	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	20.6	41.3	ug/kg dry	50		ND				30%	
Styrene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	20.6	41.3	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	41.3	82.6	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	20.6	41.3	ug/kg dry	50		ND				30%	
Toluene	ND	41.3	82.6	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene	ND	206	413	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	206	413	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	20.6	41.3	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	20.6	41.3	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							Soi	I				
Duplicate (23F0807-DUP1)			Prepareo	1: 06/21/23 1	6:55 Ana	lyzed: 06/22	/23 11:43					V-15
QC Source Sample: Non-SDG (A3	F1377-01)											
Trichloroethene (TCE)	ND	20.6	41.3	ug/kg dr	y 50		ND				30%	
Trichlorofluoromethane	ND	82.6	165	ug/kg dr	y 50		ND				30%	
1,2,3-Trichloropropane	ND	41.3	82.6	ug/kg dr	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	41.3	82.6	ug/kg dr	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	41.3	82.6	ug/kg dr	y 50		ND				30%	
Vinyl chloride	ND	20.6	41.3	ug/kg dr	y 50		ND				30%	
m,p-Xylene	ND	41.3	82.6	ug/kg dr	y 50		ND				30%	
o-Xylene	ND	20.6	41.3	ug/kg dr	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 102 %	Limits: 80-	-120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			101 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			94 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3	F1375-01)		Tiepuie		0.50 1114	1920a. 00,22	23 10.10					
Acetone	ND	16100	32200	ug/kg dr	y 500		ND				30%	
Acrylonitrile	ND	1610	3220	ug/kg dr	y 500		ND				30%	
Benzene	ND	161	322	ug/kg dr	y 500		ND				30%	
Bromobenzene	ND	403	805	ug/kg dr	y 500		ND				30%	
Bromochloromethane	ND	805	1610	ug/kg dr	y 500		ND				30%	
Bromodichloromethane	ND	805	1610	ug/kg dry	y 500		ND				30%	
Bromoform	ND	1610	3220	ug/kg dr	y 500		ND				30%	
Bromomethane	ND	16100	16100	ug/kg dr	y 500		ND				30%	
2-Butanone (MEK)	ND	8050	16100	ug/kg dr	y 500		ND				30%	
n-Butylbenzene	ND	805	1610	ug/kg dr	y 500		ND				30%	
sec-Butylbenzene	ND	805	1610	ug/kg dr	y 500		ND				30%	
tert-Butylbenzene	ND	805	1610	ug/kg dr	y 500		ND				30%	
Carbon disulfide	ND	8050	16100	ug/kg dr	y 500		ND				30%	
Carbon tetrachloride	ND	805	1610	ug/kg dr	y 500		ND				30%	
Chlorobenzene	ND	403	805	ug/kg dr	y 500		ND				30%	
Chloroethane	ND	8050	16100	ug/kg dr	y 500		ND				30%	
Chloroform	805	805	1610	ug/kg dr	y 500		837			200	30%	
Chloromethane	ND	4030	8050	ug/kg dr	y 500		ND				30%	
2-Chlorotoluene	ND	805	1610	ug/kg dr	y 500		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							Soil					
Duplicate (23F0807-DUP2)			Prepared	: 06/21/23 16	:36 Ana	lyzed: 06/22/	/23 16:48					V-15
QC Source Sample: Non-SDG (A3	<u>F1375-01)</u>											
4-Chlorotoluene	ND	805	1610	ug/kg dry	500		ND				30%	
Dibromochloromethane	ND	1610	3220	ug/kg dry	500		ND				30%	
1,2-Dibromo-3-chloropropane	ND	4030	8050	ug/kg dry	500		ND				30%	
1,2-Dibromoethane (EDB)	ND	805	1610	ug/kg dry	500		ND				30%	
Dibromomethane	ND	805	1610	ug/kg dry	500		ND				30%	
1,2-Dichlorobenzene	ND	403	805	ug/kg dry	500		ND				30%	
1,3-Dichlorobenzene	ND	403	805	ug/kg dry	500		ND				30%	
1,4-Dichlorobenzene	ND	403	805	ug/kg dry	500		ND				30%	
Dichlorodifluoromethane	ND	1610	3220	ug/kg dry	500		ND				30%	
1,1-Dichloroethane	ND	403	805	ug/kg dry	500		ND				30%	
1,2-Dichloroethane (EDC)	ND	403	805	ug/kg dry	500		ND				30%	
1,1-Dichloroethene	ND	403	805	ug/kg dry	500		ND				30%	
cis-1,2-Dichloroethene	ND	403	805	ug/kg dry	500		ND				30%	
trans-1,2-Dichloroethene	ND	403	805	ug/kg dry	500		ND				30%	
1,2-Dichloropropane	ND	403	805	ug/kg dry	500		ND				30%	
1,3-Dichloropropane	ND	805	1610	ug/kg dry	500		ND				30%	
2,2-Dichloropropane	ND	805	1610	ug/kg dry	500		ND				30%	
1,1-Dichloropropene	ND	805	1610	ug/kg dry	500		ND				30%	
cis-1,3-Dichloropropene	ND	805	1610	ug/kg dry	500		ND				30%	
trans-1,3-Dichloropropene	ND	805	1610	ug/kg dry	500		ND				30%	
Ethylbenzene	ND	403	805	ug/kg dry	500		ND				30%	
Hexachlorobutadiene	ND	1610	3220	ug/kg dry	500		ND				30%	
2-Hexanone	ND	8050	16100	ug/kg dry	500		ND				30%	
Isopropylbenzene	ND	805	1610	ug/kg dry	500		ND				30%	
4-Isopropyltoluene	ND	805	1610	ug/kg dry	500		ND				30%	
Methylene chloride	ND	8050	16100	ug/kg dry	500		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	8050	16100	ug/kg dry	500		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	805	1610	ug/kg dry	500		ND				30%	
Naphthalene	ND	1610	3220	ug/kg dry	500		ND				30%	
n-Propylbenzene	ND	403	805	ug/kg dry	500		ND				30%	
Styrene	ND	805	1610	ug/kg dry	500		ND				30%	
1,1,1,2-Tetrachloroethane	ND	403	805	ug/kg dry	500		ND				30%	
1,1,2,2-Tetrachloroethane	ND	805	1610	ug/kg dry	500		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							So	il				
Duplicate (23F0807-DUP2)			Prepared	l: 06/21/23 1	6:36 Ana	lyzed: 06/22	/23 16:48					V-15
QC Source Sample: Non-SDG (A3	<u>F1375-01)</u>											
Tetrachloroethene (PCE)	ND	403	805	ug/kg dry	y 500		ND				30%	
Toluene	ND	805	1610	ug/kg dry	y 500		ND				30%	
1,2,3-Trichlorobenzene	ND	4030	8050	ug/kg dry	y 500		ND				30%	
1,2,4-Trichlorobenzene	ND	4030	8050	ug/kg dry	y 500		ND				30%	
1,1,1-Trichloroethane	ND	403	805	ug/kg dry	y 500		ND				30%	
1,1,2-Trichloroethane	ND	403	805	ug/kg dry	y 500		ND				30%	
Trichloroethene (TCE)	ND	403	805	ug/kg dry	y 500		ND				30%	
Trichlorofluoromethane	ND	1610	3220	ug/kg dry	y 500		ND				30%	
1,2,3-Trichloropropane	ND	805	1610	ug/kg dry	y 500		ND				30%	
1,2,4-Trimethylbenzene	ND	805	1610	ug/kg dry	y 500		ND				30%	
1,3,5-Trimethylbenzene	ND	805	1610	ug/kg dry	y 500		ND				30%	
Vinyl chloride	ND	403	805	ug/kg dry	y 500		ND				30%	
m,p-Xylene	ND	805	1610	ug/kg dry	y 500		ND				30%	
o-Xylene	ND	403	805	ug/kg dry	y 500		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 100 %	Limits: 80-	120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			100 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			96 %	79-	120 %		"					
Matrix Spike (23F0807-MS1)			Prepared	l: 06/21/23 1	6:06 Ana	lyzed: 06/22	/23 15:32					V-15
QC Source Sample: Non-SDG (A3 5035A/8260D	<u>F1336-02)</u>											
Acetone	32400	7930	15900	ug/kg dry	y 500	31700	ND	102	36-164%			
Acrylonitrile	16100	793	1590	ug/kg dry	y 500	15900	ND	102	65-134%			
Benzene	17200	79.3	159	ug/kg dry	y 500	15900	ND	109	77-121%			
Bromobenzene	16000	198	397	ug/kg dry	y 500	15900	ND	101	78-121%			
Bromochloromethane	17500	397	793	ug/kg dry	y 500	15900	ND	111	78-125%			
Bromodichloromethane	17500	397	793	ug/kg dry	y 500	15900	ND	110	75-127%			
Bromoform	15500	793	1590	ug/kg dry	y 500	15900	ND	98	67-132%			
Bromomethane	19600	7930	7930	ug/kg dry	y 500	15900	ND	124	53-143%			
2-Butanone (MEK)	30800	3970	7930	ug/kg dry	y 500	31700	ND	97	51-148%			
n-Butylbenzene	20900	397	793	ug/kg dry	y 500	15900	1660	121	70-128%			
sec-Butylbenzene	18800	397	793	ug/kg dry	y 500	15900	539	115	73-126%			
tert-Butylbenzene	17600	397	793	ug/kg dry	y 500	15900	ND	111	73-125%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Ratch 23E0807 EDA 5025A												
Jacon 201 0007 - EFA 2032A			р	0(/01/02 1	.06		102 15 25					
viatrix Spike (23F0807-MS1)			Prepared:	: 06/21/23 16	:06 Ana	yzed: 06/22	23 15:32					V-15
QC Source Sample: Non-SDG (A3H	<u>F1336-02)</u>											
Carbon disulfide	15300	3970	7930	ug/kg dry	500	15900	ND	97	63-132%			
Carbon tetrachloride	19700	397	793	ug/kg dry	500	15900	ND	124	70-135%			
Chlorobenzene	16600	198	397	ug/kg dry	500	15900	ND	105	79-120%			
Chloroethane	21500	3970	7930	ug/kg dry	500	15900	ND	136	59-139%			Q-54
Chloroform	16900	397	793	ug/kg dry	500	15900	ND	107	78-123%			
Chloromethane	15500	1980	3970	ug/kg dry	500	15900	ND	98	50-136%			
2-Chlorotoluene	17000	397	793	ug/kg dry	500	15900	ND	107	75-122%			
4-Chlorotoluene	16700	397	793	ug/kg dry	500	15900	ND	105	72-124%			
Dibromochloromethane	18200	793	1590	ug/kg dry	500	15900	ND	115	74-126%			
1,2-Dibromo-3-chloropropane	16400	1980	3970	ug/kg dry	500	15900	ND	104	61-132%			
1,2-Dibromoethane (EDB)	16300	397	793	ug/kg dry	500	15900	ND	103	78-122%			
Dibromomethane	17000	397	793	ug/kg dry	500	15900	ND	107	78-125%			
1,2-Dichlorobenzene	16900	198	397	ug/kg dry	500	15900	ND	107	78-121%			
1,3-Dichlorobenzene	16900	198	397	ug/kg dry	500	15900	ND	106	77-121%			
1,4-Dichlorobenzene	16100	198	397	ug/kg dry	500	15900	ND	102	75-120%			
Dichlorodifluoromethane	18900	793	1590	ug/kg dry	500	15900	ND	119	29-149%			
1,1-Dichloroethane	17400	198	397	ug/kg dry	500	15900	ND	110	76-125%			
1,2-Dichloroethane (EDC)	17400	198	397	ug/kg dry	500	15900	ND	110	73-128%			
1,1-Dichloroethene	18200	198	397	ug/kg dry	500	15900	ND	115	70-131%			
cis-1,2-Dichloroethene	17200	198	397	ug/kg dry	500	15900	ND	108	77-123%			
rans-1,2-Dichloroethene	17000	198	397	ug/kg dry	500	15900	ND	107	74-125%			
1,2-Dichloropropane	16700	198	397	ug/kg dry	500	15900	ND	106	76-123%			
1,3-Dichloropropane	16500	397	793	ug/kg dry	500	15900	ND	104	77-121%			
2,2-Dichloropropane	16800	397	793	ug/kg dry	500	15900	ND	106	67-133%			
1,1-Dichloropropene	18000	397	793	ug/kg drv	500	15900	ND	114	76-125%			
cis-1,3-Dichloropropene	16500	397	793	ug/kg drv	500	15900	ND	104	74-126%			
rans-1.3-Dichloropropene	16000	397	793	ug/kg drv	500	15900	ND	101	71-130%			
Ethylbenzene	16600	198	397	ug/kg drv	500	15900	349	102	76-122%			
Hexachlorobutadiene	20800	793	1590	ug/ko drv	500	15900	ND	131	61-135%			
2-Hexanone	28000	3970	7930	110/ka dm	500	31700	ND	88	53-145%			
sonronvlhenzene	17400	307	702	ug/kg dm	500	15000	ND	110	68-13/0/			
Leopropyioenzene	10500	207	702	ug/kg uly	500	15000		122	72 1070/			
	19300	371	195	ug/kg ary	500	1,5900		123	13-12/%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Corr	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0807 - EPA 5035A							So	il				
Matrix Spike (23F0807-MS1)			Preparec	1: 06/21/23 16	6:06 Ana	lyzed: 06/22	/23 15:32					V-15
QC Source Sample: Non-SDG (A3	F1336-02)											
4-Methyl-2-pentanone (MiBK)	29800	3970	7930	ug/kg dry	500	31700	ND	94	65-135%			
Methyl tert-butyl ether (MTBE)	15300	397	793	ug/kg dry	500	15900	ND	97	73-125%			
Naphthalene	19600	793	1590	ug/kg dry	500	15900	ND	118	62-129%			
n-Propylbenzene	18200	198	397	ug/kg dry	500	15900	857	109	73-125%			
Styrene	16100	397	793	ug/kg dry	500	15900	ND	102	76-124%			
1,1,1,2-Tetrachloroethane	17800	198	397	ug/kg dry	500	15900	ND	113	78-125%			
1,1,2,2-Tetrachloroethane	14800	397	793	ug/kg dry	500	15900	ND	94	70-124%			
Tetrachloroethene (PCE)	16800	198	397	ug/kg dry	500	15900	ND	106	73-128%			
Toluene	16100	397	793	ug/kg dry	500	15900	ND	101	77-121%			
1,2,3-Trichlorobenzene	17800	1980	3970	ug/kg dry	500	15900	ND	112	66-130%			
1,2,4-Trichlorobenzene	17300	1980	3970	ug/kg dry	500	15900	ND	109	67-129%			
1,1,1-Trichloroethane	18800	198	397	ug/kg dry	500	15900	ND	118	73-130%			
1,1,2-Trichloroethane	16900	198	397	ug/kg dry	500	15900	ND	107	78-121%			
Trichloroethene (TCE)	18800	198	397	ug/kg dry	500	15900	ND	118	77-123%			
Trichlorofluoromethane	15400	793	1590	ug/kg dry	500	15900	ND	97	62-140%			
1,2,3-Trichloropropane	16600	397	793	ug/kg dry	500	15900	ND	105	73-125%			
1,2,4-Trimethylbenzene	21800	397	793	ug/kg dry	500	15900	4930	106	75-123%			
1,3,5-Trimethylbenzene	18900	397	793	ug/kg dry	500	15900	1710	108	73-124%			
Vinyl chloride	19000	198	397	ug/kg dry	500	15900	ND	120	56-135%			
m,p-Xylene	33800	397	793	ug/kg dry	500	31700	1470	102	77-124%			
o-Xylene	17300	198	397	ug/kg dry	500	15900	1070	102	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 100 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			100 %	80-1	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-1	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

A 1.	D 1	Detection	Reporting	T T ' 4	D'1 ('	Spike	Source	N/ DEC	% REC	סחח	RPD	NT 4
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	KPD	Limit	Notes
Batch 23F0856 - EPA 5035A							Soil					
Blank (23F0856-BLK1)			Prepared	: 06/23/23 08	:53 Ana	lyzed: 06/23/	/23 10:35					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1.2-Dichloroethene	ND	12.5	25.0	ug/kg wat	50							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							Soi	1				
Blank (23F0856-BLK1)			Prepared	: 06/23/23 08	:53 Ana	yzed: 06/23/	/23 10:35					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	500	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	50							
o-Xylene	ND	12.5	25.0	ug/kg wet	50							

Apex Laboratories



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

Sevenson Environmental Servi 2749 Lockport Road	ces, Inc.		Pro	Project:	<u>Gasco -</u> er: 111323	- Filtercake				E	Poport ID	
Niagara Falls, NY 14305			Pro	iect Manage	er: Chin By	vrd			Δ	<u>-</u> 3F1367	- 07 25 23	<u>.</u> 3 1421
				Jeermanag	in emp 2,	,			Л	51 1507	- 07 23 20	, 1421
		QU	ALITY CO	ONTROL	(QC) SA	MPLE R	RESULT	S				
			Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							So	il				
Blank (23F0856-BLK1)			Prepared	1: 06/23/23 ()8:53 Ana	lyzed: 06/23	/23 10:35					
Surr: Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr)		Reco	very: 101 % 94 %	Limits: 80 79	-120 % -120 %	Dil	ution: 1x "					
LCS (23F0856-BS1)			Prepared	1: 06/23/23 ()8:53 Ana	lyzed: 06/23	/23 09:40					
5035A/8260D												
Acetone	1890	500	1000	ug/kg we	et 50	2000		95	80-120%			
Acrylonitrile	995	50.0	100	ug/kg we	et 50	1000		100	80-120%			
Benzene	1020	5.00	10.0	ug/kg we	et 50	1000		102	80-120%			
Bromobenzene	910	12.5	25.0	ug/kg we	et 50	1000		91	80-120%			
Bromochloromethane	1080	25.0	50.0	ug/kg we	et 50	1000		108	80-120%			
Bromodichloromethane	1090	25.0	50.0	ug/kg we	et 50	1000		109	80-120%			
Bromoform	1030	50.0	100	ug/kg we	et 50	1000		103	80-120%			
Bromomethane	1120	500	500	ug/kg we	et 50	1000		112	80-120%			
2-Butanone (MEK)	1920	250	500	ug/kg we	et 50	2000		96	80-120%			
n-Butylbenzene	938	25.0	50.0	ug/kg we	et 50	1000		94	80-120%			
sec-Butylbenzene	954	25.0	50.0	ug/kg we	et 50	1000		95	80-120%			
tert-Butylbenzene	906	25.0	50.0	ug/kg we	et 50	1000		91	80-120%			
Carbon disulfide	922	250	500	ug/kg we	et 50	1000		92	80-120%			
Carbon tetrachloride	1130	25.0	50.0	ug/kg we	et 50	1000		113	80-120%			
Chlorobenzene	987	12.5	25.0	ug/kg we	et 50	1000		99	80-120%			
Chloroethane	1320	250	500	ug/kg we	et 50	1000		132	80-120%			Q-56
Chloroform	1000	25.0	50.0	ug/kg we	et 50	1000		100	80-120%			
Chloromethane	934	125	250	ug/kg we	et 50	1000		93	80-120%			
2-Chlorotoluene	910	25.0	50.0	ug/kg we	et 50	1000		91	80-120%			
4-Chlorotoluene	930	25.0	50.0	ug/kg we	et 50	1000		93	80-120%			
Dibromochloromethane	1160	50.0	100	119/kg we	et 50	1000		116	80-120%			
1 2-Dibromo-3-chloropropane	933	125	250	110/ko wa	et 50	1000		93	80-120%			
1.2-Dibromoethane (FDB)	974	25.0	50.0	ug/kg w	et 50	1000		97	80-120%			
Dibromomethane	1040	25.0	50.0	110/kg W	st 50	1000		104	80_120%			
1.2-Dichlorobenzene	060	12.5	25.0	ug/kg w	st 50	1000		96	80-12070			
1.3 Dichlorobenzone	060	12.5	25.0	ug/kg w	at 50	1000		96	80 120/0			
1,5-Dichlorobenzene	902 044	12.5	25.0	ug/kg W	at 50	1000		90	80-12070			
Dishlaradifluoromathana	244 1040	12.3	25.0	ug/kg W	x 50	1000		2 4 104	80 120%			
	1040	10.0	25.0	ug/kg We	J JU	1000		104	00-120%			
1,1-Dichloroethane	1040	12.5	25.0	ug/kg we	et 50	1000		104	80-120%			

ug/kg wet 50

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E0856 - EPA 50354							Soi	il				
L (23F0856-RS1)			Dranarad	06/23/22 0	8.53 Amo	luzed: 06/22	/23 00.40	-				
1 2 Dichlaroothana (EDC)	1050	12.5	25.0	. 00/25/25 U	5.55 Aila	1000	23 07.40	105	80.1200/			
1,2-Dichloroethane (EDC)	1050	12.5	25.0	ug/kg we	50 × 50	1000		103	80 120%			
ais 1.2 Diablaraathana	1010	12.3	25.0	ug/kg we	50 × 50	1000		101	80 120%			
trans 1.2 Dichloroothana	1000	12.5	25.0	ug/kg we	1 30 + 50	1000		00	80 120%			
1 2 Dichloropropene	980 1020	12.3	25.0	ug/kg we	1 30 + 50	1000		99 103	80 120%			
1,2-Dichloropropane	1030	12.3	23.0	ug/kg we	L 30	1000		105	80 120%			
2.2 Dichlaronnon	1000	25.0	50.0	ug/kg we	50	1000		100	80-120%			
2,2-Dichloropropane	981	25.0	50.0	ug/kg we	50	1000		98 101	80-120%			
ais 1.2 Diabloronnanana	1010	25.0	50.0	ug/kg we	L 30	1000		101	80 120%			
trang 1.2 Dichlorennene	1020	25.0	50.0	ug/kg we	L 30	1000		102	80 120%			
u ans-1,5-Dicinoropropene	024	25.0	25.0	ug/kg we	1 30 + 50	1000		02	80 120%			
Luiyiochizene	924	12.3	23.0	ug/kg we	L 30	1000		92 02	80 120%			
2 Hevenone	925	50.0	500	ug/kg we	L 30	2000		92 70	00-120%			0.5
2-monatione Isopropylhenzene	020	25.0	50.0	ug/kg we	+ 50	2000		19 02	80 120%			Q-3
A Isopropylucitzene	920	25.0	50.0	ug/kg we	+ 50	1000		92 04	80 120%			
Hethylene chloride	930 1070	25.0	50.0	ug/kg we	+ 50	1000		24 107	80-120%			
4 Mathyl 2 nontanona (MEDV)	10/0	230 250	500	ug/kg we	+ 50	2000		107	80 120%			
Here with the set of t	007	250	50.0	ug/kg we	+ 50	2000		00 01	80 120%			
Nonhthalana	907	23.0	100	ug/kg we	+ 50	1000		71 86	80 120%			
n-Propulbenzene	0/5	12.5	25.0	ug/kg we	+ 50	1000		00 04	80-120%			
Sturana	9 4 5 006	25.0	23.0 50.0	ug/kg we	+ 50	1000		9 1 01	80 12070			
1 1 1 2 Tetrachloroethane	1000	23.0 12.5	25.0	ug/kg we	+ 50	1000		21 100	80 120%			
1,1,1,2-1cuacilioroculaiic	870	25.0	50.0	ug/kg we	+ 50	1000		87	80-12070			
Tetrachloroethene (PCE)	084	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
Toluene	940	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			
1 2 3-Trichlorobenzene	909	125	250	110/ko we	t 50	1000		91	80-120%			
1.2.4-Trichlorobenzene	856	125	250	110/ko we	t 50	1000		86	80-120%			
1.1.1-Trichloroethane	1070	12.5	250	110/ko we	t 50	1000		107	80-120%			
1 1 2-Trichloroethane	1010	12.5	25.0	110/ko we	t 50	1000		101	80-120%			
Trichloroethene (TCE)	1100	12.5	25.0	110/ko we	t 50	1000		110	80-120%			
Trichlorofluoromethane	932	50.0	100	110/ko we	t 50	1000		93	80-120%			
1.2.3-Trichloronronane	984	25.0	50.0	ug/kg we	t 50	1000		98	80-120%			
1.2.5 Trimethylbenzene	916	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
1.2.5 Trimethylbenzene	049	25.0	50.0	ug/kg we	50	1000		05	80 12070			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Corr	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							Soi	il				
LCS (23F0856-BS1)	_		Prepared	1: 06/23/23 08	3:53 Anal	yzed: 06/23/	23 09:40		_	_		
Vinyl chloride	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
m,p-Xylene	1820	25.0	50.0	ug/kg wet	50	2000		91	80-120%			
o-Xylene	854	12.5	25.0	ug/kg wet	50	1000		85	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 101 %	Limits: 80-1	120 %	Dilu	tion: 1x					
Toluene-d8 (Surr)			103 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			91 %	79-1	20 %		"					
Duplicate (23F0856-DUP1)			Prepared	l: 06/19/23 09	9:30 Anal	yzed: 06/23/	/23 11:26					
OC Source Sample: Non-SDG (A3F	F1410-01)											
Acetone	ND	784	1570	ug/kg drv	50		ND				30%	
Acrylonitrile	ND	78.4	157	ug/kg dry	50		ND				30%	
Benzene	ND	7.84	15.7	ug/kg drv	50		ND				30%	
Bromobenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Bromoform	ND	78.4	157	ug/kg dry	50		ND				30%	
Bromomethane	ND	784	784	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	392	784	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	392	784	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Chloroethane	ND	392	784	ug/kg dry	50		ND				30%	
Chloroform	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Chloromethane	ND	196	392	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	78.4	157	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	196	392	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Dibromomethane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							Soi	l				
Duplicate (23F0856-DUP1)			Prepared	: 06/19/23 09	9:30 Anal	lyzed: 06/23	/23 11:26					
QC Source Sample: Non-SDG (A3	F1410-01)											
1,3-Dichlorobenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	78.4	157	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	78.4	157	ug/kg dry	50		ND				30%	
2-Hexanone	ND	784	784	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Methylene chloride	ND	392	784	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	392	784	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Naphthalene	ND	78.4	157	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Styrene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	39.2	78.4	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	19.6	39.2	ug/kg dry	50		ND				30%	
Toluene	ND	39.2	78.4	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene	ND	196	392	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	196	392	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	19.6	39.2	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	19.6	39.2	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							Soi	1				
Duplicate (23F0856-DUP1)			Preparec	1: 06/19/23 0	9:30 Ana	yzed: 06/23	/23 11:26					
QC Source Sample: Non-SDG (A3	F1410-01)											
Trichloroethene (TCE)	ND	19.6	39.2	ug/kg dry	y 50		ND				30%	
Trichlorofluoromethane	ND	78.4	157	ug/kg dry	y 50		ND				30%	
1,2,3-Trichloropropane	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
Vinyl chloride	ND	19.6	39.2	ug/kg dry	y 50		ND				30%	
m,p-Xylene	ND	39.2	78.4	ug/kg dry	y 50		ND				30%	
o-Xylene	ND	19.6	39.2	ug/kg dry	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 103 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			102 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			94 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3	F1425-01)		Tieparee			. <u>, 200</u> . 00/23	-23 10.13					
Acetone	ND	708	1420	ug/kg dry	y 50		ND				30%	
Acrylonitrile	ND	70.8	142	ug/kg dry	y 50		ND				30%	
Benzene	ND	7.08	14.2	ug/kg dry	y 50		ND				30%	
Bromobenzene	ND	17.7	35.4	ug/kg dry	y 50		ND				30%	
Bromochloromethane	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
Bromodichloromethane	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
Bromoform	ND	70.8	142	ug/kg dry	y 50		ND				30%	
Bromomethane	ND	708	708	ug/kg dry	y 50		ND				30%	
2-Butanone (MEK)	ND	354	708	ug/kg dry	y 50		ND				30%	
n-Butylbenzene	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
sec-Butylbenzene	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
tert-Butylbenzene	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
Carbon disulfide	ND	354	708	ug/kg dry	y 50		ND				30%	
Carbon tetrachloride	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
Chlorobenzene	ND	17.7	35.4	ug/kg dry	y 50		ND				30%	
Chloroethane	ND	354	708	ug/kg dry	y 50		ND				30%	
Chloroform	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
Chloromethane	ND	177	354	ug/kg dry	y 50		ND				30%	
2-Chlorotoluene	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							Soi	I				
Duplicate (23F0856-DUP2)			Prepared	: 06/20/23 14	4:15 Anal	yzed: 06/23/	/23 18:15					
QC Source Sample: Non-SDG (A3	F1425-01)											
4-Chlorotoluene	ND	35.4	70.8	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	70.8	142	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	177	354	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	35.4	70.8	ug/kg dry	50		ND				30%	
Dibromomethane	ND	35.4	70.8	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	17.7	35.4	ug/kg dry	50		ND				30%	
1,3-Dichlorobenzene	ND	17.7	35.4	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	17.7	35.4	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	70.8	142	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	17.7	35.4	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	17.7	35.4	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	17.7	35.4	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	17.7	35.4	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	17.7	35.4	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	17.7	35.4	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	35.4	70.8	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	35.4	70.8	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	35.4	70.8	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	35.4	70.8	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	35.4	70.8	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	17.7	35.4	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	70.8	142	ug/kg dry	50		ND				30%	
2-Hexanone	ND	708	708	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	35.4	70.8	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	35.4	70.8	ug/kg dry	50		ND				30%	
Methylene chloride	ND	354	708	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	354	708	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	35.4	70.8	ug/kg dry	50		ND				30%	
Naphthalene	ND	70.8	142	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	17.7	35.4	ug/kg dry	50		ND				30%	
Styrene	ND	35.4	70.8	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	17.7	35.4	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	35.4	70.8	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							So	il				
Duplicate (23F0856-DUP2)			Prepared	1: 06/20/23 1	4:15 Anal	yzed: 06/23	/23 18:15					
QC Source Sample: Non-SDG (A3	F1425-01)											
Tetrachloroethene (PCE)	ND	17.7	35.4	ug/kg dry	y 50		ND				30%	
Toluene	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
1,2,3-Trichlorobenzene	ND	177	354	ug/kg dry	y 50		ND				30%	
1,2,4-Trichlorobenzene	ND	177	354	ug/kg dry	y 50		ND				30%	
1,1,1-Trichloroethane	ND	17.7	35.4	ug/kg dry	y 50		ND				30%	
1,1,2-Trichloroethane	ND	17.7	35.4	ug/kg dry	y 50		ND				30%	
Trichloroethene (TCE)	ND	17.7	35.4	ug/kg dry	y 50		ND				30%	
Trichlorofluoromethane	ND	70.8	142	ug/kg dry	y 50		ND				30%	
1,2,3-Trichloropropane	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
Vinyl chloride	ND	17.7	35.4	ug/kg dry	y 50		ND				30%	
m,p-Xylene	ND	35.4	70.8	ug/kg dry	y 50		ND				30%	
o-Xylene	ND	17.7	35.4	ug/kg dry	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 101 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			101 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			95 %	79-	120 %		"					
Matrix Spike (23F0856-MS1)			Prepared	l: 06/19/23 1	0:20 Anal	yzed: 06/23	/23 15:43					
OC Source Sample: Non-SDG (A3	F1410-10)											
5035A/8260D	<u> </u>											
Acetone	2200	513	1030	ug/kg dry	y 50	2050	ND	107	36-164%			
Acrylonitrile	1110	51.3	103	ug/kg dry	y 50	1030	ND	109	65-134%			
Benzene	1170	5.13	10.3	ug/kg dry	y 50	1030	ND	114	77-121%			
Bromobenzene	1020	12.8	25.7	ug/kg dry	y 50	1030	ND	100	78-121%			
Bromochloromethane	1200	25.7	51.3	ug/kg dry	y 50	1030	ND	117	78-125%			
Bromodichloromethane	1210	25.7	51.3	ug/kg dry	y 50	1030	ND	118	75-127%			
Bromoform	1060	51.3	103	ug/kg dry	y 50	1030	ND	104	67-132%			
Bromomethane	1310	513	513	ug/kg dry	y 50	1030	ND	128	53-143%			
2-Butanone (MEK)	2160	257	513	ug/kg dry	y 50	2050	ND	105	51-148%			
n-Butylbenzene	1070	25.7	51.3	ug/kg dry	y 50	1030	ND	105	70-128%			
sec-Butylbenzene	1080	25.7	51.3	ug/kg dry	y 50	1030	ND	105	73-126%			
tert-Butylbenzene	1020	25.7	51.3	ug/kg dry	y 50	1030	ND	100	73-125%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			volatile Org	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							Soi	1				
Matrix Spike (23F0856-MS1)			Prepared	: 06/19/23 10):20 Ana	yzed: 06/23/	23 15:43					
QC Source Sample: Non-SDG (A3	F1410-10)											
Carbon disulfide	1060	257	513	ug/kg dry	50	1030	ND	104	63-132%			
Carbon tetrachloride	1310	25.7	51.3	ug/kg dry	50	1030	ND	128	70-135%			
Chlorobenzene	1090	12.8	25.7	ug/kg dry	50	1030	ND	106	79-120%			
Chloroethane	1510	257	513	ug/kg dry	50	1030	ND	147	59-139%			Q-5
Chloroform	1140	25.7	51.3	ug/kg dry	50	1030	ND	111	78-123%			
Chloromethane	1080	128	257	ug/kg dry	50	1030	ND	105	50-136%			
2-Chlorotoluene	1030	25.7	51.3	ug/kg dry	50	1030	ND	101	75-122%			
4-Chlorotoluene	1040	25.7	51.3	ug/kg dry	50	1030	ND	101	72-124%			
Dibromochloromethane	1210	51.3	103	ug/kg dry	50	1030	ND	118	74-126%			
1,2-Dibromo-3-chloropropane	939	128	257	ug/kg dry	50	1030	ND	92	61-132%			
1,2-Dibromoethane (EDB)	1050	25.7	51.3	ug/kg dry	50	1030	ND	103	78-122%			
Dibromomethane	1160	25.7	51.3	ug/kg dry	50	1030	ND	113	78-125%			
1,2-Dichlorobenzene	1050	12.8	25.7	ug/kg dry	50	1030	ND	103	78-121%			
1,3-Dichlorobenzene	1070	12.8	25.7	ug/kg dry	50	1030	ND	104	77-121%			
1,4-Dichlorobenzene	1030	12.8	25.7	ug/kg dry	50	1030	ND	101	75-120%			
Dichlorodifluoromethane	1230	51.3	103	ug/kg dry	50	1030	ND	120	29-149%			
1,1-Dichloroethane	1200	12.8	25.7	ug/kg dry	50	1030	ND	117	76-125%			
1,2-Dichloroethane (EDC)	1180	12.8	25.7	ug/kg dry	50	1030	ND	115	73-128%			
1,1-Dichloroethene	1190	12.8	25.7	ug/kg dry	50	1030	ND	116	70-131%			
cis-1,2-Dichloroethene	1160	12.8	25.7	ug/kg dry	50	1030	ND	113	77-123%			
trans-1,2-Dichloroethene	1140	12.8	25.7	ug/kg dry	50	1030	ND	112	74-125%			
1,2-Dichloropropane	1150	12.8	25.7	ug/kg dry	50	1030	ND	113	76-123%			
1,3-Dichloropropane	1100	25.7	51.3	ug/kg dry	50	1030	ND	107	77-121%			
2,2-Dichloropropane	1080	25.7	51.3	ug/kg dry	50	1030	ND	105	67-133%			
1,1-Dichloropropene	1190	25.7	51.3	ug/kg drv	50	1030	ND	116	76-125%			
cis-1,3-Dichloropropene	1070	25.7	51.3	ug/kg drv	50	1030	ND	105	74-126%			
trans-1,3-Dichloropropene	1050	25.7	51.3	ug/kg drv	50	1030	ND	103	71-130%			
Ethylbenzene	1040	12.8	25.7	ug/kg drv	50	1030	ND	101	76-122%			
Hexachlorobutadiene	1030	51.3	103	ug/kg drv	50	1030	ND	100	61-135%			
2-Hexanone	1790	513	513	ug/kg drv	50	2050	ND	87	53-145%			Q-54
Isopropylbenzene	1030	25.7	51.3	ug/kg drv	50	1030	ND	100	68-134%			
4-Isopropyltoluene	1070	25.7	51.3	ug/kø drv	50	1030	ND	104	73-127%			
Mathylana abland	10/0	25.7	51.5			1030			, 2 12//0			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

		V	olatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0856 - EPA 5035A							So	il				
Matrix Spike (23F0856-MS1)			Preparec	1: 06/19/23 1	0:20 Ana	lyzed: 06/23	/23 15:43					
QC Source Sample: Non-SDG (A3)	<u>F1410-10)</u>											
4-Methyl-2-pentanone (MiBK)	1940	257	513	ug/kg dry	y 50	2050	ND	94	65-135%			
Methyl tert-butyl ether (MTBE)	998	25.7	51.3	ug/kg dry	y 50	1030	ND	97	73-125%			
Naphthalene	907	51.3	103	ug/kg dry	y 50	1030	ND	88	62-129%			
n-Propylbenzene	1060	12.8	25.7	ug/kg dry	y 50	1030	ND	103	73-125%			
Styrene	1020	25.7	51.3	ug/kg dry	y 50	1030	ND	100	76-124%			
1,1,1,2-Tetrachloroethane	1220	12.8	25.7	ug/kg dry	y 50	1030	ND	119	78-125%			
1,1,2,2-Tetrachloroethane	953	25.7	51.3	ug/kg dry	y 50	1030	ND	93	70-124%			
Tetrachloroethene (PCE)	1130	12.8	25.7	ug/kg dry	y 50	1030	35.4	107	73-128%			
Toluene	1040	25.7	51.3	ug/kg dry	y 50	1030	ND	102	77-121%			
1,2,3-Trichlorobenzene	976	128	257	ug/kg dry	y 50	1030	ND	95	66-130%			
1,2,4-Trichlorobenzene	919	128	257	ug/kg dry	y 50	1030	ND	90	67-129%			
1,1,1-Trichloroethane	1240	12.8	25.7	ug/kg dry	y 50	1030	ND	121	73-130%			
1,1,2-Trichloroethane	1110	12.8	25.7	ug/kg dry	y 50	1030	ND	109	78-121%			
Trichloroethene (TCE)	1240	12.8	25.7	ug/kg dry	y 50	1030	ND	121	77-123%			
Trichlorofluoromethane	3440	51.3	103	ug/kg dry	y 50	1030	ND	336	62-140%			Q-(
1,2,3-Trichloropropane	1060	25.7	51.3	ug/kg dry	y 50	1030	ND	103	73-125%			
1,2,4-Trimethylbenzene	1030	25.7	51.3	ug/kg dry	y 50	1030	ND	100	75-123%			
1,3,5-Trimethylbenzene	1070	25.7	51.3	ug/kg dry	y 50	1030	ND	104	73-124%			
Vinyl chloride	1280	12.8	25.7	ug/kg dry	y 50	1030	ND	125	56-135%			
m,p-Xylene	2030	25.7	51.3	ug/kg dry	y 50	2050	ND	99	77-124%			
o-Xylene	955	12.8	25.7	ug/kg dry	y 50	1030	ND	93	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Recover	ry: 102 %	Limits: 80-	-120 %	Dili						
Toluene-d8 (Surr)			101 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			91 %	79-	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Result % REC RPD Limit Amount Limits Limit Notes Batch 23F1083 - EPA 1311/5030C TCLP Volatiles Water Blank (23F1083-BLK1) Prepared: 06/29/23 09:00 Analyzed: 06/29/23 10:18 TCLPa 1311/8260D ND 6.25 12.5 ug/L 50 Benzene ND 250 500 50 2-Butanone (MEK) ug/L ---------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 50 ug/L ---1,4-Dichlorobenzene ND 12.5 25.0 50 ug/L ---------____ ---____ 1,1-Dichloroethene ND 12.5 25.0 50 ug/L ---12.5 25.0 1,2-Dichloroethane (EDC) ND ug/L 50 ---------------Tetrachloroethene (PCE) ND 12.5 25.0 ug/L 50 Trichloroethene (TCE) ND 12.5 25.0 50 ug/L ___ -------------_ _ _ Vinyl chloride ND 12.5 25.0 50 ug/L --------------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 102 % Limits: 80-120 % Dilution: 1x 102 % Toluene-d8 (Surr) 80-120 % " 4-Bromofluorobenzene (Surr) 98 % 80-120 % LCS (23F1083-BS1) Prepared: 06/29/23 09:00 Analyzed: 06/29/23 09:33 TCLPa 1311/8260D 95 Benzene 946 6.25 12.5 ug/L 50 1000 80-120% 2-Butanone (MEK) 1700 250 500 50 2000 85 80-120% ug/L ---------Carbon tetrachloride 1020 25.0 50.0 ug/L 50 1000 ---102 80-120% ---Chlorobenzene 980 12.5 25.0 ug/L 50 1000 ---98 80-120% ------Chloroform 953 25.050.0 ug/L 50 1000 95 80-120% 1,4-Dichlorobenzene 946 12.5 25.0 50 1000 95 80-120% ug/L ---------1,1-Dichloroethene 1020 12.5 25.0 ug/L 50 1000 102 80-120% ---------1,2-Dichloroethane (EDC) 962 12.5 25.0 ug/L 50 1000 96 80-120% ---1000 1000 Tetrachloroethene (PCE) 12.5 25.0 ug/L 50 ---100 80-120% ---Trichloroethene (TCE) 992 12.5 25.0 ug/L 50 1000 ---99 80-120% ------Vinyl chloride 1040 12.5 25.0ug/L 50 1000 ----104 80-120% ---____ Surr: 1,4-Difluorobenzene (Surr) 102 % Recovery: Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 100 % 80-120 % 4-Bromofluorobenzene (Surr) 95 % 80-120 %

Duplicate (23F1083-DUP1)

Prepared: 06/29/23 09:00 Analyzed: 06/29/23 11:03

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

		Regulated	TCLP Vola	tile Orgar	nic Comp	ounds by	EPA 131	1/8260D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F1083 - EPA 1311/503	0C TCLP	Volatiles					Wa	ter				
Duplicate (23F1083-DUP1)			Prepareo	d: 06/29/23	09:00 Ana	lyzed: 06/29	/23 11:03					
QC Source Sample: Non-SDG (A3	F1226-01)											
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	32.0	25.0	50.0	ug/L	50		32.0			0	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%	
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 103 %	Limits: 80)-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			101 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			97 %	80	-120 %		"					
Matrix Spike (23F1083-MS1)			Prepared	1: 06/29/23	09:00 Ana	yzed: 06/29	/23 13:20					
OC Source Sample: Non-SDG (A3	F1375-01)		1									
1311/8260D	<u>110/0 01)</u>											
Benzene	1030	6.25	12.5	11 0 /I	50	1000	ND	103	79-120%			
2-Butanone (MEK)	1690	250	500	ug/L 110/I	50	2000	ND	84	56-143%			
Carbon tetrachloride	1120	25.0	50.0	ug/L 110/I	50	1000	ND	112	72-136%			
Chlorobenzene	1040	12.5	25.0	ug/L	50	1000	ND	104	80-120%			
Chloroform	1040	25.0	50.0	ug/L ug/I	50	1000	ND	104	79-124%			
1 4 Dichlorobenzene	08/	12.5	25.0	ug/L	50	1000	ND	08	70 120%			
1,7 Dichloroethere	1110	12.5	25.0	ug/L	50	1000		111	71_1210/0			
1,1-Dichloroethane (FDC)	1020	12.5	25.0	ug/L	50	1000	ND	102	73 1280/			
Tetrachloroethene (DCE)	1020	12.5	25.0	ug/L	50	1000		102	74 1200/			
Triablaraathana (TCE)	1060	12.5	25.0	ug/L	50	1000	ND	106	70 1220/			
Vinul ablanida	1000	12.5	25.0	ug/L	50	1000		100	/9-123%0			
	11/0	- 12.5	25.0	ug/L	50	1000		11/	38-13/%			
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 103 %	Limits: 80	-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			100 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			94 %	80	-120 %		"					

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

J



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F1025 - EPA 3546							Soli	d				
Blank (23F1025-BLK1)			Prepared	: 06/28/23 0	5:14 Anal	yzed: 06/28/	/23 16:03					
EPA 8270E												
Acenaphthene	ND	1.33	2.67	ug/kg we	t 1							
Acenaphthylene	ND	1.33	2.67	ug/kg we	t 1							
Anthracene	ND	1.33	2.67	ug/kg we	t 1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg we	t 1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg we	t 1							
Chrysene	ND	1.33	2.67	ug/kg we	t 1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg we	t 1							
Fluoranthene	ND	1.33	2.67	ug/kg we	t 1							
Fluorene	ND	1.33	2.67	ug/kg we	t 1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg we	t 1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg we	t 1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg we	t 1							
Naphthalene	ND	2.67	5.33	ug/kg we	t 1							
Phenanthrene	ND	1.33	2.67	ug/kg we	t 1							
Pyrene	ND	1.33	2.67	ug/kg we	t 1							
Carbazole	ND	2.00	4.00	ug/kg we	t 1							
Dibenzofuran	ND	1.33	2.67	ug/kg we	t 1							
2-Chlorophenol	ND	6.67	13.3	ug/kg we	t 1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg we	t 1							
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg we	t 1							
2,4-Dinitrophenol	ND	33.3	66.7	ug/kg we	t 1							
4,6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg we	t 1							
2-Methylphenol	ND	3.33	6.67	ug/kg we	t 1							
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg we	t 1							
2-Nitrophenol	ND	13.3	26.7	ug/kg we	t 1							
4-Nitrophenol	ND	13.3	26.7	ug/kg we	t 1							
Pentachlorophenol (PCP)	ND	13.3	26.7	ug/kg we	t 1							
Phenol	ND	2.67	5.33	ug/kg we	t 1							
2,3,4,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg we	t 1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile (Organic C	ompoun	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F1025 - EPA 3546							Soli	d				
Blank (23F1025-BLK1)			Prepared	: 06/28/23 0:	5:14 Anal	yzed: 06/28/	/23 16:03					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg wet	t 1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg wet	t 1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg wet	t 1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg wet	t 1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg wet	t 1							
Diethylphthalate	ND	13.3	26.7	ug/kg wet	t 1							
Dimethylphthalate	ND	13.3	26.7	ug/kg wet	t 1							
Di-n-butylphthalate	ND	13.3	26.7	ug/kg wet	t 1							
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg wet	t 1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg wet	t 1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg wet	t 1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg wet	t 1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg wet	t 1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg wet	t 1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg wet	t 1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg wet	t 1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg wet	t 1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg wet	t 1							
Hexachloroethane	ND	3.33	6.67	ug/kg wet	t 1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg wet	t 1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg wet	t 1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	t 1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	t 1							
Aniline	ND	6.67	13.3	ug/kg wet	t 1							
4-Chloroaniline	ND	3.33	6.67	ug/kg wet	t 1							
2-Nitroaniline	ND	26.7	53.3	ug/kg wet	t 1							
3-Nitroaniline	ND	26.7	53.3	ug/kg wet	t 1							
4-Nitroaniline	ND	26.7	53.3	ug/kg wet	t 1							
Nitrobenzene	ND	13.3	26.7	ug/kg wet	t 1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	t 1							
2,6-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	t 1							
Benzoic acid	ND	167	333	ug/kg wet	t 1							
Benzyl alcohol	ND	6.67	13.3	ug/kg wet	t 1							
Isophorone	ND	3.33	6.67	ug/kg wet	t 1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F1025 - EPA 3546							So	lid				
Blank (23F1025-BLK1)			Prepared	1: 06/28/23 0	5:14 Ana	yzed: 06/28	/23 16:03					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	t 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	t 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 82 %	Limits: 37-	122 %	Dili	ution: 1x					
2-Fluorobiphenyl (Surr)			85 %	44-	120 %		"					
Phenol-d6 (Surr)			77 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			87 %	54-	127 %		"					
2-Fluorophenol (Surr)			78 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			71 %	39-	132 %		"					
LCS (23F1025-BS1)			Prepared	1: 06/28/23 0	5:14 Ana	yzed: 06/28	/23 16:37					
EPA 8270E						-						
Acenaphthene	505	5.32	10.7	ug/kg we	t 4	533		95	40-123%			
Acenaphthylene	500	5.32	10.7	ug/kg we	t 4	533		94	32-132%			
Anthracene	520	5.32	10.7	ug/kg we	t 4	533		98	47-123%			
Benz(a)anthracene	488	5.32	10.7	ug/kg we	t 4	533		91	49-126%			
Benzo(a)pyrene	499	8.00	16.0	ug/kg we	t 4	533		94	45-129%			
Benzo(b)fluoranthene	508	8.00	16.0	ug/kg we	t 4	533		95	45-132%			
Benzo(k)fluoranthene	557	8.00	16.0	ug/kg we	t 4	533		105	47-132%			
Benzo(g,h,i)perylene	531	5.32	10.7	ug/kg we	t 4	533		100	43-134%			
Chrysene	487	5.32	10.7	ug/kg we	t 4	533		91	50-124%			
Dibenz(a,h)anthracene	489	5.32	10.7	ug/kg we	t 4	533		92	45-134%			
Fluoranthene	530	5.32	10.7	ug/kg we	t 4	533		99	50-127%			
Fluorene	502	5.32	10.7	ug/kg we	t 4	533		94	43-125%			
Indeno(1.2.3-cd)pyrene	462	5.32	10.7	ug/kg we	t 4	533		87	45-133%			
1-Methylnaphthalene	484	10.7	21.3	110/kg we	t 4	533		91	40-120%			
2-Methylnaphthalene	508	10.7	21.3	ug/kg we	t 4	533		95	38-122%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F1025 - EPA 3546							Sol	id				
LCS (23F1025-BS1)			Prepared	: 06/28/23 0	5:14 Ana	lyzed: 06/28	/23 16:37					
Naphthalene	480	10.7	21.3	ug/kg we	t 4	533		90	35-123%			
Phenanthrene	489	5.32	10.7	ug/kg we	t 4	533		92	50-121%			
Pyrene	535	5.32	10.7	ug/kg we	t 4	533		100	47-127%			
Carbazole	473	8.00	16.0	ug/kg we	t 4	533		89	50-123%			
Dibenzofuran	528	5.32	10.7	ug/kg we	t 4	533		99	44-120%			
2-Chlorophenol	474	26.7	53.2	ug/kg we	t 4	533		89	34-121%			
4-Chloro-3-methylphenol	484	53.2	107	ug/kg we	t 4	533		91	45-122%			
2,4-Dichlorophenol	509	26.7	53.2	ug/kg we	t 4	533		95	40-122%			
2,4-Dimethylphenol	594	26.7	53.2	ug/kg we	t 4	533		111	30-127%			
2,4-Dinitrophenol	440	133	267	ug/kg we	t 4	533		82	10-137%			
4,6-Dinitro-2-methylphenol	528	133	267	ug/kg we	t 4	533		99	29-132%			
2-Methylphenol	491	13.3	26.7	ug/kg we	t 4	533		92	32-122%			
3+4-Methylphenol(s)	499	13.3	26.7	ug/kg we	t 4	533		94	34-120%			
2-Nitrophenol	490	53.2	107	ug/kg we	t 4	533		92	36-123%			
4-Nitrophenol	493	53.2	107	ug/kg we	t 4	533		92	30-132%			
Pentachlorophenol (PCP)	441	53.2	107	ug/kg we	t 4	533		83	25-133%			
Phenol	474	10.7	21.3	ug/kg we	t 4	533		89	34-121%			
2,3,4,6-Tetrachlorophenol	499	26.7	53.2	ug/kg we	t 4	533		94	44-125%			
2,3,5,6-Tetrachlorophenol	499	26.7	53.2	ug/kg we	t 4	533		94	40-120%			
2,4,5-Trichlorophenol	526	26.7	53.2	ug/kg we	t 4	533		99	41-124%			
2,4,6-Trichlorophenol	480	26.7	53.2	ug/kg we	t 4	533		90	39-126%			
Bis(2-ethylhexyl)phthalate	465	80.0	160	ug/kg we	t 4	533		87	51-133%			
Butyl benzyl phthalate	477	53.2	107	ug/kg we	t 4	533		89	48-132%			
Diethylphthalate	534	53.2	107	ug/kg we	t 4	533		100	50-124%			
Dimethylphthalate	511	53.2	107	ug/kg we	t 4	533		96	48-124%			
Di-n-butylphthalate	538	53.2	107	ug/kg we	t 4	533		101	51-128%			
Di-n-octvl phthalate	454	53.2	107	ug/kg we	t 4	533		85	45-140%			
N-Nitrosodimethylamine	408	13.3	26.7	ug/kg we	t 4	533		77	23-120%			
N-Nitroso-di-n-propylamine	466	13.3	26.7	ug/kg we	t 4	533		87	36-120%			
N-Nitrosodiphenvlamine	483	13.3	26.7	ug/kg we	t 4	533		90	38-127%			
Bis(2-Chloroethoxy) methane	500	13.3	26.7	ug/kg wei	t 4	533		94	36-121%			
Bis(2-Chloroethyl) ether	422	13.3	26.7	ug/kg we	t 4	533		79	31-120%			
2.2'-Oxybis(1-Chloropropage)	456	13.3	26.7	ug/kg we	t 4	533		85	39-120%			
Hexachlorobenzene	477	5.32	10.7	ug/kg we	t 4	533		89	45-122%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F1025 - EPA 3546							So	lid				
LCS (23F1025-BS1)			Prepared	l: 06/28/23 0	5:14 Ana	lyzed: 06/28	/23 16:37					
Hexachlorobutadiene	478	13.3	26.7	ug/kg we	t 4	533		90	32-123%			
Hexachlorocyclopentadiene	490	26.7	53.2	ug/kg we	t 4	533		92	10-140%			
Hexachloroethane	475	13.3	26.7	ug/kg we	t 4	533		89	28-120%			
2-Chloronaphthalene	546	5.32	10.7	ug/kg we	t 4	533		102	41-120%			
1,2,4-Trichlorobenzene	476	13.3	26.7	ug/kg we	t 4	533		89	34-120%			
4-Bromophenyl phenyl ether	513	13.3	26.7	ug/kg we	t 4	533		96	46-124%			
4-Chlorophenyl phenyl ether	514	13.3	26.7	ug/kg we	t 4	533		96	45-121%			
Aniline	365	26.7	53.2	ug/kg we	t 4	533		69	10-120%			
4-Chloroaniline	359	13.3	26.7	ug/kg we	t 4	533		67	17-120%			
2-Nitroaniline	516	107	213	ug/kg we	t 4	533		97	44-127%			
3-Nitroaniline	412	107	213	ug/kg we	t 4	533		77	33-120%			
4-Nitroaniline	494	107	213	ug/kg we	t 4	533		93	51-125%			
Nitrobenzene	457	53.2	107	ug/kg we	t 4	533		86	34-122%			
2,4-Dinitrotoluene	540	53.2	107	ug/kg we	t 4	533		101	48-126%			
2,6-Dinitrotoluene	503	53.2	107	ug/kg we	t 4	533		94	46-124%			
Benzoic acid	729	668	668	ug/kg we	t 4	1070		68	10-140%			
Benzyl alcohol	455	26.7	53.2	ug/kg we	t 4	533		85	29-122%			
Isophorone	479	13.3	26.7	ug/kg we	t 4	533		90	30-122%			
Azobenzene (1,2-DPH)	519	13.3	26.7	ug/kg we	t 4	533		97	39-125%			
Bis(2-Ethylhexyl) adipate	482	133	267	ug/kg we	t 4	533		90	61-121%			
3,3'-Dichlorobenzidine	1660	107	213	ug/kg we	t 4	1070		156	22-121%			Q-29, Q-31 Q-5
1,2-Dinitrobenzene	526	133	267	ug/kg we	t 4	533		99	44-120%			
1,3-Dinitrobenzene	498	133	267	ug/kg we	t 4	533		93	43-127%			
1,4-Dinitrobenzene	524	133	267	ug/kg we	t 4	533		98	37-132%			
Pyridine	407	26.7	53.2	ug/kg we	t 4	533		76	10-120%			
1,2-Dichlorobenzene	468	13.3	26.7	ug/kg we	t 4	533		88	33-120%			
1,3-Dichlorobenzene	465	13.3	26.7	ug/kg we	t 4	533		87	30-120%			
1,4-Dichlorobenzene	463	13.3	26.7	ug/kg we	t 4	533		87	31-120%			
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 83 %	Limits: 37-	122 %	Dilı	ution: 4x					
2-Fluorobiphenyl (Surr)			103 %	44-	120 %		"					
Phenol-d6 (Surr)			93 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			100 %	54-	127 %		"					
2-Fluorophenol (Surr)			83 %	35-	120 %		"					
2.4.6-Tribromonhenol (Surr)			91%	39-	132 %		"					

Apex Laboratories



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

Sevenson Environmental Serv	ices, Inc.			Project:	<u>Gasco -</u>	- Filtercake						
2749 Lockport Road			Pro	ject Numbe	r: 111323					I	Report ID:	:
Niagara Falls, NY 14305			Pro	ject Manage	r: Chip By	vrd			A	3F1367	- 07 25 23	3 1421
								~				
		QU	ALITY CO	DNTROL	(QC) SA	MPLE R	ESULIS	S				
		Se	mivolatile	Organic C	compour	ds by EP	A 8270E					
		Detection	Penarting			Spike	Source		% PEC		רוקק	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23E1025 - EDA 35/6							Sol	id				
							001					
Duplicate (23F1025-DUP1)			Prepared	: 06/28/23 0	5:14 Ana	lyzed: 06/28	/23 19:27					R-04
QC Source Sample: Non-SDG (A	3F1226-01RH	E <u>1)</u>										
Acenaphthene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Acenaphthylene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Anthracene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Benz(a)anthracene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Benzo(a)pyrene	ND	36.2	72.3	ug/kg dr	y 10		ND				30%	
Benzo(b)fluoranthene	ND	36.2	72.3	ug/kg dr	y 10		ND				30%	
Benzo(k)fluoranthene	ND	36.2	72.3	ug/kg dr	y 10		ND				30%	
Benzo(g,h,i)perylene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Chrysene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Dibenz(a,h)anthracene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Fluoranthene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Fluorene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
Indeno(1,2,3-cd)pyrene	ND	24.0	48.3	ug/kg dr	y 10		ND				30%	
1-Methylnaphthalene	ND	48.3	96.4	ug/kg dr	y 10		ND				30%	
2-Methylnaphthalene	ND	48.3	96.4	ug/kg dr	y 10		ND				30%	
Naphthalene	ND	48.3	96.4	ug/kg dry	y 10		ND				30%	
Phenanthrene	ND	24.0	48.3	ug/kg dry	y 10		ND				30%	
Pyrene	ND	24.0	48.3	ug/kg dry	y 10		ND				30%	
Carbazole	ND	36.2	72.3	ug/kg dr	y 10		ND				30%	
Dibenzofuran	ND	24.0	48.3	ug/kg dry	y 10		ND				30%	
2-Chlorophenol	ND	121	240	ug/kg dr	v 10		ND				30%	
4-Chloro-3-methylphenol	ND	240	483	ug/kg dry	v 10		ND				30%	
2,4-Dichlorophenol	ND	121	240	ug/kg dr	v 10		ND				30%	
2.4-Dimethylphenol	ND	121	240	ug/kg dry	v 10		ND				30%	
2.4-Dinitrophenol	ND	602	1210	ug/kg dr	v 10		ND				30%	
4,6-Dinitro-2-methylphenol	ND	602	1210	ug/kg dr	v 10		ND				30%	
2-Methylphenol	ND	60.2	121	ug/kg dr	v 10		ND				30%	
3+4-Methylphenol(s)	ND	60.2	121	ug/kg dr	v 10		ND				30%	
2-Nitrophenol	ND	240	483	ug/kg dry	v 10		ND				30%	
4-Nitrophenol	ND	240	483	ug/kg dr	v 10		ND				30%	
Pentachlorophenol (PCP)	ND	240	483	ug/kg dr	v 10		ND				30%	
Phenol	ND	48.3	96.4	ug/kg dr	v 10		ND				30%	
				00.								

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

AndyceDetection ImageDepuringDiraceSprik			Se	mivolatile	Organic C	ompour	nds by EP	A 8270E					
Batch 23F1025 - EPA 354 Prepared: 06-28/23 05:14 Analysed: 06-28/23 19:27 8.44 Definite (23F1025-DUP1) Prepared: 06-28/23 05:14 Analysed: 06/28/23 19:27 8.44 Z 3.46 - Tetnohorophenol ND 10 ND	Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Dupicate (25F102-5UPC) Prepare: 6/28/23 05:14 Analyzet: 0/28/23 19:27 96.48 a.G.accre Sameire: Non-SDG (AFU-26-UE) <th>Batch 23F1025 - EPA 3546</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Sol</th> <th>lid</th> <th></th> <th></th> <th></th> <th></th>	Batch 23F1025 - EPA 3546							Sol	lid				
OC Saurce Sample: Non-SIG (ASP122c-HIREH) 2,3,4,6-Tetachklorophenol ND 121 240 ug/kg dry 10 ND 30% 2,3,5,6-Tetachklorophenol ND 121 240 ug/kg dry 10 ND 30% 2,4,5-Tetachklorophenol ND 121 240 ug/kg dry 10 ND 30% 2,4,5-Tetachklorophenol ND 121 240 ug/kg dry 10 ND 30% Bid/s Carbit/key/phthalate ND 240 483 ug/kg dry 10 ND 30% Din-hyty/phthalate ND 240 483 ug/kg dry 10 ND 30% Nitrosofinethylathalate ND 60.2 121 ug/kg dry 10 ND 30% Nitrosofinethylathalate ND 60.2 121 ug/kg dry 10 <td>Duplicate (23F1025-DUP1)</td> <td></td> <td></td> <td>Prepared</td> <td>: 06/28/23 0</td> <td>5:14 Ana</td> <td>lyzed: 06/28</td> <td>/23 19:27</td> <td></td> <td></td> <td></td> <td></td> <td>R-04</td>	Duplicate (23F1025-DUP1)			Prepared	: 06/28/23 0	5:14 Ana	lyzed: 06/28	/23 19:27					R-04
2,3,4,6-Tertachlorophenol ND 121 240 ug/kg dry 10 ND 30% 2,3,5,6-Tertachlorophenol ND 121 240 ug/kg dry 10 ND 30% 2,4,6-Tichlorophenol ND 121 240 ug/kg dry 10 ND 30% 2,4,6-Tichlorophenol ND 362 723 ug/kg dry 10 ND 30% Bis(2-chryhhexyl)phthalate ND 240 483 ug/kg dry 10 ND 30% Din-thylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-burlyphthalate ND 240 483 ug/kg dry 10 ND 30% Din-burlyphthalate ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosod-fo-propoyl	QC Source Sample: Non-SDG (A	3F1226-01R	E1)										
2.3,5.6-Terrachlorophenol ND 121 240 ug/kg dry 10 ND 30% 2.4,5-Trichlorophenol ND 121 240 ug/kg dry 10 ND 30% Jack-Trichlorophenol ND 362 723 ug/kg dry 10 ND 30% Bis(2-ethylhexyl)phthalate ND 240 483 ug/kg dry 10 ND 30% Direhylphthalate ND 240 483 ug/kg dry 10 ND 30% Direhylphthalate ND 240 483 ug/kg dry 10 ND 30% Direhylphthalate ND 240 483 ug/kg dry 10 ND 30% Direhylphthalate ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodimentylamine	2,3,4,6-Tetrachlorophenol	ND	121	240	ug/kg dry	10		ND				30%	
2,4,5-Trichlorophenol ND 121 240 ug/kg dry 10 ND 30% 2,4,6-Trichlorophenol ND 121 240 ug/kg dry 10 ND 30% Bidy/Lexylphthalate ND 362 723 ug/kg dry 10 ND 30% Diethylphthalate ND 240 483 ug/kg dry 10 ND 30% Dienbylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-butylphthalate ND 240 483 ug/kg dry 10 ND 30% Nitrosofinchylphthalate ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosofinchylphthilate ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosofinchylphtylamine <td>2,3,5,6-Tetrachlorophenol</td> <td>ND</td> <td>121</td> <td>240</td> <td>ug/kg dry</td> <td>10</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	2,3,5,6-Tetrachlorophenol	ND	121	240	ug/kg dry	10		ND				30%	
2,4,6 Trichidrophenol ND 121 240 ug/kg dry 10 ND 30% Bis(2-ethylhext)phthalate ND 362 723 ug/kg dry 10 ND 30% Diethylphthalate ND 240 483 ug/kg dry 10 ND 30% Dinethylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-bottylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-bottylphthalate ND 240 483 ug/kg dry 10 ND 30% N-Nitrosodinethylamine ND 60.2 121 ug/kg dry 10 ND 30% Sis(2-Chloroethxyl) ether ND 60.2 121 ug/kg dry 10 ND 30% Eis(2-Chloroethyl) ether<	2,4,5-Trichlorophenol	ND	121	240	ug/kg dry	10		ND				30%	
Bis(2-ethylhexyl)phthalate ND 362 723 ug/kg dry 10 ND 30% Buryl banzyl phthalate ND 240 483 ug/kg dry 10 ND 30% Din-burylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-burylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-octyl phthalate ND 240 483 ug/kg dry 10 ND 30% N-Nitrosodimetrylamine ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodiphenylamine ND 60.2 121 ug/kg dry 10 ND 30% Bis(2-Chloreothoxy) methane ND 60.2 121 ug/kg dry 10 ND 30%	2,4,6-Trichlorophenol	ND	121	240	ug/kg dry	10		ND				30%	
Butyl benzyl phthalate ND 240 483 ug/kg dry 10 ND 30% Diethylphthalate ND 240 483 ug/kg dry 10 ND 30% Dienbylphthalate ND 240 483 ug/kg dry 10 ND 30% Di-n-butylphthalate ND 240 483 ug/kg dry 10 ND 30% N-Nitrosodimethylamine ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodimethylamine ND 60.2 121 ug/kg dry 10 ND 30% Bis(2-Chloroethxy) methane ND 60.2 121 ug/kg dry 10 ND 30% Lexachlorobtaxiene ND 60.2 121 ug/kg dry	Bis(2-ethylhexyl)phthalate	ND	362	723	ug/kg dry	10		ND				30%	
Diethylphthalate ND 240 483 ug/kg dry 10 ND ND ND 30% Dimethylphthalate ND 240 483 ug/kg dry 10 ND ND 30% Din-butylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-octyl phthalate ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodinethylamine ND 60.2 121 ug/kg dry 10 ND 30% Bis(2-Chloroethycy) methae ND 60.2 121 ug/kg dry 10 ND 30% Bis(2-Chloroethycy) metha ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorobuadiene ND 60.2 121 ug/kg dry 10 ND	Butyl benzyl phthalate	ND	240	483	ug/kg dry	10		ND				30%	
Dimethylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-butylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-octyl phthalate ND 240 483 ug/kg dry 10 ND 30% N-Nitrosofinethylamine ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodiphenylamine ND 60.2 121 ug/kg dry 10 ND 30% Sig2-Chloroethoxy) methane ND 60.2 121 ug/kg dry 10 ND 30% Lexachlorobtazine ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorobtadiene ND 60.2 121 ug/kg dry 10 ND 30% Lexachlorobtadiene	Diethylphthalate	ND	240	483	ug/kg dry	10		ND				30%	
Din-butylphthalate ND 240 483 ug/kg dry 10 ND 30% Din-octyl phthalate ND 240 483 ug/kg dry 10 ND 30% N-Nitrosodimethylamine ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodimethylamine ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodiphenylamine ND 60.2 121 ug/kg dry 10 ND 30% Bis(2-Chloroethyl) ether ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorobenzene ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorobenzene ND 60.2 121 ug/kg dry 10 ND 30% Lexachlorobenzene ND 60.2	Dimethylphthalate	ND	240	483	ug/kg dry	10		ND				30%	
Di-n-octyl phthalate ND 240 483 ug/kg dry 10 ND 30% N-Nitrosodimethylamine ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodimethylamine ND 60.2 121 ug/kg dry 10 ND 30% N-Nitrosodimethylamine ND 60.2 121 ug/kg dry 10 ND 30% Bis(2-Chloroethoxy) methane ND 60.2 121 ug/kg dry 10 ND 30% 2.2'-Oxybis(1-Chloropropane) ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorobenzene ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorobenzene ND 60.2 121 ug/kg dry 10 ND 30%	Di-n-butylphthalate	ND	240	483	ug/kg dry	10		ND				30%	
NN-Nitrosodimethylamine ND 60.2 121 $ug/kg dry$ 10 ND 30% N-Nitrosodip-propylamine ND 60.2 121 $ug/kg dry$ 10 ND 30% N-Nitrosodiphenylamine ND 60.2 121 $ug/kg dry$ 10 ND 30% Bis(2-Chloroethyl) methane ND 60.2 121 $ug/kg dry$ 10 ND 30% Bis(2-Chloroethyl) methane ND 60.2 121 $ug/kg dry$ 10 ND 30% L22-Oxybis(1-Chloropropane) ND 60.2 121 $ug/kg dry$ 10 ND 30% Hexachlorobenzene ND 60.2 121 $ug/kg dry$ 10 ND 30% Hexachlorobenzene ND 60.2 121 $ug/kg dry$ 10 ND <t< td=""><td>Di-n-octyl phthalate</td><td>ND</td><td>240</td><td>483</td><td>ug/kg dry</td><td>10</td><td></td><td>ND</td><td></td><td></td><td></td><td>30%</td><td></td></t<>	Di-n-octyl phthalate	ND	240	483	ug/kg dry	10		ND				30%	
NN-Nitroso-di-n-propylamine ND 60.2 121 $ug/kg dry$ 10 ND 30% NN-Nitrosodiphenylamine ND 60.2 121 $ug/kg dry$ 10 ND $$ 30% Bis(2-Chloroethxy) methane ND 60.2 121 $ug/kg dry$ 10 ND 30% Bis(2-Chloroethy)) ether ND 60.2 121 $ug/kg dry$ 10 ND 30% L2-Cxybis(1-Chloropropane) ND 60.2 121 $ug/kg dry$ 10 ND 30% Hexachlorobenzene ND 60.2 121 $ug/kg dry$ 10 ND 30% Hexachloroethane ND 60.2 121 $ug/kg dry$ 10 ND 30% Lexachloroethane ND 60.2 121 $ug/kg dry$ 10 ND	N-Nitrosodimethylamine	ND	60.2	121	ug/kg dry	10		ND				30%	
NN-Nitrosodiphenylamine ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% Bis(2-Chloroethoxy) methane ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots 30% Bis(2-Chloroethyl) ether ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots 30% $2,2$ -Cxybis(1-Chloropropane) ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots 30% Hexachlorobenzene ND 24.0 48.3 $ug/kg dry$ 10 \cdots ND \cdots 30% Hexachlorobenzene ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% Hexachlorobenzene ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% L2-Chloronaphthalene ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% 4-C	N-Nitroso-di-n-propylamine	ND	60.2	121	ug/kg dry	10		ND				30%	
Bis(2-Chloroethoxy) methane ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% Bis(2-Chloroethyl) ether ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% $2,2^{-Oxybis(1-Chloropropane)$ ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% Hexachlorobenzene ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots 30% Hexachlorobenzene ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots 30% Hexachlorobenzene ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% Lexachloroethane ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30% 2-Chloronaphthalene ND 60.2 121 $ug/kg dry$ 10 \cdots ND \cdots \cdots 30%	N-Nitrosodiphenylamine	ND	60.2	121	ug/kg dry	10		ND				30%	
Bis(2-Chloroethyl) ether ND 60.2 121 ug/kg dry 10 ND 30% 2,2'-Oxybis(1-Chloropropane) ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorobenzene ND 24.0 48.3 ug/kg dry 10 ND 30% Hexachlorobutadiene ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorocyclopentadiene ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorocthane ND 60.2 121 ug/kg dry 10 ND 30% 2-Chloronaphthalene ND 60.2 121 ug/kg dry 10 ND 30% 4-Stronophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlor	Bis(2-Chloroethoxy) methane	ND	60.2	121	ug/kg dry	10		ND				30%	
2,2'-Oxybis(1-Chloropropane) ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorobenzene ND 24.0 48.3 ug/kg dry 10 ND 30% Hexachlorobutadiene ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorocyclopentadiene ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorocthane ND 60.2 121 ug/kg dry 10 ND 30% 2-Chloronaphthalene ND 60.2 121 ug/kg dry 10 ND 30% 4-Bromophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether	Bis(2-Chloroethyl) ether	ND	60.2	121	ug/kg dry	10		ND				30%	
HexachlorobenzeneND 24.0 48.3 $ug/kg dry$ 10 ND 30% HexachlorobutadieneND 60.2 121 $ug/kg dry$ 10 ND $$ 30% HexachlorocyclopentadieneND 121 240 $ug/kg dry$ 10 ND $$ 30% HexachlorocyclopentadieneND 60.2 121 $ug/kg dry$ 10 ND $$ 30% 2-ChloronaphthaleneND 24.0 48.3 $ug/kg dry$ 10 ND $$ 30% 2-ChloronaphthaleneND 60.2 121 $ug/kg dry$ 10 ND $$ 30% 4-Bromophenyl phenyl etherND 60.2 121 $ug/kg dry$ 10 ND $$ 30% 4-Chlorophenyl phenyl etherND 60.2 121 $ug/kg dry$ 10 ND $$ 30% AnilineND 121 240 $ug/kg dry$ 10 ND $$ 30% A-ChloroanilineND 222 222 $ug/kg dry$ 10 ND $$ $$ 30% 2-NitroanilineND 483 964 $ug/kg dry$ 10 ND $$ $$ 30% 3-NitroanilineND 483 964 $ug/kg dry$ 10 ND $$	2,2'-Oxybis(1-Chloropropane)	ND	60.2	121	ug/kg dry	10		ND				30%	
Hexachlorobutadiene ND 60.2 121 ug/kg dry 10 ND 30% Hexachlorocyclopentadiene ND 121 240 ug/kg dry 10 ND 30% Hexachlorocyclopentadiene ND 60.2 121 ug/kg dry 10 ND 30% 2-Chloronaphthalene ND 24.0 48.3 ug/kg dry 10 ND 30% 2-Chloronaphthalene ND 60.2 121 ug/kg dry 10 ND 30% 4-Bromophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chloroaniline ND 121 240 ug/kg dry 10 ND 30%	Hexachlorobenzene	ND	24.0	48.3	ug/kg dry	10		ND				30%	
HexachlorocyclopentadieneND121240 $ug/kg dry$ 10ND30%HexachloroethaneND 60.2 121 $ug/kg dry$ 10ND30%2-ChloronaphthaleneND 24.0 48.3 $ug/kg dry$ 10ND 30% 2-ChloronaphthaleneND 60.2 121 $ug/kg dry$ 10ND 30% 4-Bromophenyl phenyl etherND 60.2 121 $ug/kg dry$ 10ND 30% 4-Chlorophenyl phenyl etherND 60.2 121 $ug/kg dry$ 10ND 30% 4-Chlorophenyl phenyl etherND 60.2 121 $ug/kg dry$ 10ND 30% 4-Chlorophinyl phenyl etherND 60.2 121 $ug/kg dry$ 10ND 30% 4-ChloronallineND 121 240 $ug/kg dry$ 10ND 30% 3-NitroanilineND 483 964 $ug/kg dry$ 10ND 30% A-NitroanilineND 240 483 $ug/kg dry$ 10ND 30% NitrobenzeneND 240 483 $ug/kg dry$ 10ND 30%	Hexachlorobutadiene	ND	60.2	121	ug/kg dry	10		ND				30%	
Hexachloroethane ND 60.2 121 ug/kg dry 10 ND 30% 2-Chloronaphthalene ND 24.0 48.3 ug/kg dry 10 ND 30% 1,2,4-Trichlorobenzene ND 60.2 121 ug/kg dry 10 ND 30% 4-Bromophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% Aniline ND 121 240 ug/kg dry 10 ND 30% 4-Chloroaniline ND 483 964 ug/kg dry 10 ND 30% 3-Nitroaniline	Hexachlorocyclopentadiene	ND	121	240	ug/kg dry	y 10		ND				30%	
2-Chloronaphthalene ND 24.0 48.3 ug/kg dry 10 ND 30% 1,2,4-Trichlorobenzene ND 60.2 121 ug/kg dry 10 ND 30% 4-Bromophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% Aniline ND 121 240 ug/kg dry 10 ND 30% 4-Chloroaniline ND 222 222 ug/kg dry 10 ND 30% R-0 2-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% Airboenzinee	Hexachloroethane	ND	60.2	121	ug/kg dry	10		ND				30%	
ND 60.2 121 ug/kg dry 10 ND 30% 4-Bromophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% Aniline ND 121 240 ug/kg dry 10 ND 30% 4-Chloroaniline ND 222 222 ug/kg dry 10 ND 30% 4-Chloroaniline ND 483 964 ug/kg dry 10 ND 30% 2-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% Nitrobenzene ND 240 483 ug	2-Chloronaphthalene	ND	24.0	48.3	ug/kg dry	10		ND				30%	
4-Bromophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% 4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% Aniline ND 121 240 ug/kg dry 10 ND 30% 4-Chloroaniline ND 222 222 ug/kg dry 10 ND 30% 2-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 3-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% Vitrobenzene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240	1,2,4-Trichlorobenzene	ND	60.2	121	ug/kg dry	10		ND				30%	
4-Chlorophenyl phenyl ether ND 60.2 121 ug/kg dry 10 ND 30% Aniline ND 121 240 ug/kg dry 10 ND 30% 4-Chloroaniline ND 222 222 ug/kg dry 10 ND 30% R-0 2-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% R-0 3-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% Nitrobenzene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 24	4-Bromophenyl phenyl ether	ND	60.2	121	ug/kg dry	10		ND				30%	
Aniline ND 121 240 ug/kg dry 10 ND 30% 4-Chloroaniline ND 222 222 ug/kg dry 10 ND 30% R-0 2-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% R-0 3-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 240 483 ug/kg dry 10 ND 30% 2,4-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND	4-Chlorophenyl phenyl ether	ND	60.2	121	ug/kg dry	10		ND				30%	
A-Chloroaniline ND 222 222 ug/kg dry 10 ND 30% R-0 2-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% R-0 3-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% Vitrobenzene ND 240 483 ug/kg dry 10 ND 30% 2,4-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND </td <td>Aniline</td> <td>ND</td> <td>121</td> <td>240</td> <td>ug/kg dry</td> <td>10</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	Aniline	ND	121	240	ug/kg dry	10		ND				30%	
2-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 3-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 240 483 ug/kg dry 10 ND 30% 2,4-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% Benzoic acid ND 3020 6	4-Chloroaniline	ND	222	222	ug/kg dry	10		ND				30%	R-0
3-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% 4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% Nitrobenzene ND 240 483 ug/kg dry 10 ND 30% 2,4-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 3020 6020 ug/kg dry 10 ND 30% Benzoic acid ND 3020 6020 ug/kg dry 10 ND 30%	2-Nitroaniline	ND	483	964	ug/kg dry	10		ND				30%	
4-Nitroaniline ND 483 964 ug/kg dry 10 ND 30% Nitrobenzene ND 240 483 ug/kg dry 10 ND 30% 2,4-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 3020 6020 ug/kg dry 10 ND 30%	3-Nitroaniline	ND	483	964	ug/kg dry	10		ND				30%	
Nitrobenzene ND 240 483 ug/kg dry 10 ND 30% 2,4-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% Benzoic acid ND 3020 6020 ug/kg dry 10 ND 30%	4-Nitroaniline	ND	483	964	ug/kg dry	10		ND				30%	
2,4-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% 2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% Benzoic acid ND 3020 6020 ug/kg dry 10 ND 30%	Nitrobenzene	ND	240	483	ug/kg dry	10		ND				30%	
2,6-Dinitrotoluene ND 240 483 ug/kg dry 10 ND 30% Benzoic acid ND 3020 6020 ug/kg dry 10 ND 30%	2,4-Dinitrotoluene	ND	240	483	ug/kg drv	10		ND				30%	
Benzoic acid ND 3020 6020 µg/kg dry 10 ND 30%	2.6-Dinitrotoluene	ND	240	483	ug/kg drv	y 10		ND				30%	
	Benzoic acid	ND	3020	6020	ug/kg dry	y 10		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic (Compour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F1025 - EPA 3546							Sol	id				
Duplicate (23F1025-DUP1)			Prepared	1: 06/28/23 ()5:14 Ana	lyzed: 06/28	/23 19:27					R-04
QC Source Sample: Non-SDG (A	3F1226-01R	E1)										
Benzyl alcohol	ND	121	240	ug/kg dr	y 10		ND				30%	
Isophorone	ND	60.2	121	ug/kg dr	y 10		ND				30%	
Azobenzene (1,2-DPH)	ND	60.2	121	ug/kg dr	y 10		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	602	1210	ug/kg dr	y 10		ND				30%	
3,3'-Dichlorobenzidine	ND	483	964	ug/kg dr	y 10		ND				30%	Q-52
1,2-Dinitrobenzene	ND	602	1210	ug/kg dr	y 10		ND				30%	
1,3-Dinitrobenzene	ND	602	1210	ug/kg dr	y 10		ND				30%	
1,4-Dinitrobenzene	ND	602	1210	ug/kg dr	y 10		ND				30%	
Pyridine	ND	121	240	ug/kg dr	y 10		ND				30%	
1,2-Dichlorobenzene	ND	60.2	121	ug/kg dr	y 10		ND				30%	
1,3-Dichlorobenzene	ND	60.2	121	ug/kg dr	y 10		ND				30%	
1,4-Dichlorobenzene	ND	60.2	121	ug/kg dr	y 10		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 16 %	Limits: 37	-122 %	Dilt	ution: 10x					S-03
2-Fluorobiphenyl (Surr)			16 %	44-	-120 %		"					S-03
Phenol-d6 (Surr)			3 %	33.	-122 %		"					S-03
p-Terphenyl-d14 (Surr)			29 %	54-	-127 %		"					S-03
2-Fluorophenol (Surr)			6 %	35-	-120 %		"					S-03
2,4,6-Tribromophenol (Surr)			24 %	39.	-132 %		"					S-03

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS) Detection Reporting Spike Source % REC RPD														
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes		
Batch 23F1041 - EPA 3051A							Sol	id						
Blank (23F1041-BLK1)			Prepared	: 06/28/23 0	9:18 Anal	yzed: 06/28	/23 15:57							
EPA 6020B														
Arsenic	ND	500	1000	ug/kg we	t 10									
Barium	ND	500	1000	ug/kg we	t 10									
Cadmium	ND	100	200	ug/kg we	t 10									
Chromium	ND	500	1000	ug/kg we	t 10									
Lead	176	100	200	ug/kg we	t 10							J, B-		
Mercury	ND	40.0	80.0	ug/kg we	t 10									
Selenium	ND	500	1000	ug/kg we	t 10									
Silver	ND	100	200	ug/kg we	t 10									
LCS (23F1041-BS1)			Prepared	: 06/28/23 0	9:18 Anal	yzed: 06/28	/23 16:02							
EPA 6020B														
Arsenic	44000	500	1000	ug/kg we	t 10	50000		88	80-120%					
Barium	46300	500	1000	ug/kg we	t 10	50000		93	80-120%					
Cadmium	42800	100	200	ug/kg we	t 10	50000		86	80-120%					
Chromium	43100	500	1000	ug/kg we	t 10	50000		86	80-120%					
Lead	47300	100	200	ug/kg we	t 10	50000		95	80-120%			B-		
Mercury	917	40.0	80.0	ug/kg we	t 10	1000		92	80-120%					
Selenium	21800	500	1000	ug/kg we	t 10	25000		87	80-120%					
Silver	21600	100	200	ug/kg we	et 10	25000		86	80-120%					
Duplicate (23F1041-DUP1)			Prepared	: 06/28/23 0	9:18 Anal	yzed: 06/28	/23 16:12							
QC Source Sample: FC-062023-2	131 (A3F136	<u>57-01)</u>												
<u>EPA 6020B</u>														
Arsenic	8590	2170	4340	ug/kg dry	y 10		9130			6	20%	CON		
Barium	224000	2170	4340	ug/kg dry	y 10		218000			2	20%	CON		
Cadmium	ND	434	869	ug/kg dry	y 10		ND				20%	CON		
Chromium	ND	2170	4340	ug/kg dry	y 10		ND				20%	CON		
Lead	ND	434	869	ug/kg dry	y 10		ND				20%	CON		
Mercury	ND	174	347	ug/kg dry	y 10		ND				20%	CON		
Selenium	ND	2170	4340	ug/kg dry	y 10		ND				20%	CON		
Silver	ND	434	869	ug/kg dry	v 10		ND				20%	CON		

Matrix Spike (23F1041-MS1)

Prepared: 06/28/23 09:18 Analyzed: 06/28/23 16:28

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

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
Batch 23F1041 - EPA 3051A							So	lid				
Matrix Spike (23F1041-MS1)			Prepared	: 06/28/23 0	9:18 Ana	lyzed: 06/28	8/23 16:28					
OC Source Sample: FC-062023-213	1 (A3F136	<u>67-01)</u>										
<u>EPA 6020B</u>												
Arsenic	219000	2070	4150	ug/kg dry	/ 10	207000	9130	101	75-125%			CON
Barium	432000	2070	4150	ug/kg dry	/ 10	207000	218000	103	75-125%			CON
Cadmium	205000	415	829	ug/kg dry	/ 10	207000	ND	99	75-125%			CON
Chromium	206000	2070	4150	ug/kg dry	/ 10	207000	ND	99	75-125%			CON
Lead	234000	415	829	ug/kg dry	/ 10	207000	ND	113	75-125%			CONT,B-0
Mercury	4700	166	332	ug/kg dry	/ 10	4150	ND	113	75-125%			CON
Selenium	102000	2070	4150	ug/kg dry	/ 10	104000	ND	98	75-125%			CON
Silver	109000	415	829	ug/kg dry	/ 10	104000	ND	105	75-125%			CON

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

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
Batch 23F0883 - EPA 1311/301	15A						So	lid				
Blank (23F0883-BLK1)			Prepared	: 06/23/23	12:17 Anal	yzed: 06/23	/23 22:19					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							TCL
Barium	ND	2500	5000	ug/L	10							TCL
Cadmium	ND	50.0	100	ug/L	10							TCL
Chromium	ND	50.0	100	ug/L	10							TCL
Lead	ND	25.0	50.0	ug/L	10							TCL
Mercury	ND	3.75	7.00	ug/L	10							TCL
Selenium	ND	50.0	100	ug/L	10							TCL
Silver	ND	50.0	100	ug/L	10							TCL
LCS (23F0883-BS1)			Prepared	: 06/23/23	12:17 Anal	yzed: 06/23	/23 22:34					
<u>1311/6020B</u>												
Arsenic	5030	50.0	100	ug/L	10	5000		101	80-120%			TCL
Barium	10400	2500	5000	ug/L	10	10000		104	80-120%			TCL
Cadmium	1010	50.0	100	ug/L	10	1000		101	80-120%			TCL
Chromium	5060	50.0	100	ug/L	10	5000		101	80-120%			TCL
Lead	5390	25.0	50.0	ug/L	10	5000		108	80-120%			TCL
Mercury	99.6	3.75	7.00	ug/L	10	100		100	80-120%			TCL
Selenium	1020	50.0	100	ug/L	10	1000		102	80-120%			TCL
Silver	935	50.0	100	ug/L	10	1000		93	80-120%			TCL
Duplicate (23F0883-DUP1)			Prepared	: 06/23/23	12:17 Anal	yzed: 06/23	/23 22:45					
QC Source Sample: Non-SDG (A.	3F1360-01)											
Arsenic	ND	50.0	100	ug/L	10		ND				20%	
Barium	ND	2500	5000	ug/L	10		ND				20%	
Cadmium	ND	50.0	100	ug/L	10		ND				20%	
Chromium	ND	50.0	100	ug/L	10		ND				20%	
Lead	ND	25.0	50.0	ug/L	10		ND				20%	
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	
Selenium	ND	50.0	100	ug/L	10		ND				20%	
Silver	ND	50.0	100	ug/L	10		ND				20%	

Matrix Spike (23F0883-MS1)

Prepared: 06/23/23 12:17 Analyzed: 06/23/23 22:55

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23F0883 - EPA 1311/301	5A						So	lid				
Matrix Spike (23F0883-MS1)			Prepared	1: 06/23/23	12:17 Anal	yzed: 06/23	3/23 22:55					
QC Source Sample: Non-SDG (A3)	F1360-02)											
<u>1311/6020B</u>												
Arsenic	5070	50.0	100	ug/L	10	5000	ND	101	50-150%			
Barium	12000	2500	5000	ug/L	10	10000	ND	120	50-150%			
Cadmium	1020	50.0	100	ug/L	10	1000	ND	102	50-150%			
Chromium	5070	50.0	100	ug/L	10	5000	ND	101	50-150%			
Lead	5300	25.0	50.0	ug/L	10	5000	ND	106	50-150%			
Mercury	99.2	3.75	7.00	ug/L	10	100	ND	99	50-150%			
Selenium	1030	50.0	100	ug/L	10	1000	ND	103	50-150%			
Silver	922	50.0	100	ug/L	10	1000	ND	92	50-150%			
Matrix Spike (23F0883-MS2)			Prepared	1: 06/23/23	12:17 Anal	yzed: 06/23	3/23 23:05					
QC Source Sample: FC-062023-21	31 (A3F136	<u>7-01)</u>										
<u>1311/6020B</u>												
Arsenic	5020	50.0	100	ug/L	10	5000	ND	100	50-150%			CON
Barium	10700	2500	5000	ug/L	10	10000	ND	107	50-150%			CON
Cadmium	1000	50.0	100	ug/L	10	1000	ND	100	50-150%			CON
Chromium	5070	50.0	100	ug/L	10	5000	ND	101	50-150%			CON
Lead	5640	25.0	50.0	ug/L	10	5000	ND	113	50-150%			CON
Mercury	106	3.75	7.00	ug/L	10	100	ND	106	50-150%			CON
Selenium	998	50.0	100	ug/L	10	1000	ND	100	50-150%			CON
Silver	1060	50.0	100	ug/L	10	1000	ND	106	50-150%			CON
Matrix Spike (23F0883-MS3)			Prepared	l: 06/23/23	12:17 Anal	yzed: 06/23	3/23 23:16					
QC Source Sample: Non-SDG (A3)	<u>F1368-01)</u>											
<u>1311/6020B</u>												
Arsenic	4980	50.0	100	ug/L	10	5000	ND	100	50-150%			
Barium	10800	2500	5000	ug/L	10	10000	ND	108	50-150%			
Cadmium	1000	50.0	100	ug/L	10	1000	ND	100	50-150%			
Chromium	5010	50.0	100	ug/L	10	5000	ND	100	50-150%			
Lead	5570	25.0	50.0	ug/L	10	5000	ND	111	50-150%			
Mercury	105	3.75	7.00	ug/L	10	100	ND	105	50-150%			
Selenium	1000	50.0	100	ug/L	10	1000	ND	100	50-150%			

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

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
Batch 23F0883 - EPA 1311/3015A Solid												
Matrix Spike (23F0883-M	483)		Prepared:	: 06/23/23	12:17 Anal	yzed: 06/23/	23 23:16					
QC Source Sample: Non-SL	DG (A3F1368-01)											
Silver	1050	50.0	100	ug/L	10	1000	ND	105	50-150%			

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Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

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
Batch 23F0801 - ASTM D7	′511-12mod (S)					So	il				
Blank (23F0801-BLK1)			Prepared	1: 06/22/23 (08:11 Ana	lyzed: 06/22	2/23 18:03					
<u>D7511-12</u>												
Total Cyanide	ND	50.0	100	ug/kg we	et 1							
LCS (23F0801-BS1)			Prepared	1: 06/22/23 (08:11 Ana	lyzed: 06/22	2/23 18:05					
D7511-12												
Total Cyanide	369	50.0	100	ug/kg we	et 1	400		92	84-116%			
Matrix Spike (23F0801-MS	S2)		Prepared	1: 06/22/23 (08:11 Ana	lyzed: 06/22	2/23 18:47					
QC Source Sample: Non-SDC	G (A3F1369-07)											
<u>D7511-12</u>												
Total Cyanide	230	52.3	105	ug/kg dr	y 1	418	ND	55	64-136%	,		Q-0
Matrix Spike (23F0801-MS	\$3)		Prepared	1: 06/22/23 (08:11 Ana	lyzed: 06/22	2/23 19:51					CONT
OC Source Sample: FC-0620	23-2131 (A3F136	57-01RE1)										
<u>D7511-12</u>												
Total Cyanide	4990	398	796	ug/kg dr	y 2	1590	4100	56	64-136%	,		Q-01, Q-1
Matrix Spike Dup (23F080)1-MSD2)		Prepared	1: 06/22/23 (08:11 Ana	lyzed: 06/22	2/23 18:49					
QC Source Sample: Non-SDC	G (A3F1369-07)											
Total Cyanide	247	53.6	107	ug/kg dr	y 1	429	ND	58	64-136%	7	47%	Q-0
Matrix Spike Dup (23F080)1-MSD3)		Prepared	1: 06/22/23 (08:11 Ana	lyzed: 06/22	2/23 19:53					CONT
OC Source Sample: FC-0620	23-2131 (A3F136	57-01RE1)										
<u>D7511-12</u>												
Total Cyanide	6220	402	804	ug/kg dr	y 2	1610	4100	132	64-136%	22	47%	Q-1

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

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
Batch 23F0817 - Total Solids (Dry Weigh	nt) - 2022					Soi	I				
Duplicate (23F0817-DUP1)			Prepared	: 06/22/23	09:40 Anal	yzed: 06/23/	/23 06:08					
<u>QC Source Sample: Non-SDG (A3</u> % Solids	<u>3F1361-01)</u> 87.8		1.00	%	1		87.5			0.3	10%	
Duplicate (23F0817-DUP2)			Prepared	: 06/22/23	09:40 Anal	yzed: 06/23/	/23 06:08					
<u>QC Source Sample: Non-SDG (A3</u> % Solids	<u>3F1361-02)</u> 90.3		1.00	%	1		90.3			0.02	10%	
Duplicate (23F0817-DUP3)			Prepared	: 06/22/23	09:40 Anal	yzed: 06/23/	/23 06:08					
<u>QC Source Sample: Non-SDG (A3</u> % Solids	<u>3F1361-03)</u> 86.4		1.00	%	1		86.3			0.1	10%	
Duplicate (23F0817-DUP4)			Prepared	: 06/22/23	09:40 Anal	yzed: 06/23/	/23 06:08					
QC Source Sample: Non-SDG (A3	<u>3F1366-01)</u>		1.00	0.1	1		05.1				100/	
% Solids	94.9		1.00	%	1		95.1			0.2	10%	
Duplicate (23F0817-DUP5)			Prepared	: 06/22/23	09:40 Anal	lyzed: 06/23/	/23 06:08					CONT
QC Source Sample: FC-062023-21 EPA 8000D	131 (A3F13(<u>67-01)</u>										
% Solids	23.4		1.00	%	1		24.7			5	10%	
Duplicate (23F0817-DUP6)			Prepared	: 06/22/23	18:09 Anal	yzed: 06/23/	/23 06:08					
QC Source Sample: Non-SDG (A3	3F1437-04)											
% Solids	91.4		1.00	%	1		91.1			0.3	10%	
Duplicate (23F0817-DUP7)			Prepared	: 06/22/23	18:55 Anal	yzed: 06/23/	/23 06:08					
QC Source Sample: Non-SDG (A3	<u>3F1448-07)</u>											
% Solids	77.9		1.00	%	1		78.0			0.1	10%	

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

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

<u>Sevenson Environmental Service</u> 2749 Lockport Road Niagara Falls, NY 14305	es, Inc.	Project: Gasco Project Number: 11132. Project Manager: Chip		<u>Report ID:</u> A3F1367 - 07 25 23 1421					
	SAMPL	E PREPARATION	INFORMATION						
	Diesel a	nd/or Oil Hydrocarbo	ons by NWTPH-Dx						
Prep: EPA 3546 (Fuels)				Sample	Default	RL Prep			
Lab Number Matr	ix Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23F1026 A3F1367-01 Soli	d NWTPH-Dx	06/20/23 03:00	06/28/23 05:15	10.07g/5mL	10g/5mL	0.99			
Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx									
Prep: EPA 5035A				Sample	Default	RL Prep			
Lab Number Matr	ix Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23F0856 A3F1367-01RE1 Soli	d NWTPH-Gx (MS)	06/20/23 03:00	06/21/23 13:55	5.25g/5mL	5g/5mL	0.95			
Volatile Organic Compounds by EPA 8260D									
<u>Prep: EPA 5035A</u>			-	Sample	Default	RL Prep			
Lab Number Matr	ix Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23F0856 A3F1367-01RE1 Soli	d 5035A/8260D	06/20/23 03:00	06/21/23 13:55	5.25g/5mL	5g/5mL	0.95			
	Regulated TCLP V	/olatile Organic Com	pounds by EPA 1311	/8260D					
Prep: EPA 1311/5030C TCLP \	/olatiles		· · · · · · ·	Sample	Default	RL Prep			
Lab Number Matr	ix Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23F1083 A3F1367-01 Soli	d 1311/8260D	06/20/23 03:00	06/29/23 09:00	5mL/5mL	5mL/5mL	1.00			
	Semivola	tile Organic Compou	Inds by EPA 8270E						
<u>Prep: EPA 3546</u>		~ I	-	Sample	Default	RL Prep			
Lab Number Matr	ix Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23F1025 A3F1367-01 Soli	d EPA 8270E	06/20/23 03:00	06/28/23 05:14	15.03g/2mL	15g/2mL	1.00			
	Tot	al Metals by EPA 60	20B (ICPMS)						
Prep: EPA 3051A		-		Sample	Default	RL Prep			
Lab Number Matr	ix Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23F1041 A3F1367-01 Soli	d EPA 6020B	06/20/23 03:00	06/28/23 09:18	0.47g/50mL	0.5g/50mL	1.06			

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

Sevenson Environmental Services, Inc.	Project:	<u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3F1367 - 07 25 23 1421

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			
		TCLF	P Metals by EPA 602	0B (ICPMS)						
Prep: EPA 1311/3015A					Sample	Default	RL Prep			
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23F0883										
A3F1367-01	Solid	1311/6020B	06/20/23 03:00	06/23/23 12:17	10mL/50mL	10mL/50mL	1.00			
	Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection									
Prep: ASTM D7511-12	mod (S)				Sample	Default	RL Prep			
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor			
Batch: 23F0801										
A3F1367-01RE1	Solid	D7511-12	06/20/23 03:00	06/22/23 08:11	2.5058g/50mL	2.5g/50mL	1.00			
Percent Dry Weight										
			Percent Dry Wei	ght						
Prep: Total Solids (Dry	Weight) - 2022		Percent Dry Wei	ght	Sample	Default	RL Prep			
Prep: Total Solids (Dry Lab Number	Weight) - 2022 Matrix	Method	Percent Dry Wei	ght Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor			
Prep: Total Solids (Dry Lab Number Batch: 23F0817	Weight) - 2022 Matrix	Method	Percent Dry Wei Sampled	ght Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01	Weight) - 2022 Matrix Solid	Method EPA 8000D	Percent Dry Wei Sampled 06/20/23 03:00	ght Prepared 06/22/23 09:40	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01	Weight) - 2022 Matrix Solid	Method EPA 8000D	Percent Dry Wei Sampled 06/20/23 03:00	ght Prepared 06/22/23 09:40 PA 1311	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01	Weight) - 2022 Matrix Solid	Method EPA 8000D	Percent Dry Wei Sampled 06/20/23 03:00 CLP Extraction by E	ght Prepared 06/22/23 09:40 PA 1311	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01 Prep: EPA 1311 (TCLP	Weight) - 2022 Matrix Solid	Method EPA 8000D T	Percent Dry Wei Sampled 06/20/23 03:00 CLP Extraction by E	ght Prepared 06/22/23 09:40 PA 1311	Sample Initial/Final Sample	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23E0831	Weight) - 2022 Matrix Solid) Matrix	Method EPA 8000D T Method	Percent Dry Wei Sampled 06/20/23 03:00 CLP Extraction by E Sampled	ght Prepared 06/22/23 09:40 PA 1311 Prepared	Sample Initial/Final Sample Initial/Final	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23F0831 A3F1367-01	Weight) - 2022 Matrix Solid) Matrix Solid	Method EPA 8000D T Method EPA 1311	Percent Dry Wei Sampled 06/20/23 03:00 CLP Extraction by E Sampled 06/20/23 03:00	ght Prepared 06/22/23 09:40 PA 1311 Prepared 06/22/23 16:35	Sample Initial/Final Sample Initial/Final 100g/2000.2g	Default Initial/Final Default Initial/Final 100g/2000g	RL Prep Factor NA RL Prep Factor NA			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23F0831 A3F1367-01 Prep: EPA 1311 TCLP/2	Weight) - 2022 Matrix Solid) Matrix Solid ZHE	Method EPA 8000D T Method EPA 1311	Percent Dry Wei Sampled 06/20/23 03:00 CLP Extraction by E Sampled 06/20/23 03:00	ght Prepared 06/22/23 09:40 PA 1311 Prepared 06/22/23 16:35	Sample Initial/Final Sample Initial/Final 100g/2000.2g Sample	Default Initial/Final Default Initial/Final 100g/2000g Default	RL Prep Factor NA RL Prep Factor NA RL Prep			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23F0831 A3F1367-01 Prep: EPA 1311 TCLP/2 Lab Number	Weight) - 2022 Matrix Solid) Matrix Solid ZHE Matrix	Method EPA 8000D T Method EPA 1311 Method	Percent Dry Wei Sampled 06/20/23 03:00 CLP Extraction by E Sampled 06/20/23 03:00	ght Prepared 06/22/23 09:40 PA 1311 Prepared 06/22/23 16:35 Prepared	Sample Initial/Final Sample Initial/Final 100g/2000.2g Sample Initial/Final	Default Initial/Final Default Initial/Final 100g/2000g Default Initial/Final	RL Prep Factor NA RL Prep Factor NA RL Prep Factor			
Prep: Total Solids (Dry Lab Number Batch: 23F0817 A3F1367-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23F0831 A3F1367-01 Prep: EPA 1311 TCLP/2 Lab Number Batch: 23F1065	Weight) - 2022 Matrix Solid) Matrix Solid ZHE Matrix	Method EPA 8000D T Method EPA 1311 Method	Percent Dry Wei Sampled 06/20/23 03:00 CLP Extraction by E Sampled 06/20/23 03:00 Sampled	ght Prepared 06/22/23 09:40 PA 1311 Prepared 06/22/23 16:35 Prepared	Sample Initial/Final Sample Initial/Final 100g/2000.2g Sample Initial/Final	Default Initial/Final Default Initial/Final 100g/2000g Default Initial/Final	RL Prep Factor NA RL Prep Factor NA RL Prep Factor			

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

QUALIFIER DEFINITIONS

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

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- B-02 Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- CONT The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
- F-13 The chromatographic pattern does not resemble the fuel standard used for quantitation
- 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.
- Q-01 Spike recovery and/or RPD is outside acceptance limits.
- Q-02 Spike recovery is outside of established control limits due to matrix interference.
- Q-05 Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- 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-31 Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- 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 +12%. 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 +8%. 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 -1%. 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.
- R-04 Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-01 Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- S-03 Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect.

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

<u>Sevenson Env</u> 2749 Lockpor Niagara Falls	<u>vironmental Services, Inc.</u> rt Road 5, NY 14305	Project: Project Number: Project Manager:	<u>Gasco Filtercake</u> 111323 Chip Byrd	<u>Report ID:</u> A3F1367 - 07 25 23 1421
S-05	Surrogate recovery is estimated due to sample dilu	tion required for hi	gh analyte concentration and/or matrix interference.	
TCLP	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23F0831.	
TCLPa	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23F1018/23F1065.	
V-15	Sample aliquot was subsampled from the sample c sampling.	ontainer. The subsa	umpled aliquot was preserved in the laboratory withi	n 48 hours of

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

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.

- <u>" dry"</u> 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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

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).

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ 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.

-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, if results are not reported to the MDL.

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3F1367 - 07 25 23 1421

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 <u>exception</u> of any analyte(s) listed below:

Apex Laboratories										
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation					

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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



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

Sevenson Environn	nental Services, Inc. Project: <u>Gasco Filtercake</u>	
2749 Lockport Roa	d Project Number: 111323	Report ID:
Niagara Falls, NY	14305 Project Manager: Chip Byrd	A3F1367 - 07 25 23 1421
Niagara Falls, NY	Project Manager: Chip Byrd APEX LABS COOLER RECEIPT FORM Client: $\underline{Selevism}$ Fruitmand Services, five	A3F1367 - 07 25 23 1421

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

Wednesday, August 9, 2023

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

RE: A3G1199 - Gasco -- Filtercake - 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 A3G1199, which was received by the laboratory on 7/19/2023 at 9:50:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler 2.5 degC

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.



The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

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

Sevenson Environmental Services, Inc.	Project: Gasco Filter	cake
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1199 - 08 09 23 0710

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION						
Client Sample ID	Laboratory ID	Matrix	Date Sampled Date Received			
FC-071923-2148	A3G1199-01	Solid	07/19/23 03:35 07/19/23 09:50			

Apex Laboratories

Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Niagara Falls, NY 14305Project Manager:Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01)				Matrix: Soli	d	Batch:	23G0724	CONT
Diesel	1570000	37900	75900	ug/kg dry	1	07/25/23 07:06	NWTPH-Dx	F-13
Oil	ND	75900	152000	ug/kg dry	1	07/25/23 07:06	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 96%	Limits: 50-150 %	6 I	07/25/23 07:06	NWTPH-Dx	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx								
Sample Detection Reporting Date Analyte Result Limit Units Dilution Analyzed Method Ref. Notes								
FC-071923-2148 (A3G1199-01RE1)				Matrix: Solid	ł	Batch:	23G0582	V-15
Gasoline Range Organics	68000	16800	33700	ug/kg dry	50	07/20/23 18:46	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery	: 95 %	Limits: 50-150 %	1	07/20/23 18:46	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			93 %	50-150 %	1	07/20/23 18:46	NWTPH-Gx (MS)	

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

Sevenson Environmental Services, I	nc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3G1199 - 08 09 23 0710

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01RE1)				Matrix: Sol	id	Batch:	23G0582	V-15
Acetone	ND	3370	6730	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Benzene	50.5	33.7	67.3	ug/kg dry	50	07/20/23 18:46	5035A/8260D	J
Bromobenzene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Bromochloromethane	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Bromodichloromethane	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Bromoform	ND	337	673	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Bromomethane	ND	3370	3370	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
2-Butanone (MEK)	ND	1680	3370	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
n-Butylbenzene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
sec-Butylbenzene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
tert-Butylbenzene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Carbon tetrachloride	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Chlorobenzene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Chloroethane	ND	1680	3370	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Chloroform	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Chloromethane	ND	842	1680	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
2-Chlorotoluene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
4-Chlorotoluene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Dibromochloromethane	ND	337	673	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	1680	1680	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Dibromomethane	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2-Dichlorobenzene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,3-Dichlorobenzene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,4-Dichlorobenzene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Dichlorodifluoromethane	ND	337	673	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,1-Dichloroethane	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,1-Dichloroethene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
cis-1,2-Dichloroethene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
trans-1,2-Dichloroethene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2-Dichloropropane	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,3-Dichloropropane	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	

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

Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3G1199 - 08 09 23 071	0

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	Compou	nds by EPA 826	0D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01RE1)				Matrix: Solid	I	Batch:	23G0582	V-15
2,2-Dichloropropane	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,1-Dichloropropene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
cis-1,3-Dichloropropene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
trans-1,3-Dichloropropene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Ethylbenzene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Hexachlorobutadiene	ND	337	673	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
2-Hexanone	ND	1680	3370	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Isopropylbenzene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
4-Isopropyltoluene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Methylene chloride	ND	1680	3370	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1680	3370	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Naphthalene	801	337	673	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
n-Propylbenzene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Styrene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Tetrachloroethene (PCE)	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Toluene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2,3-Trichlorobenzene	ND	842	1680	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2,4-Trichlorobenzene	ND	842	1680	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,1,1-Trichloroethane	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,1,2-Trichloroethane	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Trichloroethene (TCE)	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Trichlorofluoromethane	ND	337	673	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2,3-Trichloropropane	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
1,2,4-Trimethylbenzene	259	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	J
1,3,5-Trimethylbenzene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Vinyl chloride	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
m,p-Xylene	ND	168	337	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
o-Xylene	ND	84.2	168	ug/kg dry	50	07/20/23 18:46	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	: 111 %	Limits: 80-120 %	1	07/20/23 18:46	5035A/8260D	
Toluene-d8 (Surr)			96 %	80-120 %	1	07/20/23 18:46	5035A/8260D	

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

Sevenson Environmental Services, Inc.	Project: <u>C</u>	Gasco Filtercake	
2749 Lockport Road	Project Number: 1	11323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: C	Chip Byrd	A3G1199 - 08 09 23 0710
	ANALYTICAL SAN	APLE RESULTS	

Volatile Organic Compounds by EPA 8260D								
	Sample Detection Reporting Date							
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01RE1)				Matrix: So	lid	Batch:	23G0582	V-15
Surrogate: 4-Bromofluorobenzene (Surr)		Recove	ery: 100 %	Limits: 79-120	% 1	07/20/23 18:46	5035A/8260D	

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Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc.
2749 Lock	port Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3G1199 - 08 09 23 0710

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
FC-071923-2148 (A3G1199-01)				Matrix: Solid	1	Batch:	23G0708	CONT
Benzene	ND	6.25	12.5	ug/L	50	07/24/23 17:22	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	07/24/23 17:22	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	07/24/23 17:22	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	07/24/23 17:22	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	07/24/23 17:22	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	07/24/23 17:22	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	07/24/23 17:22	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	07/24/23 17:22	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	07/24/23 17:22	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	07/24/23 17:22	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	07/24/23 17:22	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 109 %	Limits: 80-120 %	1	07/24/23 17:22	1311/8260D	
Toluene-d8 (Surr)			101 %	80-120 %	1	07/24/23 17:22	1311/8260D	
4-Bromofluorobenzene (Surr)			98 %	80-120 %	1	07/24/23 17:22	1311/8260D	

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Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3G1199 - 08 09 23 0710

ANALYTICAL SAMPLE RESULTS

	Semivolatile Organic Compounds by EPA 8270E							
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01)				Matrix: Sol	id	Batch:	23G0614	CONT
Acenaphthene	20400	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Acenaphthylene	ND	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Anthracene	23800	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Benz(a)anthracene	15800	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Benzo(a)pyrene	16600	4190	8380	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Benzo(b)fluoranthene	13000	4190	8380	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Benzo(k)fluoranthene	6620	4190	8380	ug/kg dry	200	07/21/23 23:07	EPA 8270E	J
Benzo(g,h,i)perylene	9520	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Chrysene	21700	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Dibenz(a,h)anthracene	ND	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Fluoranthene	82900	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Fluorene	14900	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Indeno(1,2,3-cd)pyrene	8490	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
1-Methylnaphthalene	ND	5600	11200	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2-Methylnaphthalene	ND	5600	11200	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Naphthalene	ND	5600	11200	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Phenanthrene	129000	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Pyrene	99600	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Carbazole	ND	4190	8380	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Dibenzofuran	ND	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2-Chlorophenol	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
4-Chloro-3-methylphenol	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,4-Dichlorophenol	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,4-Dimethylphenol	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,4-Dinitrophenol	ND	69800	140000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	69800	140000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2-Methylphenol	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
3+4-Methylphenol(s)	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2-Nitrophenol	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
4-Nitrophenol	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Pentachlorophenol (PCP)	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Phenol	ND	5600	11200	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	

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Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc.
2749 Loci	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3G1199 - 08 09 23 071	0

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting	* * •.	D 1.1	Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01)				Matrix: Sol	id	Batch:	23G0614	CONT
2,3,5,6-Tetrachlorophenol	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,4,5-Trichlorophenol	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,4,6-Trichlorophenol	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	41900	83800	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Butyl benzyl phthalate	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Diethylphthalate	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Dimethylphthalate	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Di-n-butylphthalate	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Di-n-octyl phthalate	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
N-Nitrosodimethylamine	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
N-Nitrosodiphenylamine	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Hexachlorobenzene	ND	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Hexachlorobutadiene	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Hexachlorocyclopentadiene	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Hexachloroethane	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2-Chloronaphthalene	ND	2790	5600	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
1,2,4-Trichlorobenzene	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
4-Bromophenyl phenyl ether	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Aniline	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
4-Chloroaniline	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2-Nitroaniline	ND	56000	112000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
3-Nitroaniline	ND	56000	112000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
4-Nitroaniline	ND	56000	112000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Nitrobenzene	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,4-Dinitrotoluene	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
2,6-Dinitrotoluene	ND	27900	56000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Benzoic acid	ND	350000	698000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Benzyl alcohol	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3G1199 - 08 09 23 0710

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01)				Matrix: Solie	d	Batch: 2	23G0614	CONT
Isophorone	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Azobenzene (1,2-DPH)	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	69800	140000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
3,3'-Dichlorobenzidine	ND	56000	112000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	69800	140000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
1,3-Dinitrobenzene	ND	69800	140000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
1,4-Dinitrobenzene	ND	69800	140000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Pyridine	ND	14000	27900	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
1,2-Dichlorobenzene	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
1,3-Dichlorobenzene	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
1,4-Dichlorobenzene	ND	6980	14000	ug/kg dry	200	07/21/23 23:07	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery	: 52 %	Limits: 37-122 %	5 200	07/21/23 23:07	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			88 %	44-120 %	5 200	07/21/23 23:07	EPA 8270E	S-05
Phenol-d6 (Surr)			22 %	33-122 %	5 200	07/21/23 23:07	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			94 %	54-127 %	5 200	07/21/23 23:07	EPA 8270E	S-05
2-Fluorophenol (Surr)			141 %	35-120 %	5 200	07/21/23 23:07	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			261 %	39-132 %	5 200	07/21/23 23:07	EPA 8270E	S-05

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number: 1	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3G1199 - 08 09 23 0710

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01)				Matrix: Sol	id			
Batch: 23G0565								
Arsenic	8990	2100	4210	ug/kg dry	10	07/20/23 13:59	EPA 6020B	CONT
Barium	198000	2100	4210	ug/kg dry	10	07/20/23 13:59	EPA 6020B	CONT
Cadmium	ND	421	841	ug/kg dry	10	07/20/23 13:59	EPA 6020B	CONT
Chromium	ND	2100	4210	ug/kg dry	10	07/20/23 13:59	EPA 6020B	CONT
Lead	ND	421	841	ug/kg dry	10	07/20/23 13:59	EPA 6020B	CONT
Mercury	ND	168	337	ug/kg dry	10	07/20/23 13:59	EPA 6020B	CONT
Selenium	ND	2100	4210	ug/kg dry	10	07/20/23 13:59	EPA 6020B	CONT
Silver	ND	421	841	ug/kg dry	10	07/20/23 13:59	EPA 6020B	CONT

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3G1199 - 08 09 23 0710

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01)				Matrix: So	olid			
Batch: 23G0784								
Arsenic	ND	50.0	100	ug/L	10	07/25/23 19:23	1311/6020B	CONT
Barium	ND	2500	5000	ug/L	10	07/25/23 19:23	1311/6020B	CONT
Cadmium	ND	50.0	100	ug/L	10	07/25/23 19:23	1311/6020B	CONT
Chromium	ND	50.0	100	ug/L	10	07/25/23 19:23	1311/6020B	CONT
Lead	ND	25.0	50.0	ug/L	10	07/25/23 19:23	1311/6020B	CONT
Mercury	ND	3.75	7.00	ug/L	10	07/25/23 19:23	1311/6020B	CONT
Selenium	ND	50.0	100	ug/L	10	07/25/23 19:23	1311/6020B	CONT
Silver	ND	50.0	100	ug/L	10	07/25/23 19:23	1311/6020B	CONT

Apex Laboratories



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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3G1199 - 08 09 23 0710

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
FC-071923-2148 (A3G1199-01RE1)				Matrix: Sol	id	Batch:	CONT	
Total Cyanide	6980	986	1970	ug/kg dry	5	07/24/23 15:41	D7511-12	

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

Sevenson Environmental Services, Inc.	Project: Gasco F	ïllercake
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrc	A3G1199 - 08 09 23 0710

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-071923-2148 (A3G1199-01)				Matrix: So	olid	Batch:	23G0577	CONT
% Solids	25.3		1.00	%	1	07/21/23 06:17	EPA 8000D	

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Darwin Thomas, Business Development Director



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<u>Sevenson Environmental Services, Inc.</u>	Project: <u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1199 - 08 09 23 0710
	ANALYTICAL SAMPLE RESULTS	

TCLP Extraction by EPA 1311 (ZHE)											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
						Batch: 23G0594					
FC-071923-2148 (A3G1199-01)				Matrix: So	olid	Batch:	23G0594	CONT			
FC-071923-2148 (A3G1199-01) TCLP ZHE Extraction	PREP			Matrix: So	lid 1	Batch: 07/20/23 14:31	23G0594 EPA 1311 ZHE	CONT			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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	
Batch 23G0724 - EPA 3546 (F	uels)						Sol	id					
Blank (23G0724-BLK1)			Prepared	: 07/24/23	17:08 Ana	lyzed: 07/25/	23 05:43						
NWTPH-Dx													
Diesel	ND	10000	20000	ug/kg w	ret 1								
Oil	ND	20000	40000	ug/kg w	ret 1								
Surr: o-Terphenyl (Surr)		Reco	very: 95 %	Limits: 5	0-150 %	Dilu	ution: 1x						
LCS (23G0724-BS1)			Prepared	: 07/24/23	17:08 Anal	lyzed: 07/25/	23 06:04						
NWTPH-Dx													
Diesel	116000	10000	20000	ug/kg w	ret 1	125000		93	38-132%				
Surr: o-Terphenyl (Surr)		Reco	very: 95 %	Limits: 5	0-150 %	Dilu	ution: 1x						
Duplicate (23G0724-DUP1)			Prepared	: 07/24/23	17:08 Anal	lyzed: 07/25/	23 06:45						
QC Source Sample: Non-SDG (A3	G1118-01)												
Diesel	ND	12500	24900	ug/kg d	ry 1		ND				30%		
Oil	ND	24900	49800	ug/kg d	ry 1		ND				30%		
Surr: o-Terphenyl (Surr)		Reco	very: 53 %	Limits: 5	0-150 %	Dilu	tion: 1x						

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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
Batch 23G0582 - EPA 5035A							Soi	1				
Blank (23G0582-BLK1)			Preparec	1: 07/20/23	10:24 Anal	yzed: 07/20/	23 12:50					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	7et 50							
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 87 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			96 %	5	0-150 %		"					
LCS (23G0582-BS2)			Preparec	1: 07/20/23	10:24 Anal	yzed: 07/20/	23 12:21			_		
NWTPH-Gx (MS)												
Gasoline Range Organics	22700	2500	5000	ug/kg w	7et 50	25000		91	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	wery: 89%	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			96 %	5	0-150 %		"					
Duplicate (23G0582-DUP1)			Preparec	1: 07/19/23	10:45 Anal	yzed: 07/20/	23 13:41					
QC Source Sample: Non-SDG (A3	G1206-01)											
Gasoline Range Organics	66100	3340	6670	ug/kg d	ry 50		73400			10	30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 94 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			95 %	50	0-150 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0582 - EPA 5035A							Soi					
Blank (23G0582-BLK1)			Prepared	: 07/20/23 10	:24 Ana	lyzed: 07/20/	/23 12:50					
5035A/8260D						-						
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	250	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23G0582 - EPA 5035A							Soi	I				
Blank (23G0582-BLK1)			Prepared	: 07/20/23 10):24 Ana	yzed: 07/20/	/23 12:50					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	50							
o-Xylene	ND	12.5	25.0	ug/kg wet	50							

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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3G1199 - 08 09 23 0710 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 23G0582 - EPA 5035A Soil Blank (23G0582-BLK1) Prepared: 07/20/23 10:24 Analyzed: 07/20/23 12:50 Surr: Toluene-d8 (Surr) Recovery: 99% Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 99% 79-120 % LCS (23G0582-BS1) Prepared: 07/20/23 10:24 Analyzed: 07/20/23 11:56 5035A/8260D Acetone 1790 500 1000 ug/kg wet 50 2000 89 80-120% ---Acrylonitrile 936 50.0 100 50 1000 94 80-120% ug/kg wet ---------Benzene 977 5.00 10.0 ug/kg wet 50 1000 98 80-120% ---25.0 940 12.5 50 1000 94 80-120% Bromobenzene ug/kg wet ---------Bromochloromethane 896 25.0 50.0 ug/kg wet 50 1000 90 80-120% ---------25.0 50.0 Bromodichloromethane 856 ug/kg wet 50 1000 ---86 80-120% ------Bromoform 897 50.0 100 ug/kg wet 50 1000 90 80-120% Bromomethane 876 500 500 ug/kg wet 50 1000 88 80-120% ---------2-Butanone (MEK) 1710 250 500 ug/kg wet 50 2000 86 80-120% --n-Butylbenzene 948 25.0 50.0 50 1000 95 80-120% ug/kg wet --------sec-Butylbenzene 980 25.050.0 ug/kg wet 50 1000 98 80-120% tert-Butylbenzene 950 25.0 50.0 50 1000 95 80-120% ug/kg wet ----------Carbon disulfide 840 250 500 ug/kg wet 50 1000 ---84 80-120% ------Carbon tetrachloride 929 25.0 50.0 ug/kg wet 50 1000 93 80-120% ---------Chlorobenzene 942 12.5 25.0ug/kg wet 50 1000 94 80-120% Chloroethane 1050 250 500 50 1000 105 80-120% ug/kg wet ---------1000 80-120% Chloroform 934 25.050.0 ug/kg wet 50 93 ------Chloromethane 811 125 250 50 1000 81 80-120% ug/kg wet ---------2-Chlorotoluene 924 25.050.0 ug/kg wet 50 1000 ----92 80-120% ____ 4-Chlorotoluene 914 25.0 50.0 ug/kg wet 50 1000 91 80-120% ---------930 50.0 100 93 Dibromochloromethane ug/kg wet 50 1000 80-120% --------ug/kg wet 1,2-Dibromo-3-chloropropane 769 250 250 50 1000 77 80-120% O-55 ---1,2-Dibromoethane (EDB) 954 25.0 1000 95 50.0 ug/kg wet 50 80-120% Dibromomethane 944 25.0 50.0 ug/kg wet 50 1000 94 80-120% ---------1,2-Dichlorobenzene 920 12.5 25.0ug/kg wet 50 1000 ---92 80-120% ____ ---1,3-Dichlorobenzene 910 12.5 25.0 ug/kg wet 50 1000 91 80-120% ---------1,4-Dichlorobenzene 918 12.5 25.0 50 1000 92 80-120% ug/kg wet 96 Dichlorodifluoromethane 960 50.0 100 ug/kg wet 50 1000 80-120% 1,1-Dichloroethane 918 12.5 25.0 1000 92 80-120% ug/kg wet 50 ------

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0582 - EPA 5035A							Soi	I				
LCS (23G0582-BS1)			Prepared	l: 07/20/23 1	0:24 Ana	lyzed: 07/20	/23 11:56					
1,2-Dichloroethane (EDC)	967	12.5	25.0	ug/kg we	t 50	1000		97	80-120%			
1,1-Dichloroethene	911	12.5	25.0	ug/kg we	t 50	1000		91	80-120%			
cis-1,2-Dichloroethene	892	12.5	25.0	ug/kg we	t 50	1000		89	80-120%			
trans-1,2-Dichloroethene	918	12.5	25.0	ug/kg we	t 50	1000		92	80-120%			
1,2-Dichloropropane	886	12.5	25.0	ug/kg we	t 50	1000		89	80-120%			
1,3-Dichloropropane	942	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			
2,2-Dichloropropane	918	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
1,1-Dichloropropene	940	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			
cis-1,3-Dichloropropene	922	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
trans-1,3-Dichloropropene	932	25.0	50.0	ug/kg we	t 50	1000		93	80-120%			
Ethylbenzene	916	12.5	25.0	ug/kg we	t 50	1000		92	80-120%			
Hexachlorobutadiene	857	50.0	100	ug/kg we	t 50	1000		86	80-120%			
2-Hexanone	1680	250	500	ug/kg we	t 50	2000		84	80-120%			
Isopropylbenzene	954	25.0	50.0	ug/kg we	t 50	1000		95	80-120%			
4-Isopropyltoluene	962	25.0	50.0	ug/kg we	t 50	1000		96	80-120%			
Methylene chloride	1030	250	500	ug/kg we	t 50	1000		103	80-120%			
4-Methyl-2-pentanone (MiBK)	1760	250	500	ug/kg we	t 50	2000		88	80-120%			
Methyl tert-butyl ether (MTBE)	900	25.0	50.0	ug/kg we	t 50	1000		90	80-120%			
Naphthalene	900	50.0	100	ug/kg we	t 50	1000		90	80-120%			
n-Propylbenzene	948	12.5	25.0	ug/kg we	t 50	1000		95	80-120%			
Styrene	930	25.0	50.0	ug/kg we	t 50	1000		93	80-120%			
1,1,1,2-Tetrachloroethane	914	12.5	25.0	ug/kg we	t 50	1000		91	80-120%			
1,1,2,2-Tetrachloroethane	906	25.0	50.0	ug/kg we	t 50	1000		91	80-120%			
Tetrachloroethene (PCE)	954	12.5	25.0	ug/kg we	t 50	1000		95	80-120%			
Toluene	912	25.0	50.0	ug/kg we	t 50	1000		91	80-120%			
1,2,3-Trichlorobenzene	904	125	250	ug/kg we	t 50	1000		90	80-120%			
1,2,4-Trichlorobenzene	856	125	250	ug/kg we	t 50	1000		86	80-120%			
1,1,1-Trichloroethane	943	12.5	25.0	ug/kg we	t 50	1000		94	80-120%			
1,1,2-Trichloroethane	977	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
Trichloroethene (TCE)	942	12.5	25.0	ug/kg we	t 50	1000		94	80-120%			
Trichlorofluoromethane	1210	50.0	100	ug/kg we	t 50	1000		121	80-120%			Q
1,2,3-Trichloropropane	922	25.0	50.0	ug/kg we	t 50	1000		92	80-120%			
1,2,4-Trimethylbenzene	993	25.0	50.0	ug/kg we	t 50	1000		99	80-120%			
1,3,5-Trimethylbenzene	964	25.0	50.0	ug/kg we	t 50	1000		96	80-120%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0582 - EPA 5035A							Soi	il				
LCS (23G0582-BS1)			Prepared	1: 07/20/23 10	0:24 Anal	yzed: 07/20/	/23 11:56					
Vinyl chloride	898	12.5	25.0	ug/kg wet	t 50	1000		90	80-120%			
m,p-Xylene	1880	25.0	50.0	ug/kg wet	t 50	2000		94	80-120%			
o-Xylene	902	12.5	25.0	ug/kg wet	t 50	1000		90	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	wery: 97 %	Limits: 80-	120 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			<i>99 %</i>	80-1	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-1	120 %		"					
Duplicate (23G0582-DUP1)			Prepared	1: 07/19/23 10):45 Anal	yzed: 07/20/	/23 13:41					
OC Source Sample: Non-SDG (A3	G1206-01)											
Acetone	ND	667	1330	ug/kg drv	50		ND				30%	
Acrylonitrile	ND	66.7	133	ug/kg drv	50		ND				30%	
Benzene	ND	6.67	13.3	ug/kg drv	50		ND				30%	
Bromobenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	33.4	66.7	ug/kg drv	50		ND				30%	
Bromodichloromethane	ND	33.4	66.7	ug/kg drv	50		ND				30%	
Bromoform	ND	66.7	133	ug/kg drv	50		ND				30%	
Bromomethane	ND	667	667	ug/kg drv	50		ND				30%	
2-Butanone (MEK)	ND	334	667	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	33.4	66.7	ug/kg drv	50		ND				30%	
tert-Butylbenzene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	334	667	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	33.4	66.7	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
Chloroethane	ND	334	667	ug/kg drv	50		ND				30%	
Chloroform	ND	33.4	66.7	ug/kg drv	50		ND				30%	
Chloromethane	ND	167	334	ug/kg drv	50		ND				30%	
2-Chlorotoluene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	33.4	66.7	ug/kg drv	50		ND				30%	
Dibromochloromethane	ND	66.7	133	ug/kg drv	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	334	334	ug/kg drv	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	33.4	66.7	ug/kg drv	50		ND				30%	
Dibromomethane	ND	33.4	66.7	ug/kg drv	50		ND				30%	
1,2-Dichlorobenzene	ND	16.7	33.4	ug/kg drv	50		ND				30%	
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Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte Detection Reparting Limit Units Dilution Spile Amount Spile Result Spile Result <th< th=""><th></th><th></th><th></th><th>Volatile Org</th><th>ganic Con</th><th>npounds</th><th>by EPA 8</th><th>3260D</th><th></th><th></th><th></th><th></th><th></th></th<>				Volatile Org	ganic Con	npounds	by EPA 8	3260D					
Bach 320082 - DPA 953 Prepared: 07/19/23 10-45 Nalyzed: 07/20/23 13.4' Definition 20072000000000000000000000000000000000	Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Duplicate (23C0882-DUP!) Prepared: 9719/23 10:45 Analyzet: 072023 13:41 DCSource Sample: ND 16.7 33.4 ug/kg dry 50 ND 30% Dichlorodenzene ND 16.7 33.4 ug/kg dry 50 ND 30% Dichlorodenane ND 16.7 33.4 ug/kg dry 50 ND 30% 1.1-Dichlorodenane (EDC) ND 16.7 33.4 ug/kg dry 50 ND 30% 1.1-Dichlorodenene ND 16.7 33.4 ug/kg dry 50 ND 30% 1.2-Dichlorodenene ND 16.7 33.4 ug/kg dry 50 ND 30% 1.2-Dichloropropane ND 33.4 66.7 ug/kg dry 50 ND <td< td=""><td>Batch 23G0582 - EPA 5035A</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Soi</td><td>I</td><td></td><td></td><td></td><td></td></td<>	Batch 23G0582 - EPA 5035A							Soi	I				
OC Source Sample: Non-SDG (ASG1206-01) 1,3-Dichlorobenzene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,4-Dichlorobenzene ND 16.7 33.4 ug/kg dry 50 ND 30% Dichlorofthuroomethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1-Dichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1-Dichloroethene ND 16.7 33.4 ug/kg dry 50 ND 30% trans-1,2-Dichloroethene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,3-Dichloropropane ND 33.4 66.7 ug/kg dry 50 ND 30% 1,1-Dichloropropene ND 33.4 66.7 <td>Duplicate (23G0582-DUP1)</td> <td></td> <td></td> <td>Prepared</td> <td>: 07/19/23 1</td> <td>0:45 Ana</td> <td>lyzed: 07/20</td> <td>/23 13:41</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Duplicate (23G0582-DUP1)			Prepared	: 07/19/23 1	0:45 Ana	lyzed: 07/20	/23 13:41					
1,3-Dichlorobenzene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,4-Dichlorobenzene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1-Dichlorocthane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1-Dichlorocthane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2-Dichlorocthane ND 16.7 33.4 ug/kg dry 50 ND 30% cis-1,2-Dichlorocthene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,3-Dichlorocthene ND 33.4 66.7 ug/kg dry 50 ND 30% 2,2-Dichloropopane ND 33.4 66.7 ug/kg dry 50 ND 30% 1,1-Dichloropopane	QC Source Sample: Non-SDG (A3	<u>G1206-01)</u>											
1,4-Dichlorobenzene ND 16.7 33.4 ug/kg dry 50 ND 30% Dichlorodifilooromethane ND 16.7 133.4 ug/kg dry 50 ND 30% 1,1-Dichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1-Dichloroethene ND 16.7 33.4 ug/kg dry 50 ND 30% trans-1,2-Dichloroethene ND 16.7 33.4 ug/kg dry 50 ND 30% trans-1,2-Dichloroethene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2-Dichloropropane ND 33.4 66.7 ug/kg dry 50 ND 30% 2,2-Dichloropropene ND 33.4 66.7 ug/kg dry 50 ND 30% Ethylbenz	1,3-Dichlorobenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
Dickhoropricing ND 66.7 133 ug/kg dry 50 ND 30% 1.1-Dichlorochane ND 16.7 33.4 ug/kg dry 50 ND 30% 1.1-Dichlorochane ND 16.7 33.4 ug/kg dry 50 ND 30% 1.1-Dichlorochane ND 16.7 33.4 ug/kg dry 50 ND 30% irans-1.2-Dichlorochane ND 16.7 33.4 ug/kg dry 50 ND 30% 1.2-Dichloropropane ND 33.4 66.7 ug/kg dry 50 ND 30% 2.2-Dichloropropane ND 33.4 66.7 ug/kg dry 50 ND 30% 2.2-Dichloropropene ND 33.4 66.7 ug/kg dry 50 <td>1,4-Dichlorobenzene</td> <td>ND</td> <td>16.7</td> <td>33.4</td> <td>ug/kg dry</td> <td>50</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	1,4-Dichlorobenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
1,1-Dichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2-Dichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% cis-1,2-Dichloroethene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2-Dichloroethene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2-Dichloroethene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2-Dichloropropane ND 33.4 66.7 ug/kg dry 50 ND 30% 2,2-Dichloropropane ND 33.4 66.7 ug/kg dry 50 ND 30% 1,1-Dichloropropane ND 33.4 66.7 ug/kg dry 50 ND 30% 1,1-Dichloropropene	Dichlorodifluoromethane	ND	66.7	133	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)ND16.733.4ug/kg dry50ND30%1,1-DichloroetheneND16.733.4ug/kg dry50ND30%cis-1,2-DichloroetheneND16.733.4ug/kg dry50ND30%1,2-DichloroetheneND16.733.4ug/kg dry50ND30%1,2-DichloroetheneND16.733.4ug/kg dry50ND30%1,2-DichloropropaneND33.466.7ug/kg dry50ND30%1,1-DichloropropaneND33.466.7ug/kg dry50ND30%1,1-DichloropropeneND33.466.7ug/kg dry50ND30%1,1-DichloropropeneND33.466.7ug/kg dry50ND30%1,1-DichloropropeneND33.466.7ug/kg dry50ND30%1,1-DichloropropeneND66.7133ug/kg dry50ND30%1,1-DichloropropeneND66.7134ug/kg dry50ND30%2-HoxanoeND33.466.7ug/kg dry<	1,1-Dichloroethane	ND	16.7	33.4	ug/kg dry	50		ND				30%	
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cis-1,2-DichloroetheneND16.733.4ug/kg dry50ND30%trans-1,2-DichloroetheneND16.733.4ug/kg dry50ND30%1,2-DichloropropaneND16.733.4ug/kg dry50ND30%1,2-DichloropropaneND33.466.7ug/kg dry50ND30%2,2-DichloropropaneND33.466.7ug/kg dry50ND30%1,1-DichloropropeneND33.466.7ug/kg dry50ND30%insn-1,3-DichloropropeneND33.466.7ug/kg dry50ND30%Ethylbenzene16616.733.4ug/kg dry50ND30%EthylbenzeneND66.7ug/kg dry50ND30%2-HexanoneND33.466.7ug/kg dry50ND30%2-HexanoneND33.466.7ug/kg dry50ND30%4-HexanohND33.466.7ug/kg dry50ND30%4-HexanohND33.466.7ug/kg dry50ND <td>1,1-Dichloroethene</td> <td>ND</td> <td>16.7</td> <td>33.4</td> <td>ug/kg dry</td> <td>50</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	1,1-Dichloroethene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
trans-1,2-DichloroetheneND16.733.4ug/kg dry50ND30%1,2-DichloropropaneND16.733.4ug/kg dry50ND30%1,3-DichloropropaneND33.466.7ug/kg dry50ND30%2,2-DichloropropaneND33.466.7ug/kg dry50ND30%(i-1)-LichloropropeneND33.466.7ug/kg dry50ND30%(i-1)-LichloropropeneND33.466.7ug/kg dry50ND30%(i-1)-LichloropropeneND33.466.7ug/kg dry50ND30%Ethylbenzene16616.713.3ug/kg dry50ND30%LexachlorobutadieneND65.713.3ug/kg dry50ND30%2-HexanoneND33.466.7ug/kg dry50ND30%1sopropylbenzeneND33.466.7ug/kg dry50ND30%4-HexahlorobutadieneND33.466.7ug/kg dry50ND30%1sopropylbenzeneND33.466.7ug/kg dry50	cis-1,2-Dichloroethene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
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1,1-Dichloropropene ND 33.4 66.7 ug/kg dry 50 ND 30% cis-1,3-Dichloropropene ND 33.4 66.7 ug/kg dry 50 ND 30% trans-1,3-Dichloropropene ND 33.4 66.7 ug/kg dry 50 ND 30% Ethylbenzene 166 16.7 33.4 ug/kg dry 50 ND 30% 2-Hexanone ND 66.7 133 ug/kg dry 50 ND 30% 1sopropylbenzene ND 33.4 66.7 ug/kg dry 50 ND 30% 4-lsopropylbenzene ND 33.4 66.7 ug/kg dry 50 ND 30% 4-stopropylboluene ND 33.4 66.7 ug/kg dry 50 ND 30% Methyler chuloret (MTBE)	2,2-Dichloropropane	ND	33.4	66.7	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene ND 33.4 66.7 ug/kg dry 50 ND 30% trans-1,3-Dichloropropene ND 33.4 66.7 ug/kg dry 50 ND 30% Ethylbenzene 166 16.7 33.4 ug/kg dry 50 ND 0 30% 2-Hexanone ND 66.7 ug/kg dry 50 ND 30% 2-Hexanone ND 33.4 66.7 ug/kg dry 50 ND 30% 4-lsopropylboluene ND 33.4 66.7 ug/kg dry 50 ND 30% 4-lsopropylboluene ND 33.4 66.7 ug/kg dry 50 ND 30% 4-Methyl-2-pentanone (MiBK) ND 33.4 66.7 ug/kg dry 50 ND 30% Naphthalene ND 66.7 133 <td>1,1-Dichloropropene</td> <td>ND</td> <td>33.4</td> <td>66.7</td> <td>ug/kg dry</td> <td>50</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	1,1-Dichloropropene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
trans-1,3-DichloropropeneND 33.4 66.7 $ug/kg dry$ 50 ND and 30% Ethylbenzene166 16.7 33.4 $ug/kg dry$ 50 166 and 30% HexachlorobutadieneND 66.7 133 $ug/kg dry$ 50 ND and and and 2-HexanoneND 334 667 $ug/kg dry$ 50 ND and and and IsopropylbenzeneND 33.4 667 $ug/kg dry$ 50 ND and and and 4-IsopropylbueneND 33.4 667 $ug/kg dry$ 50 ND and and and 4-IsopropylbueneND 33.4 667 $ug/kg dry$ 50 ND and and and 4-Hothyl-2-pentanone (MiBK)ND 33.4 667 $ug/kg dry$ 50 and ND and and AphthaleneND 66.7 133 $ug/kg dry$ 50 and ND and and and NpplbenzeneND 16.7 33.4 $ug/kg dry$ 50 and ND and and and AphthaleneND 16.7 33.4 $ug/kg dry$ 50 and ND and and and 1,1,1,2-TetrachloroethaneND 16.7 33.4 $ug/kg dry$ 50 and <t< td=""><td>cis-1,3-Dichloropropene</td><td>ND</td><td>33.4</td><td>66.7</td><td>ug/kg dry</td><td>50</td><td></td><td>ND</td><td></td><td></td><td></td><td>30%</td><td></td></t<>	cis-1,3-Dichloropropene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
Ethylbenzene16616.7 33.4 $ug/kg dry$ 50 1660 30% HexachlorobutadieneND 66.7 133 $ug/kg dry$ 50 ND 30% 2-HexanoneND 334 667 $ug/kg dry$ 50 ND 30% IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-Methyl-2-pentanone (MiBK)ND 33.4 66.7 $ug/kg dry$ 50 ND 30% Methyl tert-butyl ether (MTBE)ND 33.4 66.7 $ug/kg dry$ 50 ND 30% NaphthaleneND 16.7 33.4 $ug/kg dry$ 50 ND 30% NpthenzeneND 16.7 33.4 $ug/kg dry$ 50 ND 30% StyreneND 16.7 33.4 $ug/kg dry$ 50 ND 30% <td>trans-1,3-Dichloropropene</td> <td>ND</td> <td>33.4</td> <td>66.7</td> <td>ug/kg dry</td> <td>50</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	trans-1,3-Dichloropropene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
HexachlorobutadieneND 66.7 133 $ug/kg dry$ 50 ND 30% 2-HexanoneND 334 667 $ug/kg dry$ 50 ND 30% IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% Methylene chlorideND 334 667 $ug/kg dry$ 50 ND 30% 4-Methyl-2-pentanone (MiBK)ND 334 667 $ug/kg dry$ 50 ND 30% Methyl tert-butyl ether (MTBE)ND 33.4 66.7 $ug/kg dry$ 50 ND 30% NaphthaleneND 66.7 133 $ug/kg dry$ 50 ND 30% NypeneND 16.7 33.4 $ug/kg dry$ 50 ND 30% 1,1,2-TetrachloroethaneND 16.7 33.4 $ug/kg dry$ 50 ND 30% 1,1,2,2-TetrachloroethaneND 16.7 33.4 $ug/kg dry$ 50 ND 30	Ethylbenzene	166	16.7	33.4	ug/kg dry	50		166			0	30%	
2-HexanoneND 334 667 $ug/kg dry$ 50 ND 30% IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% Methylene chlorideND 334 667 $ug/kg dry$ 50 ND $$ 30% 4-Methyl-2-pentanone (MiBK)ND 334 667 $ug/kg dry$ 50 ND $$ $$ 30% Methyl tert-butyl ether (MTBE)ND 33.4 66.7 $ug/kg dry$ 50 ND $$ $$ 30% NaphthaleneND 66.7 133 $ug/kg dry$ 50 ND $$ $$ 30% NyreneND 33.4 66.7 $ug/kg dry$ 50 ND $$ $$ 30% StyreneND 33.4 66.7 $ug/kg dry$ 50 ND $$ $$ 30% 1,1,2,2-TetrachloroethaneND 16.7 33.4 $ug/kg dry$ 50 ND $$ $$ 30% 1,1,2,2-TetrachloroethaneND 16.7 33.4 $ug/kg dry$ 50 $$ ND	Hexachlorobutadiene	ND	66.7	133	ug/kg dry	50		ND				30%	
IsopropylbenzeneND 33.4 66.7 $ug/kg dry$ 50 ND 30% 4-IsopropylbuleneND 33.4 66.7 $ug/kg dry$ 50 ND $$ $$ 30% Methylene chlorideND 33.4 667 $ug/kg dry$ 50 ND $$ $$ $$ $$ $$ $$ 30% 4-Methyl-2-pentanone (MiBK)ND 33.4 667 $ug/kg dry$ 50 ND $$ <	2-Hexanone	ND	334	667	ug/kg dry	50		ND				30%	
4-IsopropylolueneND 33.4 66.7 $ug/kg dry$ 50 ND 30% Methylene chlorideND 334 667 $ug/kg dry$ 50 ND 30% 4-Methyl-2-pentanone (MiBK)ND 334 667 $ug/kg dry$ 50 ND 30% Methyl tert-butyl ether (MTBE)ND 33.4 66.7 $ug/kg dry$ 50 ND 30% NaphthaleneND 66.7 133 $ug/kg dry$ 50 ND 30% n-PropylbenzeneND 16.7 33.4 $ug/kg dry$ 50 ND 30% StyreneND 16.7 33.4 $ug/kg dry$ 50 ND 30% $1,1,2,2$ -TetrachloroethaneND 16.7 33.4 $ug/kg dry$ 50 ND 30% $1,1,2,2$ -TetrachloroethaneND 16.7 33.4 $ug/kg dry$ 50 ND 30% $1,1,2,2$ -TetrachloroethaneND 16.7 33.4 $ug/kg dry$ 50 ND 30% $1,2,3$ -TrichloroethaneND 16.7 33.4 $ug/kg dry$ 50 ND 30% $1,2,4$ -TrichloroethaneND 167 334 $ug/kg dry$ 50 <td>Isopropylbenzene</td> <td>ND</td> <td>33.4</td> <td>66.7</td> <td>ug/kg dry</td> <td>50</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	Isopropylbenzene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
Methyler chloride ND 334 667 ug/kg dry 50 ND 30% 4-Methyl-2-pentanone (MiBK) ND 334 667 ug/kg dry 50 ND 30% Methyl tert-butyl ether (MTBE) ND 33.4 66.7 ug/kg dry 50 ND 30% Naphthalene ND 66.7 133 ug/kg dry 50 ND 30% Naphthalene ND 66.7 133 ug/kg dry 50 ND 30% Styrene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2.2-Tetrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2.2-Tetrachloroethane ND 200 200 ug/kg dry 50 ND 30% Toluene ND	4-Isopropyltoluene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK) ND 334 667 ug/kg dry 50 ND 30% Methyl tert-butyl ether (MTBE) ND 33.4 66.7 ug/kg dry 50 ND 30% Naphthalene ND 66.7 133 ug/kg dry 50 ND 30% n-Propylbenzene ND 16.7 33.4 ug/kg dry 50 ND 30% Styrene ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2.7etrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2.2-Tetrachloroethane ND 200 200 ug/kg dry 50 ND 30% Tetrachloroethane (PCE) ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2,3-Trichlorobenz	Methylene chloride	ND	334	667	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE) ND 33.4 66.7 ug/kg dry 50 ND 30% Naphthalene ND 66.7 133 ug/kg dry 50 ND 30% n-Propylbenzene ND 16.7 33.4 ug/kg dry 50 ND 30% Styrene ND 33.4 66.7 ug/kg dry 50 ND 30% 1,1,1,2-Tetrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2,2-Tetrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2,2-Tetrachloroethane ND 200 200 ug/kg dry 50 ND 30% Tetrachloroethane (PCE) ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2,3-Trichlorobe	4-Methyl-2-pentanone (MiBK)	ND	334	667	ug/kg dry	50		ND				30%	
Naphthalene ND 66.7 133 ug/kg dry 50 ND 30% n-Propylbenzene ND 16.7 33.4 ug/kg dry 50 ND 30% Styrene ND 33.4 66.7 ug/kg dry 50 ND 30% 1,1,1,2-Tetrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2,2-Tetrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2,2-Tetrachloroethane ND 200 200 ug/kg dry 50 ND 30% Tetrachloroethane (PCE) ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2,3-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,2,4-Trichlorobenzene	Methyl tert-butyl ether (MTBE)	ND	33.4	66.7	ug/kg dry	50		ND				30%	
n-Propylbenzene ND 16.7 33.4 ug/kg dry 50 ND 30% Styrene ND 33.4 66.7 ug/kg dry 50 ND 30% 1,1,2.7-Etrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2.7-Etrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2.7-Etrachloroethane ND 200 200 ug/kg dry 50 ND 30% 1,1,2.7-Etrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% Tetrachloroethane (PCE) ND 16.7 33.4 ug/kg dry 50 ND 30% 1,2,3-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,2,4-Trichloroe	Naphthalene	ND	66.7	133	ug/kg dry	50		ND				30%	
ND 33.4 66.7 ug/kg dry 50 ND 30% 1,1,1,2-Tetrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2,2-Tetrachloroethane ND 200 200 ug/kg dry 50 ND 30% Tetrachloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% Tetrachloroethane (PCE) ND 16.7 33.4 ug/kg dry 50 ND 30% Toluene ND 33.4 66.7 ug/kg dry 50 ND 30% 1,2,3-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,2,4-Trichlorobenzene ND 167 33.4 ug/kg dry 50 ND 30% 1,1,1-Trichloroethane ND	n-Propylbenzene	ND	16.7	33.4	ug/kg dry	50		ND				30%	
ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2,2-Tetrachloroethane ND 200 200 ug/kg dry 50 ND 30% 1,1,2,2-Tetrachloroethane ND 200 200 ug/kg dry 50 ND 30% Tetrachloroethane (PCE) ND 16.7 33.4 ug/kg dry 50 ND 30% Toluene ND 33.4 66.7 ug/kg dry 50 ND 30% 1,2,3-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,2,4-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,1,1-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2-Trichloroethane ND <td< td=""><td>Styrene</td><td>ND</td><td>33.4</td><td>66.7</td><td>ug/kg dry</td><td>50</td><td></td><td>ND</td><td></td><td></td><td></td><td>30%</td><td></td></td<>	Styrene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane ND 200 200 ug/kg dry 50 ND 30% Tetrachloroethane (PCE) ND 16.7 33.4 ug/kg dry 50 ND 30% Toluene ND 33.4 66.7 ug/kg dry 50 ND 30% 1,2,3-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,2,4-Trichlorobenzene ND 167 33.4 ug/kg dry 50 ND 30% 1,1,1-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1.2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30%	1,1,1,2-Tetrachloroethane	ND	16.7	33.4	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE) ND 16.7 33.4 ug/kg dry 50 ND 30% Toluene ND 33.4 66.7 ug/kg dry 50 ND 30% 1,2,3-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,2,4-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,1,1-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30%	1,1,2,2-Tetrachloroethane	ND	200	200	ug/kg dry	50		ND				30%	R-
Toluene ND 33.4 66.7 ug/kg dry 50 ND 30% 1,2,3-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,2,4-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,1,1-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1.2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1.2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30%	Tetrachloroethene (PCE)	ND	16.7	33.4	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,2,4-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,1,1-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1,1,2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30%	Toluene	ND	33.4	66.7	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene ND 167 334 ug/kg dry 50 ND 30% 1,1,1-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1.1.2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30%	1,2,3-Trichlorobenzene	ND	167	334	ug/kg drv	50		ND				30%	
1,1,1-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30% 1.1.2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30%	1,2,4-Trichlorobenzene	ND	167	334	ug/kg dry	50		ND				30%	
1.1.2-Trichloroethane ND 16.7 33.4 ug/kg dry 50 ND 30%	1,1,1-Trichloroethane	ND	16.7	33.4	ug/kg drv	50		ND				30%	
	1,1,2-Trichloroethane	ND	16.7	33.4	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0582 - EPA 5035A							So	il				
Duplicate (23G0582-DUP1)			Prepare	d: 07/19/23 1	0:45 Ana	lyzed: 07/20	/23 13:41					
QC Source Sample: Non-SDG (A3	G1206-01)											
Trichloroethene (TCE)	ND	16.7	33.4	ug/kg dr	y 50		ND				30%	
Trichlorofluoromethane	ND	66.7	133	ug/kg dr	y 50		ND				30%	
1,2,3-Trichloropropane	ND	33.4	66.7	ug/kg dr	y 50		ND				30%	
1,2,4-Trimethylbenzene	122	33.4	66.7	ug/kg dr	y 50		133			8	30%	
1,3,5-Trimethylbenzene	38.7	33.4	66.7	ug/kg dr	y 50		40.0			3	30%	
Vinyl chloride	ND	16.7	33.4	ug/kg dr	y 50		ND				30%	
m,p-Xylene	398	33.4	66.7	ug/kg dr	y 50		410			3	30%	
o-Xylene	201	16.7	33.4	ug/kg dr	y 50		206			2	30%	
Surr: 1,4-Difluorobenzene (Surr)		Rec	overy: 97%	Limits: 80-	120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			96 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97%	79-	120 %		"					
QC Source Sample: Non-SDG (A3	<u>G1227-02)</u>											
<u>5035A/8260D</u>												
Acetone	2690	724	1450	ug/kg dr	y 50	2900	ND	93	36-164%			
Acrylonitrile	1440	72.4	145	ug/kg dr	y 50	1450	ND	99	65-134%			
Benzene	1510	7.24	14.5	ug/kg dr	y 50	1450	ND	104	77-121%			
Bromobenzene	1450	18.1	36.2	ug/kg dr	y 50	1450	ND	100	78-121%			
Bromochloromethane	1370	36.2	72.4	ug/kg dr	y 50	1450	ND	94	78-125%			
Bromodichloromethane	1330	36.2	72.4	ug/kg dr	y 50	1450	ND	92	75-127%			
Bromoform	1380	72.4	145	ug/kg dr	y 50	1450	ND	95	67-132%			
Bromomethane	1480	724	724	ug/kg dr	y 50	1450	ND	102	53-143%			
2-Butanone (MEK)	2710	362	724	ug/kg dr	y 50	2900	ND	93	51-148%			
n-Butylbenzene	1510	36.2	72.4	ug/kg dr	y 50	1450	ND	104	70-128%			
sec-Butylbenzene	1560	36.2	72.4	ug/kg dr	y 50	1450	ND	108	73-126%			
tert-Butylbenzene	1480	36.2	72.4	ug/kg dr	y 50	1450	ND	103	73-125%			
Carbon disulfide	1360	362	724	ug/kg dr	y 50	1450	ND	94	63-132%			
Carbon tetrachloride	1470	36.2	72.4	ug/kg dr	y 50	1450	ND	102	70-135%			
Chlorobenzene	1480	18.1	36.2	ug/kg dr	y 50	1450	ND	102	79-120%			
Chloroethane	1730	362	724	ug/kg dr	y 50	1450	ND	119	59-139%			
Chloroform	1430	36.2	72.4	ug/kg dr	y 50	1450	ND	99	78-123%			
Chloromethane	1240	181	362	ug/kg dr	y 50	1450	ND	85	50-136%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

			volatile Orç	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0582 - EPA 5035A							Soi	1				
Matrix Spike (23G0582-MS1)			Prepared:	: 07/18/23 10	:35 Anai	yzed: 07/20/	/23 15:23					
QC Source Sample: Non-SDG (A30	<u>G1227-02)</u>											
2-Chlorotoluene	1490	36.2	72.4	ug/kg dry	50	1450	ND	103	75-122%			
4-Chlorotoluene	1430	36.2	72.4	ug/kg dry	50	1450	ND	99	72-124%			
Dibromochloromethane	1400	72.4	145	ug/kg dry	50	1450	ND	97	74-126%			
1,2-Dibromo-3-chloropropane	1130	362	362	ug/kg dry	50	1450	ND	78	61-132%			Q-54
1,2-Dibromoethane (EDB)	1490	36.2	72.4	ug/kg dry	50	1450	ND	103	78-122%			
Dibromomethane	1390	36.2	72.4	ug/kg dry	50	1450	ND	96	78-125%			
1,2-Dichlorobenzene	1390	18.1	36.2	ug/kg dry	50	1450	ND	96	78-121%			
1,3-Dichlorobenzene	1380	18.1	36.2	ug/kg dry	50	1450	ND	95	77-121%			
1,4-Dichlorobenzene	1390	18.1	36.2	ug/kg dry	50	1450	ND	96	75-120%			
Dichlorodifluoromethane	1590	72.4	145	ug/kg dry	50	1450	ND	110	29-149%			
1,1-Dichloroethane	1420	18.1	36.2	ug/kg dry	50	1450	ND	98	76-125%			
1,2-Dichloroethane (EDC)	1450	18.1	36.2	ug/kg dry	50	1450	ND	100	73-128%			
1,1-Dichloroethene	1510	18.1	36.2	ug/kg dry	50	1450	ND	105	70-131%			
cis-1,2-Dichloroethene	1360	18.1	36.2	ug/kg dry	50	1450	ND	94	77-123%			
trans-1,2-Dichloroethene	1460	18.1	36.2	ug/kg dry	50	1450	ND	101	74-125%			
1,2-Dichloropropane	1350	18.1	36.2	ug/kg dry	50	1450	ND	94	76-123%			
1,3-Dichloropropane	1430	36.2	72.4	ug/kg dry	50	1450	ND	99	77-121%			
2,2-Dichloropropane	1420	36.2	72.4	ug/kg dry	50	1450	ND	98	67-133%			
1,1-Dichloropropene	1530	36.2	72.4	ug/kg dry	50	1450	ND	106	76-125%			
cis-1,3-Dichloropropene	1430	36.2	72.4	ug/kg dry	50	1450	ND	99	74-126%			
trans-1,3-Dichloropropene	1460	36.2	72.4	ug/kg dry	50	1450	ND	101	71-130%			
Ethylbenzene	1480	18.1	36.2	ug/kg dry	50	1450	ND	102	76-122%			
Hexachlorobutadiene	1390	72.4	145	ug/kg dry	50	1450	ND	96	61-135%			
2-Hexanone	2590	362	724	ug/kg dry	50	2900	ND	89	53-145%			
Isopropylbenzene	1530	36.2	72.4	ug/kg dry	50	1450	ND	106	68-134%			
4-Isopropyltoluene	1500	36.2	72.4	ug/kg dry	50	1450	ND	103	73-127%			
Methylene chloride	1500	362	724	ug/kg dry	50	1450	ND	104	70-128%			
4-Methyl-2-pentanone (MiBK)	2740	362	724	ug/kg dry	50	2900	ND	95	65-135%			
Methyl tert-butyl ether (MTBE)	1350	36.2	72.4	ug/kg drv	50	1450	ND	93	73-125%			
Naphthalene	1350	72.4	145	ug/kg drv	50	1450	ND	93	62-129%			
n-Propylbenzene	1510	18.1	36.2	ug/kg drv	50	1450	ND	104	73-125%			
Styrene	1490	36.2	72.4	ug/kg drv	50	1450	ND	103	76-124%			
1 1 1 2-Tetrachloroethane	1430	18.1	36.2	ug/kg dry	50	1450	ND	98	78-125%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0582 - EPA 5035A							So	il				
Matrix Spike (23G0582-MS1)			Preparec	1: 07/18/23 1	0:35 Ana	lyzed: 07/20	/23 15:23					
QC Source Sample: Non-SDG (A3	<u>G1227-02)</u>											
1,1,2,2-Tetrachloroethane	1350	36.2	72.4	ug/kg dr	y 50	1450	ND	93	70-124%			
Tetrachloroethene (PCE)	1550	18.1	36.2	ug/kg dr	y 50	1450	ND	107	73-128%			
Toluene	1440	36.2	72.4	ug/kg dr	y 50	1450	ND	100	77-121%			
1,2,3-Trichlorobenzene	1350	181	362	ug/kg dr	y 50	1450	ND	93	66-130%			
1,2,4-Trichlorobenzene	1290	181	362	ug/kg dr	y 50	1450	ND	89	67-129%			
1,1,1-Trichloroethane	1530	18.1	36.2	ug/kg dr	y 50	1450	ND	106	73-130%			
1,1,2-Trichloroethane	1510	18.1	36.2	ug/kg dr	y 50	1450	ND	104	78-121%			
Trichloroethene (TCE)	1450	18.1	36.2	ug/kg dr	y 50	1450	ND	100	77-123%			
Trichlorofluoromethane	3510	72.4	145	ug/kg dr	y 50	1450	ND	242	62-140%			Q-5
1,2,3-Trichloropropane	1370	36.2	72.4	ug/kg dr	y 50	1450	ND	95	73-125%			
1,2,4-Trimethylbenzene	1540	36.2	72.4	ug/kg dr	y 50	1450	ND	107	75-123%			
1,3,5-Trimethylbenzene	1510	36.2	72.4	ug/kg dr	y 50	1450	ND	104	73-124%			
Vinyl chloride	1480	18.1	36.2	ug/kg dr	y 50	1450	ND	102	56-135%			
m,p-Xylene	2970	36.2	72.4	ug/kg dr	y 50	2900	ND	103	77-124%			
o-Xylene	1460	18.1	36.2	ug/kg dr	y 50	1450	ND	101	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Rece	overy: 95 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			98 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Result Limit Units Dilution % REC RPD Analyte Limit Amount Result Limits Limit Notes Batch 23G0708 - EPA 1311/5030C TCLP Volatiles Water Blank (23G0708-BLK1) Prepared: 07/24/23 12:55 Analyzed: 07/24/23 16:00 TCLP 1311/8260D ND 6.25 12.5 ug/L 50 Benzene ND 250 500 50 2-Butanone (MEK) ug/L ---------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 50 ug/L ---25.0 1,4-Dichlorobenzene ND 12.5 ug/L 50 ---------------____ 1,1-Dichloroethene ND 12.5 50 25.0ug/L ---12.5 25.0 ND ug/L 1,2-Dichloroethane (EDC) 50 ---------------Tetrachloroethene (PCE) ND 12.5 25.0 ug/L 50 Trichloroethene (TCE) ND 12.5 25.0 50 ug/L ___ -------------_ _ _ Vinyl chloride ND 12.5 25.0 50 ug/L --------------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 108 % Limits: 80-120 % Dilution: 1x 101 % Toluene-d8 (Surr) 80-120 % " 4-Bromofluorobenzene (Surr) 98 % 80-120 % LCS (23G0708-BS1) TCLP Prepared: 07/24/23 12:55 Analyzed: 07/24/23 15:06 1311/8260D Benzene 1090 6.25 12.5 ug/L 50 1000 109 80-120% 2280 250 500 ug/L 50 2000 114 80-120% 2-Butanone (MEK) ---------Carbon tetrachloride 1240 25.0 50.0 ug/L 50 1000 ---124 80-120% ---Q-56 ug/L Chlorobenzene 1050 12.5 25.0 50 1000 ---105 80-120% ------Chloroform 1110 25.050.0 ug/L 50 1000 111 80-120% 1,4-Dichlorobenzene 1030 12.5 25.0 ug/L 50 1000 103 80-120% ---------1,1-Dichloroethene 1050 12.5 25.0 ug/L 50 1000 105 80-120% ---------1,2-Dichloroethane (EDC) 1110 12.5 25.0 ug/L 50 1000 111 80-120% ---978 1000 98 Tetrachloroethene (PCE) 12.5 25.0 ug/L 50 ---80-120% ---Trichloroethene (TCE) 1060 12.5 25.0 ug/L 50 1000 ---106 80-120% ------Vinyl chloride 1180 12.5 25.0ug/L 50 1000 ----118 80-120% ---____ Surr: 1,4-Difluorobenzene (Surr) 103 % Recovery: Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 99 % 80-120 % 91% 4-Bromofluorobenzene (Surr) 80-120 %

Duplicate (23G0708-DUP1)

Prepared: 07/24/23 12:55 Analyzed: 07/24/23 17:49

CONT

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 23G0708 - EPA 1311/5030C TCLP Volatiles Water Duplicate (23G0708-DUP1) Prepared: 07/24/23 12:55 Analyzed: 07/24/23 17:49 CONT QC Source Sample: FC-071923-2148 (A3G1199-01) 1311/8260D 6.25 12.5 ND 50 30% Benzene ug/L ---ND ------2-Butanone (MEK) ND 250 50 30% 500 ug/L ND ---50.0 Carbon tetrachloride ND 25.0ug/L 50 ---ND ------30% Chlorobenzene ND 12.5 25.0ug/L 50 ---ND ----30% ---ND 25.0 30% Chloroform 50.0 50 ND ug/L ----------12.5 25.0 1,4-Dichlorobenzene ND ug/L 50 ND 30% -------------ND ug/L ND 30% 1.1-Dichloroethene 12.5 25.0 50 ___ ----------1,2-Dichloroethane (EDC) ND 12.5 25.0 ND 30% ug/L 50 ------ND Tetrachloroethene (PCE) 12.5 25.0ug/L 50 ---ND ---------30% Trichloroethene (TCE) ND 12.5 25.0 ug/L 50 ND 30% ---Vinyl chloride ND 12.5 25.0 ND 30% 50 ug/L -------------Surr: 1,4-Difluorobenzene (Surr) 109 % Limits: 80-120 % Recoverv: Dilution: 1x Toluene-d8 (Surr) 101 % 80-120 % 4-Bromofluorobenzene (Surr) 98 % 80-120 % " Matrix Spike (23G0708-MS1) Prepared: 07/24/23 12:55 Analyzed: 07/24/23 18:43 QC Source Sample: Non-SDG (A3G1200-01) 1311/8260D Benzene 1090 6.25 12.5 ug/L 50 1000 ND 109 79-120% 2410 2000 2-Butanone (MEK) 250 500 ug/L 50 ND 121 56-143% ------Carbon tetrachloride 1260 25.0 50.0 50 1000 ND 126 72-136% O-54a ug/L ug/L 50 1000 ND 106 80-120% Chlorobenzene 1060 12.5 25.0 ------Chloroform 1170 25.0 50.0 ug/L 50 1000 57.0 111 79-124% 1.4-Dichlorobenzene 1020 12.5 25.0 ug/L 50 1000 ND 102 79-120% ------1,1-Dichloroethene 1070 12.5 25.0 50 1000 ND 107 71-131% ug/L 12.5 25.0 1000 1,2-Dichloroethane (EDC) 1120 ug/L 50 ND 112 73-128% --------Tetrachloroethene (PCE) 984 12.5 25.0 ug/L 50 1000 ND 98 74-129% ____ ---Trichloroethene (TCE) 1060 12.5 25.0 50 1000 ND 106 79-123% ug/L -------Vinyl chloride 1220 12.5 25.0 ug/L 50 1000 ND 122 58-137% ------

Surr: 1,4-Difluorobenzene (Surr)

Toluene-d8 (Surr)

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Dilution: 1x

Recovery:

104 %

98 %

Limits: 80-120 %

80-120 %



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

	F	Regulated	TCLP Volat	ile Orga	nic Comp	ounds by	EPA 1311	I/8260D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0708 - EPA 1311/503	0C TCLP	Volatiles					Wate	er				
Matrix Spike (23G0708-MS1)			Prepared	: 07/24/23	12:55 Anal	yzed: 07/24	/23 18:43					
QC Source Sample: Non-SDG (A3	G1200-01)											
Surr: 4-Bromofluorobenzene (Surr)		Reco	overy: 90 %	Limits: 8	80-120 %	Dilt	ution: 1x					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd



QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0614 - EPA 3546							Sol	id				
Blank (23G0614-BLK1)			Prepared	: 07/21/23 08	8:30 Ana	lyzed: 07/21	/23 17:30					
<u>EPA 8270E</u>												
Acenaphthene	ND	1.33	2.67	ug/kg wet	t 1							
Acenaphthylene	ND	1.33	2.67	ug/kg wet	t 1							
Anthracene	ND	1.33	2.67	ug/kg wet	t 1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg wet	t 1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg wet	t 1							
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg wet	t 1							
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg wet	t 1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg wet	t 1							
Chrysene	ND	1.33	2.67	ug/kg wet	t 1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg wet	t 1							
Fluoranthene	ND	1.33	2.67	ug/kg wet	t 1							
Fluorene	ND	1.33	2.67	ug/kg wet	t 1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg wet	t 1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg wet	t 1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg wet	t 1							
Naphthalene	ND	2.67	5.33	ug/kg wet	t 1							
Phenanthrene	ND	1.33	2.67	ug/kg wet	t 1							
Pyrene	ND	1.33	2.67	ug/kg wet	t 1							
Carbazole	ND	2.00	4.00	ug/kg wet	t 1							
Dibenzofuran	ND	1.33	2.67	ug/kg wet	t 1							
2-Chlorophenol	ND	6.67	13.3	ug/kg wet	t 1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg wet	t 1							
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg wet	t 1							
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg wet	t 1							
2,4-Dinitrophenol	ND	33.3	66.7	ug/kg wet	t 1							
4,6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg wet	t 1							
2-Methylphenol	ND	3.33	6.67	ug/kg wet	t 1							
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg wet	t 1							
2-Nitrophenol	ND	13.3	26.7	ug/kg wet	t 1							
4-Nitrophenol	ND	13.3	26.7	ug/kg wet	t 1							
Pentachlorophenol (PCP)	ND	13.3	26.7	ug/kg wet	- t 1							
Phenol	ND	2.67	5.33	ug/kg wet	- t 1							
2.3.4.6-Tetrachlorophenol	ND	6.67	13.3	110/ko wet	: 1							
2,3,-,0-retraemorophenor	IND.	0.07	13.5	ug/kg wei	. 1							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic Co	ompoun	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0614 - EPA 3546							Sol	id				
Blank (23G0614-BLK1)			Prepared	: 07/21/23 08	8:30 Anal	yzed: 07/21	/23 17:30					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg wet	1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg wet	1							
Diethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Dimethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-butylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg wet	1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg wet	1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg wet	1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg wet	1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg wet	1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg wet	1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg wet	1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg wet	1							
Hexachloroethane	ND	3.33	6.67	ug/kg wet	1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg wet	1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg wet	1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
Aniline	ND	6.67	13.3	ug/kg wet	1							
4-Chloroaniline	ND	3.33	6.67	ug/kg wet	1							
2-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
3-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
4-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
Nitrobenzene	ND	13.3	26.7	ug/kg wet	1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
2,6-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
Benzoic acid	ND	167	333	ug/kg wet	1							
Benzyl alcohol	ND	6.67	13.3	ug/kg wet	1							
Isophorone	ND	3.33	6.67	ug/kg wet	1							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	ids by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0614 - EPA 3546							So	lid				
Blank (23G0614-BLK1)			Prepareo	1: 07/21/23 0	8:30 Ana	lyzed: 07/21	/23 17:30					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	t 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	t 1							Q-:
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 77 %	Limits: 37-	122 %	Dilt	ution: 1x					
2-Fluorobiphenyl (Surr)			81 %	44-	120 %		"					
Phenol-d6 (Surr)			83 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			89 %	54-	127 %		"					
2-Fluorophenol (Surr)			82 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			87 %	39-	132 %		"					Q-41
LCS (23G0614-BS1)			Prepared	d: 07/21/23 0	8:30 Ana	lyzed: 07/21	/23 18:04					
EPA 8270E			-									
Acenaphthene	426	5.32	10.7	ug/kg we	t 4	533		80	40-123%			
Acenaphthylene	445	5.32	10.7	ug/kg we	t 4	533		84	32-132%			
Anthracene	442	5.32	10.7	ug/kg we	t 4	533		83	47-123%			
Benz(a)anthracene	433	5.32	10.7	ug/kg we	t 4	533		81	49-126%			
Benzo(a)pyrene	445	8.00	16.0	ug/kg we	t 4	533		84	45-129%			
Benzo(b)fluoranthene	396	8.00	16.0	ug/kg we	t 4	533		74	45-132%			
Benzo(k)fluoranthene	402	8.00	16.0	ug/kg we	t 4	533		75	47-132%			
Benzo(g,h,i)perylene	437	5.32	10.7	ug/kg we	t 4	533		82	43-134%			
Chrysene	450	5.32	10.7	ug/kg we	t 4	533		84	50-124%			
Dibenz(a,h)anthracene	436	5.32	10.7	ug/kg we	t 4	533		82	45-134%			
Fluoranthene	468	5.32	10.7	ug/kg we	t 4	533		88	50-127%			
Fluorene	466	5.32	10.7	ug/kg we	t 4	533		87	43-125%			
Indeno(1,2,3-cd)pyrene	403	5.32	10.7	ug/kg we	t 4	533		76	45-133%			
1-Methylnaphthalene	441	10.7	21.3	ug/kg we	t 4	533		83	40-120%			
2-Methylnanhthalene	461	10.7	21.2	10/ka wa	t Δ	533		86	38-122%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0614 - EPA 3546							So	lid				
LCS (23G0614-BS1)			Prepared	: 07/21/23 0	8:30 Ana	yzed: 07/21	/23 18:04					
Naphthalene	419	10.7	21.3	ug/kg we	t 4	533		79	35-123%			
Phenanthrene	420	5.32	10.7	ug/kg we	t 4	533		79	50-121%			
Pyrene	459	5.32	10.7	ug/kg we	t 4	533		86	47-127%			
Carbazole	474	8.00	16.0	ug/kg we	t 4	533		89	50-123%			
Dibenzofuran	459	5.32	10.7	ug/kg we	t 4	533		86	44-120%			
2-Chlorophenol	444	26.7	53.2	ug/kg we	t 4	533		83	34-121%			
4-Chloro-3-methylphenol	459	53.2	107	ug/kg we	t 4	533		86	45-122%			
2,4-Dichlorophenol	487	26.7	53.2	ug/kg we	t 4	533		91	40-122%			
2,4-Dimethylphenol	477	26.7	53.2	ug/kg we	t 4	533		89	30-127%			
2,4-Dinitrophenol	484	133	267	ug/kg we	t 4	533		91	10-137%			Q-4
4,6-Dinitro-2-methylphenol	662	133	267	ug/kg we	t 4	533		124	29-132%			Q-4
2-Methylphenol	458	13.3	26.7	ug/kg we	t 4	533		86	32-122%			
3+4-Methylphenol(s)	462	13.3	26.7	ug/kg we	t 4	533		87	34-120%			
2-Nitrophenol	476	53.2	107	ug/kg we	t 4	533		89	36-123%			
4-Nitrophenol	372	53.2	107	ug/kg we	t 4	533		70	30-132%			
Pentachlorophenol (PCP)	344	53.2	107	ug/kg we	t 4	533		64	25-133%			
Phenol	461	10.7	21.3	ug/kg we	t 4	533		86	34-121%			
2,3,4,6-Tetrachlorophenol	472	26.7	53.2	ug/kg we	t 4	533		89	44-125%			
2,3,5,6-Tetrachlorophenol	469	26.7	53.2	ug/kg we	t 4	533		88	40-120%			
2,4,5-Trichlorophenol	489	26.7	53.2	ug/kg we	t 4	533		92	41-124%			
2,4,6-Trichlorophenol	436	26.7	53.2	ug/kg we	t 4	533		82	39-126%			
Bis(2-ethylhexyl)phthalate	404	80.0	160	ug/kg we	t 4	533		76	51-133%			
Butyl benzyl phthalate	414	53.2	107	ug/kg we	t 4	533		78	48-132%			
Diethylphthalate	456	53.2	107	ug/kg we	t 4	533		86	50-124%			
Dimethylphthalate	460	53.2	107	ug/kg we	t 4	533		86	48-124%			
Di-n-butylphthalate	452	53.2	107	ug/kg we	t 4	533		85	51-128%			
Di-n-octyl phthalate	363	53.2	107	ug/kg we	t 4	533		68	45-140%			
N-Nitrosodimethylamine	326	13.3	26.7	ug/kg we	t 4	533		61	23-120%			
N-Nitroso-di-n-propylamine	415	13.3	26.7	ug/kg we	t 4	533		78	36-120%			
N-Nitrosodiphenylamine	441	13.3	26.7	ug/kg we	t 4	533		83	38-127%			
Bis(2-Chloroethoxy) methane	416	13.3	26.7	ug/kg we	t 4	533		78	36-121%			
Bis(2-Chloroethyl) ether	383	13.3	26.7	ug/kg we	t 4	533		72	31-120%			
2,2'-Oxybis(1-Chloropropane)	392	13.3	26.7	ug/kg we	t 4	533		73	39-120%			
Hexachlorobenzene	451	5.32	10.7	ug/kg we	t 4	533		85	45-122%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0614 - EPA 3546							Sol	lid				
LCS (23G0614-BS1)			Prepared	1: 07/21/23 08	3:30 Anal	yzed: 07/21/	23 18:04			_	_	
Hexachlorobutadiene	445	13.3	26.7	ug/kg wet	4	533		84	32-123%			
Hexachlorocyclopentadiene	233	26.7	53.2	ug/kg wet	4	533		44	10-140%			Q-3
Hexachloroethane	392	13.3	26.7	ug/kg wet	4	533		74	28-120%			
2-Chloronaphthalene	439	5.32	10.7	ug/kg wet	4	533		82	41-120%			
1,2,4-Trichlorobenzene	441	13.3	26.7	ug/kg wet	4	533		83	34-120%			
4-Bromophenyl phenyl ether	466	13.3	26.7	ug/kg wet	4	533		87	46-124%			
4-Chlorophenyl phenyl ether	490	13.3	26.7	ug/kg wet	4	533		92	45-121%			
Aniline	278	26.7	53.2	ug/kg wet	4	533		52	10-120%			Q-3
4-Chloroaniline	398	13.3	26.7	ug/kg wet	4	533		75	17-120%			
2-Nitroaniline	498	107	213	ug/kg wet	4	533		93	44-127%			
3-Nitroaniline	507	107	213	ug/kg wet	4	533		95	33-120%			Q-4
4-Nitroaniline	468	107	213	ug/kg wet	4	533		88	51-125%			
Nitrobenzene	415	53.2	107	ug/kg wet	4	533		78	34-122%			
2,4-Dinitrotoluene	510	53.2	107	ug/kg wet	4	533		96	48-126%			
2,6-Dinitrotoluene	459	53.2	107	ug/kg wet	4	533		86	46-124%			
Benzoic acid	624	400	400	ug/kg wet	4	1070		58	10-140%			Q-3
Benzyl alcohol	415	26.7	53.2	ug/kg wet	4	533		78	29-122%			
Isophorone	408	13.3	26.7	ug/kg wet	4	533		76	30-122%			
Azobenzene (1,2-DPH)	395	13.3	26.7	ug/kg wet	4	533		74	39-125%			
Bis(2-Ethylhexyl) adipate	405	133	267	ug/kg wet	4	533		76	61-121%			
3,3'-Dichlorobenzidine	1860	107	213	ug/kg wet	: 4	1070		175	22-121%			Q-29, Q-41 O-5
1,2-Dinitrobenzene	430	133	267	ug/kg wet	4	533		81	44-120%			<u>ر</u> ۰
1,3-Dinitrobenzene	534	133	267	ug/kg wet	4	533		100	43-127%			Q-4
1,4-Dinitrobenzene	548	133	267	ug/kg wet	4	533		103	37-132%			Q-4
Pyridine	337	26.7	53.2	ug/kg wet	4	533		63	10-120%			
1,2-Dichlorobenzene	406	13.3	26.7	ug/kg wet	4	533		76	33-120%			
1,3-Dichlorobenzene	401	13.3	26.7	ug/kg wet	4	533		75	30-120%			
1,4-Dichlorobenzene	401	13.3	26.7	ug/kg wet	4	533		75	31-120%			
Surr: Nitrobenzene-d5 (Surr)		Reco	wery: 80 %	Limits: 37-1	122 %	Dilu	tion: 4x					
2-Fluorobiphenyl (Surr)			81 %	44-1	20 %		"					
Phenol-d6 (Surr)			85 %	33-1	22 %		"					
p-Terphenyl-d14 (Surr)			87 %	54-1	27 %		"					
2-Fluorophenol (Surr)			84 %	35-1	20 %		"					
2.4.6-Tribromonhanol (Sum)			106.0%	20 1	32 %		"					0.41

Apex Laboratories



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

Sevenson Environmental Servic 2749 Lockport Road	ees, Inc.		Pro	Project: oject Numbe	<u>Gasco</u> r: 111323	- Filtercake	2			<u>F</u>	Report ID	<u>.</u>
Niagara Falls, NY 14305			Pro	ject Manage	er: Chip By	rd			A	.3G1199	- 08 09 2	3 0710
		OU	ALITY CO	ONTROL	(OC) SA	MPLE F	RESULT	5				
			mivolotilo	Organia	· · · · ·	do by EP	A 9270E					
		36	mivolatile	Organic C	Jompour		A 02/UE					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0614 - EPA 3546							So	id				
Duplicate (23G0614-DUP2)			Prepared	l: 07/21/23 0	08:30 Anal	yzed: 07/24	/23 17:33					
OC Source Sample: Non-SDG (A30	G1118-01R	E2)	1									
Acenaphthene	ND	5.13	10.3	ug/kg dr	v 1		ND				30%	
Acenaphthylene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Anthracene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Benz(a)anthracene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Benzo(a)pyrene	ND	7.71	15.4	ug/kg dr	y 1		ND				30%	
Benzo(b)fluoranthene	ND	7.71	15.4	ug/kg dr	y 1		ND				30%	
Benzo(k)fluoranthene	ND	7.71	15.4	ug/kg dr	y 1		ND				30%	
Benzo(g,h,i)perylene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Chrysene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Dibenz(a,h)anthracene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Fluoranthene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Fluorene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Indeno(1,2,3-cd)pyrene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
1-Methylnaphthalene	ND	10.3	20.6	ug/kg dr	y 1		ND				30%	
2-Methylnaphthalene	ND	10.3	20.6	ug/kg dr	y 1		ND				30%	
Naphthalene	16.6	10.3	20.6	ug/kg dr	y 1		40.8			84	30%	J, Q-05
Phenanthrene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Pyrene	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
Carbazole	ND	7.71	15.4	ug/kg dr	y 1		ND				30%	
Dibenzofuran	ND	5.13	10.3	ug/kg dr	y 1		ND				30%	
2-Chlorophenol	ND	25.7	51.3	ug/kg dr	y 1		ND				30%	
4-Chloro-3-methylphenol	ND	51.3	103	ug/kg dr	y 1		ND				30%	
2,4-Dichlorophenol	ND	25.7	51.3	ug/kg dr	y 1		ND				30%	
2,4-Dimethylphenol	ND	25.7	51.3	ug/kg dr	y 1		ND				30%	
2,4-Dinitrophenol	ND	128	257	ug/kg dry	y 1		ND				30%	
4,6-Dinitro-2-methylphenol	ND	128	257	ug/kg dr	y 1		ND				30%	
2-Methylphenol	ND	12.8	25.7	ug/kg dr	y 1		ND				30%	
3+4-Methylphenol(s)	ND	12.8	25.7	ug/kg dr	y 1		ND				30%	
2-Nitrophenol	ND	51.3	103	ug/kg dr	y 1		ND				30%	
4-Nitrophenol	ND	51.3	103	ug/kg dr	y 1		ND				30%	
Pentachlorophenol (PCP)	ND	51.3	103	ug/kg dr	y 1		ND				30%	
Phenol	ND	10.3	20.6	ug/kg dr	y 1		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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
Batch 23G0614 - EPA 3546							Soli	id				
Duplicate (23G0614-DUP2)			Prepared	: 07/21/23 0	8:30 Anal	yzed: 07/24	/23 17:33					
QC Source Sample: Non-SDG (A	3G1118-01R	E2)										
2,3,4,6-Tetrachlorophenol	ND	25.7	51.3	ug/kg dry	/ 1		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	25.7	51.3	ug/kg dry	/ 1		ND				30%	
2,4,5-Trichlorophenol	ND	25.7	51.3	ug/kg dry	/ 1		ND				30%	
2,4,6-Trichlorophenol	ND	25.7	51.3	ug/kg dry	/ 1		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	77.1	154	ug/kg dry	/ 1		ND				30%	
Butyl benzyl phthalate	ND	51.3	103	ug/kg dry	/ 1		ND				30%	
Diethylphthalate	ND	51.3	103	ug/kg dry	/ 1		ND				30%	
Dimethylphthalate	ND	51.3	103	ug/kg dry	/ 1		ND				30%	
Di-n-butylphthalate	ND	51.3	103	ug/kg dry	/ 1		ND				30%	
Di-n-octyl phthalate	ND	51.3	103	ug/kg dry	/ 1		ND				30%	
N-Nitrosodimethylamine	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
N-Nitroso-di-n-propylamine	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
N-Nitrosodiphenylamine	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
Bis(2-Chloroethoxy) methane	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
Bis(2-Chloroethyl) ether	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
Hexachlorobenzene	ND	5.13	10.3	ug/kg dry	/ 1		ND				30%	
Hexachlorobutadiene	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
Hexachlorocyclopentadiene	ND	25.7	51.3	ug/kg dry	/ 1		ND				30%	
Hexachloroethane	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
2-Chloronaphthalene	ND	5.13	10.3	ug/kg dry	/ 1		ND				30%	
1,2,4-Trichlorobenzene	59.7	12.8	25.7	ug/kg dry	/ 1		60.7			2	30%	
4-Bromophenyl phenyl ether	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
4-Chlorophenyl phenyl ether	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
Aniline	ND	25.7	51.3	ug/kg dry	/ 1		ND				30%	
4-Chloroaniline	ND	12.8	25.7	ug/kg dry	/ 1		ND				30%	
2-Nitroaniline	ND	103	206	ug/kg dry	/ 1		ND				30%	
3-Nitroaniline	ND	103	206	ug/kg dry	/ 1		ND				30%	
4-Nitroaniline	ND	103	206	ug/kg dry	/ 1		ND				30%	
Nitrobenzene	ND	51.3	103	ug/kg dry	/ 1		ND				30%	
2,4-Dinitrotoluene	ND	51.3	103	ug/kg dry	/ 1		ND				30%	
2,6-Dinitrotoluene	ND	51.3	103	ug/kg dry	/ 1		ND				30%	
Benzoic acid	ND	644	1280	ug/kg dry	/ 1		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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	Note	es
Batch 23G0614 - EPA 3546							Sol	id					
Duplicate (23G0614-DUP2)			Prepared	1: 07/21/23 0	08:30 Ana	lyzed: 07/24	/23 17:33						
QC Source Sample: Non-SDG (A	3G1118-01R	E <u>2)</u>											
Benzyl alcohol	ND	25.7	51.3	ug/kg dr	y 1		ND				30%		
Isophorone	ND	12.8	25.7	ug/kg dr	y 1		ND				30%		
Azobenzene (1,2-DPH)	ND	12.8	25.7	ug/kg dr	y 1		ND				30%		
Bis(2-Ethylhexyl) adipate	ND	128	257	ug/kg dr	y 1		ND				30%		
3,3'-Dichlorobenzidine	ND	103	206	ug/kg dr	y 1		ND				30%		Q-52
1,2-Dinitrobenzene	ND	128	257	ug/kg dr	y 1		ND				30%		
1,3-Dinitrobenzene	ND	128	257	ug/kg dr	y 1		ND				30%		
1,4-Dinitrobenzene	ND	128	257	ug/kg dr	y 1		ND				30%		
Pyridine	ND	25.7	51.3	ug/kg dr	y 1		ND				30%		
1,2-Dichlorobenzene	60.9	12.8	25.7	ug/kg dr	y 1		63.1			4	30%		
1,3-Dichlorobenzene	79.3	12.8	25.7	ug/kg dr	y 1		83.1			5	30%		
1,4-Dichlorobenzene	35.9	12.8	25.7	ug/kg dr	y 1		36.0			0.2	30%		
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 20 %	Limits: 37-	-122 %	Dilt	ution: 1x					S-03	
2-Fluorobiphenyl (Surr)			13 %	44-	120 %		"					S-03	
Phenol-d6 (Surr)			0.9 %	33-	122 %		"					S-03	
p-Terphenyl-d14 (Surr)			0.4 %	54-	127 %		"					S-03	
2-Fluorophenol (Surr)			1 %	35-	120 %		"					S-03	
2,4,6-Tribromophenol (Surr)			3 %	39-	132 %		"					Q-41, S	-03

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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
Batch 23G0565 - EPA 3051A							Sol	id				
Blank (23G0565-BLK1)			Prepared	: 07/20/23 0	7:10 Anal	yzed: 07/20/	/23 13:49					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg we	t 10							
Barium	ND	500	1000	ug/kg we	t 10							
Cadmium	ND	100	200	ug/kg we	t 10							
Chromium	ND	500	1000	ug/kg we	t 10							
Lead	ND	100	200	ug/kg we	t 10							
Mercury	ND	40.0	80.0	ug/kg we	t 10							
Selenium	ND	500	1000	ug/kg we	t 10							
Silver	ND	100	200	ug/kg we	t 10							
LCS (23G0565-BS1)			Prepared	: 07/20/23 0	7:10 Anal	yzed: 07/20/	/23 13:54					
<u>EPA 6020B</u>												
Arsenic	49000	500	1000	ug/kg we	t 10	50000		98	80-120%			
Barium	51900	500	1000	ug/kg we	t 10	50000		104	80-120%			
Cadmium	48900	100	200	ug/kg we	t 10	50000		98	80-120%			
Chromium	48500	500	1000	ug/kg we	t 10	50000		97	80-120%			
Lead	51800	100	200	ug/kg we	t 10	50000		104	80-120%			
Mercury	1010	40.0	80.0	ug/kg we	t 10	1000		101	80-120%			
Selenium	25500	500	1000	ug/kg we	t 10	25000		102	80-120%			
Silver	24900	100	200	ug/kg we	t 10	25000		100	80-120%			
Duplicate (23G0565-DUP1)			Prepared	: 07/20/23 0	7:10 Anal	yzed: 07/20/	/23 14:05					
QC Source Sample: FC-071923-21	148 (A3G119	<u>)9-01)</u>										
<u>EPA 6020B</u>												
Arsenic	10300	1970	3940	ug/kg dry	y 10		8990			13	20%	CON
Barium	218000	1970	3940	ug/kg dry	y 10		198000			10	20%	CON
Cadmium	ND	394	788	ug/kg dry	y 10		ND				20%	CON
Chromium	ND	1970	3940	ug/kg dry	y 10		ND				20%	CON
Lead	ND	394	788	ug/kg dry	y 10		ND				20%	CON
Mercury	ND	158	315	ug/kg dry	y 10		ND				20%	CON
Selenium	ND	1970	3940	ug/kg dry	y 10		ND				20%	CON
Silver	ND	394	788	ug/kg drv	v 10		ND				20%	CON

Matrix Spike (23G0565-MS1)

Prepared: 07/20/23 07:10 Analyzed: 07/20/23 14:10

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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
Batch 23G0565 - EPA 3051A							So	lid				
Matrix Spike (23G0565-MS1)			Prepared	: 07/20/23 0	7:10 Ana	lyzed: 07/20)/23 14:10					
QC Source Sample: FC-071923-214	48 (A3G119	<u>99-01)</u>										
<u>EPA 6020B</u>												
Arsenic	206000	2030	4050	ug/kg dry	/ 10	203000	8990	97	75-125%			CON
Barium	415000	2030	4050	ug/kg dry	/ 10	203000	198000	107	75-125%			CON
Cadmium	193000	405	810	ug/kg dry	/ 10	203000	ND	95	75-125%			CON
Chromium	193000	2030	4050	ug/kg dry	/ 10	203000	ND	95	75-125%			CON
Lead	204000	405	810	ug/kg dry	/ 10	203000	ND	101	75-125%			CON
Mercury	3950	162	324	ug/kg dry	/ 10	4050	ND	98	75-125%			CON
Selenium	98700	2030	4050	ug/kg dry	/ 10	101000	ND	97	75-125%			CON
Silver	97900	405	810	ug/kg dry	/ 10	101000	ND	97	75-125%			CON

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0784 - EPA 1311/3	3015A						So	lid				
Blank (23G0784-BLK1)			Prepared	: 07/25/23	15:24 Ana	lyzed: 07/25	/23 19:03					
<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
LCS (23G0784-BS1)			Prepared	: 07/25/23	15:24 Ana	lyzed: 07/25	/23 19:08					
<u>1311/6020B</u>												
Arsenic	5230	50.0	100	ug/L	10	5000		105	80-120%			TCLP
Barium	10800	2500	5000	ug/L	10	10000		108	80-120%			TCLP
Cadmium	1030	50.0	100	ug/L	10	1000		103	80-120%			TCLP
Chromium	4930	50.0	100	ug/L	10	5000		99	80-120%			TCLP
Lead	5350	25.0	50.0	ug/L	10	5000		107	80-120%			TCLP
Mercury	102	3.75	7.00	ug/L	10	100		102	80-120%			TCLP
Selenium	1070	50.0	100	ug/L	10	1000		107	80-120%			TCLP
Silver	985	50.0	100	ug/L	10	1000		98	80-120%			TCLP
Duplicate (23G0784-DUP1)			Prepared	: 07/25/23	15:24 Anal	lyzed: 07/25	23 20:10					
QC Source Sample: Non-SDG ((A3G1249-01)											
Arsenic	ND	50.0	100	ug/L	10		ND				20%	
Barium	ND	2500	5000	ug/L	10		ND				20%	
Cadmium	ND	50.0	100	ug/L	10		ND				20%	
Chromium	ND	50.0	100	ug/L	10		ND				20%	
Lead	32.4	25.0	50.0	ug/L	10		32.4			0.2	20%	
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	
Selenium	ND	50.0	100	ug/L	10		ND				20%	
Silver	ND	50.0	100	110/L	10		ND				20%	

Matrix Spike (23G0784-MS1)

Prepared: 07/25/23 15:24 Analyzed: 07/25/23 20:15

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLPN	letals by	EPA 602	OB (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0784 - EPA 1311/301	5A						So	lid				
Matrix Spike (23G0784-MS1)			Prepared	: 07/25/23	15:24 Ana	lyzed: 07/25	/23 20:15					
QC Source Sample: Non-SDG (A30	<u>G1249-01)</u>											
<u>1311/6020B</u>				_								
Arsenic	5320	50.0	100	ug/L	10	5000	ND	106	50-150%			
Barium	11500	2500	5000	ug/L	10	10000	ND	115	50-150%			
Cadmium	1050	50.0	100	ug/L	10	1000	ND	105	50-150%			
Chromium	5030	50.0	100	ug/L	10	5000	ND	101	50-150%			
Lead	5560	25.0	50.0	ug/L	10	5000	32.4	111	50-150%			
Mercury	106	3.75	7.00	ug/L	10	100	ND	106	50-150%			
Selenium	1090	50.0	100	ug/L	10	1000	ND	109	50-150%			
Silver	1010	50.0	100	ug/L	10	1000	ND	101	50-150%			
Matrix Spike (23G0784-MS2)			Prepared	: 07/25/23	15:24 Ana	lyzed: 07/25	/23 19:18					
QC Source Sample: Non-SDG (A30	<u>G0748-03)</u>											
<u>1311/6020B</u>	5170	50.0	100	7	10	5000	ND	102	50 1500/			COMPTCI
Arsenic	5170	50.0	100	ug/L	10	5000	ND	103	50-150%			COMP, ICL
Barium	11000	2500	5000	ug/L	10	10000	ND	110	50-150%			COMP,TCL
Cadmium	1020	50.0	100	ug/L	10	1000	ND	102	50-150%			COMP,TCL
Chromium	4860	50.0	100	ug/L	10	5000	ND	97	50-150%			COMP,TCL
Lead	5270	25.0	50.0	ug/L	10	5000	ND	105	50-150%			COMP,TCL
Mercury	101	3.75	7.00	ug/L	10	100	ND	101	50-150%			COMF TEMP TCL
Selenium	1070	50.0	100	ug/L	10	1000	ND	107	50-150%			COMP,TCL
Silver	964	50.0	100	ug/L	10	1000	ND	96	50-150%			COMP,TCL
Matrix Spike (23G0784-MS3)			Prepared	: 07/25/23	15:24 Ana	lyzed: 07/25	/23 19:39					
QC Source Sample: FC-071923-214	48 (A3G119	<u>99-01)</u>										
<u>1311/6020B</u>	5020	50.0	100	/ T	10	5000	ND	101	50 1500/			CON
AISCHIC	3030	2500	5000	ug/L	10	10000		101	50 150%			CON
Barium	10400	2500	5000	ug/L	10	10000	ND	104	50-150%			CON
Cadmium	996	50.0	100	ug/L	10	1000	ND	100	50-150%			CON

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3G1199 - 08 09 23 0710

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP	letals by	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0784 - EPA 1311/301	5A						So	lid				
Matrix Spike (23G0784-MS3)			Prepared	l: 07/25/23	15:24 Ana	lyzed: 07/25	5/23 19:39					
QC Source Sample: FC-071923-214	8 (A3G119	99-01)										
Chromium	4720	50.0	100	ug/L	10	5000	ND	94	50-150%			CON
Lead	5180	25.0	50.0	ug/L	10	5000	ND	104	50-150%			CON
Mercury	101	3.75	7.00	ug/L	10	100	ND	101	50-150%			CON
Selenium	1040	50.0	100	ug/L	10	1000	ND	104	50-150%			CON
Silver	879	50.0	100	ug/L	10	1000	ND	88	50-150%			CON
Matrix Spike (23G0784-MS4)			Prepared	l: 07/25/23	15:24 Ana	lyzed: 07/25	5/23 19:49					
QC Source Sample: Non-SDG (A30	<u>G1200-01)</u>											
Arsenic	5110	50.0	100	ug/I	10	5000	ND	102	50-150%			
Barium	10900	2500	5000	ug/L	10	10000	ND	102	50-150%			
Cadmium	1050	50.0	100	ug/L	10	1000	ND	105	50-150%			
Chromium	4860	50.0	100	ug/L	10	5000	ND	97	50-150%			
Lead	5470	25.0	50.0	ug/L	10	5000	ND	109	50-150%			
Mercury	105	3.75	7.00	ug/L	10	100	ND	105	50-150%			
Selenium	1060	50.0	100	ug/L	10	1000	ND	106	50-150%			
Silver	963	50.0	100	ug/L	10	1000	ND	96	50-150%			
Matrix Spike (23G0784-MS5)			Preparec	l: 07/25/23	15:24 Ana	lyzed: 07/25	5/23 20:00					
OC Source Sample: Non-SDG (A30	<u>G1242-02)</u>											
Arsenic	5120	50.0	100	110/L	10	5000	ND	102	50-150%			CON
Barium	11200	2500	5000	ug/L	10	10000	ND	112	50-150%			CON
Cadmium	1020	50.0	100	ug/L	10	10000	ND	102	50-150%			CON
Chromium	4820	50.0	100	110/I	10	5000	ND	96	50-150%			CON
Lead	5630	25.0	50.0	110/I	10	5000	270	107	50-150%			CON
Mercury	106	3.75	7.00	ug/L	10	100	ND	106	50-150%			CONT. TEM
Selenium	1040	50.0	100	ug/L	10	1000	ND	104	50-150%			CON
Silver	983	50.0	100	uø/L	10	1000	ND	98	50-150%			CON

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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
Batch 23G0673 - ASTM D7511-	12mod (S)					Soi	I				
Blank (23G0673-BLK1)			Prepared:	: 07/24/23	08:34 Anal	yzed: 07/24/	23 14:32					
<u>D7511-12</u> Total Cyanide	ND	50.0	100	ug/kg w	vet 1							
LCS (23G0673-BS1) Prepared: 07/24/23 08:34 Analyzed: 07/24/23 14:34												
<u>D7511-12</u>		50.0	100			400		112	04 11 (0)			
Iotal Cyanide	448	50.0	100	ug/kg v	vet l	400		112	84-116%			
Matrix Spike (23G0673-MS1)			Prepared:	: 07/24/23	08:34 Anal	yzed: 07/24/	23 14:42					
<u>QC Source Sample: Non-SDG (A3</u> <u>D7511-12</u>	<u>G1118-01)</u>											
Total Cyanide	906	64.8	130	ug/kg d	lry 1	519	401	97	64-136%			
Matrix Spike Dup (23G0673-MSD1) Prepared: 07/24/23 08:34 Analyzed: 07/24/23 14:46												
OC Source Sample: Non-SDG (A3	<u>G1118-01)</u>											
Total Cyanide	901	64.7	129	ug/kg d	lry 1	518	401	97	64-136%	0.5	47%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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
Batch 23G0577 - Total Solids (Dry Weig	ht) - 2022					Soil					
Duplicate (23G0577-DUP1)			Prepared:	: 07/20/23	09:33 Anal	yzed: 07/21/	/23 06:17					PRO
QC Source Sample: Non-SDG (A3	<u>G1122-20)</u>											
% Solids	99.5		1.00	%	1		99.7			0.1	10%	
Duplicate (23G0577-DUP2)			Prepared:	: 07/20/23	09:33 Anal	yzed: 07/21/	/23 06:17					PRO
QC Source Sample: Non-SDG (A3	<u>G1122-22)</u>											
% Solids	99.0		1.00	%	1		99.1			0.1	10%	
Duplicate (23G0577-DUP3)			Prepared:	07/20/23	09:33 Anal	yzed: 07/21/	/23 06:17					PRO
QC Source Sample: Non-SDG (A3	G1122-24)											
% Solids	99.5		1.00	%	1		99.6			0.1	10%	
Duplicate (23G0577-DUP4)			Prepared:	07/20/23	19:45 Anal	yzed: 07/21/	/23 06:17					
QC Source Sample: Non-SDG (A3	G1273-05)											
% Solids	78.2		1.00	%	1		78.5			0.3	10%	
Duplicate (23G0577-DUP5)			Prepared:	07/20/23	19:45 Anal	yzed: 07/21/	/23 06:17					
QC Source Sample: Non-SDG (A3	<u>G1273-06)</u>											
% Solids	79.0		1.00	%	1		79.0			0.04	10%	

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

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

<u>Sevenson Environmenta</u> 2749 Lockport Road Niagara Falls, NY 1430:	<u>l Services, Inc.</u> 5	Pi Pri	Project: Gasco - roject Number: 111323 oject Manager: Chip By		<u>Report ID:</u> A3G1199 - 08 09 23 0710						
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: 23G0724 A3G1199-01	Solid	NWTPH-Dx	07/19/23 03:35	07/24/23 17:08	10.4g/5mL	10g/5mL	0.96				
	Gaso	line Range Hydrocarb	oons (Benzene throu	ugh Naphthalene) b	y NWTPH-Gx						
Prep: EPA 5035A					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 23G0582 A3G1199-01RE1	Solid	NWTPH-Gx (MS)	07/19/23 03:35	07/19/23 11:25	5.21g/5mL	5g/5mL	0.96				
		Volatile C	Organic Compounds	by EPA 8260D							
<u>Prep: EPA 5035A</u>					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 23G0582 A3G1199-01RE1	Solid	5035A/8260D	07/19/23 03:35	07/19/23 11:25	5.21g/5mL	5g/5mL	0.96				
		Regulated TCLP Vol	atile Organic Comp	ounds by EPA 1311	/8260D						
Prep: EPA 1311/5030C	TCLP Volatiles				Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
<u>Batch: 23G0708</u> A3G1199-01	Solid	1311/8260D	07/19/23 03:35	07/24/23 12:55	5mL/5mL	5mL/5mL	1.00				
		Semivolatile	e Organic Compour	ds by EPA 8270E							
Prep: EPA 3546					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 23G0614 A3G1199-01	Solid	EPA 8270E	07/19/23 03:35	07/21/23 08:30	5.65g/2mL	15g/2mL	2.65				
		Total	Metals by EPA 602	OB (ICPMS)							
Prep: EPA 3051A			,	、 ,	Sample	Default	RL Pren				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 23G0565 A3G1199-01	Solid	EPA 6020B	07/19/23 03:35	07/20/23 07:10	0.469g/50mL	0.5g/50mL	1.07				
Apex Laboratories			The results	in this report apply to the sa	amples analyzed in ac	cordance with the chain	of				



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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3G1199 - 08 09 23 0710

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	<u>•</u>				Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23G0784								
A3G1199-01	Solid	1311/6020B	07/19/23 03:35	07/25/23 15:24	10mL/50mL	10mL/50mL	1.00	
	Sc	oluble Cyanide by U	/ Digestion/Gas Diffu	usion/Amperometric	Detection			
Prep: ASTM D7511-12	mod (S)		~		Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
Batch: 23G0673			1	1				
A3G1199-01RE1	Solid	D7511-12	07/19/23 03:35	07/24/23 08:34	2.5014g/50mL	2.5g/50mL	1.00	
								
			Percent Drv Wei	iaht				
Prep: Total Solids (Drv	Weight) - 2022		Percent Dry We	ight	Sample	Default	RL Prep	
Prep: Total Solids (Dry	<u>Weight) - 2022</u> Matrix	Method	Percent Dry We	ight	Sample Initial/Final	Default Initial/Final	RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23G0577	Weight) - 2022 Matrix	Method	Percent Dry Wei	ight Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23G0577 A3G1199-01	<u>Weight) - 2022</u> Matrix Solid	Method EPA 8000D	Percent Dry Wei Sampled 07/19/23 03:35	Prepared 07/20/23 09:33	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number Batch: 23G0577 A3G1199-01	Weight) - 2022 Matrix Solid	Method EPA 8000D	Sampled 07/19/23 03:35	Prepared 07/20/23 09:33	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number <u>Batch: 23G0577</u> A3G1199-01	Weight) - 2022 Matrix Solid	Method EPA 8000D	Sampled 07/19/23 03:35	Prepared 07/20/23 09:33	Sample Initial/Final	Default Initial/Final	RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number Batch: 23G0577 A3G1199-01 Prep: EPA 1311 (TCLP	Weight) - 2022 Matrix Solid	Method EPA 8000D	Sampled 07/19/23 03:35	Prepared 07/20/23 09:33	Sample Initial/Final Sample	Default Initial/Final Default	RL Prep Factor NA RL Prep	
Prep: Total Solids (Dry Lab Number Batch: 23G0577 A3G1199-01 Prep: EPA 1311 (TCLP Lab Number	Weight) - 2022 Matrix Solid	Method EPA 8000D T Method	Percent Dry Wei Sampled 07/19/23 03:35 CLP Extraction by E Sampled	Prepared 07/20/23 09:33 PA 1311 Prepared	Sample Initial/Final Sample Initial/Final	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor	
Prep: Total Solids (Dry Lab Number <u>Batch: 23G0577</u> A3G1199-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23G0676	Weight) - 2022 Matrix Solid	Method EPA 8000D T Method	Percent Dry Wei Sampled 07/19/23 03:35 CLP Extraction by E Sampled	Prepared 07/20/23 09:33 PA 1311 Prepared	Sample Initial/Final Sample Initial/Final	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23G0577 A3G1199-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23G0676 A3G1199-01	Weight) - 2022 Matrix Solid	Method EPA 8000D T Method EPA 1311	Percent Dry Wei Sampled 07/19/23 03:35 CLP Extraction by E Sampled 07/19/23 03:35	Prepared 07/20/23 09:33 PA 1311 Prepared 07/24/23 17:36	Sample Initial/Final Sample Initial/Final 100g/2000.3g	Default Initial/Final Default Initial/Final	RL Prep Factor NA RL Prep Factor NA	
Prep: Total Solids (Dry Lab Number Batch: 23G0577 A3G1199-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23G0676 A3G1199-01 Prep: EPA 1311 TCLP/	Weight) - 2022 Matrix Solid	Method EPA 8000D T Method EPA 1311	Percent Dry Wei Sampled 07/19/23 03:35 CLP Extraction by E Sampled 07/19/23 03:35	ight Prepared 07/20/23 09:33 PA 1311 Prepared 07/24/23 17:36	Sample Initial/Final Sample Initial/Final 100g/2000.3g Sample	Default Initial/Final Default Initial/Final 100g/2000g Default	RL Prep Factor NA RL Prep Factor NA RL Prep	
Prep: Total Solids (Dry Lab Number Batch: 23G0577 A3G1199-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23G0676 A3G1199-01 Prep: EPA 1311 TCLP/ Lab Number	Weight) - 2022 Matrix Solid) Matrix Solid ZHE Matrix	Method EPA 8000D T Method EPA 1311 Method	Percent Dry Wei Sampled 07/19/23 03:35 CLP Extraction by E Sampled 07/19/23 03:35 Sampled	Prepared 07/20/23 09:33 PA 1311 Prepared 07/24/23 17:36 Prepared	Sample Initial/Final Sample Initial/Final 100g/2000.3g Sample Initial/Final	Default Initial/Final Default Initial/Final 100g/2000g Default Initial/Final	RL Prep Factor NA RL Prep Factor NA RL Prep Factor	
Prep: Total Solids (Dry Lab Number Batch: 23G0577 A3G1199-01 Prep: EPA 1311 (TCLP Lab Number Batch: 23G0676 A3G1199-01 Prep: EPA 1311 TCLP/ Lab Number Batch: 23G0594	Weight) - 2022 Matrix Solid 2) Matrix Solid ZHE Matrix	Method EPA 8000D T Method EPA 1311 Method	Percent Dry Wei Sampled 07/19/23 03:35 CLP Extraction by E Sampled 07/19/23 03:35 Sampled	ight Prepared 07/20/23 09:33 PA 1311 Prepared 07/24/23 17:36 Prepared	Sample Initial/Final Sample Initial/Final 100g/2000.3g Sample Initial/Final	Default Initial/Final Default Initial/Final 100g/2000g Default Initial/Final	RL Prep Factor NA RL Prep Factor NA RL Prep Factor	

Apex Laboratories



Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

QUALIFIER DEFINITIONS

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

Apex Laboratories

- **COMP** Analyzed sample is a composite of discrete samples that was performed in the laboratory.
- CONT The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
- F-13 The chromatographic pattern does not resemble the fuel standard used for quantitation
- J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- PRO Sample has undergone sample processing prior to extraction and analysis.
- Q-05 Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-29 Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31 Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41 Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- 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 +1%. 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 -3%. 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-03 Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect.
- 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 23G0594.
- TCLPa Limited sample volume. Leachate was prepared using less than the specified amount of sample per EPA 1311 or 1312. For consistency in leaching, the standard 20x ratio of sample to leachate fluid was maintained. Results may not meet regulatory requirements.
- TCLPb This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 23G0676.
- **TEMP** Sample was received or stored outside of recommended temperature.

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	Report ID:
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3G1199 - 08 09 23 0710

V-15 Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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.

- <u>" dry"</u> 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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

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).

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

REPORTING NOTES AND CONVENTIONS (Cont.):

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 ½ 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.

-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, if results are not reported to the MDL.

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.

Apex Laboratories



Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3G1199 - 08 09 23 0710

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 <u>exception</u> of any analyte(s) listed below:

Apex Laboratories						
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation	

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



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



Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environm	ental Services, Inc.	Project: Gasco Fil	<u>tercake</u>	
2749 Lockport Road	i	Project Number: 111323		<u>Report ID:</u>
Niagara Falls, NY 1	4305	Project Manager: Chip Byrd		A3G1199 - 08 09 23 0710
	APE2 Client: Self(Y5M) Environmentation Project/Project #: 6a540 - Fiff Delivery Info: Date/time received: 7/19/723 Date/time received: 7/19/723 @ Delivered by: Apex Client_ESS_F Cooler Inspection Date/time inspection Chain of Custody included? Yes X Signed/dated by client? Yes X Temperature (°C) Z iS X Custody seals? (Y/N) X Received on ice? Y/N) X Temp. blanks? Y/N) Y Cooler out of temp? Y(N) Y Bottle labels/COCs agree? Yes No Co COC/container discrepancies form initiate Containers/volumes received appropriate Do VOA vials have visible headspace? Comments: No COC/container size: pH checked: Yes No Co Comment	Project Manager: Chip Byrd X LABS COOLER RECEIF vita Service> $?rc$ RECEIF vita Service> $?rc$ RECEIF Vita Service> $?rc$ RECEIF Vita Service> $?rc$ Receif Q Service> $?rc$ Receif Mo Cooler Mo Cooler #2 Cooler #2 Cooler #3 Cool Cooler #2 Cooler #3 Cool Son why: Cooler #3 Cool Son why: Cooler #2 Cooler #3 Cool Son why: Cooler #2 Cooler #3 Cool Son why: Cooler #3 Cool Cooler #3 Cool Son why: Cooler #2 Cooler #3 Cool Cool Son why: Cool Cooler #3 Cool Cooler #3 Cool Son why: Cooler #3 Cool Cool Cooler #4 Cooler #4 Son why: Cooler #3 Cool Cooler #4 Cooler #4 Son why: Cooler #3	PT FORM Element WO#: A3_G_{A}[QQ ganSDSEvergreenO By: ES 7 er #4 Cooler #5 Cooler #6 C er #4 Cooler #5 Cooler #6 C By: EA 7 By: BA 7 Comments: Comments: EsNoNA_X	A3G1199 - 08 09 23 0710
	Labeled by: W	ïtness:	Cooler Inspected by:	
	RHP	DJS	Pom ,	(-003 R-00 -
				d

Apex Laboratories



Apex Laboratories, LLC

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

Friday, September 8, 2023 Chip Byrd Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305

RE: A3H1300 - Gasco -- Filtercake - 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 A3H1300, which was received by the laboratory on 8/23/2023 at 9:55:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information								
Acceptable Receipt Temperat	Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.							
	(See Cooler Receipt Form for details)							
Default Cooler 1.6	degC							

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.



Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: Ga	asco Filtercake	
2749 Lockport Road	Project Number: 11	11323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Ch	hip Byrd	A3H1300 - 09 08 23 0728

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION						
Client Sample ID Laboratory ID Matrix Date Sampled Date Received						
FC-082223-2167	A3H1300-01	Solid	08/22/23 00:00	08/23/23 09:55		

Apex Laboratories



Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

Gasco -- Filtercake

Diesel and/or Oil Hydrocarbons by NWTPH-Dx								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-082223-2167 (A3H1300-01)				Matrix: Solid	ł	Batch:	23H1010	CONT
Diesel	3150000	358000	716000	ug/kg dry	10	08/29/23 01:28	NWTPH-Dx	F-13
Oil	ND	716000	1430000	ug/kg dry	10	08/29/23 01:28	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recov	very: 96 %	Limits: 50-150 %	5 10	08/29/23 01:28	NWTPH-Dx	S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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
FC-082223-2167 (A3H1300-01)				Matrix: Solid Batch: 23H0884 V-15				
Gasoline Range Organics	203000	20300	40500	ug/kg dry	50	08/24/23 22:04	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recover	ry: 106 %	Limits: 50-150 %	5 I	08/24/23 22:04	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			99 %	50-150 %	5 1	08/24/23 22:04	NWTPH-Gx (MS)	

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

Sevenson Environmental Services, I	nc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compoun	ds by EPA 82	60D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-082223-2167 (A3H1300-01)				Matrix: Sol	Matrix: Solid		23H0884	V-15
Acetone	ND	4050	8110	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Acrylonitrile	ND	405	811	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Benzene	114	40.5	81.1	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Bromobenzene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Bromochloromethane	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Bromodichloromethane	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Bromoform	ND	405	811	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Bromomethane	ND	4050	4050	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
2-Butanone (MEK)	ND	2030	4050	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
n-Butylbenzene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
sec-Butylbenzene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
tert-Butylbenzene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Carbon disulfide	ND	2030	4050	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Carbon tetrachloride	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Chlorobenzene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Chloroethane	ND	2030	4050	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Chloroform	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Chloromethane	ND	1010	2030	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
2-Chlorotoluene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
4-Chlorotoluene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Dibromochloromethane	ND	405	811	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	1010	2030	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Dibromomethane	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,2-Dichlorobenzene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,3-Dichlorobenzene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,4-Dichlorobenzene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Dichlorodifluoromethane	ND	405	811	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,1-Dichloroethane	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,1-Dichloroethene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
cis-1,2-Dichloroethene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
trans-1,2-Dichloroethene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	

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

Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compoun	ds by EPA 82	260D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-082223-2167 (A3H1300-01)				Matrix: Solid		Batch: 23H0884		V-15
1,2-Dichloropropane	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,3-Dichloropropane	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
2,2-Dichloropropane	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,1-Dichloropropene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
cis-1,3-Dichloropropene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
trans-1,3-Dichloropropene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Ethylbenzene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Hexachlorobutadiene	ND	405	811	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
2-Hexanone	ND	2030	4050	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Isopropylbenzene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
4-Isopropyltoluene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Methylene chloride	ND	2030	4050	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	2030	4050	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Naphthalene	969	405	811	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
n-Propylbenzene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Styrene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Tetrachloroethene (PCE)	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Toluene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,2,3-Trichlorobenzene	ND	1010	2030	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,2,4-Trichlorobenzene	ND	1010	2030	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,1,1-Trichloroethane	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,1,2-Trichloroethane	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Trichloroethene (TCE)	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Trichlorofluoromethane	ND	811	811	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,2,3-Trichloropropane	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
1,2,4-Trimethylbenzene	373	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	J
1,3,5-Trimethylbenzene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
Vinyl chloride	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
m,p-Xylene	ND	203	405	ug/kg dry	50	08/24/23 22:04	5035A/8260D	
o-Xylene	ND	101	203	ug/kg dry	50	08/24/23 22:04	5035A/8260D	

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D									
Analyte	Sample Result	Detection Limit	Reporting Limit	U	nits	Dilution	Date Analyzed	Method Ref.	Notes
FC-082223-2167 (A3H1300-01)				Mat	rix: Solic	ł	Batch:	23H0884	V-15
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	v: 103 %	Limits:	80-120 %	1	08/24/23 22:04	5035A/8260D	
Toluene-d8 (Surr)			97 %		80-120 %	1	08/24/23 22:04	5035A/8260D	
4-Bromofluorobenzene (Surr)			100 %		79-120 %	1	08/24/23 22:04	5035A/8260D	

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

Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D									
Sample Detection Reporting Date Analyte Result Limit Limit Dilution Analyzed Method Ref. Notes									
FC-082223-2167 (A3H1300-01)				Matrix: Solid	1	Batch:	23H0939	CONT	
Benzene	ND	6.25	12.5	ug/L	50	08/25/23 12:50	1311/8260D		
2-Butanone (MEK)	ND	250	500	ug/L	50	08/25/23 12:50	1311/8260D		
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	08/25/23 12:50	1311/8260D		
Chlorobenzene	ND	12.5	25.0	ug/L	50	08/25/23 12:50	1311/8260D		
Chloroform	ND	25.0	50.0	ug/L	50	08/25/23 12:50	1311/8260D		
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	08/25/23 12:50	1311/8260D		
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	08/25/23 12:50	1311/8260D		
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	08/25/23 12:50	1311/8260D		
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	08/25/23 12:50	1311/8260D		
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	08/25/23 12:50	1311/8260D		
Vinyl chloride	ND	12.5	25.0	ug/L	50	08/25/23 12:50	1311/8260D		
Surrogate: 1,4-Difluorobenzene (Surr)		Recov	very: 97 %	Limits: 80-120 %	1	08/25/23 12:50	1311/8260D		
Toluene-d8 (Surr)			104 %	80-120 %	1	08/25/23 12:50	1311/8260D		
4-Bromofluorobenzene (Surr)			98 %	80-120 %	1	08/25/23 12:50	1311/8260D		

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Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-082223-2167 (A3H1300-01)				Matrix: Sol	id	Batch:	23H1038	CONT
Acenaphthene	22200	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Acenaphthylene	ND	2460	2460	ug/kg dry	40	08/29/23 15:34	EPA 8270E	R-02
Anthracene	25900	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Benz(a)anthracene	16600	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Benzo(a)pyrene	18400	297	593	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Benzo(b)fluoranthene	14900	297	593	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Benzo(k)fluoranthene	5150	297	593	ug/kg dry	40	08/29/23 15:34	EPA 8270E	M-05
Benzo(g,h,i)perylene	11300	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Chrysene	22200	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Dibenz(a,h)anthracene	1100	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Fluoranthene	80000	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Fluorene	18000	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Indeno(1,2,3-cd)pyrene	8700	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
1-Methylnaphthalene	3220	396	791	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2-Methylnaphthalene	523	396	791	ug/kg dry	40	08/29/23 15:34	EPA 8270E	J
Naphthalene	ND	396	791	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Phenanthrene	113000	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Pyrene	93400	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Carbazole	ND	668	668	ug/kg dry	40	08/29/23 15:34	EPA 8270E	R-02
Dibenzofuran	1520	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2-Chlorophenol	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
4-Chloro-3-methylphenol	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,4-Dichlorophenol	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,4-Dimethylphenol	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,4-Dinitrophenol	ND	4940	9890	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	4940	9890	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2-Methylphenol	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
3+4-Methylphenol(s)	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2-Nitrophenol	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
4-Nitrophenol	ND	4110	4110	ug/kg dry	40	08/29/23 15:34	EPA 8270E	R-02
Pentachlorophenol (PCP)	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Phenol	ND	396	791	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	

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

Sevenson	Environmental	Services,	Inc.
2749 Loci	kport Road		

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-082223-2167 (A3H1300-01)				Matrix: Sol	id	Batch:	23H1038	CONT
2,3,5,6-Tetrachlorophenol	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,4,5-Trichlorophenol	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,4,6-Trichlorophenol	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	2970	5930	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Butyl benzyl phthalate	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Diethylphthalate	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Dimethylphthalate	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Di-n-butylphthalate	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Di-n-octyl phthalate	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
N-Nitrosodimethylamine	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
N-Nitrosodiphenylamine	ND	3590	3590	ug/kg dry	40	08/29/23 15:34	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Hexachlorobenzene	ND	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Hexachlorobutadiene	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Hexachlorocyclopentadiene	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Hexachloroethane	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2-Chloronaphthalene	ND	197	396	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
1,2,4-Trichlorobenzene	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
4-Bromophenyl phenyl ether	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Aniline	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
4-Chloroaniline	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2-Nitroaniline	ND	3960	7910	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
3-Nitroaniline	ND	3960	7910	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
4-Nitroaniline	ND	3960	7910	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Nitrobenzene	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,4-Dinitrotoluene	ND	3960	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
2,6-Dinitrotoluene	ND	1970	3960	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Benzoic acid	ND	24800	49400	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Benzyl alcohol	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, I	Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-082223-2167 (A3H1300-01)				Matrix: Solic	ł	Batch: 2	23H1038	CONT
Isophorone	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Azobenzene (1,2-DPH)	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	4940	9890	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
3,3'-Dichlorobenzidine	ND	3960	7910	ug/kg dry	40	08/29/23 15:34	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	4940	9890	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
1,3-Dinitrobenzene	ND	4940	9890	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
1,4-Dinitrobenzene	ND	4940	9890	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Pyridine	ND	989	1970	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
1,2-Dichlorobenzene	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
1,3-Dichlorobenzene	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
1,4-Dichlorobenzene	ND	494	989	ug/kg dry	40	08/29/23 15:34	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recove	ery: 72 %	Limits: 37-122 %	40	08/29/23 15:34	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			85 %	44-120 %	40	08/29/23 15:34	EPA 8270E	S-05
Phenol-d6 (Surr)			65 %	33-122 %	40	08/29/23 15:34	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			98 %	54-127 %	40	08/29/23 15:34	EPA 8270E	S-05
2-Fluorophenol (Surr)			57 %	35-120 %	40	08/29/23 15:34	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			108 %	39-132 %	40	08/29/23 15:34	EPA 8270E	S-05

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	Report ID:
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-082223-2167 (A3H1300-01)				Matrix: Sol	id			
Batch: 23I0093								
Arsenic	7680	1960	3920	ug/kg dry	10	09/05/23 21:22	EPA 6020B	CONT
Barium	175000	1960	3920	ug/kg dry	10	09/05/23 21:22	EPA 6020B	CONT
Cadmium	ND	392	784	ug/kg dry	10	09/05/23 21:22	EPA 6020B	CONT
Chromium	ND	1960	3920	ug/kg dry	10	09/05/23 21:22	EPA 6020B	CONT
Lead	ND	392	784	ug/kg dry	10	09/05/23 21:22	EPA 6020B	CONT
Mercury	ND	157	314	ug/kg dry	10	09/05/23 21:22	EPA 6020B	CONT
Silver	ND	392	784	ug/kg dry	10	09/05/23 21:22	EPA 6020B	CONT
FC-082223-2167 (A3H1300-01RE1)				Matrix: Sol	id			
Batch: 23I0093								
Selenium	ND	1960	3920	ug/kg dry	10	09/06/23 11:48	EPA 6020B	CONT

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

Sevenson Environmental Services, Inc.	Project: <u>G</u>	Gasco Filtercake	
2749 Lockport Road	Project Number: 1	11323	Report ID:
Niagara Falls, NY 14305	Project Manager: C	Chip Byrd	A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

		TCLP Meta	ls by EPA 60	20B (ICPMS	5)								
	Sample	Detection	Reporting	** •.		N							
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes					
FC-082223-2167 (A3H1300-01)		Matrix: Solid											
Batch: 23I0035													
Arsenic	ND	0.0500	0.100	mg/L	10	09/01/23 18:57	1311/6020B	CONT					
Barium	ND	2.50	5.00	mg/L	10	09/01/23 18:57	1311/6020B	CONT					
Cadmium	ND	0.0500	0.100	mg/L	10	09/01/23 18:57	1311/6020B	CONT					
Chromium	ND	0.100	0.200	mg/L	10	09/01/23 18:57	1311/6020B	CONT					
Lead	ND	0.0250	0.0500	mg/L	10	09/01/23 18:57	1311/6020B	CONT					
Mercury	ND	0.00375	0.00700	mg/L	10	09/01/23 18:57	1311/6020B	CONT					
Selenium	ND	0.0500	0.100	mg/L	10	09/01/23 18:57	1311/6020B	CONT					
Silver	ND	0.0500	0.100	mg/L	10	09/01/23 18:57	1311/6020B	CONT					

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

	Soluble Cyanide	by UV Diges	stion/Gas Dif	fusion/Ampe	rometric E	Detection						
Analyte	SampleDetectionReportingDateResultLimitLimitUnitsDilutionAnalyzedMethod Ref.Notes											
FC-082223-2167 (A3H1300-01)				Matrix: Solid Batch: 23H1057 CONT								
Total Cyanide	6620	926	1850	ug/kg dry 5 08/31/23 17:17 D7511-12 Q-42								

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

Sevenson Environmental Services, Inc.	Project: Ga	asco Filtercake	
2749 Lockport Road	Project Number: 11	11323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Ch	hip Byrd	A3H1300 - 09 08 23 0728

ANALYTICAL SAMPLE RESULTS

	Percent Dry Weight											
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.Note												
FC-082223-2167 (A3H1300-01)				Matrix: Solid Batch: 23H0895								
% Solids	26.9	1.00	1.00	%	1	08/25/23 07:42	EPA 8000D					

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road	Project: <u>Gasco Filtercake</u> Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3H1300 - 09 08 23 0728
	ANALYTICAL SAMPLE RESULTS	
	TCLP Extraction by EPA 1311 (ZHE)	

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes					
FC-082223-2167 (A3H1300-01)				Matrix: So	Matrix: Solid Batch: 23H0911								
TCLP ZHE Extraction	0.00			N/A	1	08/24/23 14:08	EPA 1311 ZHE						
TCLP Extraction	PREP			N/A	1	08/30/23 14:52	EPA 1311						

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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	
Batch 23H1010 - EPA 3546 (F	uels)						Sol	id					
Blank (23H1010-BLK1)			Prepared	: 08/28/23	12:00 Ana	lyzed: 08/28	/23 22:43						
NWTPH-Dx													
Diesel	ND	10000	20000	ug/kg w	et 1								
Oil	ND	20000	40000	ug/kg w	et 1								
Surr: o-Terphenyl (Surr)		Reco	very: 89 %	Limits: 50	0-150 %	Dilı	ution: 1x						
LCS (23H1010-BS1)			Prepared	: 08/28/23	12:00 Ana	lyzed: 08/28	/23 23:04						
<u>NWTPH-Dx</u>													
Diesel	105000	10000	20000	ug/kg w	et 1	125000		84	38-132%				
Surr: o-Terphenyl (Surr)		Reco	very: 87%	Limits: 50	0-150 %	Dilı	ution: 1x						
Duplicate (23H1010-DUP2)			Prepared	: 08/28/23	12:00 Ana	lyzed: 08/29	/23 10:36						
QC Source Sample: Non-SDG (A3	3H1207-33RE	<u>1)</u>											
Diesel	ND	94800	190000	ug/kg w	et 2		ND				30%		
Oil	3420000	190000	379000	ug/kg w	et 2		990000			110	30%	F-03, Q-0	
Surr: o-Terphenyl (Surr)		Reco	very: 97 %	Limits: 50	0-150 %	Dilı	ution: $2x$					S-05	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolin	e Range Hy	drocarbo	ons (Ben	zene throu	igh Naph	thalene)	by NWTI	PH-Gx			
Analyte	Result	Detection] Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							Soi					
Blank (23H0884-BLK1)			Prepared	1: 08/24/23	10:30 Anal	yzed: 08/24	1/23 11:50					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Recover	v: 103 %	Limits: 5	0-150 %	Dil	ution: 1x					_
1,4-Difluorobenzene (Sur)			102 %	5	0-150 %		"					
LCS (23H0884-BS2)			Preparec	1: 08/24/23	10:30 Anal	yzed: 08/24	1/23 11:24					
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	26700	2500	5000	ug/kg w	vet 50	25000		107	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Recover	v: 102 %	Limits: 5	0-150 %	Dil	ution: 1x					
1,4-Difluorobenzene (Sur)			101 %	5	0-150 %							
Duplicate (23H0884-DUP1)			Preparec	1: 08/11/23	12:41 Anal	yzed: 08/24	/23 15:14					
OC Source Sample: Non-SDG (A3	H1025-02)											
Gasoline Range Organics	1370000	10900	21900	ug/kg d	lry 200		1490000			8	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recover	v: 106 %	Limits: 5	0-150 %	Dil	ution: 1x					
1,4-Difluorobenzene (Sur)			102 %	5	0-150 %		"					
Duplicate (23H0884-DUP2)			Preparec	1: 08/23/23	18:20 Anal	yzed: 08/24	/23 20:47					V-15
QC Source Sample: Non-SDG (A3	H1322-09)											
Gasoline Range Organics	1320000	40700	81500	ug/kg d	lry 500		1360000			3	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recover	v: 102 %	Limits: 5	0-150 %	Dili	ution: 1x					
1,4-Difluorobenzene (Sur)			99 %	50	0-150 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							Soi					
Blank (23H0884-BLK1)			Prepared	: 08/24/23 10	:30 Ana	lyzed: 08/24/	/23 11:50					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							Soi					
Blank (23H0884-BLK1)			Prepared	: 08/24/23 10	:30 Anal	yzed: 08/24/	/23 11:50					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	100	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	50							
o-Xvlene	ND	12.5	25.0	ug/kg wet	50							

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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3H1300 - 09 08 23 0728 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 23H0884 - EPA 5035A Soil Blank (23H0884-BLK1) Prepared: 08/24/23 10:30 Analyzed: 08/24/23 11:50 Surr: Toluene-d8 (Surr) Recovery: 101 % Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 98 % 79-120 % LCS (23H0884-BS1) Prepared: 08/24/23 10:30 Analyzed: 08/24/23 10:59 5035A/8260D Acetone 1840 500 1000 ug/kg wet 50 2000 92 80-120% ---Acrylonitrile 1020 50.0 100 50 1000 102 80-120% ug/kg wet ---------Benzene 998 5.00 10.0 ug/kg wet 50 1000 100 80-120% ---25.0 1000 982 12.5 50 98 80-120% Bromobenzene ug/kg wet ---------Bromochloromethane 967 25.0 50.0 ug/kg wet 50 1000 97 80-120% ---------1020 25.0 50.0 1000 Bromodichloromethane ug/kg wet 50 ---102 80-120% ------Bromoform 924 50.0 100 ug/kg wet 50 1000 92 80-120% Bromomethane 1110 500 500 ug/kg wet 50 1000 111 80-120% ---------2-Butanone (MEK) 1970 250 500 ug/kg wet 50 2000 99 80-120% ---1010 25.0 50.0 50 1000 101 80-120% n-Butylbenzene ug/kg wet ---------sec-Butylbenzene 1020 25.050.0 ug/kg wet 50 1000 102 80-120% --tert-Butylbenzene 938 25.0 50.0 50 1000 94 80-120% ug/kg wet ----------Carbon disulfide 959 250 500 ug/kg wet 50 1000 ---96 80-120% ------Carbon tetrachloride 1020 25.0 50.0 ug/kg wet 50 1000 102 80-120% ---------Chlorobenzene 1010 12.5 25.0ug/kg wet 50 1000 101 80-120% ---Chloroethane 1200 250 500 50 1000 120 80-120% ug/kg wet ----------1000 80-120% Chloroform 1010 25.050.0 ug/kg wet 50 101 ------Chloromethane 818 125 250 50 1000 82 80-120% ug/kg wet ---------2-Chlorotoluene 972 25.050.0 ug/kg wet 50 1000 ---97 80-120% ____ 4-Chlorotoluene 962 25.0 50.0 ug/kg wet 50 1000 96 80-120% ---------50.0 100 97 Dibromochloromethane 966 ug/kg wet 50 1000 80-120% ---------1,2-Dibromo-3-chloropropane 899 125 250 ug/kg wet 50 1000 90 80-120% ---1,2-Dibromoethane (EDB) 1030 25.0 1000 103 50.0 ug/kg wet 50 80-120% ---Dibromomethane 1030 25.0 50.0 ug/kg wet 50 1000 103 80-120% ---------1,2-Dichlorobenzene 1020 12.5 25.0ug/kg wet 50 1000 ----102 80-120% ____ ---1,3-Dichlorobenzene 1000 12.5 25.0 ug/kg wet 50 1000 100 80-120% ---------1,4-Dichlorobenzene 996 12.5 25.0 50 1000 100 80-120% ug/kg wet ___ Dichlorodifluoromethane 1060 50.0 100 ug/kg wet 50 1000 106 80-120% ------1,1-Dichloroethane 980 12.5 25.0 1000 98 80-120% ug/kg wet 50 ---------

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							Soi	I				
LCS (23H0884-BS1)			Prepared	: 08/24/23 1	0:30 Ana	lyzed: 08/24	/23 10:59					
1,2-Dichloroethane (EDC)	1020	12.5	25.0	ug/kg we	t 50	1000		102	80-120%			
1,1-Dichloroethene	1020	12.5	25.0	ug/kg we	t 50	1000		102	80-120%			
cis-1,2-Dichloroethene	1010	12.5	25.0	ug/kg we	t 50	1000		101	80-120%			
trans-1,2-Dichloroethene	990	12.5	25.0	ug/kg we	t 50	1000		99	80-120%			
1,2-Dichloropropane	1010	12.5	25.0	ug/kg we	t 50	1000		101	80-120%			
1,3-Dichloropropane	1000	25.0	50.0	ug/kg we	t 50	1000		100	80-120%			
2,2-Dichloropropane	1040	25.0	50.0	ug/kg we	t 50	1000		104	80-120%			
1,1-Dichloropropene	1040	25.0	50.0	ug/kg we	t 50	1000		104	80-120%			
cis-1,3-Dichloropropene	1020	25.0	50.0	ug/kg we	t 50	1000		102	80-120%			
trans-1,3-Dichloropropene	1000	25.0	50.0	ug/kg we	t 50	1000		100	80-120%			
Ethylbenzene	983	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
Hexachlorobutadiene	1060	50.0	100	ug/kg we	t 50	1000		106	80-120%			
2-Hexanone	1780	250	500	ug/kg we	t 50	2000		89	80-120%			
Isopropylbenzene	990	25.0	50.0	ug/kg we	t 50	1000		99	80-120%			
4-Isopropyltoluene	1030	25.0	50.0	ug/kg we	t 50	1000		103	80-120%			
Methylene chloride	1080	250	500	ug/kg we	t 50	1000		108	80-120%			
4-Methyl-2-pentanone (MiBK)	1730	250	500	ug/kg we	t 50	2000		87	80-120%			
Methyl tert-butyl ether (MTBE)	966	25.0	50.0	ug/kg we	t 50	1000		97	80-120%			
Naphthalene	980	50.0	100	ug/kg we	t 50	1000		98	80-120%			
n-Propylbenzene	986	12.5	25.0	ug/kg we	t 50	1000		99	80-120%			
Styrene	985	25.0	50.0	ug/kg we	t 50	1000		98	80-120%			
1,1,1,2-Tetrachloroethane	978	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
1,1,2,2-Tetrachloroethane	986	25.0	50.0	ug/kg we	t 50	1000		99	80-120%			
Tetrachloroethene (PCE)	1060	12.5	25.0	ug/kg we	t 50	1000		106	80-120%			
Toluene	995	25.0	50.0	ug/kg we	t 50	1000		100	80-120%			
1,2,3-Trichlorobenzene	1030	125	250	ug/kg we	t 50	1000		103	80-120%			
1,2,4-Trichlorobenzene	994	125	250	ug/kg we	t 50	1000		99	80-120%			
1,1,1-Trichloroethane	1060	12.5	25.0	ug/kg we	t 50	1000		106	80-120%			
1,1,2-Trichloroethane	1040	12.5	25.0	ug/kg we	t 50	1000		104	80-120%			
Trichloroethene (TCE)	1050	12.5	25.0	ug/kg we	t 50	1000		105	80-120%			
Trichlorofluoromethane	324	100	100	ug/kg we	t 50	1000		32	80-120%			C
1,2,3-Trichloropropane	1040	25.0	50.0	ug/kg we	t 50	1000		104	80-120%			
1,2,4-Trimethylbenzene	992	25.0	50.0	ug/kg we	t 50	1000		99	80-120%			
1.3.5-Trimethylbenzene	1000	25.0	50.0	ug/kg we	t 50	1000		100	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	s by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							So	il				
LCS (23H0884-BS1)			Prepared	1: 08/24/23 1	0:30 Ana	lyzed: 08/24	/23 10:59					
Vinyl chloride	1110	12.5	25.0	ug/kg we	t 50	1000		111	80-120%			
m,p-Xylene	1990	25.0	50.0	ug/kg we	t 50	2000		99	80-120%			
o-Xylene	962	12.5	25.0	ug/kg we	t 50	1000		96	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 103 %	Limits: 80-	120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			102 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			95 %	79-	120 %		"					
Duplicate (23H0884-DUP1)			Prepareo	d: 08/11/23 12	2:41 Ana	lyzed: 08/24	/23 15:14					
OC Source Sample: Non-SDG (A3	H1025-02)											
Acetone	ND	2190	4370	ug/kg dry	200		ND				30%	
Acrylonitrile	ND	219	437	ug/kg dry	200		ND				30%	
Benzene	ND	21.9	43.7	ug/kg dry	200		ND				30%	
Bromobenzene	ND	54.7	109	ug/kg dry	200		ND				30%	
Bromochloromethane	ND	109	219	ug/kg dry	200		ND				30%	
Bromodichloromethane	ND	109	219	ug/kg dry	200		ND				30%	
Bromoform	ND	219	437	ug/kg dry	200		ND				30%	
Bromomethane	ND	2190	2190	ug/kg dry	200		ND				30%	
2-Butanone (MEK)	ND	1090	2190	ug/kg dry	200		ND				30%	
n-Butylbenzene	3150	109	219	ug/kg dry	200		3240			3	30%	M-0
sec-Butylbenzene	2120	109	219	ug/kg dry	200		2110			0.2	30%	
tert-Butylbenzene	ND	109	219	ug/kg dry	200		ND				30%	
Carbon disulfide	ND	1090	2190	ug/kg dry	200		ND				30%	
Carbon tetrachloride	ND	109	219	ug/kg dry	200		ND				30%	
Chlorobenzene	ND	54.7	109	ug/kg dry	200		ND				30%	
Chloroethane	ND	1090	2190	ug/kg dry	200		ND				30%	
Chloroform	ND	109	219	ug/kg dry	200		ND				30%	
Chloromethane	ND	547	1090	ug/kg dry	200		ND				30%	
2-Chlorotoluene	ND	109	219	ug/kg dry	200		ND				30%	
4-Chlorotoluene	ND	109	219	ug/kg dry	200		ND				30%	
Dibromochloromethane	ND	219	437	ug/kg dry	200		ND				30%	
1,2-Dibromo-3-chloropropane	ND	547	1090	ug/kg dry	200		ND				30%	
1,2-Dibromoethane (EDB)	ND	109	219	ug/kg dry	200		ND				30%	
Dibromomethane	ND	109	219	ug/kg dry	200		ND				30%	
1,2-Dichlorobenzene	ND	54.7	109	ug/kg dry	200		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

	_	Detection	Reporting		-	Spike	Source		% REC		RPD	•-
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23H0884 - EPA 5035A							Soi	I				
Duplicate (23H0884-DUP1)			Prepared	: 08/11/23 12	2:41 Ana	lyzed: 08/24/	/23 15:14					
QC Source Sample: Non-SDG (A3	H1025-02)											
1,3-Dichlorobenzene	ND	54.7	109	ug/kg dry	200		ND				30%	
1,4-Dichlorobenzene	ND	54.7	109	ug/kg dry	200		ND				30%	
Dichlorodifluoromethane	ND	219	437	ug/kg dry	200		ND				30%	
1,1-Dichloroethane	ND	54.7	109	ug/kg dry	200		ND				30%	
1,2-Dichloroethane (EDC)	ND	54.7	109	ug/kg dry	200		ND				30%	
1,1-Dichloroethene	ND	54.7	109	ug/kg dry	200		ND				30%	
cis-1,2-Dichloroethene	ND	54.7	109	ug/kg dry	200		ND				30%	
trans-1,2-Dichloroethene	ND	54.7	109	ug/kg dry	200		ND				30%	
1,2-Dichloropropane	ND	54.7	109	ug/kg dry	200		ND				30%	
1,3-Dichloropropane	ND	109	219	ug/kg dry	200		ND				30%	
2,2-Dichloropropane	ND	109	219	ug/kg dry	200		ND				30%	
1,1-Dichloropropene	ND	109	219	ug/kg dry	200		ND				30%	
cis-1,3-Dichloropropene	ND	109	219	ug/kg dry	200		ND				30%	
trans-1,3-Dichloropropene	ND	109	219	ug/kg dry	200		ND				30%	
Ethylbenzene	1240	54.7	109	ug/kg dry	200		1310			5	30%	
Hexachlorobutadiene	ND	219	437	ug/kg dry	200		ND				30%	
2-Hexanone	ND	1090	2190	ug/kg dry	200		ND				30%	
Isopropylbenzene	862	109	219	ug/kg dry	200		888			3	30%	
4-Isopropyltoluene	2270	109	219	ug/kg dry	200		2290			1	30%	M-0
Methylene chloride	ND	1090	2190	ug/kg dry	200		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	2190	2190	ug/kg dry	200		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	109	219	ug/kg dry	200		ND				30%	
Naphthalene	3660	219	437	ug/kg dry	200		3870			6	30%	
n-Propylbenzene	2600	54.7	109	ug/kg dry	200		2670			2	30%	
Styrene	ND	109	219	ug/kg dry	200		ND				30%	
1,1,1,2-Tetrachloroethane	ND	54.7	109	ug/kg dry	200		ND				30%	
1,1,2,2-Tetrachloroethane	ND	1530	1530	ug/kg dry	200		ND				30%	R-(
Tetrachloroethene (PCE)	ND	54.7	109	ug/kg dry	200		ND				30%	
Toluene	203	109	219	ug/kg dry	200		210			3	30%	
1,2,3-Trichlorobenzene	ND	547	1090	ug/kg dry	200		ND				30%	
1,2,4-Trichlorobenzene	ND	547	1090	ug/kg dry	200		ND				30%	
1,1,1-Trichloroethane	ND	54.7	109	ug/kg dry	200		ND				30%	
1.1.2-Trichloroethane	ND	1090	1090	uø/kø drv	200		ND				30%	R-(

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							Soi	I				
Duplicate (23H0884-DUP1)			Preparec	1: 08/11/23 1	2:41 Ana	lyzed: 08/24	/23 15:14					
QC Source Sample: Non-SDG (A3	H1025-02)											
Trichloroethene (TCE)	ND	54.7	109	ug/kg dry	y 200		ND				30%	
Trichlorofluoromethane	ND	437	437	ug/kg dry	y 200		ND				30%	
1,2,3-Trichloropropane	ND	1090	1090	ug/kg dry	y 200		ND				30%	R-
1,2,4-Trimethylbenzene	17600	109	219	ug/kg dry	y 200		18300			4	30%	
1,3,5-Trimethylbenzene	5820	109	219	ug/kg dry	y 200		6000			3	30%	
Vinyl chloride	ND	54.7	109	ug/kg dry	y 200		ND				30%	
m,p-Xylene	5960	109	219	ug/kg dry	y 200		6360			6	30%	
o-Xylene	4250	54.7	109	ug/kg dry	y 200		4500			6	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 104 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			98 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			100 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3	H1322-09)											
Acetone	ND	8150	16300	ug/kg dry	y 500		ND				30%	
Acrylonitrile	ND	815	1630	ug/kg dry	y 500		ND				30%	
Benzene	ND	81.5	163	ug/kg dry	y 500		ND				30%	
Bromobenzene	ND	204	407	ug/kg dry	y 500		ND				30%	
Bromochloromethane	ND	407	815	ug/kg dry	y 500		ND				30%	
Bromodichloromethane	ND	407	815	ug/kg dry	y 500		ND				30%	
Bromoform	ND	815	1630	ug/kg dry	y 500		ND				30%	
Bromomethane	ND	8150	8150	ug/kg dry	y 500		ND				30%	
2-Butanone (MEK)	ND	4070	8150	ug/kg dry	y 500		ND				30%	
n-Butylbenzene	2980	407	815	ug/kg dry	y 500		3120			5	30%	
sec-Butylbenzene	3560	407	815	ug/kg dry	y 500		3710			4	30%	
tert-Butylbenzene	ND	407	815	ug/kg dry	y 500		ND				30%	
Carbon disulfide	ND	4070	8150	ug/kg dry	y 500		ND				30%	
Carbon tetrachloride	ND	407	815	ug/kg dry	y 500		ND				30%	
Chlorobenzene	ND	204	407	ug/kg dry	y 500		ND				30%	
Chloroethane	ND	4070	8150	ug/kg dry	y 500		ND				30%	
Chloroform	ND	407	815	ug/kg dry	y 500		ND				30%	
Chloromethane	ND	2040	4070	ug/kg dry	y 500		ND				30%	
2-Chlorotoluene	ND	407	815	ug/kg dry	y 500		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
		Linin										
Datch 23HU884 - EPA 5035A							501	<u> </u>				
Duplicate (23H0884-DUP2)			Prepared	: 08/23/23 18	3:20 Anai	yzed: 08/24/	/23 20:47					V-15
QC Source Sample: Non-SDG (A3)	<u>H1322-09)</u>											
4-Chlorotoluene	ND	407	815	ug/kg dry	500		ND				30%	
Dibromochloromethane	ND	815	1630	ug/kg dry	500		ND				30%	
1,2-Dibromo-3-chloropropane	ND	2040	4070	ug/kg dry	500		ND				30%	
1,2-Dibromoethane (EDB)	ND	407	815	ug/kg dry	500		ND				30%	
Dibromomethane	ND	407	815	ug/kg dry	500		ND				30%	
1,2-Dichlorobenzene	ND	204	407	ug/kg dry	500		ND				30%	
1,3-Dichlorobenzene	ND	204	407	ug/kg dry	500		ND				30%	
1,4-Dichlorobenzene	ND	204	407	ug/kg dry	500		ND				30%	
Dichlorodifluoromethane	ND	815	1630	ug/kg dry	500		ND				30%	
1,1-Dichloroethane	ND	204	407	ug/kg dry	500		ND				30%	
1,2-Dichloroethane (EDC)	ND	204	407	ug/kg dry	500		ND				30%	
1,1-Dichloroethene	ND	204	407	ug/kg dry	500		ND				30%	
cis-1,2-Dichloroethene	ND	204	407	ug/kg dry	500		ND				30%	
trans-1,2-Dichloroethene	ND	204	407	ug/kg dry	500		ND				30%	
1,2-Dichloropropane	ND	204	407	ug/kg dry	500		ND				30%	
1,3-Dichloropropane	ND	407	815	ug/kg dry	500		ND				30%	
2,2-Dichloropropane	ND	407	815	ug/kg dry	500		ND				30%	
1,1-Dichloropropene	ND	407	815	ug/kg dry	500		ND				30%	
cis-1,3-Dichloropropene	ND	407	815	ug/kg dry	500		ND				30%	
trans-1,3-Dichloropropene	ND	407	815	ug/kg dry	500		ND				30%	
Ethylbenzene	ND	204	407	ug/kg dry	500		ND				30%	
Hexachlorobutadiene	ND	815	1630	ug/kg dry	500		ND				30%	
2-Hexanone	ND	4070	8150	ug/kg dry	500		ND				30%	
Isopropylbenzene	741	407	815	ug/kg dry	500		782			5	30%	
4-Isopropyltoluene	2500	407	815	ug/kg dry	500		2710			8	30%	
Methylene chloride	ND	4070	8150	ug/kg dry	500		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	4070	8150	ug/kg dry	500		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	407	815	ug/kg drv	500		ND				30%	
Naphthalene	4350	815	1630	ug/kg drv	500		4680			7	30%	
n-Propylbenzene	1590	204	407	ug/kg drv	500		1680			5	30%	
Styrene	ND	407	815	ug/kg drv	500		ND				30%	
1.1.1.2-Tetrachloroethane	ND	204	407	ug/kø drv	500		ND				30%	
1 1 2 2-Tetrachloroothans	ND	2240	2760	110/lea dur-	500		ND				300/	D

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							Soi	1				. <u> </u>
Duplicate (23H0884-DUP2)			Preparec	1: 08/23/23 1	8:20 Ana	lyzed: 08/24	/23 20:47					V-15
<u>QC Source Sample: Non-SDG (A3</u>	<u>H1322-09)</u>											
Tetrachloroethene (PCE)	ND	204	407	ug/kg dr	y 500		ND				30%	
Toluene	ND	407	815	ug/kg dr	y 500		ND				30%	
1,2,3-Trichlorobenzene	ND	2040	4070	ug/kg dr	y 500		ND				30%	
1,2,4-Trichlorobenzene	ND	2040	4070	ug/kg dr	y 500		ND				30%	
1,1,1-Trichloroethane	ND	204	407	ug/kg dr	y 500		ND				30%	
1,1,2-Trichloroethane	ND	1220	1220	ug/kg dr	y 500		ND				30%	R-0
Trichloroethene (TCE)	ND	204	407	ug/kg dr	y 500		ND				30%	
Trichlorofluoromethane	ND	1630	1630	ug/kg dr	y 500		ND				30%	
1,2,3-Trichloropropane	ND	815	815	ug/kg dr	y 500		ND				30%	
1,2,4-Trimethylbenzene	5640	407	815	ug/kg dr	y 500		5940			5	30%	
1,3,5-Trimethylbenzene	ND	407	815	ug/kg dr	y 500		ND				30%	
Vinyl chloride	ND	204	407	ug/kg dr	y 500		ND				30%	
m,p-Xylene	ND	407	815	ug/kg dr	y 500		ND				30%	
o-Xylene	ND	204	407	ug/kg dr	y 500		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 104 %	Limits: 80-	-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			100 %	80-	·120 %		"					
4-Bromofluorobenzene (Surr)			100 %	79-	-120 %		"					
Matrix Spike (23H0884-MS1)			Prepared	1: 08/23/23 1	1:30 Anal	lyzed: 08/24	/23 22:29					
OC Source Sample: FC-082223-21	<u>67 (A3H13</u>	00-01)										
5035A/8260D		-										
Acetone	16900	4050	8110	ug/kg dr	y 50	16200	ND	104	36-164%			
Acrylonitrile	8850	405	811	ug/kg dr	y 50	8100	ND	109	65-134%			
Benzene	8820	40.5	81.1	ug/kg dr	y 50	8100	114	107	77-121%			
Bromobenzene	8650	101	203	ug/kg dr	y 50	8100	ND	107	78-121%			
Bromochloromethane	8180	203	405	ug/kg dr	y 50	8100	ND	101	78-125%			
Bromodichloromethane	8530	203	405	ug/kg dr	y 50	8100	ND	105	75-127%			
Bromoform	7720	405	811	ug/kg dr	y 50	8100	ND	95	67-132%			
Bromomethane	10200	4050	4050	ug/ko dr	v 50	8100	ND	126	53-143%			
2-Butanone (MEK)	17700	2030	4050	uø/ko dr	v 50	16200	ND	109	51-148%			
n-Butvlbenzene	10400	203	405	ug/ko dr	y 50	8100	ND	129	70-128%			O-0

Apex Laboratories

sec-Butylbenzene

tert-Butylbenzene

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

123

113

73-126%

73-125%

9970

9150

203

203

405

405

ug/kg dry

ug/kg dry

50

50

8100

8100

ND

ND



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							Soi	I				
Matrix Spike (23H0884-MS1)			Prepared	1: 08/23/23 1	1:30 Anal	yzed: 08/24	/23 22:29					
QC Source Sample: FC-082223-21	167 (A3H13	<u>00-01)</u>										
Carbon disulfide	8680	2030	4050	ug/kg dry	y 50	8100	ND	107	63-132%			
Carbon tetrachloride	9200	203	405	ug/kg dry	y 50	8100	ND	113	70-135%			
Chlorobenzene	8590	101	203	ug/kg dry	y 50	8100	ND	106	79-120%			
Chloroethane	8670	2030	4050	ug/kg dry	y 50	8100	ND	107	59-139%			
Chloroform	8760	203	405	ug/kg dry	y 50	8100	ND	108	78-123%			
Chloromethane	7780	1010	2030	ug/kg dry	y 50	8100	ND	96	50-136%			
2-Chlorotoluene	8840	203	405	ug/kg dry	y 50	8100	ND	109	75-122%			
4-Chlorotoluene	8560	203	405	ug/kg dry	y 50	8100	ND	106	72-124%			
Dibromochloromethane	8020	405	811	ug/kg dry	y 50	8100	ND	99	74-126%			
1,2-Dibromo-3-chloropropane	8050	1010	2030	ug/kg dry	y 50	8100	ND	99	61-132%			
1,2-Dibromoethane (EDB)	8780	203	405	ug/kg dry	y 50	8100	ND	108	78-122%			
Dibromomethane	8670	203	405	ug/kg dry	y 50	8100	ND	107	78-125%			
1,2-Dichlorobenzene	8750	101	203	ug/kg dry	y 50	8100	ND	108	78-121%			
1,3-Dichlorobenzene	8590	101	203	ug/kg dry	y 50	8100	ND	106	77-121%			
1,4-Dichlorobenzene	8420	101	203	ug/kg dry	y 50	8100	ND	104	75-120%			
Dichlorodifluoromethane	10300	405	811	ug/kg dry	y 50	8100	ND	127	29-149%			
1,1-Dichloroethane	8590	101	203	ug/kg dry	y 50	8100	ND	106	76-125%			
1,2-Dichloroethane (EDC)	8640	101	203	ug/kg dry	y 50	8100	ND	107	73-128%			
1,1-Dichloroethene	9470	101	203	ug/kg dry	y 50	8100	ND	117	70-131%			
cis-1,2-Dichloroethene	8950	101	203	ug/kg dry	y 50	8100	ND	110	77-123%			
trans-1,2-Dichloroethene	8960	101	203	ug/kg dry	y 50	8100	ND	111	74-125%			
1,2-Dichloropropane	8770	101	203	ug/kg dry	y 50	8100	ND	108	76-123%			
1,3-Dichloropropane	8460	203	405	ug/kg dry	y 50	8100	ND	104	77-121%			
2,2-Dichloropropane	8520	203	405	ug/kg dry	y 50	8100	ND	105	67-133%			
1,1-Dichloropropene	9590	203	405	ug/kg dry	y 50	8100	ND	118	76-125%			
cis-1,3-Dichloropropene	8590	203	405	ug/kg dry	y 50	8100	ND	106	74-126%			
trans-1,3-Dichloropropene	8320	203	405	ug/kg dry	y 50	8100	ND	103	71-130%			
Ethylbenzene	8810	101	203	ug/kg dry	y 50	8100	ND	109	76-122%			
Hexachlorobutadiene	12800	405	811	ug/kg dry	y 50	8100	ND	157	61-135%			Q-
2-Hexanone	16900	2030	4050	ug/kg dry	y 50	16200	ND	104	53-145%			
Isopropylbenzene	9590	203	405	ug/kg dry	y 50	8100	ND	118	68-134%			
4-Isopropyltoluene	10400	203	405	ug/kg dry	y 50	8100	ND	128	73-127%			Q·
Methylene chloride	8990	2030	4050	ug/kg dry	y 50	8100	ND	111	70-128%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Cor	npounds	s by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0884 - EPA 5035A							So	il				
Matrix Spike (23H0884-MS1)			Prepareo	1: 08/23/23 1	1:30 Ana	lyzed: 08/24	/23 22:29					
QC Source Sample: FC-082223-216	57 (A3H130	<u>)0-01)</u>										
4-Methyl-2-pentanone (MiBK)	16500	2030	4050	ug/kg dry	50	16200	ND	102	65-135%			
Methyl tert-butyl ether (MTBE)	8590	203	405	ug/kg dry	50	8100	ND	106	73-125%			
Naphthalene	10700	405	811	ug/kg dry	50	8100	969	120	62-129%			
n-Propylbenzene	9080	101	203	ug/kg dry	50	8100	ND	112	73-125%			
Styrene	9170	203	405	ug/kg dry	50	8100	ND	113	76-124%			
1,1,1,2-Tetrachloroethane	8440	101	203	ug/kg dry	50	8100	ND	104	78-125%			
1,1,2,2-Tetrachloroethane	7000	203	405	ug/kg dry	50	8100	ND	86	70-124%			
Tetrachloroethene (PCE)	9500	101	203	ug/kg dry	50	8100	ND	117	73-128%			
Toluene	8590	203	405	ug/kg dry	50	8100	ND	106	77-121%			
1,2,3-Trichlorobenzene	9470	1010	2030	ug/kg dry	50	8100	ND	117	66-130%			
1,2,4-Trichlorobenzene	9640	1010	2030	ug/kg dry	50	8100	ND	119	67-129%			
1,1,1-Trichloroethane	9360	101	203	ug/kg dry	50	8100	ND	115	73-130%			
1,1,2-Trichloroethane	8650	101	203	ug/kg dry	50	8100	ND	107	78-121%			
Trichloroethene (TCE)	10500	101	203	ug/kg dry	50	8100	ND	130	77-123%			Q-0
Trichlorofluoromethane	12200	811	811	ug/kg dry	50	8100	ND	150	62-140%			Q-5
1,2,3-Trichloropropane	8560	203	405	ug/kg dry	50	8100	ND	106	73-125%			
1,2,4-Trimethylbenzene	9290	203	405	ug/kg dry	50	8100	373	110	75-123%			
1,3,5-Trimethylbenzene	9260	203	405	ug/kg dry	50	8100	ND	114	73-124%			
Vinyl chloride	10600	101	203	ug/kg dry	50	8100	ND	130	56-135%			
m,p-Xylene	18100	203	405	ug/kg dry	50	16200	ND	112	77-124%			
o-Xylene	9040	101	203	ug/kg dry	50	8100	ND	112	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 103 %	Limits: 80-	120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			99 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			99 %	79-	120 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Result Limit Units Dilution % REC RPD Analyte Limit Amount Result Limits Limit Notes Batch 23H0939 - EPA 1311/5030C TCLP Volatiles Water Blank (23H0939-BLK1) Prepared: 08/25/23 08:56 Analyzed: 08/25/23 12:05 TCLP 1311/8260D ND 6.25 12.5 ug/L 50 Benzene ND 250 500 50 2-Butanone (MEK) ug/L ---------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 50 ug/L ---1,4-Dichlorobenzene ND 12.5 25.0 ug/L 50 ---------------____ 1,1-Dichloroethene ND 12.5 25.0 50 ug/L ---12.5 25.0 1,2-Dichloroethane (EDC) ND ug/L 50 ---------------Tetrachloroethene (PCE) ND 12.5 25.0 ug/L 50 Trichloroethene (TCE) ND 12.5 25.0 50 ug/L ___ -------------_ _ _ Vinyl chloride ND 12.5 25.0 50 ug/L --------------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 98 % Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 104 % 80-120 % " 4-Bromofluorobenzene (Surr) 100 % 80-120 % LCS (23H0939-BS1) Prepared: 08/25/23 08:56 Analyzed: 08/25/23 11:20 TCLP 1311/8260D 95 Benzene 946 6.25 12.5 ug/L 50 1000 80-120% 1900 250 500 50 2000 95 80-120% 2-Butanone (MEK) ug/L ---------Carbon tetrachloride 1020 25.0 50.0 ug/L 50 1000 ---102 80-120% ---Chlorobenzene 1020 12.5 25.0 ug/L 50 1000 ---102 80-120% ------Chloroform 1020 25.050.0 ug/L 50 1000 102 80-120% 1,4-Dichlorobenzene 964 12.5 25.0 50 1000 96 80-120% ug/L ---------1,1-Dichloroethene 971 12.5 25.0 ug/L 50 1000 97 80-120% ---------1,2-Dichloroethane (EDC) 1070 12.5 25.0 ug/L 50 1000 107 80-120% ---969 1000 97 Tetrachloroethene (PCE) 12.5 25.0 ug/L 50 80-120% ---Trichloroethene (TCE) 920 12.5 25.0 ug/L 50 1000 92 80-120% ---------Vinyl chloride 906 12.5 25.0ug/L 50 1000 ----91 80-120% ----____ Surr: 1,4-Difluorobenzene (Surr) 96 % Recovery: Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 101 % 80-120 % 4-Bromofluorobenzene (Surr) 94% 80-120 %

Duplicate (23H0939-DUP1)

Prepared: 08/25/23 08:56 Analyzed: 08/25/23 13:35

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

		Regulated	TCLP Vola	tile Orgar	nic Comp	ounds by	EPA 131	1/8260D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0939 - EPA 1311/503	0C TCLP	Volatiles					Wa	ter				
Duplicate (23H0939-DUP1)			Preparec	1: 08/25/23	08:56 Ana	lyzed: 08/25	/23 13:35					
OC Source Sample: Non-SDG (A3	H1304-01)											
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	43.0	25.0	50.0	ug/L	50		45.0			5	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%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	overv: 98 %	Limits: 80)-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			104 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			100 %	80	-120 %		"					
Matrix Snike (23H0939-MS1)			Prepareo	1: 08/25/23	08:56 Ana	lyzed: 08/25	/23 14:20					
OC Source Sompler Non SDC (A2	111227 01)		Tiepuiee				25 11.20					
<u>QC Source Sample: Non-SDG (AS</u>	<u>H1337-01)</u>											
Benzene	1040	6.25	12.5	ug/I	50	1000	ND	104	70 120%			
2 Putenona (MEK)	1040	250	500	ug/L	50	2000	ND	00	56 1/20/0			
Carbon tetrachloride	1960	250	50.0	ug/L	50	1000	ND	99 114	72 136%			
Chlorobenzene	1080	12.5	25.0	ug/L	50	1000	ND	108	80 120%			
Chloroform	1100	25.0	50.0	ug/L	50	1000	ND	108	70 12/0%			
1 4 Disklanskanzana	1040	12.5	25.0	ug/L	50	1000	ND	104	70 1200/			
1.4 Dichlang ath an a	1040	12.5	25.0	ug/L	50	1000	ND	104	79-120%			
1,1-Dichloroethene	1140	12.5	25.0	ug/L	50	1000	ND	114	/1-131%			
1,2-Dichloroethane (EDC)	1110	12.5	25.0	ug/L	50	1000	ND	111	/3-128%			
Tetrachloroethene (PCE)	1090	12.5	25.0	ug/L	50	1000	ND	109	74-129%			
Irichloroethene (TCE)	1030	12.5	25.0	ug/L	50	1000	ND	103	/9-123%			
Vinyl chloride	1120	12.5	25.0	ug/L	50	1000	ND	112	58-137%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 98 %	Limits: 80	-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			103 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			93 %	80	-120 %		"					

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The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

J



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic Co	ompour	ds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1038 - EPA 3546							Soli	d				
Blank (23H1038-BLK2)			Prepared	: 08/29/23 07	:36 Ana	yzed: 08/29/	/23 12:07					
EPA 8270E												
Acenaphthene	ND	1.33	2.67	ug/kg wet	1							
Acenaphthylene	ND	1.33	2.67	ug/kg wet	1							
Anthracene	ND	1.33	2.67	ug/kg wet	1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg wet	1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg wet	1							
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg wet	1							
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg wet	1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg wet	1							
Chrysene	ND	1.33	2.67	ug/kg wet	1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg wet	1							
Fluoranthene	ND	1.33	2.67	ug/kg wet	1							
Fluorene	ND	1.33	2.67	ug/kg wet	1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg wet	1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg wet	1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg wet	1							
Naphthalene	ND	2.67	5.33	ug/kg wet	1							
Phenanthrene	ND	1.33	2.67	ug/kg wet	1							
Pyrene	ND	1.33	2.67	ug/kg wet	1							
Carbazole	ND	2.00	4.00	ug/kg wet	1							
Dibenzofuran	ND	1.33	2.67	ug/kg wet	1							
2-Chlorophenol	ND	6.67	13.3	ug/kg wet	1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg wet	1							
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg wet	1							
2.4-Dinitrophenol	ND	33.3	66.7	ug/kg wet	1							
4.6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg wet	1							
2-Methylphenol	ND	3.33	6.67	ug/kg wet	1							
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg wet	1							
2-Nitrophenol	ND	13.3	26.7	ug/kg wet	1							
4-Nitrophenol	ND	13.3	26.7	ug/kø wet	1							
Pentachlorophenol (PCP)	ND	13.3	26.7	ug/kg wet	1							
Phenol	ND	2.67	5.33	ug/kø wet	1							
2 3 4 6-Tetrachlorophenol	ND	6.67	13.3	110/ko wet	1							
2,3, 4 ,0- retractionophenol	ND	0.07	15.5	ug/kg wei	1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	Compoun	ds by EP	A 8270E						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	_
Batch 23H1038 - EPA 3546							Sol	id					
Blank (23H1038-BLK2)			Prepared	: 08/29/23 0)7:36 Anal	yzed: 08/29/	/23 12:07						
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg we	et 1								_
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg we	et 1								
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg we	et 1								
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg we	et 1								
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg we	et 1								
Diethylphthalate	ND	13.3	26.7	ug/kg we	et 1								
Dimethylphthalate	ND	13.3	26.7	ug/kg we	et 1								
Di-n-butylphthalate	135	13.3	26.7	ug/kg we	et 1								В
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg we	et 1								
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg we	et 1								
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg we	et 1								
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg we	et 1								
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg we	et 1								
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg we	et 1								
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg we	et 1								
Hexachlorobenzene	ND	1.33	2.67	ug/kg we	et 1								
Hexachlorobutadiene	ND	3.33	6.67	ug/kg we	et 1								
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg we	et 1								
Hexachloroethane	ND	3.33	6.67	ug/kg we	et 1								
2-Chloronaphthalene	ND	1.33	2.67	ug/kg we	et 1								
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg we	et 1								
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg we	et 1								
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg we	et 1								
Aniline	ND	6.67	13.3	ug/kg we	et 1								
4-Chloroaniline	ND	3.33	6.67	ug/kg we	et 1								
2-Nitroaniline	ND	26.7	53.3	ug/kg we	et 1								
3-Nitroaniline	ND	26.7	53.3	ug/kg we	et 1								
4-Nitroaniline	ND	26.7	53.3	ug/kg we	et 1								
Nitrobenzene	ND	13.3	26.7	ug/kg we	et 1								
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg we	et 1								
2,6-Dinitrotoluene	ND	13.3	26.7	ug/kg we	et 1								
Benzoic acid	ND	167	333	ug/kg we	et 1								
Benzyl alcohol	ND	6.67	13.3	ug/kg we	et 1								
Isophorone	ND	3.33	6.67	ug/kg we	et 1								
1					-								

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1038 - EPA 3546							Sol	lid				
Blank (23H1038-BLK2)			Prepareo	d: 08/29/23 0	7:36 Ana	lyzed: 08/29	/23 12:07					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	t 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	t 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 95 %	Limits: 37-	-122 %	Dilt	ution: 1x					
2-Fluorobiphenyl (Surr)			92 %	44-	120 %		"					
Phenol-d6 (Surr)			97 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			102 %	54-	127 %		"					
2-Fluorophenol (Surr)			89 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			97 %	39-	132 %		"					
LCS (23H1038-BS2)			Prepareo	1: 08/29/23 0	7:36 Ana	lyzed: 08/29	/23 12:42					Q-18
EPA 8270E												
Acenaphthene	536	5.32	10.7	ug/kg we	t 4	533		100	40-123%			
Acenaphthylene	559	5.32	10.7	ug/kg we	t 4	533		105	32-132%			
Anthracene	569	5.32	10.7	ug/kg we	t 4	533		107	47-123%			
Benz(a)anthracene	551	5.32	10.7	ug/kg we	t 4	533		103	49-126%			
Benzo(a)pyrene	619	8.00	16.0	ug/kg we	t 4	533		116	45-129%			
Benzo(b)fluoranthene	551	8.00	16.0	ug/kg we	t 4	533		103	45-132%			
Benzo(k)fluoranthene	587	8.00	16.0	ug/kg we	t 4	533		110	47-132%			
Benzo(g.h.i)pervlene	542	5.32	10.7	ug/kg we	t 4	533		102	43-134%			
Chrysene	564	5.32	10.7	ug/kg we	t 4	533		106	50-124%			
Dibenz(a,h)anthracene	534	5.32	10.7	ug/kg we	t 4	533		100	45-134%			
Fluoranthene	586	5.32	10.7	ug/kg we	t 4	533		110	50-127%			
Fluorene	577	5.32	10.7	110/ko we	t 4	533		108	43-125%			
Indeno(1 2 3-cd)nyrene	508	5 3 2	10.7	ug/kg we	-t 4	533		95	45-133%			
1_Methylnanhthalana	565	10.7	21.2	ug/kg we	т. т. т. Л.	522		106	40_12004			
i memymaphinalene	505	10.7	21.5	ug/ng we	n 7	555		100	-10-120/0			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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
Batch 23H1038 - EPA 3546							So	lid				
LCS (23H1038-BS2)			Prepared	: 08/29/23 0	7:36 Ana	yzed: 08/29	/23 12:42					Q-18
Naphthalene	520	10.7	21.3	ug/kg we	t 4	533		98	35-123%			
Phenanthrene	528	5.32	10.7	ug/kg we	t 4	533		99	50-121%			
Pyrene	577	5.32	10.7	ug/kg we	t 4	533		108	47-127%			
Carbazole	597	8.00	16.0	ug/kg we	t 4	533		112	50-123%			
Dibenzofuran	569	5.32	10.7	ug/kg we	t 4	533		107	44-120%			
2-Chlorophenol	537	26.7	53.2	ug/kg we	t 4	533		101	34-121%			
4-Chloro-3-methylphenol	639	53.2	107	ug/kg we	t 4	533		120	45-122%			
2,4-Dichlorophenol	612	26.7	53.2	ug/kg we	t 4	533		115	40-122%			
2,4-Dimethylphenol	612	26.7	53.2	ug/kg we	t 4	533		115	30-127%			
2,4-Dinitrophenol	542	133	267	ug/kg we	t 4	533		102	10-137%			Q-4
4,6-Dinitro-2-methylphenol	552	133	267	ug/kg we	t 4	533		103	29-132%			
2-Methylphenol	607	13.3	26.7	ug/kg we	t 4	533		114	32-122%			
3+4-Methylphenol(s)	658	13.3	26.7	ug/kg we	t 4	533		123	34-120%	,		Q-2
2-Nitrophenol	576	53.2	107	ug/kg we	t 4	533		108	36-123%			
4-Nitrophenol	506	53.2	107	ug/kg we	t 4	533		95	30-132%			
Pentachlorophenol (PCP)	555	53.2	107	ug/kg we	t 4	533		104	25-133%			
Phenol	588	10.7	21.3	ug/kg we	t 4	533		110	34-121%			
2,3,4,6-Tetrachlorophenol	540	26.7	53.2	ug/kg we	t 4	533		101	44-125%			
2,3,5,6-Tetrachlorophenol	560	26.7	53.2	ug/kg we	t 4	533		105	40-120%			
2,4,5-Trichlorophenol	548	26.7	53.2	ug/kg we	t 4	533		103	41-124%			
2,4,6-Trichlorophenol	540	26.7	53.2	ug/kg we	t 4	533		101	39-126%			
Bis(2-ethylhexyl)phthalate	525	80.0	160	ug/kg we	t 4	533		98	51-133%			
Butyl benzyl phthalate	550	53.2	107	ug/kg we	t 4	533		103	48-132%			
Diethylphthalate	566	53.2	107	ug/kg we	t 4	533		106	50-124%			
Dimethylphthalate	559	53.2	107	ug/kg we	t 4	533		105	48-124%			
Di-n-butylphthalate	759	53.2	107	ug/kg we	t 4	533		142	51-128%			B, Q-2
Di-n-octyl phthalate	540	53.2	107	ug/kg we	t 4	533		101	45-140%			
N-Nitrosodimethylamine	430	13.3	26.7	ug/kg we	t 4	533		81	23-120%			
N-Nitroso-di-n-propylamine	636	13.3	26.7	ug/kg we	t 4	533		119	36-120%			
N-Nitrosodiphenylamine	611	13.3	26.7	ug/kg we	t 4	533		115	38-127%			
Bis(2-Chloroethoxy) methane	524	13.3	26.7	ug/kg we	t 4	533		98	36-121%			
Bis(2-Chloroethyl) ether	514	13.3	26.7	ug/kg we	t 4	533		96	31-120%			
2,2'-Oxybis(1-Chloropropage)	518	13 3	26.7	ug/ko we	t 4	533		97	39-120%			
Hexachlorobenzene	542	5.32	10.7	ug/kg we	t 4	533		102	45-122%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23H1038 - EPA 3546							So	lid				
LCS (23H1038-BS2)			Preparec	1: 08/29/23 0	7:36 Ana	lyzed: 08/29	/23 12:42					Q-18
Hexachlorobutadiene	524	13.3	26.7	ug/kg we	t 4	533		98	32-123%			
Hexachlorocyclopentadiene	394	26.7	53.2	ug/kg we	t 4	533		74	10-140%			
Hexachloroethane	515	13.3	26.7	ug/kg we	t 4	533		97	28-120%			
2-Chloronaphthalene	532	5.32	10.7	ug/kg we	t 4	533		100	41-120%			
1,2,4-Trichlorobenzene	519	13.3	26.7	ug/kg we	t 4	533		97	34-120%			
4-Bromophenyl phenyl ether	565	13.3	26.7	ug/kg we	t 4	533		106	46-124%			
4-Chlorophenyl phenyl ether	586	13.3	26.7	ug/kg we	t 4	533		110	45-121%			
Aniline	513	26.7	53.2	ug/kg we	t 4	533		96	10-120%			
4-Chloroaniline	443	13.3	26.7	ug/kg we	t 4	533		83	17-120%			Q-4
2-Nitroaniline	557	107	213	ug/kg we	t 4	533		105	44-127%			
3-Nitroaniline	706	107	213	ug/kg we	t 4	533		132	33-120%			Q-29, Q-4
4-Nitroaniline	559	107	213	ug/kg we	t 4	533		105	51-125%			
Nitrobenzene	569	53.2	107	ug/kg we	t 4	533		107	34-122%			
2,4-Dinitrotoluene	534	53.2	107	ug/kg we	t 4	533		100	48-126%			
2,6-Dinitrotoluene	567	53.2	107	ug/kg we	t 4	533		106	46-124%			
Benzoic acid	870	668	668	ug/kg we	t 4	1070		82	10-140%			Q-4
Benzyl alcohol	609	26.7	53.2	ug/kg we	t 4	533		114	29-122%			
Isophorone	547	13.3	26.7	ug/kg we	t 4	533		103	30-122%			
Azobenzene (1,2-DPH)	537	13.3	26.7	ug/kg we	t 4	533		101	39-125%			
Bis(2-Ethylhexyl) adipate	524	133	267	ug/kg we	t 4	533		98	61-121%			
3,3'-Dichlorobenzidine	3380	107	213	ug/kg we	t 4	1070		317	22-121%			Q-29, Q-4 Q-3
1,2-Dinitrobenzene	511	133	267	ug/kg we	t 4	533		96	44-120%			
1,3-Dinitrobenzene	561	133	267	ug/kg we	t 4	533		105	43-127%			
1,4-Dinitrobenzene	548	133	267	ug/kg we	t 4	533		103	37-132%			
Pyridine	396	26.7	53.2	ug/kg we	t 4	533		74	10-120%			
1,2-Dichlorobenzene	510	13.3	26.7	ug/kg we	t 4	533		96	33-120%			
1,3-Dichlorobenzene	497	13.3	26.7	ug/kg we	t 4	533		93	30-120%			
1,4-Dichlorobenzene	494	13.3	26.7	ug/kg we	t 4	533		93	31-120%			
Surr: Nitrobenzene-d5 (Surr)		Recov	ery: 110 %	Limits: 37-	122 %	Dilt	ution: 4x					
2-Fluorobiphenyl (Surr)			101 %	44-	120 %		"					
Phenol-d6 (Surr)			106 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			105 %	54-	127 %		"					
2-Fluorophenol (Surr)			94 %	35-	120 %		"					
2 4 6 Tuilway			11= 0/	20	122 0/		"					

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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3H1300 - 09 08 23 0728 **QUALITY CONTROL (QC) SAMPLE RESULTS** Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Amount Result % REC RPD Limit Limits Limit Notes Batch 23H1038 - EPA 3546 Solid Duplicate (23H1038-DUP2) Prepared: 08/29/23 07:36 Analyzed: 08/29/23 13:51 QC Source Sample: Non-SDG (A3H1207-33) 395 793 40 ND 30% Acenaphthene ND ug/kg wet ------------395 30% ND 793 Acenaphthylene ug/kg wet 40 ND ----------____ Anthracene ND 395 793 40 ND 30% ug/kg wet ------Q-04 Benz(a)anthracene 797 395 793 ug/kg wet 40 1500 61 30% ------____ 594 1190 40 49 Q-04, J Benzo(a)pyrene 1120 ug/kg wet ---1850 ----30% Q-04 Benzo(b)fluoranthene 1370 594 1190 ug/kg wet 40 2290 50 30% ----------747 594 1190 45 30% Q-04, J Benzo(k)fluoranthene ug/kg wet 40 1180 ----------793 *** Q-04 ND 395 40 825 30% Benzo(g,h,i)perylene ug/kg wet ----------2060 1000 395 793 30% Q-04 Chrysene ug/kg wet 40 -------69 ND 793 ND 30% Dibenz(a,h)anthracene 395 ug/kg wet 40 -------------Fluoranthene 1590 395 793 40 3220 68 30% Q-04 ug/kg wet 395 793 30% Fluorene ND ug/kg wet 40 ND -------------Indeno(1,2,3-cd)pyrene 475 395 793 ug/kg wet 40 959 67 30% Q-04, J ---793 1580 1-Methylnaphthalene ND 40 ND 30% ug/kg wet ------------2-Methylnaphthalene ND 793 1580 ug/kg wet 40 ND 30% ---------793 ug/kg wet 30% Naphthalene ND 1580 40 ND -------------Phenanthrene 766 395 793 ug/kg wet 40 1550 68 30% Q-04, J ___ ---1370 395 793 40 2840 30% Q-04 Pyrene ug/kg wet ------70 ---Carbazole ND 594 1190 ug/kg wet 40 ND 30% ND 395 793 40 ND 30% Dibenzofuran ug/kg wet -------------2-Chlorophenol ND 1980 3950 ug/kg wet 40 ND 30% ------___ ---ND 3950 7930 ND 30% 4-Chloro-3-methylphenol ug/kg wet 40 -------------2,4-Dichlorophenol ND 1980 3950 ug/kg wet 40 ---ND ------30% 2,4-Dimethylphenol ND 1980 3950 40 ND 30% ug/kg wet ------------2,4-Dinitrophenol ND 9890 19800 ug/kg wet 40 ND ---30% ---------4,6-Dinitro-2-methylphenol ND 9890 19800 40 ND 30% ug/kg wet -------------989 1980 2-Methylphenol ND ug/kg wet 40 ND 30% ---------3+4-Methylphenol(s) ND 989 1980 ug/kg wet 40 ND 30% ----------3950 7930 2-Nitrophenol ND ug/kg wet 40 ---ND ---____ ---30% 4-Nitrophenol ND 3950 7930 ug/kg wet 40 ____ ND ---------30% Pentachlorophenol (PCP) ND 3950 7930 ug/kg wet 40 ___ ND ----30% ___ ---Phenol ND 793 1580 40 ND 30% ug/kg wet ------------

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile (Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H1038 - EPA 3546							Soli	id				
Duplicate (23H1038-DUP2)			Prepared	: 08/29/23 07	7:36 Ana	lyzed: 08/29/	/23 13:51					
QC Source Sample: Non-SDG (A	<u>3H1207-33)</u>											
2,3,4,6-Tetrachlorophenol	ND	1980	3950	ug/kg wet	40		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	1980	3950	ug/kg wet	40		ND				30%	
2,4,5-Trichlorophenol	ND	1980	3950	ug/kg wet	40		ND				30%	
2,4,6-Trichlorophenol	ND	1980	3950	ug/kg wet	40		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	5940	11900	ug/kg wet	40		ND				30%	
Butyl benzyl phthalate	ND	3950	7930	ug/kg wet	40		ND				30%	
Diethylphthalate	ND	3950	7930	ug/kg wet	40		ND				30%	
Dimethylphthalate	ND	3950	7930	ug/kg wet	40		ND				30%	
Di-n-butylphthalate	ND	3950	7930	ug/kg wet	40		ND				30%	
Di-n-octyl phthalate	ND	3950	7930	ug/kg wet	40		ND				30%	
N-Nitrosodimethylamine	ND	989	1980	ug/kg wet	40		ND				30%	
N-Nitroso-di-n-propylamine	ND	989	1980	ug/kg wet	40		ND				30%	
N-Nitrosodiphenylamine	ND	989	1980	ug/kg wet	40		ND				30%	
Bis(2-Chloroethoxy) methane	ND	989	1980	ug/kg wet	40		ND				30%	
Bis(2-Chloroethyl) ether	ND	989	1980	ug/kg wet	40		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	989	1980	ug/kg wet	40		ND				30%	
Hexachlorobenzene	ND	395	793	ug/kg wet	40		ND				30%	
Hexachlorobutadiene	ND	989	1980	ug/kg wet	40		ND				30%	
Hexachlorocyclopentadiene	ND	1980	3950	ug/kg wet	40		ND				30%	
Hexachloroethane	ND	989	1980	ug/kg wet	40		ND				30%	
2-Chloronaphthalene	ND	395	793	ug/kg wet	40		ND				30%	
1,2,4-Trichlorobenzene	ND	989	1980	ug/kg wet	40		ND				30%	
4-Bromophenyl phenyl ether	ND	989	1980	ug/kg wet	40		ND				30%	
4-Chlorophenyl phenyl ether	ND	989	1980	ug/kg wet	40		ND				30%	
Aniline	ND	1980	3950	ug/kg wet	40		ND				30%	
4-Chloroaniline	ND	989	1980	ug/kg wet	40		ND				30%	
2-Nitroaniline	ND	7930	15800	ug/kg wet	40		ND				30%	
3-Nitroaniline	ND	7930	15800	ug/kg wet	40		ND				30%	
4-Nitroaniline	ND	7930	15800	ug/kg wet	40		ND				30%	
Nitrobenzene	ND	3950	7930	ug/kg wet	40		ND				30%	
2,4-Dinitrotoluene	ND	3950	7930	ug/kg wet	40		ND				30%	
2,6-Dinitrotoluene	ND	3950	7930	ug/kg wet	40		ND				30%	
Benzoic acid	ND	49600	98900	ug/kg wet	40		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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
Batch 23H1038 - EPA 3546							Sol	id				
Duplicate (23H1038-DUP2)			Preparec	1: 08/29/23 0	7:36 Ana	lyzed: 08/29	/23 13:51					
QC Source Sample: Non-SDG (A.	<u>3H1207-33)</u>											
Benzyl alcohol	ND	1980	3950	ug/kg we	t 40		ND				30%	
Isophorone	ND	989	1980	ug/kg we	t 40		ND				30%	
Azobenzene (1,2-DPH)	ND	989	1980	ug/kg we	t 40		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	9890	19800	ug/kg we	t 40		ND				30%	
3,3'-Dichlorobenzidine	ND	7930	15800	ug/kg we	t 40		ND				30%	(
1,2-Dinitrobenzene	ND	9890	19800	ug/kg we	t 40		ND				30%	
1,3-Dinitrobenzene	ND	9890	19800	ug/kg we	t 40		ND				30%	
1,4-Dinitrobenzene	ND	9890	19800	ug/kg we	t 40		ND				30%	
Pyridine	ND	1980	3950	ug/kg we	t 40		ND				30%	
1,2-Dichlorobenzene	ND	989	1980	ug/kg we	t 40		ND				30%	
1,3-Dichlorobenzene	ND	989	1980	ug/kg we	t 40		ND				30%	
1,4-Dichlorobenzene	ND	989	1980	ug/kg we	t 40		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 76 %	Limits: 37-	122 %	Dilt	ution: 40x					S-05
2-Fluorobiphenyl (Surr)			84 %	44-	120 %		"					S-05
Phenol-d6 (Surr)			72 %	33-	122 %		"					S-05
p-Terphenyl-d14 (Surr)			93 %	54-	127 %		"					S-05
2-Fluorophenol (Surr)			73 %	35-	120 %		"					S-05
2,4,6-Tribromophenol (Surr)			90 %	39-	132 %		"					S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by E	PA 6020	DB (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0093 - EPA 3051A							Sol	lid				
Blank (2310093-BLK1)			Prepared	: 09/05/23 11	:41 Ana	lyzed: 09/05	/23 21:12					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg wet	10							
Barium	ND	500	1000	ug/kg wet	10							
Cadmium	ND	100	200	ug/kg wet	10							
Chromium	ND	500	1000	ug/kg wet	10							
Lead	ND	100	200	ug/kg wet	10							
Mercury	ND	40.0	80.0	ug/kg wet	10							
Silver	ND	100	200	ug/kg wet	10							
Blank (23I0093-BLK2)			Prepared	: 09/05/23 11	:41 Ana	lyzed: 09/06	/23 11:28					
EPA 6020B												
Selenium	ND	500	1000	ug/kg wet	10							Q-
LCS (2310093-BS1)			Prepared	: 09/05/23 11	:41 Ana	lyzed: 09/05	/23 21:17					
EPA 6020B												
Arsenic	49600	500	1000	ug/kg wet	10	50000		99	80-120%			
Barium	52200	500	1000	ug/kg wet	10	50000		104	80-120%			
Cadmium	51000	100	200	ug/kg wet	10	50000		102	80-120%			
Chromium	53500	500	1000	ug/kg wet	10	50000		107	80-120%			
Lead	52300	100	200	ug/kg wet	10	50000		105	80-120%			
Mercury	988	40.0	80.0	ug/kg wet	10	1000		99	80-120%			
Silver	27600	100	200	ug/kg wet	10	25000		111	80-120%			
LCS (2310093-BS2)			Prepared	: 09/05/23 11	:41 Ana	lyzed: 09/06	/23 11:43					
EPA 6020B												
Selenium	24900	500	1000	ug/kg wet	10	25000		100	80-120%			Q-
Duplicate (23I0093-DUP1)			Prepared	: 09/05/23 11	:41 Ana	lyzed: 09/05	/23 21:27					
QC Source Sample: FC-082223-21	167 (A3H13	<u>00-01)</u>										
EPA 6020B												
Arsenic	7490	1900	3800	ug/kg dry	10		7680			3	20%	CON
Barium	185000	1900	3800	ug/kg dry	10		175000			5	20%	CON
Cadmium	ND	380	760	ug/kg dry	10		ND				20%	CON

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0093 - EPA 3051A							Sol	id				
Duplicate (23I0093-DUP1)			Prepared	l: 09/05/23 1	1:41 Ana	lyzed: 09/05	/23 21:27					
QC Source Sample: FC-082223-21	67 (A3H13	<u>00-01)</u>										
Chromium	ND	1900	3800	ug/kg dr	y 10		ND				20%	CON
Lead	ND	380	760	ug/kg dr	y 10		ND				20%	CON
Mercury	ND	152	304	ug/kg dr	y 10		ND				20%	CON
Silver	ND	380	760	ug/kg dr	y 10		ND				20%	CON
Duplicate (2310093-DUP2)			Prepared	l: 09/05/23 1	1:41 Ana	lyzed: 09/06	/23 11:53					
QC Source Sample: FC-082223-21	67 (A3H13	00-01RE1)										
EPA 6020B												
Selenium	ND	1900	3800	ug/kg dr	y 10		ND				20%	CONT,Q-1
Matrix Spike (2310093-MS1)			Prepared	l: 09/05/23 1	1:41 Ana	lyzed: 09/05	/23 21:32					
QC Source Sample: FC-082223-21	67 (A3H13	<u>00-01)</u>										
EPA 6020B												
Arsenic	202000	1990	3980	ug/kg dr	y 10	199000	7680	98	75-125%			CON
Barium	395000	1990	3980	ug/kg dr	y 10	199000	175000	110	75-125%			CON
Cadmium	196000	398	796	ug/kg dr	y 10	199000	ND	98	75-125%			CON
Chromium	207000	1990	3980	ug/kg dr	y 10	199000	ND	104	75-125%			CON
Lead	203000	398	796	ug/kg dr	y 10	199000	ND	102	75-125%			CON
Mercury	3930	159	318	ug/kg dr	y 10	3980	ND	99	75-125%			CON
Silver	109000	398	796	ug/kg dr	y 10	99500	ND	110	75-125%			CON
Matrix Spike (2310093-MS2)			Prepared	1: 09/05/23 1	1:41 Ana	lyzed: 09/06	/23 11:59					
QC Source Sample: FC-082223-21	67 (A3H13	00-01RE1)										
EPA 6020B												
Selenium	99100	1990	3980	ug/kg dr	y 10	99500	ND	100	75-125%			CONT,Q-1

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP M	letals by	EPA 602	OB (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23l0035 - EPA 1311/301	5A						Wa	ter				
Blank (2310035-BLK1)			Prepared	09/01/23	11:21 Anal	yzed: 09/01	/23 18:47					
<u>1311/6020B</u>												
Arsenic	ND	0.0500	0.100	mg/L	10							TCLI
Barium	ND	2.50	5.00	mg/L	10							TCLI
Cadmium	ND	0.0500	0.100	mg/L	10							TCLI
Chromium	ND	0.100	0.200	mg/L	10							TCLI
Lead	ND	0.0250	0.0500	mg/L	10							TCLI
Mercury	ND	0.00375	0.00700	mg/L	10							TCLI
Selenium	ND	0.0500	0.100	mg/L	10							TCLI
Silver	ND	0.0500	0.100	mg/L	10							TCLI
LCS (2310035-BS1)			Prepared	09/01/23	11:21 Anal	yzed: 09/01	/23 18:52					
<u>1311/6020B</u>												
Arsenic	5.06	0.0500	0.100	mg/L	10	5.00		101	80-120%			TCLI
Barium	9.54	2.50	5.00	mg/L	10	10.0		95	80-120%			TCLI
Cadmium	1.03	0.0500	0.100	mg/L	10	1.00		103	80-120%			TCLI
Chromium	4.87	0.100	0.200	mg/L	10	5.00		97	80-120%			TCLI
Lead	5.16	0.0250	0.0500	mg/L	10	5.00		103	80-120%			TCLI
Mercury	0.104	0.00375	0.00700	mg/L	10	0.100		104	80-120%			TCLI
Selenium	0.985	0.0500	0.100	mg/L	10	1.00		98	80-120%			TCLI
Silver	1.02	0.0500	0.100	mg/L	10	1.00		102	80-120%			TCLI
Duplicate (2310035-DUP1)			Prepared	09/01/23	11:21 Anal	yzed: 09/01	/23 19:02					
QC Source Sample: FC-082223-2	167 (A3H13	00-01)										
<u>1311/6020B</u>												
Arsenic	ND	0.0500	0.100	mg/L	10		ND				20%	CON
Barium	ND	2.50	5.00	mg/L	10		ND				20%	CON
Cadmium	ND	0.0500	0.100	mg/L	10		ND				20%	CON
Chromium	ND	0.100	0.200	mg/L	10		ND				20%	CON
Lead	ND	0.0250	0.0500	mg/L	10		ND				20%	CON
Mercury	ND	0.00375	0.00700	mg/L	10		ND				20%	CON
Selenium	ND	0.0500	0.100	mg/L	10		ND				20%	CON
Silver	ND	0.0500	0.100	mø/L	10		ND				20%	CON

Matrix Spike (23I0035-MS1)

Prepared: 09/01/23 11:21 Analyzed: 09/01/23 19:07

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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
Batch 23I0035 - EPA 1311/301	5A						Wa	ter				
Matrix Spike (2310035-MS1)			Prepared	: 09/01/23	11:21 Ana	lyzed: 09/01	/23 19:07					
QC Source Sample: FC-082223-2	167 (A3H13	<u>00-01)</u>										
<u>1311/6020B</u>												
Arsenic	5.49	0.0500	0.100	mg/L	10	5.00	ND	110	50-150%			CON
Barium	10.5	2.50	5.00	mg/L	10	10.0	ND	105	50-150%			CON
Cadmium	1.12	0.0500	0.100	mg/L	10	1.00	ND	112	50-150%			CON
Chromium	5.31	0.100	0.200	mg/L	10	5.00	ND	106	50-150%			CON
Lead	5.98	0.0250	0.0500	mg/L	10	5.00	ND	120	50-150%			CON
Mercury	0.125	0.00375	0.00700	mg/L	10	0.100	ND	125	50-150%			CON
Selenium	1.02	0.0500	0.100	mg/L	10	1.00	ND	102	50-150%			CON
Silver	1.18	0.0500	0.100	mg/L	10	1.00	ND	118	50-150%			CON

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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
Batch 23H1057 - ASTM D7511	-12mod (S	5)					Soi	I				
Blank (23H1057-BLK1)			Prepared	1: 08/29/23	10:05 Ana	lyzed: 08/31	/23 17:11					
<u>D7511-12</u> Total Cyanide	ND	50.0	100	ug/kg we	et 1							
LCS (23H1057-BS1)			Prepared	1: 08/29/23	10:05 Ana	lyzed: 08/31	/23 17:13					
<u>D7511-12</u> Total Cyanide	447	50.0	100	ug/kg w	et 1	400		112	84-116%			
Matrix Spike (23H1057-MS1)			Prepared	1: 08/29/23	10:05 Ana	lyzed: 08/31	/23 17:19					CONT
QC Source Sample: FC-082223-2 D7511-12	167 (A3H13	<u>00-01)</u>										
Total Cyanide	7910	929	1860	ug/kg dr	y 5	1490	6620	87	64-136%			
Matrix Spike Dup (23H1057-M	ASD1)		Prepared	1: 08/29/23	10:05 Ana	lyzed: 08/31	/23 17:33					CONT
OC Source Sample: FC-082223-2	167 (A3H13	<u>00-01)</u>										
<u>D7511-12</u> Total Cyanide	7500	928	1860	ug/kg dr	y 5	1480	6620	59	64-136%	5	47%	Q-(

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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
Batch 23H0895 - Total Solids (Dry	/ Weigł	ht) - 2022	. <u> </u>				Soi	!				
Duplicate (23H0895-DUP1)			Prepared	: 08/24/23	10:13 Anal	yzed: 08/25/	23 07:42					ТЕМР
OC Source Sample: Non-SDG (A3H13 % Solids	<u>310-01)</u> 88.7	1.00	1.00	%	1		87.7			1	10%	
Duplicate (23H0895-DUP2)			Prepared	: 08/24/23	10:13 Anal	yzed: 08/25/	23 07:42					TEMP
<u>OC Source Sample: Non-SDG (A3H13</u> % Solids	<u>310-02)</u> 82.8	1.00	1.00	%	1		81.6			2	10%	
Duplicate (23H0895-DUP3)			Prepared	: 08/24/23	10:13 Anal	yzed: 08/25/	23 07:42					TEMP
<u>QC Source Sample: Non-SDG (A3H13</u> % Solids	<u>310-03)</u> 87.2	1.00	1.00	%	1		86.3			1	10%	
Duplicate (23H0895-DUP4)			Prepared	: 08/24/23	10:13 Anal	yzed: 08/25/	23 07:42					TEMP
OC Source Sample: Non-SDG (A3H13 % Solids	<u>310-04)</u> 83.9	1.00	1.00	%	1		89.1			6	10%	
Duplicate (23H0895-DUP5)			Prepared	: 08/24/23	10:13 Anal	yzed: 08/25/	23 07:42					ТЕМР
QC Source Sample: Non-SDG (A3H13	<u>310-05)</u>											
% Solids	89.6	1.00	1.00	%	1		89.5			0.1	10%	
Duplicate (23H0895-DUP6)			Prepared	: 08/24/23	10:13 Anal	yzed: 08/25/	23 07:42					ТЕМР
<u>OC Source Sample:</u> Non-SDG (A3H13 % Solids	<u>310-06)</u> 86.5	1.00	1.00	%	1		87.2			0.8	10%	
Duplicate (23H0895-DUP7)			Prepared	: 08/24/23	10:13 Anal	yzed: 08/25/	23 07:42					TEMP
OC Source Sample: Non-SDG (A3H13 % Solids	<u>310-07)</u> 73.3	1.00	1.00	%	1		71.4			3	10%	
Duplicate (23H0895-DUP8)			Prepared	: 08/24/23	19:52 Anal	yzed: 08/25/	23 07:42					
QC Source Sample: Non-SDG (A3H13	<u>353-01)</u>	1.00	1.00	- 0/	1		01.7			0.00	100/	
70 SOIIdS	91.6	1.00	1.00	%	1		91.6			0.08	10%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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
Batch 23H0895 - Total Solids (Dry Weight) - 2022 Soil												
Duplicate (23H0895-DUP9)			Prepared	: 08/24/23	19:52 Anal	yzed: 08/25/	/23 07:42					
QC Source Sample: Non-SDG (A3	H1370-02)											
% Solids	94.0	1.00	1.00	%	1		95.4			1	10%	

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

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<u>Sevenson Environmenta</u> 2749 Lockport Road Niagara Falls, NY 14305	<u>l Services, Inc.</u> 5	Pi Pr		<u>Report ID:</u> A3H1300 - 09 08 23 0728						
		SAMPLE	PREPARATION I	NFORMATION						
Diesel and/or Oil Hydrocarbons by NWTPH-Dx										
Prep: EPA 3546 (Fuels Lab Number) Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor			
Batch: 23H1010 A3H1300-01	Solid	NWTPH-Dx	08/22/23 00:00	08/28/23 12:00	10.39g/5mL	10g/5mL	0.96			
	Gaso	oline Range Hydrocart	oons (Benzene throu	ugh Naphthalene) b	y NWTPH-Gx					
<u>Prep: EPA 5035A</u> Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor			
<u>Batch: 23H0884</u> A3H1300-01	Solid	NWTPH-Gx (MS)	08/22/23 00:00	08/23/23 11:30	3.45g/5mL	5g/5mL	1.45			
		Volatile C	Organic Compounds	by EPA 8260D						
<u>Prep: EPA 5035A</u> Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor			
Batch: 23H0884 A3H1300-01	Solid	5035A/8260D	08/22/23 00:00	08/23/23 11:30	3.45g/5mL	5g/5mL	1.45			
		Regulated TCLP Vol	atile Organic Comp	ounds by EPA 1311	/8260D					
Prep: EPA 1311/5030C	TCLP Volatiles		~	D	Sample	Default	RL Prep			
Lab Number Batch: 23H0939 A3H1300-01	Solid	1311/8260D	08/22/23 00:00	08/25/23 11:45	5mL/5mL	5mL/5mL	1.00			
		Semivolatil	e Organic Compour	ds by EPA 8270E						
Prep: EPA 3546 Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor			
Batch: 23H1038 A3H1300-01	Solid	EPA 8270E	08/22/23 00:00	08/29/23 08:09	15.04g/2mL	15g/2mL	1.00			
		Total	Metals by EPA 602	OB (ICPMS)						
<u>Prep: EPA 3051A</u> Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor			
Batch: 2310093 A3H1300-01	Solid	EPA 6020B	08/22/23 00:00	09/05/23 11:41	0.474g/50mL	0.5g/50mL	1.05			
Apex Laboratories			The results	in this report apply to the so	umples analyzed in ac	cordance with the chain	of			



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

						ORELAP ID: OKI	100002
<u>Sevenson Environmen</u> 2749 Lockport Road Niagara Falls, NY 143	tal Services, Inc. 05	I P	Project: Gasco - Project Number: 111323 roject Manager: Chip B	<u>- Filtercake</u> yrd		<u>Report ID:</u> A3H1300 - 09 08 23	<u>.</u> 3 0728
		SAMPLE	E PREPARATION I	NFORMATION			
		Tota	I Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A3H1300-01RE1	Solid	EPA 6020B	08/22/23 00:00	09/05/23 11:41	0.474g/50mL	0.5g/50mL	1.05
		TCLI	P Metals by EPA 602	OB (ICPMS)			
Prep: EPA 1311/3015	<u>A</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 2310035 A3H1300-01	Solid	1311/6020B	08/22/23 00:00	09/01/23 11:21	10mL/50mL	10mL/50mL	1.00
	So	luble Cyanide by U	/ Digestion/Gas Diffu	usion/Amperometric	Detection		
Prep: ASTM D7511-12	<u>2mod (S)</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A3H1300-01	Solid	D7511-12	08/22/23 00:00	08/29/23 10:05	2.5087g/50mL	2.5g/50mL	1.00
			Percent Dry We	ight			
Prep: Total Solids (Dr	y Weight) - 2022				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 23H0895</u> A3H1300-01	Solid	EPA 8000D	08/22/23 00:00	08/24/23 10:13			NA
		T	CLP Extraction by E	PA 1311			
Prep: EPA 1311 (TCL	P)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23H1124 A3H1300-01	Solid	EPA 1311	08/22/23 00:00	08/30/23 14:52	100g/2000.2g	100g/2000g	NA
Prep: EPA 1311 TCLF	P/ZHE				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 23H0911</u> A3H1300-01	Solid	EPA 1311 ZHE	08/22/23 00:00	08/24/23 14:08	25g/502.7g	25g/500g	NA

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

QUALIFIER DEFINITIONS

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

Apex Laboratories

- **B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- CONT The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
- **F-03** The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
- F-13 The chromatographic pattern does not resemble the fuel standard used for quantitation
- J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-02 Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
- M-05 Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- 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-16 Reanalysis of an original Batch QC sample.
- Q-18 Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source 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 -48%. 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.
- **R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- 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 23H0911.
- TCLPa This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 23H1124.
- TEMP Sample was received outside of recommended temperature.
- V-15 Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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.

- <u>" dry"</u> 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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

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).

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

REPORTING NOTES AND CONVENTIONS (Cont.):

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 ½ 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.

-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, if results are not reported to the MDL.

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.

Apex Laboratories



Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3H1300 - 09 08 23 0728

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 <u>exception</u> of any analyte(s) listed below:

Apex Lab	<u>oratories</u>				
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories



Apex Laboratories, LLC

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



Apex Laboratories



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

Sevenson Environmental Servi	ices, Inc. Project: <u>Gasco Filtercake</u>	
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3H1300 - 09 08 23 0728
Client: Project/J Delivery Date/time Delivered Cooler II Chain of Signed/da Temperat Custody s Received Temp. bla Ice type: 0 Condition Cooler ou Green dot Out of ter Sample II All sampl Bottle lab COC/cont Container Do VOA Comments Water sam Comments	APEX LABS COOLER RECEIPT FORM Set Wrom Finition with the Services Element WO#: $A3H[300]$ Project #: $\int a S_2 O - Pi Hease Info: ercecived: \frac{9/23}{23} @ 455 By: EST d by: Apex Client_ESS_FedEx_UPS_Radio_Morgan_SDS_Evergreen_ aspection Date/time inspected: \frac{9/23}{23} @ 1042 By: EST Custody included? Yes X_No$	Other

Apex Laboratories



Apex Laboratories, LLC

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

Wednesday, October 18, 2023

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

RE: A3I1260 - Gasco -- Filtercake - 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 A3I1260, which was received by the laboratory on 9/20/2023 at 10:07:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information							
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.							
(See Cooler Receipt Form for details)							
Default Cooler 2.5 degC							

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.



Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtercake	
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3I1260 - 10 18 23 1006

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION							
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received			
FC-091923-2182	A3I1260-01	Solid	09/19/23 02:00	09/20/23 10:07			

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA311260 - 10 18 23 1006

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
FC-091923-2182 (A3I1260-01)				Matrix: Soli	d	Batch:	23J0006	
Diesel	9260000	1360000	2720000	ug/kg dry	20	10/03/23 04:42	NWTPH-Dx	F-13
Oil	ND	2720000	5440000	ug/kg dry	20	10/03/23 04:42	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Rec	covery: %	Limits: 50-150 %	ő <i>20</i>	10/03/23 04:42	NWTPH-Dx	S-01

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx								
	Sample	Detection Reporting Date						
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01RE1)				Matrix: Solid	ł	Batch	: 2310840	V-15
Gasoline Range Organics	87000	14000	28000	ug/kg dry	50	09/26/23 18:08	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recover	y: 108 %	Limits: 50-150 %	5 1	09/26/23 18:08	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			106 %	50-150 %	5 1	09/26/23 18:08	NWTPH-Gx (MS)	

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Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3I1260 - 10 18 23 1006

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01RE1)				Matrix: Sol	id	Batch:	2310840	V-15
Acetone	ND	2800	5600	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Benzene	56.0	28.0	56.0	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Bromobenzene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Bromochloromethane	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Bromodichloromethane	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Bromoform	ND	280	560	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Bromomethane	ND	2800	2800	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
2-Butanone (MEK)	ND	1400	2800	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
n-Butylbenzene	224	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	J
sec-Butylbenzene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
tert-Butylbenzene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Carbon tetrachloride	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Chlorobenzene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Chloroethane	ND	1400	2800	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Chloroform	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Chloromethane	ND	700	1400	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
2-Chlorotoluene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
4-Chlorotoluene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Dibromochloromethane	ND	280	560	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	700	1400	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Dibromomethane	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2-Dichlorobenzene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,3-Dichlorobenzene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,4-Dichlorobenzene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Dichlorodifluoromethane	ND	280	560	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,1-Dichloroethane	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,1-Dichloroethene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
cis-1,2-Dichloroethene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
trans-1,2-Dichloroethene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2-Dichloropropane	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,3-Dichloropropane	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	

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Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc.
2749 Loci	kport Road		

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>F</u>	Repo	rt l	D:	
A3I1260	- 10	18	23	1006

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01RE1)				Matrix: Solic	ł	Batch:	2310840	V-15
2,2-Dichloropropane	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,1-Dichloropropene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
cis-1,3-Dichloropropene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
trans-1,3-Dichloropropene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Ethylbenzene	95.1	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	J
Hexachlorobutadiene	ND	280	560	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
2-Hexanone	ND	1400	2800	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Isopropylbenzene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
4-Isopropyltoluene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Methylene chloride	ND	1400	2800	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1400	2800	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
n-Propylbenzene	70.0	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	J
Styrene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Tetrachloroethene (PCE)	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Toluene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2,3-Trichlorobenzene	ND	700	1400	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2,4-Trichlorobenzene	ND	1400	1400	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,1,1-Trichloroethane	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,1,2-Trichloroethane	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Trichloroethene (TCE)	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Trichlorofluoromethane	ND	280	560	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2,3-Trichloropropane	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,2,4-Trimethylbenzene	369	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
1,3,5-Trimethylbenzene	143	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	J
Vinyl chloride	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
m,p-Xylene	ND	140	280	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
o-Xylene	ND	70.0	140	ug/kg dry	50	09/26/23 18:08	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recov	very: 98 %	Limits: 80-120 %	1	09/26/23 18:08	5035A/8260D	
Toluene-d8 (Surr)			96 %	80-120 %	1	09/26/23 18:08	5035A/8260D	
4-Bromofluorobenzene (Surr)			99 %	79-120 %	1	09/26/23 18:08	5035A/8260D	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
Sample Detection Reporting Date Analyte Result Limit Units Dilution Analyzed Method Ref. Note							Notes	
FC-091923-2182 (A3I1260-01RE2)				Matrix: Solid	ł	Batch:	2310960	
Naphthalene	6250	280	560	ug/kg dry	50	09/28/23 20:06	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ry: 116 %	Limits: 80-120 %	1	09/28/23 20:06	5035A/8260D	
Toluene-d8 (Surr)			<i>97 %</i>	80-120 %	I	09/28/23 20:06	5035A/8260D	
4-Bromofluorobenzene (Surr)			100 %	79-120 %	1	09/28/23 20:06	5035A/8260D	

Apex Laboratories

Darwin Thomas, Business Development Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This

analytical report must be reproduced in its entirety.



Apex Laboratories, LLC

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

Sevenson Environmental Services, In	ıc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:	
A3I1260 - 10 18 23 100	16

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
FC-091923-2182 (A3I1260-01)				Matrix: Solid		Batch:	2310913	
Benzene	ND	6.25	12.5	ug/L	50	09/28/23 04:08	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	09/28/23 04:08	1311/8260D	
Carbon tetrachloride	ND	12.5	25.0	ug/L	50	09/28/23 04:08	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	09/28/23 04:08	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	09/28/23 04:08	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	09/28/23 04:08	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	09/28/23 04:08	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	09/28/23 04:08	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	09/28/23 04:08	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	09/28/23 04:08	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	09/28/23 04:08	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 108 %	Limits: 80-120 %	1	09/28/23 04:08	1311/8260D	
Toluene-d8 (Surr)			103 %	80-120 %	1	09/28/23 04:08	1311/8260D	
4-Bromofluorobenzene (Surr)			100 %	80-120 %	1	09/28/23 04:08	1311/8260D	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:					
A3I1260 - 10 18 23	1006				

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01)				Matrix: Sol	id	Batch:	2310893	
Acenaphthene	52600	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Acenaphthylene	ND	5370	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Anthracene	51700	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Benz(a)anthracene	29600	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Benzo(a)pyrene	32000	4020	8040	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Benzo(b)fluoranthene	26200	4020	8040	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Benzo(k)fluoranthene	10900	4020	8040	ug/kg dry	200	09/27/23 22:29	EPA 8270E	M-05
Benzo(g,h,i)perylene	20000	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Chrysene	39900	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Dibenz(a,h)anthracene	ND	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Fluoranthene	155000	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Fluorene	34500	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Indeno(1,2,3-cd)pyrene	17000	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
1-Methylnaphthalene	12100	5370	10700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2-Methylnaphthalene	9160	5370	10700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	J
Naphthalene	ND	5370	10700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Phenanthrene	283000	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Pyrene	178000	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Carbazole	ND	4020	8040	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Dibenzofuran	ND	5370	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2-Chlorophenol	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
4-Chloro-3-methylphenol	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,4-Dichlorophenol	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,4-Dimethylphenol	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,4-Dinitrophenol	ND	66900	134000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	66900	134000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2-Methylphenol	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
3+4-Methylphenol(s)	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2-Nitrophenol	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
4-Nitrophenol	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Pentachlorophenol (PCP)	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Phenol	ND	5370	10700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	

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

Sevenson	Environmental	Services,	Inc
2749 Loci	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:					
A3I1260 - 10 18 23	1006				

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01)				Matrix: Sol	id	Batch:	2310893	
2,3,5,6-Tetrachlorophenol	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,4,5-Trichlorophenol	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,4,6-Trichlorophenol	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	40200	80400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Butyl benzyl phthalate	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Diethylphthalate	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Dimethylphthalate	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Di-n-butylphthalate	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Di-n-octyl phthalate	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
N-Nitrosodimethylamine	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
N-Nitrosodiphenylamine	ND	13400	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Hexachlorobenzene	ND	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Hexachlorobutadiene	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Hexachlorocyclopentadiene	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Hexachloroethane	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2-Chloronaphthalene	ND	2670	5370	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
1,2,4-Trichlorobenzene	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
4-Bromophenyl phenyl ether	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Aniline	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
4-Chloroaniline	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2-Nitroaniline	ND	53700	107000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
3-Nitroaniline	ND	53700	107000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
4-Nitroaniline	ND	53700	107000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Nitrobenzene	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,4-Dinitrotoluene	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
2,6-Dinitrotoluene	ND	26700	53700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Benzoic acid	ND	336000	669000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Benzyl alcohol	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	

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

Sevenson Environmental Services,	Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3I1260 - 10 18 23 1006

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01)				Matrix: Solic	l	Batch:	2310893	
Isophorone	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Azobenzene (1,2-DPH)	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	66900	134000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
3,3'-Dichlorobenzidine	ND	53700	107000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	66900	134000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
1,3-Dinitrobenzene	ND	66900	134000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
1,4-Dinitrobenzene	ND	66900	134000	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Pyridine	ND	13400	26700	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
1,2-Dichlorobenzene	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
1,3-Dichlorobenzene	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
1,4-Dichlorobenzene	ND	6690	13400	ug/kg dry	200	09/27/23 22:29	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery	: 66 %	Limits: 37-122 %	200	09/27/23 22:29	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			80 %	44-120 %	200	09/27/23 22:29	EPA 8270E	S-05
Phenol-d6 (Surr)			47 %	33-122 %	200	09/27/23 22:29	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			80 %	54-127 %	200	09/27/23 22:29	EPA 8270E	S-05
2-Fluorophenol (Surr)			39 %	35-120 %	200	09/27/23 22:29	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			%	39-132 %	200	09/27/23 22:29	EPA 8270E	S-01

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3I1260 - 10 18 23 1006

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01)				Matrix: Sol	id			
Batch: 23J0037								
Arsenic	8790	1790	3580	ug/kg dry	10	10/02/23 21:36	EPA 6020B	
Barium	197000	1790	3580	ug/kg dry	10	10/02/23 21:36	EPA 6020B	
Cadmium	ND	358	715	ug/kg dry	10	10/02/23 21:36	EPA 6020B	
Chromium	ND	1790	3580	ug/kg dry	10	10/02/23 21:36	EPA 6020B	
Lead	ND	358	715	ug/kg dry	10	10/02/23 21:36	EPA 6020B	
Mercury	ND	143	286	ug/kg dry	10	10/02/23 21:36	EPA 6020B	
Selenium	ND	1790	3580	ug/kg dry	10	10/02/23 21:36	EPA 6020B	
Silver	ND	358	715	ug/kg dry	10	10/02/23 21:36	EPA 6020B	

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number: 1	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3I1260 - 10 18 23 1006

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01)				Matrix: So	olid			
Batch: 23I0896								
Arsenic	ND	50.0	100	ug/L	10	09/27/23 19:04	1311/6020B	
Barium	ND	2500	5000	ug/L	10	09/27/23 19:04	1311/6020B	
Cadmium	ND	50.0	100	ug/L	10	09/27/23 19:04	1311/6020B	
Chromium	ND	50.0	100	ug/L	10	09/27/23 19:04	1311/6020B	
Lead	ND	25.0	50.0	ug/L	10	09/27/23 19:04	1311/6020B	
Mercury	ND	3.75	7.00	ug/L	10	09/27/23 19:04	1311/6020B	
Silver	ND	50.0	100	ug/L	10	09/27/23 19:04	1311/6020B	
FC-091923-2182 (A3I1260-01RE2)				Matrix: So	olid			
Batch: 2310896								
Selenium	ND	50.0	100	ug/L	10	09/28/23 11:55	1311/6020B	

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The results in this report apply to the samples analyzed in accordance with the chain of



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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA311260 - 10 18 23 1006

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
FC-091923-2182 (A3I1260-01)				Matrix: Solid		ix: Solid Batch: 23J0013		
Total Cyanide	7020	847	1690	ug/kg dry	5	10/03/23 16:09	D7511-12	Q-42

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

Sevenson Environmental Services, Inc.	Project: Gasco Filt	ercake
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3I1260 - 10 18 23 1006

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-091923-2182 (A3I1260-01)				Matrix: Solid		Batch:	2310688	
% Solids	29.4		1.00	%	1	09/22/23 06:30	EPA 8000D	

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

Sevenson Environmental Services, Inc.	Project: <u>(</u>	Gasco Filtercake	
2749 Lockport Road	Project Number: 1	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: (Chip Byrd	A3I1260 - 10 18 23 1006

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311											
Analyte	Sample Result	Detection	Reporting	Units	Dilution	Date Analyzed	Method Ref	Notes			
Anaryo				Ollits Dilution				110105			
FC-091923-2182 (A3I1260-01)				Matrix: Solid		Batch:					
TCLP Extraction	PREP			N/A	1	09/26/23 15:40	EPA 1311				
TCLP ZHE Extraction	PREP			N/A	1	09/26/23 14:08	EPA 1311 ZHE				

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23J0006 - EPA 3546 (Fi	uels)						Soli	d				
Blank (23J0006-BLK1)			Prepared.	: 10/02/23 0	5:07 Anal	lyzed: 10/03	/23 03:19					
NWTPH-Dx												
Diesel	ND	10000	20000	ug/kg we	rt 1							
Oil	ND	20000	40000	ug/kg we	⁺t 1							
Surr: o-Terphenyl (Surr)		Recov	ery: 74%	Limits: 50	-150 %	Dili	ution: 1x					
LCS (23J0006-BS1)			Prepared	: 10/02/23 0	5:07 Anal	yzed: 10/03	/23 03:40					
<u>NWTPH-Dx</u>												
Diesel	96400	10000	20000	ug/kg we	⇒t 1	125000		77	38-132%			
Surr: o-Terphenyl (Surr)		Recov	very: 85 %	Limits: 50	-150 %	Dil	ution: 1x					
Duplicate (23J0006-DUP1)			Prepared	: 10/02/23 0	5:07 Anal	yzed: 10/03	/23 04:21					
QC Source Sample: Non-SDG (A3	<u>3I1258-0</u> 1)											
Diesel	13600000	5950000	11900000	ug/kg drv	v 20		120000006)		13	30%	
	0			0.04	-					-	-	
Oil	11200000 0	11900000	23800000) ug/kg dr	y 20		96100000) <u></u>		15	30%	
Surr: o-Terphenyl (Surr)		Rec	overy: %	Limits: 50-	-150 %	Dilı	ution: 20x					S-01

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23I0787 - EPA 5035A							Soi	i l				
Blank (2310787-BLK1)			Preparec	1: 09/25/23	10:50 Anal	lyzed: 09/25/	23 13:23					
NWTPH-Gx (MS) Gasoline Range Organics Surr: 4-Bromofluorobenzene (Sur)	ND	2500 Reco	5000 wery: 95 %	ug/kg w Limits: 5	7et 50 0-150 %	 Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			111 %	5.	0-150 %		"					
LCS (2310787-BS2)			Preparec	1: 09/25/23	10:50 Anal	lyzed: 09/25/	23 12:53					
<u>NWTPH-Gx (MS)</u> Gasoline Range Organics	26200	2500	5000	ug/kg w	ret 50	25000		105	80-120%			
Surr: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recc	wery: 96% 111%	Limits: 5	0-150 % 0-150 %	Dilu	ution: 1x "					
Duplicate (2310787-DUP1)			Preparec	1: 09/20/23	14:45 Anal	lyzed: 09/25/	23 15:57					
QC Source Sample: Non-SDG (A3	11356-01)											
Gasoline Range Organics	ND	2740	5480	ug/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	wery: 98 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			114 %	5	0-150 %		"					

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23I0840 - EPA 5035A							Soi	i l				
Blank (2310840-BLK1)	_	_	Prepared	1: 09/26/23	10:57 Anal	lyzed: 09/26/	23 13:50	_	_	_	_	
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)			116 %	5	0-150 %		"					
LCS (23I0840-BS2)			Preparec	1: 09/26/23	10:57 Anal	yzed: 09/26/	23 13:20					
NWTPH-Gx (MS)												
Gasoline Range Organics	26500	2500	5000	ug/kg w	vet 50	25000		106	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	wery: 95 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			115 %	5	0-150 %		"					
Duplicate (2310840-DUP1)			Prepared	1: 09/21/23	16:35 Anal	lyzed: 09/26/	23 20:42					
QC Source Sample: Non-SDG (A3	<u>11359-08)</u>											
Gasoline Range Organics	ND	117000	234000	ug/kg d	ry 500		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	wery: 93 %	Limits: 5	0-150 %	Dilu	tion: 1x					
1,4-Difluorobenzene (Sur)			106 %	5	0-150 %		"					

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D												
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310787 - EPA 5035A							Soi	I				
Blank (2310787-BLK1)			Prepared	: 09/25/23 10:	:50 Anal	lyzed: 09/25/	/23 13:23					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1.2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
	1,0		20.0		20							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
atch 23I0787 - EPA 5035A							Soi	I				
Blank (23I0787-BLK1)			Prepared	: 09/25/23 10	:50 Ana	yzed: 09/25/	/23 13:23					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	100	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1.1.1.2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1.2.3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1.2.4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1.1.1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1.1.2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1.2.3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1.2.4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1.3.5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	110/kg wet	50							
m n-Xvlene	ND	25.0	50.0	ug/kg wet	50							
o-Xvlene	ND	12.5	25.0	ug/kg wet	50							
urr: 1.4-Difluorobenzene (Surr)		Reci		Limits: 80-1	20 %	Dih	ution: 1x					—

Apex Laboratories



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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3I1260 - 10 18 23 1006 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 2310787 - EPA 5035A Soil Blank (23I0787-BLK1) Prepared: 09/25/23 10:50 Analyzed: 09/25/23 13:23 Surr: Toluene-d8 (Surr) Recovery: 104 % Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 96 % 79-120 % LCS (23I0787-BS1) Prepared: 09/25/23 10:50 Analyzed: 09/25/23 12:27 5035A/8260D Acetone 3070 500 1000 ug/kg wet 50 2000 ---154 80-120% Q-56 Acrylonitrile 1070 50.0 100 50 1000 107 80-120% ug/kg wet ---------Benzene 1030 5.00 10.0 ug/kg wet 50 1000 103 80-120% ------25.0 50 1000 Bromobenzene 975 12.5 98 80-120% ug/kg wet -----------Bromochloromethane 1260 25.0 50.0 ug/kg wet 50 1000 126 80-120% Q-56 ---------Bromodichloromethane 1090 25.0 50.0 1000 109 ug/kg wet 50 ---80-120% ------Bromoform 972 50.0 100 ug/kg wet 50 1000 97 80-120% Bromomethane 1710 500 500 ug/kg wet 50 1000 171 80-120% Q-56 ---------2-Butanone (MEK) 2640 250 500 ug/kg wet 50 2000 132 80-120% Q-56 -----n-Butylbenzene 1060 25.0 50.0 50 1000 106 80-120% ug/kg wet ---------sec-Butylbenzene 1050 25.050.0 ug/kg wet 50 1000 105 80-120% --tert-Butylbenzene 970 25.0 50.0 50 1000 97 80-120% ug/kg wet ----------Carbon disulfide 1310 250 500 ug/kg wet 50 1000 ---131 80-120% ---____ Q-56 Carbon tetrachloride 1090 25.0 50.0 ug/kg wet 50 1000 109 80-120% ---------Chlorobenzene 1020 12.5 25.0ug/kg wet 50 1000 102 80-120% ---Chloroethane 250 500 50 1000 156 80-120% O-56 1560 ug/kg wet ----------1000 80-120% Chloroform 1040 25.050.0 ug/kg wet 50 104 ------Chloromethane 1140 125 250 50 1000 114 80-120% ug/kg wet ---------2-Chlorotoluene 1010 25.050.0 ug/kg wet 50 1000 ---101 80-120% ____ 4-Chlorotoluene 1050 25.0 50.0 ug/kg wet 50 1000 105 80-120% ---------Dibromochloromethane 1140 50.0 100 ug/kg wet 50 1000 114 80-120% --------ug/kg wet 1,2-Dibromo-3-chloropropane 883 125 250 50 1000 88 80-120% ---1000 104 1,2-Dibromoethane (EDB) 1040 25.050.0 ug/kg wet 50 80-120% ---Dibromomethane 1060 25.0 50.0 ug/kg wet 50 1000 106 80-120% ---------1,2-Dichlorobenzene 1010 12.5 25.0ug/kg wet 50 1000 ----101 80-120% ------1,3-Dichlorobenzene 1020 12.5 25.0 ug/kg wet 50 1000 102 80-120% ---------1010 12.5 25.0 50 1000 101 80-120% 1.4-Dichlorobenzene ug/kg wet ___ Q-56 Dichlorodifluoromethane 1660 50.0 100 ug/kg wet 50 1000 166 80-120% ------1,1-Dichloroethane 1100 12.5 25.0 1000 80-120% ug/kg wet 50 110 ---------

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0787 - EPA 5035A							Soi	I				
LCS (2310787-BS1)			Prepared	1: 09/25/23 1	0:50 Anal	yzed: 09/25/	23 12:27					
1,2-Dichloroethane (EDC)	1160	12.5	25.0	ug/kg we	t 50	1000		116	80-120%			
1,1-Dichloroethene	1400	12.5	25.0	ug/kg we	t 50	1000		140	80-120%			Q-5
cis-1,2-Dichloroethene	1100	12.5	25.0	ug/kg we	t 50	1000		110	80-120%			
trans-1,2-Dichloroethene	1100	12.5	25.0	ug/kg we	t 50	1000		110	80-120%			
1,2-Dichloropropane	1080	12.5	25.0	ug/kg we	t 50	1000		108	80-120%			
1,3-Dichloropropane	1090	25.0	50.0	ug/kg we	t 50	1000		109	80-120%			
2,2-Dichloropropane	1070	25.0	50.0	ug/kg we	t 50	1000		107	80-120%			
1,1-Dichloropropene	1040	25.0	50.0	ug/kg we	t 50	1000		104	80-120%			
cis-1,3-Dichloropropene	1100	25.0	50.0	ug/kg we	t 50	1000		110	80-120%			
trans-1,3-Dichloropropene	1180	25.0	50.0	ug/kg we	t 50	1000		118	80-120%			
Ethylbenzene	1020	12.5	25.0	ug/kg we	t 50	1000		102	80-120%			
Hexachlorobutadiene	964	50.0	100	ug/kg we	t 50	1000		96	80-120%			
2-Hexanone	2020	250	500	ug/kg we	t 50	2000		101	80-120%			
Isopropylbenzene	955	25.0	50.0	ug/kg we	t 50	1000		96	80-120%			
4-Isopropyltoluene	990	25.0	50.0	ug/kg we	t 50	1000		99	80-120%			
Methylene chloride	1070	250	500	ug/kg we	t 50	1000		107	80-120%			
4-Methyl-2-pentanone (MiBK)	2170	250	500	ug/kg we	t 50	2000		108	80-120%			
Methyl tert-butyl ether (MTBE)	970	25.0	50.0	ug/kg we	t 50	1000		97	80-120%			
Naphthalene	778	100	100	ug/kg we	t 50	1000		78	80-120%			Q-5
n-Propylbenzene	1080	12.5	25.0	ug/kg we	t 50	1000		108	80-120%			
Styrene	978	25.0	50.0	ug/kg we	t 50	1000		98	80-120%			
1,1,1,2-Tetrachloroethane	1060	12.5	25.0	ug/kg we	t 50	1000		106	80-120%			
1,1,2,2-Tetrachloroethane	1130	25.0	50.0	ug/kg we	t 50	1000		113	80-120%			
Tetrachloroethene (PCE)	962	12.5	25.0	ug/kg we	t 50	1000		96	80-120%			
Toluene	1060	25.0	50.0	ug/kg we	t 50	1000		106	80-120%			
1,2,3-Trichlorobenzene	865	125	250	ug/kg we	t 50	1000		86	80-120%			
1,2,4-Trichlorobenzene	804	125	250	ug/kg we	t 50	1000		80	80-120%			
1,1,1-Trichloroethane	1050	12.5	25.0	ug/kg we	t 50	1000		105	80-120%			
1,1,2-Trichloroethane	1090	12.5	25.0	ug/kg we	t 50	1000		109	80-120%			
Trichloroethene (TCE)	928	12.5	25.0	ug/kg we	t 50	1000		93	80-120%			
Trichlorofluoromethane	1630	50.0	100	ug/kg we	t 50	1000		163	80-120%			0-5
1,2,3-Trichloropropane	1180	25.0	50.0	ug/kg we	t 50	1000		118	80-120%			ζ.
1,2,4-Trimethvlbenzene	1050	25.0	50.0	ug/kg we	t 50	1000		105	80-120%			
1,3,5-Trimethvlbenzene	1080	25.0	50.0	uo/ko wo	t 50	1000		108	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323**

Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Com	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0787 - EPA 5035A							Soi	il				
LCS (2310787-BS1)			Prepared	1: 09/25/23 10):50 Anal	yzed: 09/25/	/23 12:27					
Vinyl chloride	1380	12.5	25.0	ug/kg wet	50	1000		138	80-120%			Q-:
m,p-Xylene	2090	25.0	50.0	ug/kg wet	50	2000		104	80-120%			
o-Xylene	912	12.5	25.0	ug/kg wet	50	1000		91	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 96%	Limits: 80-1	120 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			105 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			90 %	79-1	20 %		"					
Duplicate (2310787-DUP1)			Prepared	1: 09/20/23 14	1:45 Anal	yzed: 09/25/	/23 15:57					
OC Source Sample: Non-SDG (A31	1356-01)											
Acetone	ND	548	1100	ug/kg dry	50		ND				30%	
Acrylonitrile	ND	54.8	110	ug/kg dry	50		ND				30%	
Benzene	ND	5.48	11.0	ug/kg dry	50		ND				30%	
Bromobenzene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Bromoform	ND	54.8	110	ug/kg dry	50		ND				30%	
Bromomethane	ND	548	548	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	274	548	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	274	548	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
Chloroethane	ND	274	548	ug/kg dry	50		ND				30%	
Chloroform	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Chloromethane	ND	137	274	ug/kg drv	50		ND				30%	
2-Chlorotoluene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	27.4	54.8	ug/kg drv	50		ND				30%	
Dibromochloromethane	ND	54.8	110	ug/kg drv	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	137	274	ug/kg drv	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	27.4	54.8	ug/kø drv	50		ND				30%	
Dibromomethane	ND	27.4	54.8	ug/kø drv	50		ND				30%	
1 2-Dichlorobenzene	ND	127	27.0 27.4	ug/ka dra	50		ND		-		30%	
1,2-DICHIOIOUCHZEHE	IND	13.7	27.4	ug/kg ufy	50		IND.				5070	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0787 - EPA 5035A							Soi	I				
Duplicate (2310787-DUP1)			Prepared	: 09/20/23 14:	45 Ana	yzed: 09/25/	/23 15:57					
QC Source Sample: Non-SDG (A3I	<u>1356-01)</u>											
1,3-Dichlorobenzene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	54.8	110	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	13.7	27.4	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	13.7	27.4	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	13.7	27.4	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	27.4	54.8	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	27.4	54.8	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	54.8	110	ug/kg dry	50		ND				30%	
2-Hexanone	ND	274	548	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Methylene chloride	ND	274	548	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	274	548	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Naphthalene	ND	110	110	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	13.7	27.4	ug/kg dry	50		ND				30%	
Styrene	ND	27.4	54.8	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	13.7	27.4	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	27.4	54.8	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	13.7	27.4	ug/kg dry	50		ND				30%	
Toluene	ND	27.4	54.8	ug/kg drv	50		ND				30%	
1,2,3-Trichlorobenzene	ND	137	274	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	137	274	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	13.7	27.4	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	13.7	27.4	ug/kg dry	50		ND				30%	
				000								

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D			_		
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0787 - EPA 5035A							Soi	il				
Duplicate (23I0787-DUP1)			Preparec	1: 09/20/23 1	4:45 Anal	lyzed: 09/25	/23 15:57					
QC Source Sample: Non-SDG (A3	I1356-01)											
Trichloroethene (TCE)	ND	13.7	27.4	ug/kg dry	y 50		ND				30%	
Trichlorofluoromethane	ND	54.8	110	ug/kg dry	y 50		ND				30%	
1,2,3-Trichloropropane	ND	27.4	54.8	ug/kg dry	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	27.4	54.8	ug/kg dry	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	27.4	54.8	ug/kg dry	y 50		ND				30%	
Vinyl chloride	ND	13.7	27.4	ug/kg dry	y 50		ND				30%	
m,p-Xylene	ND	27.4	54.8	ug/kg dry	y 50		ND				30%	
o-Xylene	ND	13.7	27.4	ug/kg dry	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	wery: 99%	Limits: 80-	-120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			102 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			95 %	79-	120 %		"					
QC Source Sample: Non-SDG (A3	<u>11345-02)</u>		Tieparer									
5035A/8260D	10.500	10-0	01/0	a -		4000		21.6	26.14			
Acetone	13500	1070	2140	ug/kg dry	y 50	4280	ND	516	36-164%			Q-5
Acryionitrile	2400	107	214	ug/kg dry	y 50	2140	ND	112	05-134%			
Benzene	2310	10.7	21.4	ug/kg dry	y 50	2140	ND	108	79.121%			
Bromobenzene	2190	26.7	53.5	ug/kg dry	y 50	2140	ND	103	/8-121%			~ -
Bromochloromethane	2930	53.5	107	ug/kg dry	y 50	2140	ND	137	78-125%			Q-5
Bromodichloromethane	2450	53.5	107	ug/kg dry	y 50	2140	ND	115	/5-127%			
Bromotorm	2310	107	214	ug/kg dry	y 50	2140	ND	108	67-132%			~ -
Bromomethane	4040	1070	1070	ug/kg dry	y 50	2140	ND	189	53-143%			Q-5
2-Butanone (MEK)	9570	535	1070	ug/kg dry	y 50	4280	ND	224	51-148%			Q-5
n-Butylbenzene	2400	53.5	107	ug/kg dry	y 50	2140	ND	112	70-128%			
sec-Butylbenzene	2390	53.5	107	ug/kg dry	y 50	2140	ND	112	/3-126%			
tert-Butylbenzene	2220	53.5	107	ug/kg dry	y 50	2140	ND	104	73-125%			
Carbon disulfide	3110	535	1070	ug/kg dry	y 50	2140	ND	145	63-132%			Q-
Carbon tetrachloride	2560	53.5	107	ug/kg dry	y 50	2140	ND	120	70-135%			
Chlorobenzene	2260	26.7	53.5	ug/kg dry	y 50	2140	ND	106	79-120%			
Chloroethane	4600	535	1070	ug/kg dry	y 50	2140	ND	215	59-139%			Q-:
Chloroform	2370	53.5	107	ug/kg dry	y 50	2140	ND	111	78-123%			
Chloromethane	2720	267	535	ug/kg dry	y 50	2140	ND	127	50-136%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Org	ganic Con	npounds	by EPA 8	8260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0787 - EPA 5035A							So	il				
Matrix Spike (2310787-MS1)			Prepared	: 09/22/23 1	5:39 Ana	lyzed: 09/25	5/23 14:40					V-15
QC Source Sample: Non-SDG (A3I	1345-02)											
2-Chlorotoluene	2240	53.5	107	ug/kg dry	50	2140	ND	105	75-122%	,		
4-Chlorotoluene	2350	53.5	107	ug/kg dry	50	2140	ND	110	72-124%	,		
Dibromochloromethane	2520	107	214	ug/kg dry	50	2140	ND	118	74-126%	,		
1,2-Dibromo-3-chloropropane	1790	267	535	ug/kg dry	50	2140	ND	84	61-132%	,		
1,2-Dibromoethane (EDB)	2210	53.5	107	ug/kg dry	50	2140	ND	103	78-122%	,		
Dibromomethane	2370	53.5	107	ug/kg dry	50	2140	ND	111	78-125%	,		
1,2-Dichlorobenzene	2220	26.7	53.5	ug/kg dry	50	2140	ND	104	78-121%	,		
1,3-Dichlorobenzene	2240	26.7	53.5	ug/kg dry	50	2140	ND	105	77-121%	,		
1,4-Dichlorobenzene	2190	26.7	53.5	ug/kg dry	50	2140	ND	103	75-120%	,		
Dichlorodifluoromethane	4240	107	214	ug/kg dry	50	2140	ND	198	29-149%	,		Q-5
1,1-Dichloroethane	2470	26.7	53.5	ug/kg dry	50	2140	ND	116	76-125%	,		
1,2-Dichloroethane (EDC)	2600	26.7	53.5	ug/kg dry	50	2140	ND	122	73-128%	,		
1,1-Dichloroethene	3290	26.7	53.5	ug/kg dry	50	2140	ND	154	70-131%	,		Q-5
cis-1,2-Dichloroethene	2460	26.7	53.5	ug/kg dry	50	2140	ND	115	77-123%	,		
trans-1,2-Dichloroethene	2510	26.7	53.5	ug/kg dry	50	2140	ND	117	74-125%	,		
1,2-Dichloropropane	2430	26.7	53.5	ug/kg dry	50	2140	ND	114	76-123%	,		
1,3-Dichloropropane	2320	53.5	107	ug/kg dry	50	2140	ND	108	77-121%	,		
2,2-Dichloropropane	2410	53.5	107	ug/kg dry	50	2140	ND	113	67-133%	,		
1,1-Dichloropropene	2420	53.5	107	ug/kg dry	50	2140	ND	113	76-125%	,		
cis-1,3-Dichloropropene	2290	53.5	107	ug/kg dry	50	2140	ND	107	74-126%	,		
trans-1,3-Dichloropropene	2500	53.5	107	ug/kg dry	50	2140	ND	117	71-130%	,		
Ethylbenzene	2230	26.7	53.5	ug/kg dry	50	2140	ND	104	76-122%	,		
Hexachlorobutadiene	2150	107	214	ug/kg dry	50	2140	ND	101	61-135%	,		
2-Hexanone	6960	535	1070	ug/kg dry	50	4280	ND	163	53-145%	,		Q-
Isopropylbenzene	2160	53.5	107	ug/kg dry	50	2140	ND	101	68-134%	,		
4-Isopropyltoluene	2210	53.5	107	ug/kg dry	50	2140	ND	103	73-127%	,		
Methylene chloride	2320	535	1070	ug/kg dry	50	2140	ND	108	70-128%	,		
4-Methyl-2-pentanone (MiBK)	5450	535	1070	ug/kg dry	50	4280	ND	127	65-135%	,		
Methyl tert-butyl ether (MTBE)	2060	53.5	107	ug/kg drv	50	2140	ND	96	73-125%	,		
Naphthalene	1580	214	214	ug/kg dry	50	2140	ND	74	62-129%	,		O-5
n-Pronvlbenzene	2400	26.7	53.5	ug/kg dry	z 50	2140	ND	112	73-125%			
Styrene	2700	53.5	107	ug/kg dry	7 50	2140	ND	104	76-124%			
1.1.1.2-Tetrachloroethane	2230	267	53.5	ug/kg dry	, 50 , 50	2140	ND	113	78-124/0			
1,1,1,2-1eu aemoroemane	2420	20.7	55.5	ug/kg dry	50	2140	ND	115	/0-123%	,		

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310787 - EPA 5035A							Soi	i <u> </u>				
Matrix Spike (2310787-MS1)			Prepared	: 09/22/23 1:	5:39 Anal	yzed: 09/25/	23 14:40					V-15
QC Source Sample: Non-SDG (A3)	(1345-02)											
1,1,2,2-Tetrachloroethane	2460	53.5	107	ug/kg dry	, 50	2140	ND	115	70-124%			
Tetrachloroethene (PCE)	2040	26.7	53.5	ug/kg dry	7 50	2140	ND	95	73-128%			
Toluene	2240	53.5	107	ug/kg dry	7 50	2140	ND	105	77-121%			
1,2,3-Trichlorobenzene	1770	267	535	ug/kg dry	7 50	2140	ND	83	66-130%			
1,2,4-Trichlorobenzene	1650	267	535	ug/kg dry	, 50	2140	ND	77	67-129%			
1,1,1-Trichloroethane	2430	26.7	53.5	ug/kg dry	, 50	2140	ND	114	73-130%			
1,1,2-Trichloroethane	2350	26.7	53.5	ug/kg dry	, 50	2140	ND	110	78-121%			
Trichloroethene (TCE)	2120	26.7	53.5	ug/kg dry	, 50	2140	ND	99	77-123%			
Trichlorofluoromethane	27600	107	214	ug/kg dry	⁷ 50	2140	ND	1290	62-140%			Q-54
1,2,3-Trichloropropane	2630	53.5	107	ug/kg dry	, 50	2140	ND	123	73-125%			
1,2,4-Trimethylbenzene	2300	53.5	107	ug/kg dry	, 50	2140	ND	107	75-123%			
1,3,5-Trimethylbenzene	2360	53.5	107	ug/kg dry	, 50	2140	ND	110	73-124%			
Vinyl chloride	3440	26.7	53.5	ug/kg dry	, 50	2140	ND	161	56-135%			Q-54
m,p-Xylene	4590	53.5	107	ug/kg dry	, 50	4280	ND	107	77-124%			
o-Xylene	2000	26.7	53.5	ug/kg dry	[,] 50	2140	ND	94	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	wery: 96 %	Limits: 80-	120 %	Dilu	tion: 1x					
Toluene-d8 (Surr)			99 %	80-1	120 %		"					
4-Bromofluorobenzene (Surr)			92 %	79-1	120 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	8260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23l0840 - EPA 5035A							Soi					
Blank (2310840-BLK1)			Prepared	: 09/26/23 10	:57 Ana	lyzed: 09/26	/23 13:50					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1.2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
,		-=-0										

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0840 - EPA 5035A							Soi	I				
Blank (2310840-BLK1)			Prepared	1: 09/26/23 1	0:57 Ana	yzed: 09/26/	/23 13:50					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	t 50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	t 50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	t 50							
2-Hexanone	ND	250	500	ug/kg wet	t 50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	t 50							
Methylene chloride	ND	250	500	ug/kg wet	t 50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	t 50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	t 50							
Naphthalene	ND	100	100	ug/kg wet	t 50							Q-54
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	t 50							
Styrene	ND	25.0	50.0	ug/kg wet	t 50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	t 50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	t 50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	t 50							
Toluene	ND	25.0	50.0	ug/kg wet	t 50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	t 50							
1,2,4-Trichlorobenzene	ND	250	250	ug/kg wet	t 50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	t 50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	t 50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	t 50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	t 50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	t 50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	t 50							
o-Xylene	ND	12.5	25.0	ug/kg wet	t 50							
Surr: 1.4-Difluorobenzene (Surr)		Reci	overv: 96%	Limits: 80-	120 %	Dih	ution: 1x					

Apex Laboratories



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

Sevenson Environmental Service	ces, Inc.			Project:	<u>Gasco -</u>	- Filtercake						
2749 Lockport Road			Pro	oject Numbe	er: 111323					F	Report ID	<u>:</u>
Niagara Falls, NY 14305			Pro	ject Manage	r: Chip B	yrd			A	311260	- 10 18 23	3 1006
		QU	ALITY CO	ONTROL	(QC) SA	AMPLE F	RESULT	S				
			Volatile Or	ganic Cor	npounds	by EPA 8	8260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0840 - EPA 5035A							So	il				
Blank (2310840-BLK1)			Prepared	l: 09/26/23 1	0:57 Ana	lvzed: 09/26	5/23 13:50					
Surr: Toluene-d8 (Surr)		Reco	verv: 105 %	Limits: 80	-120 %	Dil	ution: 1x					
4-Bromofluorobenzene (Surr)			94 %	79-	-120 %		"					
LCS (2310840-BS1)			Prepared	l: 09/26/23 1	0:57 Ana	lyzed: 09/26	5/23 12:54					
<u>5035A/8260D</u>												
Acetone	5160	500	1000	ug/kg we	et 50	2000		258	80-120%			Q-56
Acrylonitrile	1070	50.0	100	ug/kg we	et 50	1000		107	80-120%			
Benzene	1050	5.00	10.0	ug/kg we	et 50	1000		105	80-120%			
Bromobenzene	952	12.5	25.0	ug/kg we	et 50	1000		95	80-120%			
Bromochloromethane	1320	25.0	50.0	ug/kg we	et 50	1000		132	80-120%			Q-56
Bromodichloromethane	1120	25.0	50.0	ug/kg we	et 50	1000		112	80-120%			
Bromoform	997	50.0	100	ug/kg we	et 50	1000		100	80-120%			
Bromomethane	1870	500	500	ug/kg we	et 50	1000		187	80-120%			Q-56
2-Butanone (MEK)	3610	250	500	ug/kg we	et 50	2000		180	80-120%			Q-56
n-Butylbenzene	1030	25.0	50.0	ug/kg we	et 50	1000		103	80-120%			
sec-Butylbenzene	1040	25.0	50.0	ug/kg we	et 50	1000		104	80-120%			
tert-Butylbenzene	954	25.0	50.0	ug/kg we	et 50	1000		95	80-120%			
Carbon disulfide	1430	250	500	ug/kg we	et 50	1000		143	80-120%			Q-56
Carbon tetrachloride	1130	25.0	50.0	ug/kg we	et 50	1000		113	80-120%			
Chlorobenzene	1040	12.5	25.0	ug/kg we	et 50	1000		104	80-120%			
Chloroethane	1850	250	500	ug/kg we	et 50	1000		185	80-120%			Q-56
Chloroform	1090	25.0	50.0	ug/kg we	et 50	1000		109	80-120%			
Chloromethane	1180	125	250	ug/kg we	et 50	1000		118	80-120%			
2-Chlorotoluene	979	25.0	50.0	ug/kg we	et 50	1000		98	80-120%			
4-Chlorotoluene	1050	25.0	50.0	ug/kg we	et 50	1000		105	80-120%			
Dibromochloromethane	1170	50.0	100	ug/kg we	et 50	1000		117	80-120%			
1,2-Dibromo-3-chloropropane	878	125	250	ug/kg we	et 50	1000		88	80-120%			
1,2-Dibromoethane (EDB)	1070	25.0	50.0	ug/kg we	et 50	1000		107	80-120%			
Dibromomethane	1090	25.0	50.0	ug/kg we	et 50	1000		109	80-120%			
1,2-Dichlorobenzene	1020	12.5	25.0	ug/kg we	et 50	1000		102	80-120%			
1,3-Dichlorobenzene	1020	12.5	25.0	ug/kg we	et 50	1000		102	80-120%			
1,4-Dichlorobenzene	1020	12.5	25.0	ug/kg we	et 50	1000		102	80-120%			
Dichlorodifluoromethane	1660	50.0	100	119/kg we	et 50	1000		166	80-120%			Q-56, ICV-01

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1,1-Dichloroethane

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

114

80-120%

1140

12.5

25.0

ug/kg wet 50

1000



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

I

Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
3atch 2310840 - EPA 5035A							Soi	I				
LCS (23I0840-BS1)			Prepared	1: 09/26/23 1	0:57 Ana	lyzed: 09/26	/23 12:54					
1,2-Dichloroethane (EDC)	1220	12.5	25.0	ug/kg we	t 50	1000		122	80-120%			Q-5
1,1-Dichloroethene	1520	12.5	25.0	ug/kg we	t 50	1000		152	80-120%			Q-5
cis-1,2-Dichloroethene	1090	12.5	25.0	ug/kg we	t 50	1000		109	80-120%			
trans-1,2-Dichloroethene	1120	12.5	25.0	ug/kg we	t 50	1000		112	80-120%			
1,2-Dichloropropane	1110	12.5	25.0	ug/kg we	t 50	1000		111	80-120%			
1,3-Dichloropropane	1120	25.0	50.0	ug/kg we	t 50	1000		112	80-120%			
2,2-Dichloropropane	1100	25.0	50.0	ug/kg we	t 50	1000		110	80-120%			
1,1-Dichloropropene	1030	25.0	50.0	ug/kg we	t 50	1000		103	80-120%			
cis-1,3-Dichloropropene	1150	25.0	50.0	ug/kg we	t 50	1000		115	80-120%			
trans-1,3-Dichloropropene	1220	25.0	50.0	ug/kg we	t 50	1000		122	80-120%			Q-5
Ethylbenzene	1040	12.5	25.0	ug/kg we	t 50	1000		104	80-120%			
Hexachlorobutadiene	938	50.0	100	ug/kg we	t 50	1000		94	80-120%			
2-Hexanone	2540	250	500	ug/kg we	t 50	2000		127	80-120%			Q-5
Isopropylbenzene	942	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			
4-Isopropyltoluene	950	25.0	50.0	ug/kg we	t 50	1000		95	80-120%			
Methylene chloride	1130	250	500	ug/kg we	t 50	1000		113	80-120%			
4-Methyl-2-pentanone (MiBK)	2240	250	500	ug/kg we	t 50	2000		112	80-120%			
Methyl tert-butyl ether (MTBE)	940	25.0	50.0	ug/kg we	t 50	1000		94	80-120%			
Naphthalene	700	100	100	ug/kg we	t 50	1000		70	80-120%			Q-54
n-Propylbenzene	1070	12.5	25.0	ug/kg we	t 50	1000		107	80-120%			
Styrene	983	25.0	50.0	ug/kg we	t 50	1000		98	80-120%			
1,1,1,2-Tetrachloroethane	1140	12.5	25.0	ug/kg we	t 50	1000		114	80-120%			
1,1,2,2-Tetrachloroethane	1170	25.0	50.0	ug/kg we	t 50	1000		117	80-120%			
Tetrachloroethene (PCE)	982	12.5	25.0	ug/kg we	t 50	1000		98	80-120%			
Toluene	1100	25.0	50.0	ug/kg we	t 50	1000		110	80-120%			
1,2,3-Trichlorobenzene	814	125	250	ug/kg we	t 50	1000		81	80-120%			
1,2,4-Trichlorobenzene	725	250	250	ug/kg we	t 50	1000		72	80-120%			Q-5
1,1,1-Trichloroethane	1090	12.5	25.0	ug/kg we	t 50	1000		109	80-120%			
1,1,2-Trichloroethane	1140	12.5	25.0	ug/kg we	t 50	1000		114	80-120%			
Trichloroethene (TCE)	917	12.5	25.0	ug/kg we	t 50	1000		92	80-120%			
Trichlorofluoromethane	1730	50.0	100	ug/kg we	t 50	1000		173	80-120%			Q-5
1,2,3-Trichloropropane	1200	25.0	50.0	ug/kg we	t 50	1000		120	80-120%			
1.2.4-Trimethylbenzene	1020	25.0	50.0	ug/kg we	t 50	1000		102	80-120%			
1.3.5-Trimethylbenzene	1070	25.0	50.0	ug/kø we	t 50	1000		107	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0840 - EPA 5035A							Soi	il				
LCS (2310840-BS1)			Prepared	1: 09/26/23 10	:57 Anal	yzed: 09/26/	23 12:54					
Vinyl chloride	1420	12.5	25.0	ug/kg wet	50	1000		142	80-120%			Q-:
m,p-Xylene	2150	25.0	50.0	ug/kg wet	50	2000		107	80-120%			
o-Xylene	878	12.5	25.0	ug/kg wet	50	1000		88	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 95 %	Limits: 80-1	20 %	Dilu	ution: 1x					
Toluene-d8 (Surr)			108 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			86 %	79-1	20 %		"					
Duplicate (2310840-DUP1)			Prepared	l: 09/21/23 16	:35 Anal	yzed: 09/26/	/23 20:42					
OC Source Sample: Non-SDG (A31	1359-08)											
Acetone	ND	23400	46800	ug/kg dry	500		ND				30%	
Acrylonitrile	ND	2340	4680	ug/kg dry	500		ND				30%	
Benzene	ND	234	468	ug/kg dry	500		ND				30%	
Bromobenzene	ND	585	1170	ug/kg dry	500		ND				30%	
Bromochloromethane	ND	1170	2340	ug/kg dry	500		ND				30%	
Bromodichloromethane	ND	1170	2340	ug/kg dry	500		ND				30%	
Bromoform	ND	2340	4680	ug/kg dry	500		ND				30%	
Bromomethane	ND	23400	23400	ug/kg dry	500		ND				30%	
2-Butanone (MEK)	ND	11700	23400	ug/kg dry	500		ND				30%	
n-Butylbenzene	ND	1170	2340	ug/kg dry	500		ND				30%	
sec-Butylbenzene	ND	1170	2340	ug/kg dry	500		ND				30%	
tert-Butylbenzene	ND	1170	2340	ug/kg dry	500		ND				30%	
Carbon disulfide	ND	11700	23400	ug/kg dry	500		ND				30%	
Carbon tetrachloride	ND	1170	2340	ug/kg dry	500		ND				30%	
Chlorobenzene	ND	585	1170	ug/kg dry	500		ND				30%	
Chloroethane	ND	11700	23400	ug/kg dry	500		ND				30%	
Chloroform	ND	1170	2340	ug/kg dry	500		ND				30%	
Chloromethane	ND	5850	11700	ug/kg dry	500		ND				30%	
2-Chlorotoluene	ND	1170	2340	ug/kg dry	500		ND				30%	
4-Chlorotoluene	ND	1170	2340	ug/kg dry	500		ND				30%	
Dibromochloromethane	ND	2340	4680	ug/kg dry	500		ND				30%	
1,2-Dibromo-3-chloropropane	ND	5850	11700	ug/kg dry	500		ND				30%	
1,2-Dibromoethane (EDB)	ND	1170	2340	ug/kg drv	500		ND				30%	
Dibromomethane	ND	1170	2340	ug/kg drv	500		ND				30%	
1,2-Dichlorobenzene	ND	585	1170	ug/kg drv	500		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310840 - EPA 5035A							Soi	I				
Duplicate (2310840-DUP1)			Prepared	: 09/21/23 16	:35 Anal	yzed: 09/26/	/23 20:42					
QC Source Sample: Non-SDG (A3I	1359-08)											
1,3-Dichlorobenzene	ND	585	1170	ug/kg dry	500		ND				30%	
1,4-Dichlorobenzene	ND	585	1170	ug/kg dry	500		ND				30%	
Dichlorodifluoromethane	ND	2340	4680	ug/kg dry	500		ND				30%	
1,1-Dichloroethane	ND	585	1170	ug/kg dry	500		ND				30%	
1,2-Dichloroethane (EDC)	ND	585	1170	ug/kg dry	500		ND				30%	
1,1-Dichloroethene	ND	585	1170	ug/kg dry	500		ND				30%	
cis-1,2-Dichloroethene	ND	585	1170	ug/kg dry	500		ND				30%	
trans-1,2-Dichloroethene	ND	585	1170	ug/kg dry	500		ND				30%	
1,2-Dichloropropane	ND	585	1170	ug/kg dry	500		ND				30%	
1,3-Dichloropropane	ND	1170	2340	ug/kg dry	500		ND				30%	
2,2-Dichloropropane	ND	1170	2340	ug/kg dry	500		ND				30%	
1,1-Dichloropropene	ND	1170	2340	ug/kg dry	500		ND				30%	
cis-1,3-Dichloropropene	ND	1170	2340	ug/kg dry	500		ND				30%	
trans-1,3-Dichloropropene	ND	1170	2340	ug/kg dry	500		ND				30%	
Ethylbenzene	ND	585	1170	ug/kg dry	500		ND				30%	
Hexachlorobutadiene	ND	2340	4680	ug/kg dry	500		ND				30%	
2-Hexanone	ND	11700	23400	ug/kg dry	500		ND				30%	
Isopropylbenzene	ND	1170	2340	ug/kg dry	500		ND				30%	
4-Isopropyltoluene	ND	1170	2340	ug/kg dry	500		ND				30%	
Methylene chloride	ND	11700	23400	ug/kg dry	500		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	11700	23400	ug/kg dry	500		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	1170	2340	ug/kg dry	500		ND				30%	
Naphthalene	ND	4680	4680	ug/kg dry	500		ND				30%	Q-54
n-Propylbenzene	ND	585	1170	ug/kg dry	500		ND				30%	
Styrene	ND	1170	2340	ug/kg dry	500		ND				30%	
1,1,1,2-Tetrachloroethane	ND	585	1170	ug/kg dry	500		ND				30%	
1,1,2,2-Tetrachloroethane	ND	1170	2340	ug/kg dry	500		ND				30%	
Tetrachloroethene (PCE)	ND	585	1170	ug/kg dry	500		ND				30%	
Toluene	ND	1170	2340	ug/kg dry	500		ND				30%	
1,2,3-Trichlorobenzene	ND	5850	11700	ug/kg dry	500		ND				30%	
1,2,4-Trichlorobenzene	ND	11700	11700	ug/kg dry	500		ND				30%	
1,1,1-Trichloroethane	ND	585	1170	ug/kg dry	500		ND				30%	
1,1,2-Trichloroethane	ND	585	1170	ug/kg dry	500		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0840 - EPA 5035A							So	il				
Duplicate (2310840-DUP1)			Prepareo	d: 09/21/23 1	6:35 Ana	lyzed: 09/26	/23 20:42					
QC Source Sample: Non-SDG (A3	<u>11359-08)</u>											
Trichloroethene (TCE)	ND	585	1170	ug/kg dr	y 500		ND				30%	
Trichlorofluoromethane	ND	2340	4680	ug/kg dr	y 500		ND				30%	
1,2,3-Trichloropropane	ND	1170	2340	ug/kg dr	y 500		ND				30%	
1,2,4-Trimethylbenzene	2200	1170	2340	ug/kg dr	y 500		2220			1	30%	
1,3,5-Trimethylbenzene	ND	1170	2340	ug/kg dr	y 500		ND				30%	
Vinyl chloride	ND	585	1170	ug/kg dr	y 500		ND				30%	
m,p-Xylene	ND	2340	2340	ug/kg dr	y 500		ND				30%	
o-Xylene	ND	1170	1170	ug/kg dr	y 500		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 99%	Limits: 80-	-120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			102 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					
OC Source Sample: Non-SDG (A3	<u>11354-02)</u>											
<u>5035A/8260D</u>	22200	2010	4020	4 1	200	0050	ND	• • • •				0.54
Acetone	4280	2010	4030	ug/kg dr	y 200	8050	ND	288	30-104%			Q-34
Bangana	4280	201	403	ug/kg dr	y 200	4030	ND 44.2	100	03-134%			
Benzene	4440	20.1	40.5	ug/kg dr	y 200	4030	44.5 ND	109	79 121%			
Bromobenzene Due weige als here weigte eine	4060	50.4	101	ug/kg dr	y 200	4030	ND	101	/8-121%			0.5/
Bromocniorometnane	4770	101	201	ug/kg dr	y 200	4030	ND	118	/8-125%			Q-34
Bromoform	4520	201	201	ug/kg ur	y 200	4030	ND	107	/3-12/70			
Bromomethane	5750	201	2010	ug/kg dr	y 200	4030	ND	95 1 5 3	53 1439/			0-54
2 Putenone (MEK)	16000	1010	2010	ug/kg ur	y 200	4030 8050	ND	155	53-145 %			Q-54
n Butylbenzene	14200	1010	2010	ug/kg ur	y 200	4020	ND 8050	133	31-140 /0 70 1390/			>
sec Butylbenzene	8370	101	201	ug/kg ur	y 200	4030	3030	110	73 126%			v •
tert Butylbenzene	4210	101	201	ug/kg ur	y 200	4030	3930 ND	107	73-12070			
Carbon disulfide	5070	101	201	ug/kg ur	y 200	4030	ND	107	63 1320%			0-54
Carbon tetrachloride	4600	1010	2010	ug/kg ur	y 200	4030	ND	120	70 135%			Q-54
Chlorobenzene	4000	50 /	101	ug/kg ul	y 200	4030		105	70-13370			
Chloroethane	+220 5630	1010	2010	ug/kg dr	y 200 v 200	4030	ND	103	50 1300 /			0-5
Chloroform	4240	1010	2010	ug/kg ul	y 200	4030		105	78_1720/			Q-2-
Chloromethane	4240	504	1010	ug/kg dr	y 200 v 200	4030	ND	105	50-12570			
Cinoroniculanc	4240	504	1010	ug/kg ur	y 200	-030	ND	105	30-13070			

Apex Laboratories



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Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

AnalyeDetection LimitOption LimitOnline DistanceSprikeSprike Note <th< th=""><th></th><th></th><th></th><th>Volatile Orç</th><th>ganic Com</th><th>pounds</th><th>by EPA 8</th><th>3260D</th><th></th><th></th><th></th><th></th><th></th></th<>				Volatile Orç	ganic Com	pounds	by EPA 8	3260D					
Batch 230840-EPA 6353 Prepared: 09/22/23 000 Analyzet: 09/26/23 1/::0 Segment: Non-SDG (A3UISED VESSION AND 2010 Values: 09/26/23 1/::0 2-Chiorosohane 4560 101 201 VESSION AND 103 75/122% 2-Chiorosohane 4500 VIII VIIII 2-Chiorosohane 4700 4030 ND 103 2-Chiorosohane 4500 201 4030 ND 103 75/122% 12-Diorosohane (EDB) 400 4030 ND 71/201/0 1.2-Diorosohane (EDC) 4040 101 201 4030 ND 71/21/0 1.2-Diorisohane (EDC) 4040 101 101 101	Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Nutrix Spike (23108-00-14) Prepared: 09/22/23 00:00 Analyzed: 09/20/2012 17:16 C Source Sample: Non-SDG (A31154-02) <td>Batch 23I0840 - EPA 5035A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>So</td> <td>il</td> <td></td> <td></td> <td></td> <td></td>	Batch 23I0840 - EPA 5035A							So	il				
Source Sour	Matrix Spike (23I0840-MS1)			Prepared:	: 09/22/23 00):00 Anai	lyzed: 09/26/	/23 17:16					
2-Chlorotolucne 4560 101 201 ug/kg dry 200 4030 ND 113 75-122% 4-Chlorotolucne 470 101 201 ug/kg dry 200 4030 ND 106 72-124% 1.2-Dibromo-Chromethane 4550 201 403 ug/kg dry 200 4030 ND 109 78-122% 1.2-Dibromo-Chromethane 4240 101 201 ug/kg dry 200 4030 ND 106 78-123% 1.2-Dichlorobenzene 4280 50.4 101 ug/kg dry 200 4030 ND 106 78-123% 1.4-Dichlorobenzene 4180 50.4 101 ug/kg dry 200 4030 ND 104 77-121% 1.4-Dichlorobenzene 470 50.4 101 ug/kg dry 200 4030 ND 111 76-125% 1.4-Dichlororethane 4470 50.4 10	OC Source Sample: Non-SDG (A31	1354-02)											
4-Chiorotolucene 4270 101 201 ug/k g/ry 200 4030 ND 106 72-124% Dibromochloromethane 3500 504 1010 ug/k g/ry 200 4030 ND 103 74-126% 1.2-Dibromo-chane 4390 101 201 ug/k g/ry 200 4030 ND 105 78-122% 1.2-Dibromoethane 4240 101 201 ug/k g/ry 200 4030 ND 105 78-125% 1.3-Dichorobenzene 4280 50.4 101 ug/k g/ry 200 4030 ND 106 78-125% 1.3-Dichorobenzene 4180 50.4 101 ug/k g/ry 200 4030 ND 110 76-125% 1.4-Dichoroethane 4470 50.4 101 ug/k g/ry 200 4030 ND 111 76-125% 1.1-Dichoroethane 570 50.4 101 ug/k g/ry <td>2-Chlorotoluene</td> <td>4560</td> <td>101</td> <td>201</td> <td>ug/kg dry</td> <td>200</td> <td>4030</td> <td>ND</td> <td>113</td> <td>75-122%</td> <td></td> <td></td> <td></td>	2-Chlorotoluene	4560	101	201	ug/kg dry	200	4030	ND	113	75-122%			
Diromochloromethane 4550 201 403 ug/kg dry 200 4030 ND 113 74-126% 1.2-Dibromo-3-chloropropane 3990 504 1010 ug/kg dry 200 4030 ND 109 78-122% Dibromo-chlane (EDB) 4300 101 201 ug/kg dry 200 4030 ND 105 78-125% 1.3-Dichlorobenzne 4280 50.4 101 ug/kg dry 200 4030 ND 106 78-121% 1.4-Dichlorobenzne 3990 50.4 101 ug/kg dry 200 4030 ND 199 75-120% 1.4-Dichloroethane 4470 50.4 101 ug/kg dry 200 4030 ND 110 73-128% 1.1-Dichloroethane 4470 50.4 101 ug/kg dry 200 4030 ND 110 77-123%	4-Chlorotoluene	4270	101	201	ug/kg dry	200	4030	ND	106	72-124%			
1.2-Dibromo-3-chloropropane 3990 504 1010 ug/kg dry 200 4030 ND 99 61-132% 1.2-Dibromochane 4240 101 201 ug/kg dry 200 4030 ND 105 78-122% 1.2-Dichlorobenzene 4280 50.4 101 ug/kg dry 200 4030 ND 106 78-121% 1.3-Dichlorobenzene 4180 50.4 101 ug/kg dry 200 4030 ND 104 77-121% 1.4-Dichlorobenzene 3990 50.4 101 ug/kg dry 200 4030 ND 199 75-120% 1.4-Dichloroethane 6390 201 403 ug/kg dry 200 4030 ND 110 73-128% 1.1-Dichloroethane 4370 50.4 101 ug/kg dry 200 4030 ND 110 73-128% 1.2-Dichloroethane 4570 50.4 101 <	Dibromochloromethane	4550	201	403	ug/kg dry	200	4030	ND	113	74-126%			
1.2-Dibromoethane (EDB) 4390 101 201 ug/kg dry 200 4030 ND 109 78-122% Dibromoethane 4240 101 201 ug/kg dry 200 4030 ND 105 78-122% 1.2-Dichlorobenzene 4180 50.4 101 ug/kg dry 200 4030 ND 106 78-121% 1.4-Dichlorobenzene 3990 50.4 101 ug/kg dry 200 4030 ND 199 75-120% 1.4-Dichlorobenzene 4470 50.4 101 ug/kg dry 200 4030 ND 110 73-128% 1.1-Dichloroethane 4470 50.4 101 ug/kg dry 200 4030 ND 110 70-131% 1.2-Dichloroethane 4570 50.4 101 ug/kg dry 200 4030 ND 114 77-123% 1.2-Dichloroethene 4680 50.4 101 ug/	1,2-Dibromo-3-chloropropane	3990	504	1010	ug/kg dry	200	4030	ND	99	61-132%			
Dibromomethane 4240 101 201 ug/kg dry 200 4030 ND 105 78-125% 1,3-Dichlorobenzene 4280 50.4 101 ug/kg dry 200 4030 ND 106 78-125% 1,3-Dichlorobenzene 390 50.4 101 ug/kg dry 200 4030 ND 104 77-121% 1,4-Dichlorobenzene 390 50.4 101 ug/kg dry 200 4030 ND 110 76-125% 1,1-Dichloroethane 4470 50.4 101 ug/kg dry 200 4030 ND 110 73-128% 1,1-Dichloroethane 4570 50.4 101 ug/kg dry 200 4030 ND 114 77-123% 1,2-Dichloroethene 4680 50.4 101 ug/kg dry 200 4030 ND 110 71.13%	1,2-Dibromoethane (EDB)	4390	101	201	ug/kg dry	200	4030	ND	109	78-122%			
1.2-Dichlorobenzene428050.4101 $ug/kg dry$ 2004030ND106 $78-121\%$ $$ $$ 1.3-Dichlorobenzene418050.4101 $ug/kg dry$ 2004030ND99 $75-120\%$ $$ $$ 1.4-Dichlorobenzene399050.4101 $ug/kg dry$ 2004030ND99 $75-120\%$ $$ $$ 1.4-Dichlorobenzene6390201403 $ug/kg dry$ 2004030ND110 $75-120\%$ $$ $$ 1.1-Dichloroethane447050.4101 $ug/kg dry$ 2004030ND110 $73-128\%$ $$ $$ 1.1-Dichloroethane539050.4101 $ug/kg dry$ 2004030ND114 $70-131\%$ $$ $$ 1.1-Dichloroethene457050.4101 $ug/kg dry$ 2004030ND114 $71-123\%$ $$ $$ 1.2-Dichloroethene446050.4101 $ug/kg dry$ 2004030ND111 $76-123\%$ $$ $$ 1.2-Dichloropropane446050.4101 $ug/kg dry$ 2004030ND110 $71-123\%$ $$ $$ 1.2-Dichloropropane4430101201 $ug/kg dry$ 2004030ND110 $71-123\%$ $$ $$ 1.3-Dichloropropene4510101201 $ug/kg dry$ 2004030ND110 $71-123\%$	Dibromomethane	4240	101	201	ug/kg dry	200	4030	ND	105	78-125%			
1,3-Dichlorobenzene418050.4101ug/kg dry2004030ND10477-121%1,4-Dichlorobenzene399050.4101ug/kg dry2004030ND9975-120%Dichlorodifluoromethane6390201403ug/kg dry2004030ND11075-120%1,1-Dichloroethane447050.4101ug/kg dry2004030ND11073-128%1,2-Dichloroethane539050.4101ug/kg dry2004030ND11477-123%cis-1,2-Dichloroethene457050.4101ug/kg dry2004030ND11477-123%trans-1,2-Dichloroethene468050.4101ug/kg dry2004030ND11176-123%1,3-Dichloropropane446050.4101ug/kg dry2004030ND11077-121%1,3-Dichloropropane4430101201ug/kg dry2004030ND11077-121%1,1-Dichloropropane4430101201ug/kg dry2004030ND11077-121%1,1-Dichloropropane4430101201ug/kg dry2004030ND11071-121%1,1-Dichloropropane4510<	1,2-Dichlorobenzene	4280	50.4	101	ug/kg dry	200	4030	ND	106	78-121%			
1,4-Dichlorobenzene 3990 50.4 101 ug/kg dry 200 4030 ND 99 75-120% Dichlorodifluoromethane 6390 201 403 ug/kg dry 200 4030 ND 159 29-149% 1,1-Dichloroethane 4470 50.4 101 ug/kg dry 200 4030 ND 111 76-125% 1,1-Dichloroethane 5390 50.4 101 ug/kg dry 200 4030 ND 114 77-123% 1,1-Dichloroethene 4570 50.4 101 ug/kg dry 200 4030 ND 114 77-123% 1,2-Dichloroethene 4560 50.4 101 ug/kg dry 200 4030 ND 110 76-123% 1,2-Dichloropropane 4430 101 201 ug/kg dry 200 4030 ND 110 76-123% 1,3-Dichloropropane 4330 101	1,3-Dichlorobenzene	4180	50.4	101	ug/kg dry	200	4030	ND	104	77-121%			
Dicklorodifluoromethane 6390 201 403 ug/kg dry 200 4030 ND 159 29-149% 1 1,1-Dichloroethane 4470 50.4 101 ug/kg dry 200 4030 ND 111 76-125% 1,2-Dichloroethane (EDC) 4430 50.4 101 ug/kg dry 200 4030 ND 110 73-128% 1,1-Dichloroethene 5390 50.4 101 ug/kg dry 200 4030 ND 114 77-123% trans-1,2-Dichloroethene 4680 50.4 101 ug/kg dry 200 4030 ND 110 77-123% 1,2-Dichloropropane 4430 101 201 ug/kg dry 200 4030 ND 110 77-121% 1,2-Dichloropropane 4610 101 201 ug/kg dry	1,4-Dichlorobenzene	3990	50.4	101	ug/kg dry	200	4030	ND	99	75-120%			
1,1-Dichloroethane447050.4101ug/kg dry2004030ND11176-125%1,2-Dichloroethane (EDC)443050.4101ug/kg dry2004030ND11073-128%1,1-Dichloroethene539050.4101ug/kg dry2004030ND11477-133%cis-1,2-Dichloroethene457050.4101ug/kg dry2004030ND11674-123%trans-1,2-Dichloroethene468050.4101ug/kg dry2004030ND11077-123%1,3-Dichloropropane446050.4101ug/kg dry2004030ND11077-121%1,3-Dichloropropane4380101201ug/kg dry2004030ND11077-121%1,3-Dichloropropane4510101201ug/kg dry2004030ND11076-125%1,1-Dichloropropene4510101201ug/kg dry2004030ND11071-130%1,1-Dichloropropene4510101201ug/kg dry2004030ND11071-130%1,1-Dichloropropene4510101201ug/kg dry2004030ND11271-130%1,1-Dichloropropene4510<	Dichlorodifluoromethane	6390	201	403	ug/kg dry	200	4030	ND	159	29-149%			ICV-01 Q-54
1,2-Dichloroethane (EDC)443050.4101ug/kg dry2004030ND11073-128%1,1-Dichloroethene539050.4101ug/kg dry2004030ND11477-123%cis-1,2-Dichloroethene457050.4101ug/kg dry2004030ND11477-123%trans-1,2-Dichloroethene468050.4101ug/kg dry2004030ND11074-125%1,2-Dichloropropane446050.4101ug/kg dry2004030ND11077-123%1,3-Dichloropropane4430101201ug/kg dry2004030ND11076-123%2,2-Dichloropropane4610101201ug/kg dry2004030ND11077-12%1,1-Dichloropropene4610101201ug/kg dry2004030ND11074-12%cis-1,3-Dichloropropene4510101201ug/kg dry2004030ND11074-12%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11074-12%Hexachlorobutatiene770201403ug/kg dry2004030ND11861-135%1sopropylbenzene663	1,1-Dichloroethane	4470	50.4	101	ug/kg dry	200	4030	ND	111	76-125%			
1,1-Dichloroethene539050.4101ug/kg dry2004030ND13470-131%cis-1,2-Dichloroethene457050.4101ug/kg dry2004030ND11477-123%trans-1,2-Dichloroethene468050.4101ug/kg dry2004030ND11674-125%1,2-Dichloropropane446050.4101ug/kg dry2004030ND11076-123%1,3-Dichloropropane4430101201ug/kg dry2004030ND10077-121%2,2-Dichloropropane4430101201ug/kg dry2004030ND10967-133%1,1-Dichloropropane4610101201ug/kg dry2004030ND11074-126%1,1-Dichloropropene4610101201ug/kg dry2004030ND11074-126%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11271-130%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11861-135%Ethylbenzene934050.4101ug/kg dry2004030ND11861-135%Isopropylbenzene6630 <td>1,2-Dichloroethane (EDC)</td> <td>4430</td> <td>50.4</td> <td>101</td> <td>ug/kg dry</td> <td>200</td> <td>4030</td> <td>ND</td> <td>110</td> <td>73-128%</td> <td></td> <td></td> <td>Q-54</td>	1,2-Dichloroethane (EDC)	4430	50.4	101	ug/kg dry	200	4030	ND	110	73-128%			Q-54
cis-1,2-Dichloroethene457050.4101ug/kg dry2004030ND11477-123%trans-1,2-Dichloroethene468050.4101ug/kg dry2004030ND11674-125%1,2-Dichloroethene446050.4101ug/kg dry2004030ND11077-121%1,3-Dichloropropane4430101201ug/kg dry2004030ND11077-121%2,2-Dichloropropane4380101201ug/kg dry2004030ND11077-121%1,1-Dichloropropene4610101201ug/kg dry2004030ND11076-123%1,1-Dichloropropene4510101201ug/kg dry2004030ND11074-126%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11271-130%Ethylbenzene934050.4101ug/kg dry2004030ND11861-135%2-Hexanone1270010102010ug/kg dry2004030ND11861-135%Isopropylbenzene6630101201ug/kg dry2004030ND11368-134%4-Isopropylbenzene127001010 <td>1,1-Dichloroethene</td> <td>5390</td> <td>50.4</td> <td>101</td> <td>ug/kg dry</td> <td>200</td> <td>4030</td> <td>ND</td> <td>134</td> <td>70-131%</td> <td></td> <td></td> <td>Q-5-</td>	1,1-Dichloroethene	5390	50.4	101	ug/kg dry	200	4030	ND	134	70-131%			Q-5-
trans-1,2-Dichloroethene468050.4101ug/kg dry2004030ND11674-125%1,2-Dichloropropane446050.4101ug/kg dry2004030ND11176-123%1,3-Dichloropropane4430101201ug/kg dry2004030ND11077-121%2,2-Dichloropropane4380101201ug/kg dry2004030ND10967-133%1,1-Dichloropropene4610101201ug/kg dry2004030ND11077-121%cis-1,3-Dichloropropene4430101201ug/kg dry2004030ND11074-126%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11074-126%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11271-130%Ethylbenzene934050.4101ug/kg dry2004030ND11861-135%2-Hexanohrobutatiene4770201403ug/kg dry2004030ND11861-135%Isopropylbenzene6630101201ug/kg dry2004030ND11270-128%Isopropylbenzene6700<	cis-1,2-Dichloroethene	4570	50.4	101	ug/kg dry	200	4030	ND	114	77-123%			
1,2-Dichloropropane446050.4101ug/kg dry2004030ND11176-123%1,3-Dichloropropane4430101201ug/kg dry2004030ND11077-121%2,2-Dichloropropane4380101201ug/kg dry2004030ND10967-133%1,1-Dichloropropene4610101201ug/kg dry2004030ND11476-125%cis-1,3-Dichloropropene4510101201ug/kg dry2004030ND11074-126%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11271-130%Ethylbenzene934050.4101ug/kg dry2004030ND11861-135%Hexachlorobutatiene4770201403ug/kg dry2004030ND11861-135%Jeopropylbenzene6630101201ug/kg dry2004030ND11973-127%Isopropylbenzene6630101201ug/kg dry2004030ND11973-127%4-Isopropylbenzene6630101201ug/kg dry2004030ND11270-128%4-Isopropylbenzene6630101	trans-1,2-Dichloroethene	4680	50.4	101	ug/kg dry	200	4030	ND	116	74-125%			
1,3-Dichloropropane4430101201 $ug/kg dry$ 2004030ND11077-121%2,2-Dichloropropane4380101201 $ug/kg dry$ 2004030ND109 $67-133\%$ 1,1-Dichloropropene4610101201 $ug/kg dry$ 2004030ND11476-125%cis-1,3-Dichloropropene4430101201 $ug/kg dry$ 2004030ND11074-126%trans-1,3-Dichloropropene4510101201 $ug/kg dry$ 2004030ND11271-130%Ethylbenzene934050.4101 $ug/kg dry$ 2004030ND118 $61-135\%$ 2-Hexanone1270010102010 $ug/kg dry$ 2004030ND118 $61-135\%$ Isopropylbenzene6630101201 $ug/kg dry$ 2004030ND118 $61-135\%$ 4-Isopropylboluene7230101201 $ug/kg dry$ 2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010 $ug/kg dry$ 2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010 $ug/kg dry$ 2004030ND11270-128%Met	1,2-Dichloropropane	4460	50.4	101	ug/kg dry	200	4030	ND	111	76-123%			
2,2-Dichloropropane4380101201ug/kg dry2004030ND10967-133%1,1-Dichloropropene4610101201ug/kg dry2004030ND11476-125%cis-1,3-Dichloropropene4430101201ug/kg dry2004030ND11074-126%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11271-130%Ethylbenzene934050.4101ug/kg dry2004030ND11861-135%Hexachlorobutadiene4770201403ug/kg dry2004030ND11861-135%2-Hexanone1270010102010ug/kg dry2004030ND11168-134%Isopropylbenzene6630101201ug/kg dry2004030ND11270-128%4-Isopropyltoluene72301012010ug/kg dry2004030ND11270-128%4-Methyl-2-pentanoe (MiBK)1070010102010ug/kg dry2004030ND11465-135%Methyl tert-butyl ether (MTBE)4100101201ug/kg dry2004030ND10273-125%Naphthalene86904	1,3-Dichloropropane	4430	101	201	ug/kg dry	200	4030	ND	110	77-121%			
1,1-Dichloropropene4610101201ug/kg dry2004030ND11476-125%cis-1,3-Dichloropropene4430101201ug/kg dry2004030ND11074-126%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11271-130%Ethylbenzene934050.4101ug/kg dry2004030ND11861-135%2-Hexachlorobutadiene4770201403ug/kg dry2004030ND11861-135%2-Hexanone1270010102010ug/kg dry2004030217011168-134%Isopropylbenzene6630101201ug/kg dry2004030ND11270-128%4-Isopropyltoluene72301012010ug/kg dry2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010ug/kg dry2004030ND11465-135%Methyl tert-butyl ether (MTBE)4100101201ug/kg dry2004030ND10273-125%Naphthalene8690403403ug/kg dry2004030ND10173-125%Naphthalene4340101<	2,2-Dichloropropane	4380	101	201	ug/kg dry	200	4030	ND	109	67-133%			
cis-1,3-Dichloropropene4430101201ug/kg dry2004030ND11074-126%trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11271-130%Ethylbenzene934050.4101ug/kg dry2004030ND11361-135%Hexachlorobutadiene4770201403ug/kg dry2004030ND11861-135%2-Hexanone1270010102010ug/kg dry2004030ND11168-134%Isopropylbenzene6630101201ug/kg dry2004030217011168-134%4-Isopropylbenzene6630101201ug/kg dry2004030ND11270-128%4-Isopropylbenzene663010102010ug/kg dry2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010ug/kg dry2004030ND11465-135%Methyl tert-butyl ether (MTBE)4100101201ug/kg dry2004030ND10273-125%Naphthalene8690403403ug/kg dry2004030ND10173-125%Naphthalene1320050.4<	1,1-Dichloropropene	4610	101	201	ug/kg dry	200	4030	ND	114	76-125%			
trans-1,3-Dichloropropene4510101201ug/kg dry2004030ND11271-130%Ethylbenzene934050.4101ug/kg dry2004030517010376-122%Hexachlorobutadiene4770201403ug/kg dry2004030ND11861-135%2-Hexanone1270010102010ug/kg dry2008050ND15753-145%Isopropylbenzene6630101201ug/kg dry2004030217011168-134%4-Isopropyltoluene7230101201ug/kg dry2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010ug/kg dry2004030ND11465-135%Naphthalene8690403403ug/kg dry2004030ND10273-125%Naphthalene1320050.4101ug/kg dry2004030ND10173-125%Styrene4340101201ug/kg dry2004030ND10173-125%100101201ug/kg dry2004030ND10273-125%Naphthalene8690403403ug/kg dry2004030	cis-1,3-Dichloropropene	4430	101	201	ug/kg dry	200	4030	ND	110	74-126%			
Ethylbenzene934050.4101ug/kg dry2004030517010376-122%Hexachlorobutadiene4770201403ug/kg dry2004030ND11861-135%2-Hexanone1270010102010ug/kg dry2008050ND15753-145%Isopropylbenzene6630101201ug/kg dry2004030217011168-134%4-Isopropylbenzene7230101201ug/kg dry2004030ND11270-128%Methylene chloride450010102010ug/kg dry2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010ug/kg dry2008050ND11465-135%Methyl tert-butyl ether (MTBE)4100101201ug/kg dry2004030ND10273-125%Naphthalene8690403403ug/kg dry2004030ND10273-125%Nzphbenzene1320050.4101ug/kg dry2004030ND10173-125%Naphthalene8690403101ug/kg dry2004030ND10173-125%Styrene4340101201ug/kg dr	trans-1,3-Dichloropropene	4510	101	201	ug/kg dry	200	4030	ND	112	71-130%			Q-54
Hexachlorobutadiene4770201403ug/kg dry2004030ND11861-135%2-Hexanone1270010102010ug/kg dry2008050ND15753-145%Isopropylbenzene6630101201ug/kg dry2004030217011168-134%4-Isopropylbenzene7230101201ug/kg dry2004030243011973-127%Methylene chloride450010102010ug/kg dry2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010ug/kg dry2008050ND11465-135%Methyl tert-butyl ether (MTBE)4100101201ug/kg dry2004030ND10273-125%Naphthalene8690403403ug/kg dry2004030ND10273-125%n-Propylbenzene1320050.4101ug/kg dry2004030ND10173-125%Styrene4340101201ug/kg dry2004030ND10173-125%Naphthalene8690403403ug/kg dry2004030ND10173-125%Naphthalene1320050.4101ug/k	Ethylbenzene	9340	50.4	101	ug/kg dry	200	4030	5170	103	76-122%			
2-Hexanone1270010102010ug/kg dry2008050ND15753-145%Isopropylbenzene6630101201ug/kg dry2004030217011168-134%4-Isopropylbulene7230101201ug/kg dry2004030243011973-127%Methylene chloride450010102010ug/kg dry2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010ug/kg dry2008050ND11465-135%Methyl tert-butyl ether (MTBE)4100101201ug/kg dry2004030ND10273-125%Naphthalene8690403403ug/kg dry2004030408011562-129%n-Propylbenzene1320050.4101ug/kg dry2004030915010173-125%Styrene4340101201ug/kg dry2004030ND10876-124%	Hexachlorobutadiene	4770	201	403	ug/kg dry	200	4030	ND	118	61-135%			
Isopropylbenzene6630101201ug/kg dry2004030217011168-134%4-Isopropyltoluene7230101201ug/kg dry2004030243011973-127%Methylene chloride450010102010ug/kg dry2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010ug/kg dry2008050ND11465-135%Methyl tert-butyl ether (MTBE)4100101201ug/kg dry2004030ND10273-125%Naphthalene8690403403ug/kg dry2004030408011562-129%n-Propylbenzene1320050.4101ug/kg dry2004030ND10173-125%Styrene4340101201ug/kg dry2004030ND10876-124%	2-Hexanone	12700	1010	2010	ug/kg dry	200	8050	ND	157	53-145%			Q-54
4-Isopropyltoluene7230101201ug/kg dry2004030243011973-127%Methylene chloride450010102010ug/kg dry2004030ND11270-128%4-Methyl-2-pentanone (MiBK)1070010102010ug/kg dry2008050ND11465-135%Methyl tert-butyl ether (MTBE)4100101201ug/kg dry2004030ND10273-125%Naphthalene8690403403ug/kg dry2004030408011562-129%n-Propylbenzene1320050.4101ug/kg dry2004030915010173-125%Styrene4340101201ug/kg dry2004030ND10876-124%	Isopropylbenzene	6630	101	201	ug/kg drv	200	4030	2170	111	68-134%			
Methylene chloride 4500 1010 2010 ug/kg dry 200 4030 ND 112 70-128% 4-Methyl-2-pentanone (MiBK) 10700 1010 2010 ug/kg dry 200 8050 ND 114 65-135% Methyl tert-butyl ether (MTBE) 4100 101 201 ug/kg dry 200 4030 ND 102 73-125% Naphthalene 8690 403 403 ug/kg dry 200 4030 4080 115 62-129% n-Propylbenzene 13200 50.4 101 ug/kg dry 200 4030 9150 101 73-125% Styrene 4340 101 201 ug/kg dry 200 4030 ND 108 76-124%	4-Isopropyltoluene	7230	101	201	ug/kg drv	200	4030	2430	119	73-127%			
4-Methyl-2-pentanone (MiBK) 10700 1010 2010 ug/kg dry 200 8050 ND 114 65-135% Methyl tert-butyl ether (MTBE) 4100 101 201 ug/kg dry 200 4030 ND 102 73-125% Naphthalene 8690 403 403 ug/kg dry 200 4030 4080 115 62-129% n-Propylbenzene 13200 50.4 101 ug/kg dry 200 4030 9150 101 73-125% Styrene 4340 101 201 ug/kg dry 200 4030 ND 108 76-124%	Methylene chloride	4500	1010	2010	ug/kg drv	200	4030	ND	112	70-128%			
Methyl tert-butyl ether (MTBE) 4100 101 201 ug/kg dry 200 4030 ND 102 73-125% Naphthalene 8690 403 403 ug/kg dry 200 4030 4080 115 62-129% n-Propylbenzene 13200 50.4 101 ug/kg dry 200 4030 9150 101 73-125% Styrene 4340 101 201 ug/kg dry 200 4030 ND 108 76-124%	4-Methyl-2-pentanone (MiBK)	10700	1010	2010	ug/kg drv	200	8050	ND	114	65-135%			
Naphthalene 8690 403 403 ug/kg dry 200 4030 4080 115 62-129% n-Propylbenzene 13200 50.4 101 ug/kg dry 200 4030 9150 101 73-125% Styrene 4340 101 201 ug/kg dry 200 4030 ND 108 76-124%	Methyl tert-butyl ether (MTRF)	4100	101	201	ug/kg drv	200	4030	ND	102	73-125%			
n-Propylbenzene 13200 50.4 101 ug/kg dry 200 4030 9150 101 73-125% Styrene 4340 101 201 ug/kg dry 200 4030 ND 108 76-124%	Naphthalene	8690	403	403	ug/ko dru	200	4030	4080	115	62-129%			0-54
Styrene 4340 101 201 ug/kg dry 200 4030 ND 108 76-124%	n-Pronvlbenzene	13200	50 4	101	ug/ko drv	200	4030	9150	101	73-125%			× 51
10 10 101 201 ug/rg uly 200 100 100 100 /0-12470	Styrene	4340	101	201	110/ka dur	200	4030	ND	108	76-12/04			
1 1 2 Tetrachloroethane 4300 50 4 101 walks day 200 4020 ND 107 70 12604	1 1 1 2-Tetrachlorooth	4200	50 4	101	ug/ng ury	200	4020		107	79 10504			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	s by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0840 - EPA 5035A							So	il				
Matrix Spike (23I0840-MS1)			Prepared	1: 09/22/23 0	0:00 Ana	lyzed: 09/26	/23 17:16					
QC Source Sample: Non-SDG (A3)	<u>1354-02)</u>											
1,1,2,2-Tetrachloroethane	4730	101	201	ug/kg dry	200	4030	ND	94	70-124%			
Tetrachloroethene (PCE)	4190	50.4	101	ug/kg dry	200	4030	ND	104	73-128%			
Toluene	5550	101	201	ug/kg dry	200	4030	1250	107	77-121%			
1,2,3-Trichlorobenzene	4060	504	1010	ug/kg dry	200	4030	ND	101	66-130%			
1,2,4-Trichlorobenzene	4110	1010	1010	ug/kg dry	200	4030	ND	102	67-129%			Q-54
1,1,1-Trichloroethane	4430	50.4	101	ug/kg dry	200	4030	ND	110	73-130%			
1,1,2-Trichloroethane	6010	50.4	101	ug/kg dry	200	4030	ND	107	78-121%			
Trichloroethene (TCE)	4410	50.4	101	ug/kg dry	200	4030	ND	109	77-123%			
Trichlorofluoromethane	5380	201	403	ug/kg dry	200	4030	ND	134	62-140%			Q-54
1,2,3-Trichloropropane	5230	101	201	ug/kg dry	200	4030	ND	115	73-125%			
1,2,4-Trimethylbenzene	46500	101	201	ug/kg dry	200	4030	44400	52	75-123%	,		E, Q-0
1,3,5-Trimethylbenzene	15700	101	201	ug/kg dry	200	4030	11600	103	73-124%			
Vinyl chloride	5730	50.4	101	ug/kg dry	200	4030	ND	142	56-135%	,		Q-5
m,p-Xylene	30400	101	201	ug/kg dry	200	8050	22000	104	77-124%			
o-Xylene	14100	50.4	101	ug/kg dry	200	4030	10100	99	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 100 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			102 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			94 %	79-	120 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 2310960 - EPA 5035A							Soi	I				
Blank (2310960-BLK1)			Prepared	: 09/28/23 10:	42 Ana	yzed: 09/28	/23 17:33					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1.1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1.2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1.1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1.2-Dichloroethene	ND	25.0	50.0	ug/kø wet	50							
trans-1.2-Dichloroethene	ND	25.0	50.0	uø/kø wet	50							
	110	20.0	20.0	45/115 WOL	20							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			volatile Or	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Not
atch 23I0960 - EPA 5035A							Soi	1				
Blank (23I0960-BLK1)			Prepared	: 09/28/23 10:	42 Ana	yzed: 09/28/	/23 17:33					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1.2.3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1.2.4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1.1.1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1.1.2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1.2.3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1.2.4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1.3.5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	110/ko wet	50							
m.n-Xvlene	ND	25.0	50.0	110/ko wet	50							
o-Xvlene	ND	12.5	25.0	110/ko wet	50							
	110	12.J	102.0/	Limite 00.1	20 0/	D 17						

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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3I1260 - 10 18 23 1006 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 2310960 - EPA 5035A Soil Blank (23I0960-BLK1) Prepared: 09/28/23 10:42 Analyzed: 09/28/23 17:33 Surr: Toluene-d8 (Surr) Recovery: 105 % Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 103 % 79-120 % LCS (23I0960-BS1) Prepared: 09/28/23 10:42 Analyzed: 09/28/23 15:26 5035A/8260D Acetone 2650 500 1000 ug/kg wet 50 2000 ---132 80-120% Q-56 Acrylonitrile 1190 50.0 100 50 1000 119 80-120% ug/kg wet ---------Benzene 1110 5.00 10.0 ug/kg wet 50 1000 111 80-120% ---25.0 Bromobenzene 1040 12.5 50 1000 104 80-120% ug/kg wet ----------Bromochloromethane 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% ---------Bromodichloromethane 25.0 50.0 1000 100 1000 ug/kg wet 50 ---80-120% ------Bromoform 988 50.0 100 ug/kg wet 50 1000 99 80-120% Bromomethane 1000 500 500 ug/kg wet 50 1000 100 80-120% ---------2-Butanone (MEK) 2490 250 500 ug/kg wet 50 2000 124 80-120% Q-56 --n-Butylbenzene 1060 25.0 50.0 50 1000 106 80-120% ug/kg wet ---------sec-Butylbenzene 1160 25.050.0 ug/kg wet 50 1000 116 80-120% --tert-Butylbenzene 1060 25.0 50.0 50 1000 106 80-120% ug/kg wet ----------Carbon disulfide 1090 250 500 ug/kg wet 50 1000 ---109 80-120% ------Carbon tetrachloride 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% ---------Chlorobenzene 1010 12.5 25.0 ug/kg wet 50 1000 101 80-120% ---Chloroethane 904 250 500 50 1000 90 80-120% ug/kg wet ---------1020 1000 102 80-120% Chloroform 25.050.0 ug/kg wet 50 ------Chloromethane 1080 125 250 50 1000 108 80-120% ug/kg wet ---------2-Chlorotoluene 1090 25.050.0 ug/kg wet 50 1000 ---109 80-120% ____ 4-Chlorotoluene 1110 25.0 50.0 ug/kg wet 50 1000 111 80-120% ---------50.0 100 Dibromochloromethane 945 ug/kg wet 50 1000 94 80-120% --------ug/kg wet 1,2-Dibromo-3-chloropropane 982 125 250 50 1000 98 80-120% ---1,2-Dibromoethane (EDB) 978 1000 98 25.050.0 ug/kg wet 50 80-120% ---Dibromomethane 1080 25.0 50.0 ug/kg wet 50 1000 108 80-120% ---------1,2-Dichlorobenzene 1010 12.5 25.0ug/kg wet 50 1000 ----101 80-120% ------1,3-Dichlorobenzene 1040 12.5 25.0 ug/kg wet 50 1000 104 80-120% ---------1020 12.5 25.0 50 1000 102 80-120% 1.4-Dichlorobenzene ug/kg wet ___ Dichlorodifluoromethane 998 50.0 100 ug/kg wet 50 1000 100 80-120% ---

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1,1-Dichloroethane

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

106

80-120%

1000

1060

12.5

25.0

ug/kg wet

50



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

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Niagara Falls, NY 14305

Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

Report ID: A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

AnalyeDetection funtReporting LintUnixDilutionSprike SprikeSource SprikeNerseNerseNerseNerseBatePrepuret:1928/23121/2NaturetNaturetNaturetNaturetL2Diedinorethene(DDC)00012.52.5.0ug/kg vet50100010680-120%1.1-Dicklorechene100012.52.5.0ug/kg vet50100010680-120%1.2-Dicklorechene100012.52.5.0ug/kg vet50100010180-120%1.3-Dicklorepropene113012.52.5.0ug/kg vet50100011380-120%1.3-Dicklorepropene11402.5.05.0.0ug/kg vet50100011480-120%1.3-Dicklorepropene11402.5.05.0.0ug/kg vet50100011480-120%1.3-Dicklorepropene11402.5.05.0.0ug/kg vet50100010480-120%1.3-Dicklorepropene10402.5.05.0.0ug/kg vet50100010480-120%1.3-Dicklorepropene10402.5.05.0.0ug/kg vet50100010480-120%1.3-Dicklorepro				Volatile Org	ganic Com	pounds	by EPA 8	3260D					
Barber 20000 - EPA 6050 Propert: Proper	Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
LCS (2310960-1851) Prepared: $69/28/23$ 10.42 Analyzed: $09/28/23$ $15:26$ 1,1-Dichloroetham (EDC) 980 12.5 25.0 ug/kg wet 50 1000 98 80-120% 1,1-Dichloroethame 1100 12.5 25.0 ug/kg wet 50 1000 110 80-120% cis1,2-Dichloroethame 1120 25.0 50.0 ug/kg wet 50 1000 113 80-120% 1,2-Dichloropropane 1130 12.5 25.0 ug/kg wet 50 1000 113 80-120% 1,2-Dichloropropane 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% 1,Dichloropropane 1140 25.0 50.0 ug/kg wet 50 1000 104 80-120% 1,D-Dichloropropene 1040 25.0 50	Batch 23I0960 - EPA 5035A							Soi	I				
1.2-Dichlorochane (EDC) 980 12.5 25.0 ug/kg wet 50 1000 98 80-120% i.1.2-Dichlorochene 1100 25.0 50.0 ug/kg wet 50 1000 106 80-120% trans-1.2-Dichlorochene 1120 25.0 50.0 ug/kg wet 50 1000 112 80-120% 1.2-Dichloropropane 1130 12.5 25.0 ug/kg wet 50 1000 114 80-120% 2.2-Dichloropropane 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% 2.3-Dichloropropane 1140 25.0 50.0 ug/kg wet 50 1000 14 80-120% 2.4-Dichloropropene 1140 25.0 50.0 ug/kg wet 50 1000 14 80-120% trans-1,3-Dichloropropene 1040 25.0 <	LCS (2310960-BS1)			Prepared	: 09/28/23 10):42 Anal	yzed: 09/28	/23 15:26					
1,1-Dichloroethene 1060 12.5 25.0 ug/kg wet 50 1000 106 80-120% runs-1,2-Dichloroethene 1100 25.0 50.0 ug/kg wet 50 1000 110 80-120% 1,2-Dichloroptopane 1130 12.5 25.0 ug/kg wet 50 1000 113 80-120% 1,3-Dichloroptopane 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% 1,1-Dichloroptopane 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% 1,1-Dichloroptopene 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% 1,1-Dichloroptopene 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% Ethylbenzene 1040 25.0 50.0	1,2-Dichloroethane (EDC)	980	12.5	25.0	ug/kg wet	50	1000		98	80-120%			
cis-1,2-Dichloroethene 1100 25.0 50.0 ug/kg wet 50 1000 110 80-120% 1,2-Dichloroptopane 1130 25.0 ug/kg wet 50 1000 113 80-120% 1,2-Dichloroptopane 1101 25.0 ug/kg wet 50 1000 114 80-120% 1,2-Dichloroptopane 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% 1,1-Dichloroptopene 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% cis-1,3-Dichloroptopene 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% Hexachlorobundiene 1010 50.0 ug/kg wet 50 1000 101 80-120% Hexachlorobundiene 1010 50.0 ug/kg wet 50 1000	1,1-Dichloroethene	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
trans-1,2-Dichloroptopane112025.050.0ug/kg wet50100011280-120%1,2-Dichloroptopane110025.050.0ug/kg wet50100011380-120%2,2-Dichloroptopane114025.050.0ug/kg wet50100011480-120%1,1-Dichloroptopene114025.050.0ug/kg wet50100011480-120%1,1-Dichloroptopene114025.050.0ug/kg wet50100010480-120%Ethylberzene104012.525.0ug/kg wet50100010480-120%2-Bexanoe214025050.0ug/kg wet50100010780-120%4-Berpopyloburene116025.050.0ug/kg wet50100010780-120%4-Berpopyloburene116025.050.0ug/kg wet50100011480-120%4-Berpopyloburene116025.050.0ug/kg wet50100011680-120%4-Berpopyloburene116025.050.0ug/kg wet5010001	cis-1,2-Dichloroethene	1100	25.0	50.0	ug/kg wet	50	1000		110	80-120%			
1.2-Dickloropropane113012.525.0ug/kg wet50100011380-120%1.3-Dickloropropane110025.050.0ug/kg wet50100011480-120%2.2-Dickloropropane114025.050.0ug/kg wet50100011480-120%1.1-Dickloropropene106025.050.0ug/kg wet50100010680-120%trans-1.3-Dickloropropene104025.050.0ug/kg wet50100010480-120%trans-1.3-Dickloropropene104025.050.0ug/kg wet50100010480-120%Hexachlorobutadicne101050.0100ug/kg wet50100010180-120%2-Hexanone120025.050.0ug/kg wet50100011680-120%4-Isopropyltenzene110025.050.0ug/kg wet50100011680-120%4-Methyl-2-pentanone(MBK)28025050.0ug/kg wet50100010780-120%Methyltert-buryl ether (MTBE)107025.050.0ug/kg wet50100010880-120%Naphfhalene </td <td>trans-1,2-Dichloroethene</td> <td>1120</td> <td>25.0</td> <td>50.0</td> <td>ug/kg wet</td> <td>50</td> <td>1000</td> <td></td> <td>112</td> <td>80-120%</td> <td></td> <td></td> <td></td>	trans-1,2-Dichloroethene	1120	25.0	50.0	ug/kg wet	50	1000		112	80-120%			
1.3-Dichloropropane101025.050.0ug/kg wet50100010180-120%2.2-Dichloropropane114025.050.0ug/kg wet50100011480-120%1.1-Dichloropropene116025.050.0ug/kg wet50100010680-120%cis1.3-Dichloropropene104025.050.0ug/kg wet50100010480-120%Ethylbenzene104025.050.0ug/kg wet50100010480-120%Hexachlorobutadiene101050.0100ug/kg wet50100010180-120%1.4spropylbenzene109025.050.0ug/kg wet50100010780-120%4-spropylbenzene116025.050.0ug/kg wet50100011680-120%4-spropylbenzene116025.050.0ug/kg wet50100011680-120%4-Methyl-2-pentanone (MiBK)28825050.0ug/kg wet50100010480-120%4-Methyl-2-pentanone (MiBK)28825.050.0ug/kg wet50100010480-120%1.1.1.2-Tetrachloroethane <td>1,2-Dichloropropane</td> <td>1130</td> <td>12.5</td> <td>25.0</td> <td>ug/kg wet</td> <td>50</td> <td>1000</td> <td></td> <td>113</td> <td>80-120%</td> <td></td> <td></td> <td></td>	1,2-Dichloropropane	1130	12.5	25.0	ug/kg wet	50	1000		113	80-120%			
2.2-Dichloropropane 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% 1,1-Dichloropropene 1160 25.0 50.0 ug/kg wet 50 1000 114 80-120% cis-1,3-Dichloropropene 1060 25.0 50.0 ug/kg wet 50 1000 104 80-120% Ethylbenzene 1040 12.5 25.0 ug/kg wet 50 1000 104 80-120% 2-Hexanone 1040 25.0 50.0 ug/kg wet 50 1000 101 80-120% 4-Isopropylenzene 1090 25.0 50.0 ug/kg wet 50 1000 116 80-120% 4-sopropylenzene 1160 25.0 50.0 ug/kg wet 50 1000 112 80-120% 4-sopropylenzene 1090 50.0 ug/kg wet 50<	1,3-Dichloropropane	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
1,1-Dichloropropene 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120% cis.1,3-Dichloropropene 1060 25.0 50.0 ug/kg wet 50 1000 106 80-120% trans-1,3-Dichloropropene 1040 12.5 25.0 ug/kg wet 50 1000 104 80-120% Hexachlorobutadiene 1010 50.0 100 ug/kg wet 50 1000 101 80-120% 1-sporopythenzene 1000 25.0 50.0 ug/kg wet 50 1000 116 80-120% 4-sporopytholene 1160 25.0 50.0 ug/kg wet 50 1000 104 80-120% Methyl er-bentanee (MiBK) 2080 250 50.0 ug/kg wet 50 1000 104 80-120% Naphthalene 1090 50.0 ug/kg w	2,2-Dichloropropane	1140	25.0	50.0	ug/kg wet	50	1000		114	80-120%			
cis-1,3-Dichloropropene106025.050.0ug/kg wet50100010680-120%Ethylbenzene104025.050.0ug/kg wet50100010480-120%Ethylbenzene104012.525.0ug/kg wet50100010480-120%2-Hexanone2140250500ug/kg wet50100010780-120%4-Isopropylbenzene109025.050.0ug/kg wet50100011680-120%4-Isopropylbunee116025.050.0ug/kg wet50100011680-120%4-Methyl-2-pentanone (MiBK)2080250500ug/kg wet50100010480-120%Methyler ethotig110725.050.0ug/kg wet50100010480-120%Naphthalene109050.0100ug/kg wet50100010480-120%Naphthalene109012.525.0ug/kg wet50100010480-120%1,1,2-Tetrachloroethane190912.525.0ug/kg wet50100010480-120%1,1,2-Tetrachloroethane101025.050.0<	1,1-Dichloropropene	1140	25.0	50.0	ug/kg wet	50	1000		114	80-120%			
trans-1,3-Dichloropropene104025.050.0ug/kg wet50100010480-120%Ethylbenzene104012.525.0ug/kg wet50100010180-120%Hexachlorobutadiene101050.0100ug/kg wet50100010180-120%2-Hexanone114025.050.0ug/kg wet50100010780-120%4-Isopropylbenzene116025.050.0ug/kg wet50100011680-120%4-Isopropylbenzene116025.050.0ug/kg wet50100011680-120%4-Methyl-2-pentanone (MiBK)208025.050.0ug/kg wet50100010780-120%Naphthalene109050.0100ug/kg wet50100010780-120%Naphthalene109050.0100ug/kg wet50100010980-120%Naphthalene108025.050.0ug/kg wet50100010880-120%1,1,2-Tetrakhoroethane101025.050.0ug/kg wet50100010180-120%1,1,2-Tetrakhoroethane103012.5 <td< td=""><td>cis-1,3-Dichloropropene</td><td>1060</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td>1000</td><td></td><td>106</td><td>80-120%</td><td></td><td></td><td></td></td<>	cis-1,3-Dichloropropene	1060	25.0	50.0	ug/kg wet	50	1000		106	80-120%			
Ethylbenzene104012.525.0ug/kg wet50100010480-120%Hexachlorobutadiene101050.0100ug/kg wet50100010180-120%2-Hexanone2140250500ug/kg wet50100010780-120%Isopropylbenzene116025.050.0ug/kg wet50100011680-120%4-Isopropylbulene116025.050.0ug/kg wet50100011680-120%Methylene chloride1120250500ug/kg wet50100010480-120%Methyler-butyl ether (MTBE)107025.050.0ug/kg wet50100010780-120%Naphthalene109050.0100ug/kg wet50100010980-120%N-Propylbenzene108025.050.0ug/kg wet50100010880-120%1,1,2-Tetrachloroethane95812.525.0ug/kg wet50100010180-120%1,1,2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%1,1,2-Tetrachloroethane101012.5 <td>trans-1,3-Dichloropropene</td> <td>1040</td> <td>25.0</td> <td>50.0</td> <td>ug/kg wet</td> <td>50</td> <td>1000</td> <td></td> <td>104</td> <td>80-120%</td> <td></td> <td></td> <td></td>	trans-1,3-Dichloropropene	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%			
Hexachlorobutadiene101050.0100ug/kg wet50100010180-120%2-Hexanone2140250500ug/kg wet50200010780-120%Isoproylbenzene109025.050.0ug/kg wet50100011680-120%4-Isoproylbune116025.050.0ug/kg wet50100011680-120%Methylene chloride112025.050.0ug/kg wet50100010480-120%4-Methyl-2-pentanone (MiBK)208025.050.0ug/kg wet50100010480-120%Naphtalene109050.0100ug/kg wet50100010980-120%Naphtalene108025.050.0ug/kg wet50100010880-120%Styrene108025.050.0ug/kg wet50100010880-120%1,1,2.2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%1,2,3-Trichlorobenzene108012525.0ug/kg wet50100010180-120%1,2,3-Trichlorobenzene103012525.0 <td>Ethylbenzene</td> <td>1040</td> <td>12.5</td> <td>25.0</td> <td>ug/kg wet</td> <td>50</td> <td>1000</td> <td></td> <td>104</td> <td>80-120%</td> <td></td> <td></td> <td></td>	Ethylbenzene	1040	12.5	25.0	ug/kg wet	50	1000		104	80-120%			
2-Hexanone 2140 250 500 ug/kg wet 50 2000 107 80-120% Isopropylbenzene 1090 25.0 50.0 ug/kg wet 50 1000 109 80-120% 4-Isopropylboluene 1160 25.0 500 ug/kg wet 50 1000 116 80-120% Methylene chloride 1120 250 500 ug/kg wet 50 1000 116 80-120% Methyl-2-pertanone (MiBK) 2080 250 500 ug/kg wet 50 1000 107 80-120% Methyl-2-pertanone (MiBK) 1070 25.0 50.0 ug/kg wet 50 1000 109 80-120% Naphthalene 1090 12.5 25.0 ug/kg wet 50 1000 108 80-120% 1,1,1,2-Tetrachloroethane 1080 25.0 ug/kg wet	Hexachlorobutadiene	1010	50.0	100	ug/kg wet	50	1000		101	80-120%			
Isopropylbenzene109025.050.0ug/kg wet501000109 $80\cdot120\%$ 4-Isopropyltoluene116025.050.0ug/kg wet501000116 $80\cdot120\%$ Methylene chloride1120250500ug/kg wet501000112 $80\cdot120\%$ 4-Methyl-2-pentanone (MiBK)2080250500ug/kg wet501000104 $80\cdot120\%$ Methyl tert-buryl ether (MTBE)107025.050.0ug/kg wet501000109 $80\cdot120\%$ n-Propylbenzene109012.525.0ug/kg wet501000109 $80\cdot120\%$ 1,1,2-Tetrachloroethane95812.525.0ug/kg wet501000108 $80\cdot120\%$ 1,1,2-Tetrachloroethane101025.050.0ug/kg wet501000108 $80\cdot120\%$ 1,1,2-Tetrachloroethane101025.050.0ug/kg wet501000101 $80\cdot120\%$ 1,1,2-Tetrachloroethane101025.050.0ug/kg wet501000101 $80\cdot120\%$ 1,2,3-Trichlorobenzene103012525.0ug/kg wet501000103 $80\cdot120\%$	2-Hexanone	2140	250	500	ug/kg wet	50	2000		107	80-120%			
4-Isopropyltoluene116025.050.0ug/kg wet50100011680-120%Methylene chloride1120250500ug/kg wet50100011280-120%4-Methyl-2-pentanone (MiBK)2080250500ug/kg wet50200010480-120%Methyl tert-butyl ether (MTBE)107025.050.0ug/kg wet50100010780-120%Naphthalene109050.0100ug/kg wet50100010980-120%1,1,1.2-Tetrachloroethane198025.050.0ug/kg wet50100010880-120%1,1,2.2-Tetrachloroethane95812.525.0ug/kg wet50100010880-120%1,1,2.2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%1,1,2.3-Tirchloroethane101025.050.0ug/kg wet50100010180-120%1,2,3-Tirchloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Tirchloroethane103012.525.0ug/kg wet50100010380-120% <td< td=""><td>Isopropylbenzene</td><td>1090</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td>1000</td><td></td><td>109</td><td>80-120%</td><td></td><td></td><td></td></td<>	Isopropylbenzene	1090	25.0	50.0	ug/kg wet	50	1000		109	80-120%			
Methylene chloride1120250500ug/kg wet50100011280-120%4-Methyl-2-pentanone (MiBK)2080250500ug/kg wet50200010480-120%Methyl tert-butyl ether (MTBE)107025.050.0ug/kg wet50100010780-120%Naphthalene109050.0100ug/kg wet50100010980-120%n-Propylbenzene109012.525.0ug/kg wet50100010980-120%Styrene108025.050.0ug/kg wet50100010880-120%1,1,2,2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%Toluene101025.050.0ug/kg wet50100010180-120%1,2,3-Trichloroethane103012525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,1-Trichloroethane1030<	4-Isopropyltoluene	1160	25.0	50.0	ug/kg wet	50	1000		116	80-120%			
4-Methyl-2-pentanone (MiBK)2080250500ug/kg wet50200010480-120%Methyl tert-butyl ether (MTBE)107025.050.0ug/kg wet50100010780-120%Naphthalene109050.0100ug/kg wet50100010980-120%n-Propylbenzene109012.525.0ug/kg wet50100010880-120%Styrene108025.050.0ug/kg wet50100010880-120%1,1,2.7-Etrachloroethane95812.525.0ug/kg wet5010009680-120%1,1,2.2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%Toluene101025.050.0ug/kg wet50100010180-120%1,2,3-Trichlorobenzene103012525.0ug/kg wet50100010180-120%1,1,1-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,1-Trichloroethane102	Methylene chloride	1120	250	500	ug/kg wet	50	1000		112	80-120%			
Methyl tert-butyl ether (MTBE)107025.050.0ug/kg wet501000107 $80-120\%$ Naphthalene109050.0100ug/kg wet501000109 $80-120\%$ n-Propylbenzene109012.525.0ug/kg wet501000109 $80-120\%$ Styrene108025.050.0ug/kg wet501000108 $80-120\%$ 1,1,2-Tetrachloroethane95812.525.0ug/kg wet50100096 $80-120\%$ 1,1,2,2-Tetrachloroethane101025.050.0ug/kg wet501000101 $80-120\%$ Totuene101025.050.0ug/kg wet501000101 $80-120\%$ 1,2,3-Trichlorobenzene103012525.0ug/kg wet501000101 $80-120\%$ 1,1,1-Trichloroethane103012.525.0ug/kg wet501000103 $80-120\%$ 1,1,2-Trichlorobenzene103012.525.0ug/kg wet501000103 $80-120\%$ 1,1,1-Trichloroethane102012.525.0ug/kg wet501000103 $80-120\%$ 1,1,2-Trichlor	4-Methyl-2-pentanone (MiBK)	2080	250	500	ug/kg wet	50	2000		104	80-120%			
Naphthalene109050.0100ug/kg wet50100010980-120%n-Propylbenzene109012.525.0ug/kg wet50100010980-120%Styrene108025.050.0ug/kg wet50100010880-120%1,1,2.7-Etrachloroethane95812.525.0ug/kg wet5010009680-120%1,1,2.2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%Tetrachloroethene (PCE)111012.525.0ug/kg wet50100010180-120%1,2,3-Trichlorobenzene103012.525.0ug/kg wet50100010380-120%1,2,4-Trichlorobenzene108012.525.0ug/kg wet50100010380-120%1,1,1-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%Trichlorofluor	Methyl tert-butyl ether (MTBE)	1070	25.0	50.0	ug/kg wet	50	1000		107	80-120%			
n-Propylbenzene109012.525.0ug/kg wet50100010980-120%Styrene108025.050.0ug/kg wet50100010880-120%1,1,1,2-Tetrachloroethane95812.525.0ug/kg wet5010009680-120%1,1,2,2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%Tetrachloroethane (PCE)111012.525.0ug/kg wet50100010180-120%Toluene101025.050.0ug/kg wet50100010180-120%1,2,3-Trichlorobenzene1030125250ug/kg wet50100010380-120%1,1,1-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%Trichloroethane1020	Naphthalene	1090	50.0	100	ug/kg wet	50	1000		109	80-120%			
Styrene108025.050.0ug/kg wet50100010880-120%1,1,1,2-Tetrachloroethane95812.525.0ug/kg wet5010009680-120%1,1,2,2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%Tetrachloroethene (PCE)111012.525.0ug/kg wet50100010180-120%Toluene101025.050.0ug/kg wet50100010180-120%1,2,3-Trichlorobenzene1030125250ug/kg wet50100010380-120%1,1,1-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%Trichlorofluoromethane84450.0100ug/kg wet50100011580-120%1,2,3-Trichlor	n-Propylbenzene	1090	12.5	25.0	ug/kg wet	50	1000		109	80-120%			
1,1,1,2-Tetrachloroethane95812.525.0ug/kg wet5010009680-120%1,1,2,2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%Tetrachloroethene (PCE)111012.525.0ug/kg wet50100010180-120%Toluene101025.050.0ug/kg wet50100010180-120%1,2,3-Trichlorobenzene1030125250ug/kg wet50100010380-120%1,1,1-Trichloroethane103012.5250ug/kg wet50100010380-120%1,1,2-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010280-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010280-120%Trichlorofluoromethane84450.0100ug/kg wet50100010180-120%1,2,3-Trichloro	Styrene	1080	25.0	50.0	ug/kg wet	50	1000		108	80-120%			
1,1,2,2-Tetrachloroethane101025.050.0ug/kg wet50100010180-120%Tetrachloroethene (PCE)111012.525.0ug/kg wet50100011180-120%Toluene101025.050.0ug/kg wet50100010180-120%1,2,3-Trichlorobenzene1030125250ug/kg wet50100010380-120%1,2,4-Trichlorobenzene1080125250ug/kg wet50100010380-120%1,1,1-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010280-120%Trichloroethane (TCE)115012.525.0ug/kg wet50100011580-120%Trichloropropane101025.050.0ug/kg wet50100010180-120%1,2,4-Trimethylbenzene117025.050.0ug/kg wet50100010180-120%1,3,5-Trimethylbenze	1,1,1,2-Tetrachloroethane	958	12.5	25.0	ug/kg wet	50	1000		96	80-120%			
Tetrachloroethene (PCE)111012.525.0ug/kg wet501000111 $80-120\%$ Toluene101025.050.0ug/kg wet501000101 $80-120\%$ 1,2,3-Trichlorobenzene1030125250ug/kg wet501000103 $80-120\%$ 1,2,4-Trichlorobenzene1080125250ug/kg wet501000103 $80-120\%$ 1,1,1-Trichloroethane103012.525.0ug/kg wet501000103 $80-120\%$ 1,1,2-Trichloroethane102012.525.0ug/kg wet501000102 $80-120\%$ 1,1,2-Trichloroethane102012.525.0ug/kg wet501000102 $80-120\%$ Trichloroethane (TCE)115012.525.0ug/kg wet501000115 $80-120\%$ Trichlorofluoromethane84450.0100ug/kg wet501000101 $80-120\%$ 1,2,3-Trichloropropane101025.050.0ug/kg wet5010001101 $80-120\%$ 1,2,4-Trimethylbenzene117025.050.0ug/kg wet501000114 $80-120\%$ <tr< td=""><td>1,1,2,2-Tetrachloroethane</td><td>1010</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td>1000</td><td></td><td>101</td><td>80-120%</td><td></td><td></td><td></td></tr<>	1,1,2,2-Tetrachloroethane	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
Toluene101025.050.0ug/kg wet50100010180-120% $1,2,3$ -Trichlorobenzene1030125250ug/kg wet50100010380-120% $1,2,4$ -Trichlorobenzene1080125250ug/kg wet50100010380-120% $1,1,1$ -Trichloroethane103012.525.0ug/kg wet50100010380-120% $1,1,2$ -Trichloroethane102012.525.0ug/kg wet50100010280-120% $1,1,2$ -Trichloroethane102012.525.0ug/kg wet50100010280-120% $1,1,2$ -Trichloroethane102012.525.0ug/kg wet50100010280-120%Trichlorofluoromethane84450.0100ug/kg wet5010008480-120% $1,2,3$ -Trichloropropane101025.050.0ug/kg wet50100011780-120% $1,2,4$ -Trimethylbenzene117025.050.0ug/kg wet50100011780-120% $1,3,5$ -Trimethylbenzene114025.050.0ug/kg wet50100011480-120% </td <td>Tetrachloroethene (PCE)</td> <td>1110</td> <td>12.5</td> <td>25.0</td> <td>ug/kg wet</td> <td>50</td> <td>1000</td> <td></td> <td>111</td> <td>80-120%</td> <td></td> <td></td> <td></td>	Tetrachloroethene (PCE)	1110	12.5	25.0	ug/kg wet	50	1000		111	80-120%			
1,2,3-Trichlorobenzene1030125250ug/kg wet50100010380-120%1,2,4-Trichlorobenzene1080125250ug/kg wet50100010880-120%1,1,1-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010280-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100011580-120%Trichloroethane115012.525.0ug/kg wet50100011580-120%Trichlorofluoromethane84450.0100ug/kg wet5010008480-120%1,2,4-Trimethylbenzene101025.050.0ug/kg wet50100011780-120%1,3,5-Trimethylbenzene114025.050.0ug/kg wet50100011480-120%	Toluene	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
1,2,4-Trichlorobenzene 1080 125 250 ug/kg wet 50 1000 108 80-120% 1,1,1-Trichloroethane 1030 12.5 25.0 ug/kg wet 50 1000 103 80-120% 1,1,2-Trichloroethane 1020 12.5 25.0 ug/kg wet 50 1000 102 80-120% 1,1,2-Trichloroethane 1020 12.5 25.0 ug/kg wet 50 1000 102 80-120% Trichloroethane (TCE) 1150 12.5 25.0 ug/kg wet 50 1000 84 80-120% Trichlorofluoromethane 844 50.0 100 ug/kg wet 50 1000 84 80-120% 1,2,3-Trichloropropane 1010 25.0 50.0 ug/kg wet 50 1000 1117 80-120% 1,2,4-Trimethylbenzene 1140 25.0	1,2,3-Trichlorobenzene	1030	125	250	ug/kg wet	50	1000		103	80-120%			
1,1,1-Trichloroethane103012.525.0ug/kg wet50100010380-120%1,1,2-Trichloroethane102012.525.0ug/kg wet50100010280-120%Trichloroethane (TCE)115012.525.0ug/kg wet50100011580-120%Trichlorofluoromethane84450.0100ug/kg wet5010008480-120%1,2,3-Trichloropropane101025.050.0ug/kg wet50100011780-120%1,2,4-Trimethylbenzene117025.050.0ug/kg wet50100011480-120%1,3,5-Trimethylbenzene114025.050.0ug/kg wet50100011480-120%	1,2,4-Trichlorobenzene	1080	125	250	ug/kg wet	50	1000		108	80-120%			
1,1,2-Trichloroethane102012.525.0ug/kg wet50100010280-120%Trichloroethene (TCE)115012.525.0ug/kg wet50100011580-120%Trichlorofluoromethane84450.0100ug/kg wet5010008480-120%1,2,3-Trichloropropane101025.050.0ug/kg wet50100010180-120%1,2,4-Trimethylbenzene117025.050.0ug/kg wet50100011780-120%1,3,5-Trimethylbenzene114025.050.0ug/kg wet50100011480-120%	1,1,1-Trichloroethane	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%			
Trichloroethene (TCE) 1150 12.5 25.0 ug/kg wet 50 1000 115 80-120% Trichlorofluoromethane 844 50.0 100 ug/kg wet 50 1000 84 80-120% 1,2,3-Trichloropropane 1010 25.0 50.0 ug/kg wet 50 1000 101 80-120% 1,2,4-Trimethylbenzene 1170 25.0 50.0 ug/kg wet 50 1000 117 80-120% 1,3,5-Trimethylbenzene 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120%	1,1,2-Trichloroethane	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
Trichlorofluoromethane 844 50.0 100 ug/kg wet 50 1000 84 80-120% 1,2,3-Trichloropropane 1010 25.0 50.0 ug/kg wet 50 1000 101 80-120% 1,2,4-Trimethylbenzene 1170 25.0 50.0 ug/kg wet 50 1000 117 80-120% 1,3,5-Trimethylbenzene 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120%	Trichloroethene (TCE)	1150	12.5	25.0	ug/kg wet	50	1000		115	80-120%			
1,2,3-Trichloropropane101025.050.0ug/kg wet50100010180-120%1,2,4-Trimethylbenzene117025.050.0ug/kg wet50100011780-120%1,3,5-Trimethylbenzene114025.050.0ug/kg wet50100011480-120%	Trichlorofluoromethane	844	50.0	100	ug/kg wet	50	1000		84	80-120%			
1,2,4-Trimethylbenzene 1170 25.0 50.0 ug/kg wet 50 1000 117 80-120% 1,3,5-Trimethylbenzene 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120%	1,2,3-Trichloropropane	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
1,3,5-Trimethylbenzene 1140 25.0 50.0 ug/kg wet 50 1000 114 80-120%	1,2,4-Trimethylbenzene	1170	25.0	50.0	ug/kg wet	50	1000		117	80-120%			
	1,3,5-Trimethylbenzene	1140	25.0	50.0	ug/kg wet	50	1000		114	80-120%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Com	pounds	s by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23l0960 - EPA 5035A							Soi	il				
LCS (23I0960-BS1)			Prepared	1: 09/28/23 10):42 Ana	lyzed: 09/28/	/23 15:26					
Vinyl chloride	1530	12.5	25.0	ug/kg wet	50	1000		153	80-120%			Q-5
m,p-Xylene	2220	25.0	50.0	ug/kg wet	50	2000		111	80-120%			
o-Xylene	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 108 %	Limits: 80-1	20 %	Dilu	ution: 1x					_
Toluene-d8 (Surr)			100 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			100 %	79-1	20 %		"					
Duplicate (2310960-DUP1)			Prepared	l: 09/21/23 00):00 Ana	lyzed: 09/28/	/23 21:22					
OC Source Sample: Non-SDG (A3)	<u>(1420-04)</u>											
Acetone	ND	1270	2530	ug/kg dry	100		ND				30%	
Acrylonitrile	ND	253	253	ug/kg dry	100		ND				30%	
Benzene	ND	12.7	25.3	ug/kg dry	100		ND				30%	
Bromobenzene	ND	31.6	63.3	ug/kg dry	100		ND				30%	
Bromochloromethane	ND	63.3	127	ug/kg dry	100		ND				30%	
Bromodichloromethane	ND	63.3	127	ug/kg dry	100		ND				30%	
Bromoform	ND	127	253	ug/kg dry	100		ND				30%	
Bromomethane	ND	1270	1270	ug/kg dry	100		ND				30%	
2-Butanone (MEK)	ND	633	1270	ug/kg dry	100		ND				30%	
n-Butylbenzene	620	63.3	127	ug/kg dry	100		669			8	30%	
sec-Butylbenzene	292	63.3	127	ug/kg dry	100		299			2	30%	
tert-Butylbenzene	ND	63.3	127	ug/kg dry	100		ND				30%	
Carbon disulfide	ND	633	1270	ug/kg dry	100		ND				30%	
Carbon tetrachloride	ND	63.3	127	ug/kg dry	100		ND				30%	
Chlorobenzene	ND	31.6	63.3	ug/kg dry	100		ND				30%	
Chloroethane	ND	633	1270	ug/kg dry	100		ND				30%	
Chloroform	ND	63.3	127	ug/kg dry	100		ND				30%	
Chloromethane	ND	316	633	ug/kg dry	100		ND				30%	
2-Chlorotoluene	ND	63.3	127	ug/kg dry	100		ND				30%	
4-Chlorotoluene	ND	63.3	127	ug/kg dry	100		ND				30%	
Dibromochloromethane	ND	127	253	ug/kg drv	100		ND				30%	
1,2-Dibromo-3-chloropropane	ND	316	633	ug/kg drv	100		ND				30%	
1,2-Dibromoethane (EDB)	ND	63.3	127	ug/kg drv	100		ND				30%	
Dibromomethane	ND	63.3	127	ug/kg drv	100		ND				30%	
1.2-Dichlorobenzene	ND	31.6	63 3	ug/kg drv	100		ND				30%	
1,2 Diemorooenzene	110	51.0	05.5	ug/ng ury	100					_	50/0	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0960 - EPA 5035A							Soi	1				
Duplicate (2310960-DUP1)			Prepared	: 09/21/23 00	:00 Ana	yzed: 09/28/	/23 21:22					
QC Source Sample: Non-SDG (A3I	1420-04)											
1,3-Dichlorobenzene	ND	31.6	63.3	ug/kg dry	100		ND				30%	
1,4-Dichlorobenzene	ND	31.6	63.3	ug/kg dry	100		ND				30%	
Dichlorodifluoromethane	ND	127	253	ug/kg dry	100		ND				30%	
1,1-Dichloroethane	ND	31.6	63.3	ug/kg dry	100		ND				30%	
1,2-Dichloroethane (EDC)	ND	31.6	63.3	ug/kg dry	100		ND				30%	
1,1-Dichloroethene	ND	31.6	63.3	ug/kg dry	100		ND				30%	
cis-1,2-Dichloroethene	ND	63.3	127	ug/kg dry	100		ND				30%	
trans-1,2-Dichloroethene	ND	63.3	127	ug/kg dry	100		ND				30%	
1,2-Dichloropropane	ND	31.6	63.3	ug/kg dry	100		ND				30%	
1,3-Dichloropropane	ND	63.3	127	ug/kg dry	100		ND				30%	
2,2-Dichloropropane	ND	63.3	127	ug/kg dry	100		ND				30%	
1,1-Dichloropropene	ND	63.3	127	ug/kg dry	100		ND				30%	
cis-1,3-Dichloropropene	ND	63.3	127	ug/kg dry	100		ND				30%	
trans-1,3-Dichloropropene	ND	63.3	127	ug/kg dry	100		ND				30%	
Ethylbenzene	ND	31.6	63.3	ug/kg dry	100		ND				30%	
Hexachlorobutadiene	ND	127	253	ug/kg dry	100		ND				30%	
2-Hexanone	ND	633	1270	ug/kg dry	100		ND				30%	
Isopropylbenzene	380	63.3	127	ug/kg dry	100		381			0.3	30%	
4-Isopropyltoluene	ND	63.3	127	ug/kg dry	100		ND				30%	
Methylene chloride	ND	633	1270	ug/kg dry	100		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	633	1270	ug/kg dry	100		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	63.3	127	ug/kg dry	100		ND				30%	
Naphthalene	ND	127	253	ug/kg dry	100		ND				30%	
n-Propylbenzene	1650	31.6	63.3	ug/kg dry	100		1770			7	30%	
Styrene	ND	63.3	127	ug/kg dry	100		ND				30%	
1,1,1,2-Tetrachloroethane	ND	31.6	63.3	ug/kg dry	100		ND				30%	
1,1,2,2-Tetrachloroethane	ND	63.3	127	ug/kg dry	100		ND				30%	
Tetrachloroethene (PCE)	ND	31.6	63.3	ug/kg dry	100		ND				30%	
Toluene	ND	63.3	127	ug/kg dry	100		ND				30%	
1,2,3-Trichlorobenzene	ND	316	633	ug/kg drv	100		ND				30%	
1.2.4-Trichlorobenzene	ND	316	633	ug/kg drv	100		ND				30%	
1.1.1-Trichloroethane	ND	31.6	63.3	ug/kg drv	100		ND				30%	
1.1.2-Trichloroethane	ND	31.6	63.3	ug/kg drv	100		ND				30%	
, , <u> </u>	1.12	21.0	00.0								/ -	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23l0960 - EPA 5035A							Soi	il				
Duplicate (2310960-DUP1)			Preparec	1: 09/21/23 0	0:00 Anal	yzed: 09/28	/23 21:22					
QC Source Sample: Non-SDG (A3)	<u>11420-04)</u>											
Trichloroethene (TCE)	ND	31.6	63.3	ug/kg dry	y 100		ND				30%	
Trichlorofluoromethane	ND	127	253	ug/kg dry	y 100		ND				30%	
1,2,3-Trichloropropane	ND	63.3	127	ug/kg dry	y 100		ND				30%	
1,2,4-Trimethylbenzene	ND	63.3	127	ug/kg dry	y 100		ND				30%	
1,3,5-Trimethylbenzene	ND	63.3	127	ug/kg dry	y 100		ND				30%	
Vinyl chloride	ND	31.6	63.3	ug/kg dry	y 100		ND				30%	
m,p-Xylene	ND	63.3	127	ug/kg dry	y 100		ND				30%	
o-Xylene	ND	31.6	63.3	ug/kg dry	y 100		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 128 %	Limits: 80-	-120 %	Dilt	ution: 1x					S-06
Toluene-d8 (Surr)			98 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			105 %	79-	120 %		"					
<u>QC Source Sample: Non-SDG (A31</u> 5035A/8260D	<u>11521-02)</u>		- <u>r</u> r									
Acetone	4880	1180	2350	ug/kg dry	v 50	4700	ND	104	36-164%			O-54
Acrylonitrile	3010	118	235	ug/kg dry	v 50	2350	ND	128	65-134%			
Benzene	2980	11.8	23.5	ug/kg dry	y 50	2350	ND	127	77-121%			Q-(
Bromobenzene	2430	29.4	58.8	ug/kg dry	y 50	2350	ND	103	78-121%			
Bromochloromethane	2730	58.8	118	ug/kg dry	y 50	2350	ND	116	78-125%			
Bromodichloromethane	2210	58.8	118	ug/kg dry	y 50	2350	ND	94	75-127%			
Bromoform	1980	118	235	ug/kg dry	y 50	2350	ND	84	67-132%			
Bromomethane	2490	1180	1180	ug/kg dry	y 50	2350	ND	106	53-143%			
2-Butanone (MEK)	5660	588	1180	ug/kg dry	y 50	4700	ND	120	51-148%			Q-54
n-Butylbenzene	2980	58.8	118	ug/kg dry	y 50	2350	ND	127	70-128%			
sec-Butylbenzene	3090	58.8	118	ug/kg dry	y 50	2350	94.1	127	73-126%			Q-(
tert-Butylbenzene	2470	58.8	118	ug/kg dry	y 50	2350	ND	105	73-125%			
Carbon disulfide	3900	588	1180	ug/kg dry	y 50	2350	ND	166	63-132%			Q-(
Carbon tetrachloride	2380	58.8	118	ug/kg dry	y 50	2350	ND	101	70-135%			
Chlorobenzene	2310	29.4	58.8	ug/kg dry	y 50	2350	ND	98	79-120%			
Chloroethane	1420	588	1180	ug/kg dry	y 50	2350	ND	60	59-139%			
Chloroform	2330	58.8	118	ug/kg dry	y 50	2350	ND	99	78-123%			
Chloromethane	2640	294	588	ug/kg dry	y 50	2350	ND	112	50-136%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units I	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0960 - EPA 5035A							Soi	il				
Matrix Spike (2310960-MS1)			Prepared:	09/27/23 14	:00 Anal	yzed: 09/28/	/23 23:04					
QC Source Sample: Non-SDG (A3I	<u>1521-02)</u>											
2-Chlorotoluene	2650	58.8	118	ug/kg dry	50	2350	ND	112	75-122%			
4-Chlorotoluene	2370	58.8	118	ug/kg dry	50	2350	ND	101	72-124%			
Dibromochloromethane	1890	118	235	ug/kg dry	50	2350	ND	80	74-126%			
1,2-Dibromo-3-chloropropane	2370	294	588	ug/kg dry	50	2350	ND	101	61-132%			
1,2-Dibromoethane (EDB)	2120	58.8	118	ug/kg dry	50	2350	ND	90	78-122%			
Dibromomethane	2580	58.8	118	ug/kg dry	50	2350	ND	110	78-125%			
1,2-Dichlorobenzene	2290	29.4	58.8	ug/kg dry	50	2350	ND	97	78-121%			
1,3-Dichlorobenzene	2350	29.4	58.8	ug/kg dry	50	2350	ND	100	77-121%			
1,4-Dichlorobenzene	2280	29.4	58.8	ug/kg dry	50	2350	ND	97	75-120%			
Dichlorodifluoromethane	2330	118	235	ug/kg dry	50	2350	ND	99	29-149%			
1,1-Dichloroethane	2630	29.4	58.8	ug/kg dry	50	2350	ND	112	76-125%			
1,2-Dichloroethane (EDC)	1860	29.4	58.8	ug/kg dry	50	2350	ND	79	73-128%			
1,1-Dichloroethene	3380	29.4	58.8	ug/kg dry	50	2350	ND	144	70-131%			Q-(
cis-1,2-Dichloroethene	2560	58.8	118	ug/kg dry	50	2350	ND	109	77-123%			
trans-1,2-Dichloroethene	2680	58.8	118	ug/kg dry	50	2350	ND	114	74-125%			
1,2-Dichloropropane	3000	29.4	58.8	ug/kg dry	50	2350	ND	128	76-123%			Q-(
1,3-Dichloropropane	2150	58.8	118	ug/kg dry	50	2350	ND	91	77-121%			
2,2-Dichloropropane	2240	58.8	118	ug/kg dry	50	2350	ND	95	67-133%			
1,1-Dichloropropene	2870	58.8	118	ug/kg dry	50	2350	ND	122	76-125%			
cis-1,3-Dichloropropene	2130	58.8	118	ug/kg dry	50	2350	ND	91	74-126%			
trans-1,3-Dichloropropene	1920	58.8	118	ug/kg dry	50	2350	ND	82	71-130%			
Ethylbenzene	2280	29.4	58.8	ug/kg drv	50	2350	ND	97	76-122%			
Hexachlorobutadiene	3100	118	235	ug/kg dry	50	2350	ND	132	61-135%			
2-Hexanone	4250	588	1180	ug/kg drv	50	4700	ND	90	53-145%			
Isopropylbenzene	2550	58.8	118	ug/kg drv	50	2350	ND	108	68-134%			
4-Isopropyltoluene	3300	58.8	118	ug/kg drv	50	2350	235	130	73-127%			Q-(
Methylene chloride	3050	588	1180	ug/kg drv	50	2350	ND	130	70-128%			Q-(
4-Methyl-2-pentanone (MiBK)	4390	588	1180	ug/kg drv	50	4700	ND	93	65-135%			
Methyl tert-butyl ether (MTBE)	2500	58.8	118	ug/kg drv	50	2350	ND	106	73-125%			
Naphthalene	3000	118	235	ug/kg drv	50	2350	ND	115	62-129%			
n-Propvlbenzene	2630	29.4	58.8	ug/kg drv	50	2350	ND	112	73-125%			
Styrene	2590	58.8	118	uo/ko dru	50	2350	ND	110	76-122%			
1.1.1.2-Tetrachloroethene	1920	20.0	58.8	110/ka dry	50	2350	ND	82	78-125%			
1,1,1,2 ⁻ 1011a0110100011a110	1720	27.4	50.0	ug/kg uly	50	2350	TYD.	02	/0-123/0			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Note	ès
Batch 23I0960 - EPA 5035A							So	il					
Matrix Spike (2310960-MS1)			Preparec	1: 09/27/23 1	4:00 Ana	lyzed: 09/28	/23 23:04						
QC Source Sample: Non-SDG (A3	<u>11521-02)</u>												
1,1,2,2-Tetrachloroethane	2520	58.8	118	ug/kg dr	y 50	2350	ND	92	70-124%				
Tetrachloroethene (PCE)	2640	29.4	58.8	ug/kg dr	y 50	2350	ND	112	73-128%				
Toluene	2320	58.8	118	ug/kg dr	y 50	2350	ND	99	77-121%				
1,2,3-Trichlorobenzene	2390	294	588	ug/kg dr	y 50	2350	ND	102	66-130%				
1,2,4-Trichlorobenzene	2670	294	588	ug/kg dr	y 50	2350	ND	113	67-129%				
1,1,1-Trichloroethane	2270	29.4	58.8	ug/kg dr	y 50	2350	ND	96	73-130%				
1,1,2-Trichloroethane	2320	29.4	58.8	ug/kg dr	y 50	2350	ND	99	78-121%				
Trichloroethene (TCE)	3130	29.4	58.8	ug/kg dr	y 50	2350	ND	133	77-123%				Q-0
Trichlorofluoromethane	1370	118	235	ug/kg dr	y 50	2350	ND	58	62-140%				Q-0
1,2,3-Trichloropropane	2130	58.8	118	ug/kg dr	y 50	2350	ND	83	73-125%				
1,2,4-Trimethylbenzene	2690	58.8	118	ug/kg dr	y 50	2350	105	110	75-123%				
1,3,5-Trimethylbenzene	2730	58.8	118	ug/kg dr	y 50	2350	165	109	73-124%				
Vinyl chloride	3790	29.4	58.8	ug/kg dr	y 50	2350	ND	161	56-135%				Q-54
m,p-Xylene	4720	58.8	118	ug/kg dr	y 50	4700	ND	100	77-124%				
o-Xylene	2430	29.4	58.8	ug/kg dr	y 50	2350	ND	103	77-123%				
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 130 %	Limits: 80-	-120 %	Dilı	ution: 1x					S-06	
Toluene-d8 (Surr)			98 %	80-	120 %		"						
4-Bromofluorobenzene (Surr)			106 %	79-	120 %		"						

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source % REC Result Limit Units Dilution RPD Analyte Limit Amount Result Limits Limit Notes Batch 23I0913 - EPA 1311/5030C TCLP Volatiles Soil Blank (23I0913-BLK1) Prepared: 09/27/23 18:03 Analyzed: 09/28/23 01:31 TCLPb 1311/8260D ND 6.25 12.5 ug/L 50 Benzene ND 250 500 50 2-Butanone (MEK) ug/L ---------Carbon tetrachloride ND 12.5 25.0 ug/L 50 ---------Chlorobenzene ND 12.5 25.0 ug/L 50 ___ ------___ Chloroform ND 25.0 50.0 50 ug/L ---1,4-Dichlorobenzene ND 12.5 25.0 50 ug/L ---------------1,1-Dichloroethene ND 12.5 25.0 50 ug/L ---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 50 ug/L ___ -------------_ _ _ Vinyl chloride ND 12.5 25.0 50 ug/L --------------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 106 % Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 102 % 80-120 % " 4-Bromofluorobenzene (Surr) 100 % 80-120 % Blank (23I0913-BLK2) Prepared: 09/27/23 18:03 Analyzed: 09/28/23 01:53 TCLPb 1311/8260D Benzene ND 6.25 12.5 ug/L 50 2-Butanone (MEK) ND 250 500 50 ug/L ---------____ ------Carbon tetrachloride ND 12.5 25.0 ug/L 50 ___ ------Chlorobenzene ND 12.5 25.0 ug/L 50 ---------------Chloroform ND 25.050.0 ug/L 50 1,4-Dichlorobenzene ND 12.5 25.0 50 ug/L ------------------1,1-Dichloroethene ND 12.5 25.0 ug/L 50 ---------1,2-Dichloroethane (EDC) ND 12.5 25.0 ug/L 50 ------ND Tetrachloroethene (PCE) 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 ----------____ ------Surr: 1,4-Difluorobenzene (Surr) 107 % Recovery: Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 103 % 80-120 %

LCS (23I0913-BS1)

Prepared: 09/27/23 18:03 Analyzed: 09/28/23 00:45

80-120 %

101 %

TCLPb

Apex Laboratories

4-Bromofluorobenzene (Surr)



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasco -- Filtercake

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	
Batch 23I0913 - EPA 1311/5030		/olatiles					So	il					
LCS (2310913-BS1)			Prepared	l: 09/27/23	18:03 Ana	lyzed: 09/28	/23 00:45					TCLPb	
<u>1311/8260D</u>													
Benzene	1080	6.25	12.5	ug/L	50	1000		108	80-120%				
2-Butanone (MEK)	2110	250	500	ug/L	50	2000		105	80-120%				
Carbon tetrachloride	1150	12.5	25.0	ug/L	50	1000		115	80-120%				
Chlorobenzene	1060	12.5	25.0	ug/L	50	1000		106	80-120%				
Chloroform	1110	25.0	50.0	ug/L	50	1000		111	80-120%				
1,4-Dichlorobenzene	1030	12.5	25.0	ug/L	50	1000		103	80-120%				
1,1-Dichloroethene	1460	12.5	25.0	ug/L	50	1000		146	80-120%			Q-5	
1,2-Dichloroethane (EDC)	1130	12.5	25.0	ug/L	50	1000		113	80-120%				
Tetrachloroethene (PCE)	1040	12.5	25.0	ug/L	50	1000		104	80-120%				
Trichloroethene (TCE)	1070	12.5	25.0	ug/L	50	1000		107	80-120%				
Vinyl chloride	1240	12.5	25.0	ug/L	50	1000		124	80-120%			Q-5	
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 104 %	Limits: 80	0-120 %	Dilt	ution: 1x						
Toluene-d8 (Surr)			99 %	80)-120 %		"						
4-Bromofluorobenzene (Surr)			92 %	80)-120 %		"						
Duplicate (2310913-DUP1)			Prepared	l: 09/27/23	18:03 Ana	lyzed: 09/28	/23 02:38						
QC Source Sample: Non-SDG (A3	I1286-01)												
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	12.5	25.0	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%		
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 108 %	Limits: 80	0-120 %	Dili	ution: 1x						
Toluene-d8 (Surr)			102 %	80)-120 %		"						
4-Bromofluorobenzene (Surr)			100 %	80)-120 %		"						

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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	
Batch 23I0913 - EPA 1311/5030	C TCLP V	/olatiles					So	il					
Matrix Spike (23I0913-MS1)			Preparec	1: 09/27/23	18:03 Ana	lyzed: 09/28	/23 04:53						
QC Source Sample: Non-SDG (A3)	[1286-03]												
<u>1311/8260D</u>													
Benzene	1150	6.25	12.5	ug/L	50	1000	ND	115	79-120%				
2-Butanone (MEK)	2100	250	500	ug/L	50	2000	ND	105	56-143%				
Carbon tetrachloride	1280	12.5	25.0	ug/L	50	1000	ND	128	72-136%				
Chlorobenzene	1130	12.5	25.0	ug/L	50	1000	ND	113	80-120%				
Chloroform	1180	25.0	50.0	ug/L	50	1000	ND	118	79-124%				
1,4-Dichlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	79-120%				
1,1-Dichloroethene	1590	12.5	25.0	ug/L	50	1000	ND	159	71-131%			Q-54	
1,2-Dichloroethane (EDC)	1200	12.5	25.0	ug/L	50	1000	ND	120	73-128%				
Tetrachloroethene (PCE)	1140	12.5	25.0	ug/L	50	1000	ND	114	74-129%				
Trichloroethene (TCE)	1140	12.5	25.0	ug/L	50	1000	ND	114	79-123%				
Vinyl chloride	1340	12.5	25.0	ug/L	50	1000	ND	134	58-137%			Q-541	
Surr: 1,4-Difluorobenzene (Surr)		Recon	very: 104 %	Limits: 8	0-120 %	Dili	ution: 1x						
Toluene-d8 (Surr)			100 %	80)-120 %		"						
4-Bromofluorobenzene (Surr)			91 %	80)-120 %		"						

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 2310893 - EPA 3546							Sol	id				
Blank (2310893-BLK1)			Prepared	1: 09/27/23 1	1:36 Anal	yzed: 09/27/	/23 17:42					
EPA 8270E												
Acenaphthene	ND	1.33	2.67	ug/kg we	t 1							
Acenaphthylene	ND	1.33	2.67	ug/kg we	t 1							
Anthracene	ND	1.33	2.67	ug/kg we	t 1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg we	t 1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg we	t 1							
Chrysene	ND	1.33	2.67	ug/kg we	t 1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg we	t 1							
Fluoranthene	ND	1.33	2.67	ug/kg we	t 1							
Fluorene	ND	1.33	2.67	ug/kg we	t 1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg we	t 1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg we	t 1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg we	t 1							
Naphthalene	ND	2.67	5.33	ug/kg we	t 1							
Phenanthrene	ND	1.33	2.67	ug/kg we	t 1							
Pyrene	ND	1.33	2.67	ug/kg we	t 1							
Carbazole	ND	2.00	4.00	ug/kg we	t 1							
Dibenzofuran	ND	1.33	2.67	ug/kg we	t 1							
2-Chlorophenol	ND	6.67	13.3	ug/kg we	t 1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg we	t 1							
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg we	t 1							
2,4-Dinitrophenol	ND	33.3	66.7	ug/kg we	t 1							
4,6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg we	t 1							
2-Methylphenol	ND	3.33	6.67	ug/kg we	t 1							
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg we	t 1							
2-Nitrophenol	ND	13.3	26.7	ug/kg we	t 1							
4-Nitrophenol	ND	13.3	26.7	ug/kg we	t 1							
Pentachlorophenol (PCP)	ND	13.3	26.7	ug/kg we	t 1							
Phenol	ND	2.67	5.33	ug/kg we	t 1							
2,3,4,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg we	t 1							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 2310893 - EPA 3546							Sol	id				
Blank (23I0893-BLK1)			Prepared	1: 09/27/23 11	l:36 Anal	lyzed: 09/27/	/23 17:42					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg wet	1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg wet	1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg wet	1							
Diethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Dimethylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-butylphthalate	ND	13.3	26.7	ug/kg wet	1							
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg wet	1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg wet	1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg wet	1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg wet	1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg wet	1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg wet	1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg wet	1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg wet	1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg wet	1							
Hexachloroethane	ND	3.33	6.67	ug/kg wet	1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg wet	1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg wet	1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	1							
Aniline	ND	6.67	13.3	ug/kg wet	1							
4-Chloroaniline	ND	3.33	6.67	ug/kg wet	1							
2-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
3-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
4-Nitroaniline	ND	26.7	53.3	ug/kg wet	1							
Nitrobenzene	ND	13.3	26.7	ug/kg wet	1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
2.6-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	1							
Benzoic acid	ND	167	333	ug/kg wet	: 1							
Benzvl alcohol	ND	6.67	13.3	ug/kg wet	: 1							
Isophorone	ND	3.33	6.67	ug/kg wet	1							
1	112	0.00	0.07		-							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	nds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23l0893 - EPA 3546							Sol	id				
Blank (23I0893-BLK1)			Prepared	1: 09/27/23 1	1:36 Ana	lyzed: 09/27/	/23 17:42					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	t 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	t 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 84 %	Limits: 37-	122 %	Dilı	ution: 1x					
2-Fluorobiphenyl (Surr)			77 %	44-	120 %		"					
Phenol-d6 (Surr)			80 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			82 %	54-	127 %		"					
2-Fluorophenol (Surr)			82 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			78 %	39-	132 %		"					
LCS (2310893-BS1)			Preparec	1: 09/27/23 1	1:36 Ana	lyzed: 09/27/	/23 20:17					Q-18
EPA 8270E												
Acenaphthene	454	5.32	10.7	ug/kg we	t 4	533		85	40-123%			
Acenaphthylene	422	5.32	10.7	ug/kg we	t 4	533		79	32-132%			
Anthracene	459	5.32	10.7	ug/kg we	t 4	533		86	47-123%			
Benz(a)anthracene	454	5.32	10.7	ug/kg we	t 4	533		85	49-126%			
Benzo(a)pyrene	503	8.00	16.0	ug/kg we	t 4	533		94	45-129%			
Benzo(b)fluoranthene	456	8.00	16.0	ug/kg we	t 4	533		86	45-132%			
Benzo(k)fluoranthene	483	8.00	16.0	ug/kg we	t 4	533		91	47-132%			
Benzo(g,h,i)perylene	464	5.32	10.7	ug/kg we	t 4	533		87	43-134%			
Chrysene	445	5.32	10.7	ug/kg we	t 4	533		83	50-124%			
Dibenz(a,h)anthracene	465	5.32	10.7	ug/kg we	t 4	533		87	45-134%			
Fluoranthene	483	5.32	10.7	ug/kg we	t 4	533		91	50-127%			
Fluorene	422	5.32	10.7	ug/kg we	t 4	533		79	43-125%			
Indeno(1.2.3-cd)pyrene	432	5.32	10.7	ug/kg we	t 4	533		81	45-133%			
1 Mathylagahthalana	410	10.7	21.3			522		77	40 1200/			
1-Methymaphtnalene	410	10.7	ZI)	ug/kg we	1 4	2.11		//	40-120-20			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

		A 8270E										
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0893 - EPA 3546							Sol	id				
LCS (2310893-BS1)			Prepared	l: 09/27/23 1	1:36 Anal	lyzed: 09/27	/23 20:17					Q-18
Naphthalene	442	10.7	21.3	ug/kg we	t 4	533		83	35-123%			
Phenanthrene	434	5.32	10.7	ug/kg we	t 4	533		81	50-121%			
Pyrene	465	5.32	10.7	ug/kg we	t 4	533		87	47-127%			
Carbazole	469	8.00	16.0	ug/kg we	t 4	533		88	50-123%			
Dibenzofuran	445	5.32	10.7	ug/kg we	t 4	533		83	44-120%			
2-Chlorophenol	457	26.7	53.2	ug/kg we	t 4	533		86	34-121%			
4-Chloro-3-methylphenol	387	53.2	107	ug/kg we	t 4	533		73	45-122%			
2,4-Dichlorophenol	462	26.7	53.2	ug/kg we	t 4	533		87	40-122%			
2,4-Dimethylphenol	481	26.7	53.2	ug/kg we	t 4	533		90	30-127%			
2,4-Dinitrophenol	395	133	267	ug/kg we	t 4	533		74	10-137%			
4,6-Dinitro-2-methylphenol	465	133	267	ug/kg we	t 4	533		87	29-132%			
2-Methylphenol	451	13.3	26.7	ug/kg we	t 4	533		85	32-122%			
3+4-Methylphenol(s)	471	13.3	26.7	ug/kg we	t 4	533		88	34-120%			
2-Nitrophenol	465	53.2	107	ug/kg we	t 4	533		87	36-123%			
4-Nitrophenol	408	53.2	107	ug/kg we	t 4	533		76	30-132%			
Pentachlorophenol (PCP)	405	53.2	107	ug/kg we	t 4	533		76	25-133%			
Phenol	471	10.7	21.3	ug/kg we	t 4	533		88	34-121%			
2,3,4,6-Tetrachlorophenol	463	26.7	53.2	ug/kg we	t 4	533		87	44-125%			
2,3,5,6-Tetrachlorophenol	442	26.7	53.2	ug/kg we	t 4	533		83	40-120%			
2,4,5-Trichlorophenol	441	26.7	53.2	ug/kg we	t 4	533		83	41-124%			
2,4,6-Trichlorophenol	452	26.7	53.2	ug/kg we	t 4	533		85	39-126%			
Bis(2-ethylhexyl)phthalate	460	80.0	160	ug/kg we	t 4	533		86	51-133%			
Butyl benzyl phthalate	468	53.2	107	ug/kg we	t 4	533		88	48-132%			
Diethylphthalate	479	53.2	107	ug/kg we	t 4	533		90	50-124%			
Dimethylphthalate	452	53.2	107	ug/kg we	t 4	533		85	48-124%			
Di-n-butylphthalate	518	53.2	107	ug/kg we	t 4	533		97	51-128%			
Di-n-octyl phthalate	484	53.2	107	ug/kg we	t 4	533		91	45-140%			
N-Nitrosodimethylamine	453	13.3	26.7	ug/kg we	t 4	533		85	23-120%			
N-Nitroso-di-n-propylamine	463	13.3	26.7	ug/kg we	t 4	533		87	36-120%			
N-Nitrosodiphenylamine	436	13.3	26.7	ug/kg we	t 4	533		82	38-127%			
Bis(2-Chloroethoxy) methane	433	13.3	26.7	ug/kg we	t 4	533		81	36-121%			
Bis(2-Chloroethyl) ether	441	13.3	26.7	ug/kg we	t 4	533		83	31-120%			
2,2'-Oxybis(1-Chloropropane)	496	13.3	26.7	ug/kg we	t 4	533		93	39-120%			
Hexachlorobenzene	436	5.32	10.7	ug/kg we	et 4	533		82	45-122%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23l0893 - EPA 3546							So	lid					
LCS (2310893-BS1)			Prepared	1: 09/27/23 1	1:36 Ana	lyzed: 09/27	/23 20:17					Q-18	
Hexachlorobutadiene	432	13.3	26.7	ug/kg we	t 4	533		81	32-123%				
Hexachlorocyclopentadiene	270	26.7	53.2	ug/kg we	t 4	533		51	10-140%				
Hexachloroethane	416	13.3	26.7	ug/kg we	t 4	533		78	28-120%				
2-Chloronaphthalene	446	5.32	10.7	ug/kg we	t 4	533		84	41-120%				
1,2,4-Trichlorobenzene	428	13.3	26.7	ug/kg we	t 4	533		80	34-120%				
4-Bromophenyl phenyl ether	445	13.3	26.7	ug/kg we	t 4	533		83	46-124%				
4-Chlorophenyl phenyl ether	447	13.3	26.7	ug/kg we	t 4	533		84	45-121%				
Aniline	400	26.7	53.2	ug/kg we	t 4	533		75	10-120%				
4-Chloroaniline	278	13.3	26.7	ug/kg we	t 4	533		52	17-120%			Q-4	
2-Nitroaniline	491	107	213	ug/kg we	t 4	533		92	44-127%				
3-Nitroaniline	408	107	213	ug/kg we	t 4	533		76	33-120%				
4-Nitroaniline	456	107	213	ug/kg we	t 4	533		85	51-125%				
Nitrobenzene	438	53.2	107	ug/kg we	t 4	533		82	34-122%				
2,4-Dinitrotoluene	478	53.2	107	ug/kg we	t 4	533		90	48-126%				
2,6-Dinitrotoluene	450	53.2	107	ug/kg we	t 4	533		84	46-124%				
Benzoic acid	658	400	400	ug/kg we	t 4	1070		62	10-140%				
Benzyl alcohol	417	26.7	53.2	ug/kg we	t 4	533		78	29-122%				
Isophorone	435	13.3	26.7	ug/kg we	t 4	533		82	30-122%				
Azobenzene (1,2-DPH)	475	13.3	26.7	ug/kg we	t 4	533		89	39-125%				
Bis(2-Ethylhexyl) adipate	459	133	267	ug/kg we	t 4	533		86	61-121%				
3,3'-Dichlorobenzidine	2560	107	213	ug/kg we	t 4	1070		240	22-121%			Q-29, Q-5	
1,2-Dinitrobenzene	391	133	267	ug/kg we	t 4	533		73	44-120%				
1,3-Dinitrobenzene	426	133	267	ug/kg we	t 4	533		80	43-127%				
1,4-Dinitrobenzene	436	133	267	ug/kg we	t 4	533		82	37-132%				
Pyridine	406	26.7	53.2	ug/kg we	t 4	533		76	10-120%				
1,2-Dichlorobenzene	431	13.3	26.7	ug/kg we	t 4	533		81	33-120%				
1,3-Dichlorobenzene	433	13.3	26.7	ug/kg we	t 4	533		81	30-120%				
1,4-Dichlorobenzene	417	13.3	26.7	ug/kg we	t 4	533		78	31-120%				
Surr: Nitrobenzene-d5 (Surr)		Reco	werv: 77%	Limits: 37-	122 %	Dilt	ution: 4x						
2-Fluorobiphenvl (Surr)			81 %	44-	120 %		"						
Phenol-d6 (Surr)			86 %	33-	122 %		"						
p-Terphenyl-d14 (Surr)			87%	54-	127 %		"						
2-Fluoronhenol (Surr)			85%	35	120 %		"						
2 4 6 Tribromonhonol (Surry)			70 0/	20	127 0/		"						

Apex Laboratories



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

<u>Sevenson Environmental Serv</u> 2749 Lockport Road Niagara Falls, NY 14305	ices, Inc.		Pro	Project: oject Numbe ject Manage	<u>Report ID:</u> A3I1260 - 10 18 23 1006									
		QU	ALITY CO	ONTROL	(QC) SA	MPLE F	RESULTS	5						
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		
Batch 2310893 - EPA 3546							Sol	id						
Duplicate (2310893-DUP2)			Prepared	l: 09/27/23 1	1:36 Ana	lyzed: 09/28	/23 10:33					R-04		
OC Source Sample: Non-SDG (A)	3I1235-01RE	21)												
Acenaphthene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Acenaphthylene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Anthracene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Benz(a)anthracene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Benzo(a)pyrene	ND	23.9	47.8	ug/kg we	t 4		ND				30%			
Benzo(b)fluoranthene	ND	23.9	47.8	ug/kg we	t 4		ND				30%			
Benzo(k)fluoranthene	ND	23.9	47.8	ug/kg we	t 4		ND				30%			
Benzo(g,h,i)perylene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Chrysene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Dibenz(a,h)anthracene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Fluoranthene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Fluorene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Indeno(1,2,3-cd)pyrene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
1-Methylnaphthalene	ND	31.9	63.7	ug/kg we	t 4		ND				30%			
2-Methylnaphthalene	ND	31.9	63.7	ug/kg we	t 4		ND				30%			
Naphthalene	ND	31.9	63.7	ug/kg we	t 4		ND				30%			
Phenanthrene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Pyrene	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
Carbazole	ND	23.9	47.8	ug/kg we	t 4		ND				30%			
Dibenzofuran	ND	15.9	31.9	ug/kg we	t 4		ND				30%			
2-Chlorophenol	ND	79.7	159	ug/kg we	t 4		ND				30%			
4-Chloro-3-methylphenol	ND	159	319	ug/kg we	t 4		ND				30%			
2,4-Dichlorophenol	ND	79.7	159	ug/kg we	t 4		ND				30%			
2,4-Dimethylphenol	ND	79.7	159	ug/kg we	t 4		ND				30%			
2,4-Dinitrophenol	ND	398	797	ug/kg we	t 4		ND				30%			
4,6-Dinitro-2-methylphenol	ND	398	797	ug/kg we	t 4		ND				30%			
2-Methylphenol	ND	39.8	79.7	ug/kg we	t 4		ND				30%			
3+4-Methylphenol(s)	ND	39.8	79.7	ug/kg we	t 4		ND				30%			
2-Nitrophenol	ND	159	319	ug/kg we	t 4		ND				30%			
4-Nitrophenol	ND	159	319	ug/kg we	t 4		ND				30%			
Pentachlorophenol (PCP)	ND	159	319	ug/kg we	t 4		ND				30%			
Phenol	ND	31.9	63.7	ug/kg we	t 4		ND				30%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23I0893 - EPA 3546							Soli	id				
Duplicate (2310893-DUP2)			Prepared	l: 09/27/23	11:36 Anal	yzed: 09/28	/23 10:33					R-04
QC Source Sample: Non-SDG (A3	11235-01RH	E <u>1)</u>										
2,3,4,6-Tetrachlorophenol	ND	79.7	159	ug/kg we	et 4		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	79.7	159	ug/kg we	et 4		ND				30%	
2,4,5-Trichlorophenol	ND	79.7	159	ug/kg we	et 4		ND				30%	
2,4,6-Trichlorophenol	ND	159	159	ug/kg we	et 4		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	239	478	ug/kg we	et 4		ND				30%	
Butyl benzyl phthalate	ND	159	319	ug/kg we	et 4		ND				30%	
Diethylphthalate	ND	159	319	ug/kg we	et 4		ND				30%	
Dimethylphthalate	ND	159	319	ug/kg we	et 4		ND				30%	
Di-n-butylphthalate	ND	159	319	ug/kg we	et 4		ND				30%	
Di-n-octyl phthalate	ND	159	319	ug/kg we	et 4		ND				30%	
N-Nitrosodimethylamine	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
N-Nitroso-di-n-propylamine	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
N-Nitrosodiphenylamine	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
Bis(2-Chloroethoxy) methane	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
Bis(2-Chloroethyl) ether	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
Hexachlorobenzene	ND	15.9	31.9	ug/kg we	et 4		ND				30%	
Hexachlorobutadiene	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
Hexachlorocyclopentadiene	ND	79.7	159	ug/kg we	et 4		ND				30%	
Hexachloroethane	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
2-Chloronaphthalene	ND	15.9	31.9	ug/kg we	et 4		ND				30%	
1,2,4-Trichlorobenzene	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
4-Bromophenyl phenyl ether	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
4-Chlorophenyl phenyl ether	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
Aniline	ND	79.7	159	ug/kg we	et 4		ND				30%	
4-Chloroaniline	ND	39.8	79.7	ug/kg we	et 4		ND				30%	
2-Nitroaniline	ND	319	637	ug/kg we	et 4		ND				30%	
3-Nitroaniline	ND	319	637	ug/kg we	et 4		ND				30%	
4-Nitroaniline	ND	319	637	ug/kg we	et 4		ND				30%	
Nitrobenzene	ND	159	319	ug/kg we	et 4		ND				30%	
2,4-Dinitrotoluene	ND	159	319	ug/kg we	et 4		ND				30%	
2,6-Dinitrotoluene	ND	159	319	ug/kg we	et 4		ND				30%	
Benzoic acid	ND	2000	3980	ug/kg we	et 4		ND				30%	

Apex Laboratories


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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23I0893 - EPA 3546							Sol	id				
Duplicate (2310893-DUP2)			Prepared	1: 09/27/23 1	1:36 Ana	lyzed: 09/28	/23 10:33					R-04
QC Source Sample: Non-SDG (A3	3I1235-01RE	<u>21)</u>										
Benzyl alcohol	ND	79.7	159	ug/kg we	t 4		ND				30%	
Isophorone	ND	39.8	79.7	ug/kg we	t 4		ND				30%	
Azobenzene (1,2-DPH)	ND	39.8	79.7	ug/kg we	t 4		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	398	797	ug/kg we	t 4		ND				30%	
3,3'-Dichlorobenzidine	ND	319	637	ug/kg we	t 4		ND				30%	Q-52
1,2-Dinitrobenzene	ND	398	797	ug/kg we	t 4		ND				30%	
1,3-Dinitrobenzene	ND	398	797	ug/kg we	t 4		ND				30%	
1,4-Dinitrobenzene	ND	398	797	ug/kg we	t 4		ND				30%	
Pyridine	ND	79.7	159	ug/kg we	t 4		ND				30%	
1,2-Dichlorobenzene	ND	39.8	79.7	ug/kg we	t 4		ND				30%	
1,3-Dichlorobenzene	ND	39.8	79.7	ug/kg we	t 4		ND				30%	
1,4-Dichlorobenzene	ND	39.8	79.7	ug/kg we	t 4		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Rece	overy: 78 %	Limits: 37-	-122 %	Dilt	ution: 4x					
2-Fluorobiphenyl (Surr)			83 %	44-	120 %		"					
Phenol-d6 (Surr)			79 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			88 %	54-	127 %		"					
2-Fluorophenol (Surr)			75 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			66 %	39-	132 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J0037 - EPA 3051A							Sol	id				
Blank (23J0037-BLK1)			Prepared	1: 10/02/23 1	5:46 Anal	lyzed: 10/02	/23 21:11					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg we	t 10							
Barium	ND	500	1000	ug/kg we	t 10							
Cadmium	ND	100	200	ug/kg we	t 10							
Chromium	ND	500	1000	ug/kg we	t 10							
Lead	ND	100	200	ug/kg we	t 10							
Mercury	ND	40.0	80.0	ug/kg we	t 10							
Selenium	ND	500	1000	ug/kg we	t 10							
Silver	ND	100	200	ug/kg we	t 10							
LCS (23J0037-BS1)			Prepared	: 10/02/23 1	5:46 Anal	yzed: 10/02	/23 21:16					
EPA 6020B												
Arsenic	50000	500	1000	ug/kg we	t 10	50000		100	80-120%			
Barium	54000	500	1000	ug/kg we	t 10	50000		108	80-120%			
Cadmium	51500	100	200	ug/kg we	t 10	50000		103	80-120%			
Chromium	51500	500	1000	ug/kg we	t 10	50000		103	80-120%			
Lead	52600	100	200	ug/kg we	t 10	50000		105	80-120%			
Mercury	1020	40.0	80.0	ug/kg we	t 10	1000		102	80-120%			
Selenium	24700	500	1000	ug/kg we	t 10	25000		99	80-120%			
Silver	26600	100	200	ug/kg we	et 10	25000		106	80-120%			
Duplicate (23J0037-DUP1)			Prepared	: 10/02/23 1	5:46 Anal	yzed: 10/02	/23 21:26					
OC Source Sample: Non-SDG (A.	<u>3I1258</u> -01)											
Arsenic	52300	7560	15100	ug/kg dr	y 10		55100			5	20%	
Barium	105000	7560	15100	ug/kg dr	y 10		112000			6	20%	
Cadmium	ND	1510	3030	ug/kg dr	v 10		ND				20%	
Chromium	332000	7560	15100	ug/kg dr	v 10		355000			7	20%	
Lead	4210	1510	3030	ug/kg dr	v 10		5680			30	20%	Q-(
Mercury	ND	605	1210	ug/kg dr	v 10		ND				20%	
Selenium	ND	7560	15100	ug/kg dr	v 10		7560			***	20%	
Silver	ND	1510	3030	ug/kg dr	y 10		ND				20%	
·		1010	2020		, -•							

Matrix Spike (23J0037-MS1)

Prepared: 10/02/23 15:46 Analyzed: 10/02/23 21:31

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23J0037 - EPA 3051A							Sol	id				
Matrix Spike (23J0037-MS1)			Prepared:	10/02/23 1:	5:46 Anal	yzed: 10/02	/23 21:31					
QC Source Sample: Non-SDG (A3I	1258-01)											
<u>EPA 6020B</u>												
Arsenic	785000	7490	15000	ug/kg dry	⁷ 10	749000	55100	97	75-125%			
Barium	875000	7490	15000	ug/kg dry	⁷ 10	749000	112000	102	75-125%			
Cadmium	742000	1500	2990	ug/kg dry	⁷ 10	749000	ND	99	75-125%			
Chromium	1090000	7490	15000	ug/kg dry	⁷ 10	749000	355000	99	75-125%			
Lead	756000	1500	2990	ug/kg dry	⁷ 10	749000	5680	100	75-125%			
Mercury	14700	599	1200	ug/kg dry	[,] 10	15000	ND	98	75-125%			
Selenium	373000	7490	15000	ug/kg dry	[,] 10	374000	7560	98	75-125%			
Silver	380000	1500	2990	ug/kg dry	⁷ 10	374000	ND	101	75-125%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP	letals by	EPA 602	DB (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0896 - EPA 1311/301	5A						Sol	lid				
Blank (2310896-BLK1)			Prepared	: 09/27/23	11:46 Anal	yzed: 09/27	/23 18:28					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							TCLI
Barium	ND	2500	5000	ug/L	10							TCLI
Cadmium	ND	50.0	100	ug/L	10							TCLI
Chromium	ND	50.0	100	ug/L	10							TCLI
Lead	ND	25.0	50.0	ug/L	10							TCLI
Mercury	ND	3.75	7.00	ug/L	10							TCLI
Selenium	ND	50.0	100	ug/L	10							TCLI
Silver	ND	50.0	100	ug/L	10							TCL
LCS (2310896-BS1)			Prepared	: 09/27/23	11:46 Anal	yzed: 09/27	/23 18:33					
<u>1311/6020B</u>												
Arsenic	5160	50.0	100	ug/L	10	5000		103	80-120%			TCL
Barium	10400	2500	5000	ug/L	10	10000		104	80-120%			TCL
Cadmium	1030	50.0	100	ug/L	10	1000		103	80-120%			TCL
Chromium	5310	50.0	100	ug/L	10	5000		106	80-120%			TCL
Lead	5430	25.0	50.0	ug/L	10	5000		109	80-120%			TCLI
Mercury	101	3.75	7.00	ug/L	10	100		101	80-120%			TCL
Selenium	1020	50.0	100	ug/L	10	1000		102	80-120%			TCLI
Silver	1020	50.0	100	ug/L	10	1000		102	80-120%			TCLI
Duplicate (2310896-DUP1)			Prepared	: 09/27/23	11:46 Anal	yzed: 09/27	/23 18:43					
QC Source Sample: Non-SDG (A.	3H1207-34)											
Arsenic	ND	50.0	100	ug/L	10		ND				20%	TCLP
Barium	ND	2500	5000	ug/L	10		ND				20%	TCLP
Cadmium	ND	50.0	100	ug/L	10		ND				20%	TCLP
Chromium	263	50.0	100	ug/L	10		246			7	20%	TCLP
Lead	4670	25.0	50.0	ug/L	10		4670			0.08	20%	TCLP
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	H-10, TCLP
Selenium	ND	50.0	100	ug/L	10		ND				20%	TCLP
Silver	ND	50.0	100	110/I	10		ND				20%	TCLP

Matrix Spike (23I0896-MS1)

Prepared: 09/27/23 11:46 Analyzed: 09/27/23 18:48

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23I0896 - EPA 1311/3015	A						So	lid				
Matrix Spike (2310896-MS1)			Prepared	: 09/27/23	11:46 Anal	yzed: 09/27	/23 18:48					
<u>QC</u> Source Sample: Non-SDG (A3	H1207-34)											
<u>1311/6020B</u>												
Arsenic	4990	50.0	100	ug/L	10	5000	ND	100	50-150%			TCLP
Barium	10700	2500	5000	ug/L	10	10000	ND	107	50-150%			TCLP
Cadmium	1020	50.0	100	ug/L	10	1000	ND	102	50-150%			TCLP
Chromium	5220	50.0	100	ug/L	10	5000	246	99	50-150%			TCLP
Lead	9580	25.0	50.0	ug/L	10	5000	4670	98	50-150%			TCLP
Mercury	95.7	3.75	7.00	ug/L	10	100	ND	96	50-150%			H-10, TCLP
Selenium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%			TCLP
Silver	983	50.0	100	ug/L	10	1000	ND	98	50-150%			TCLP
Matrix Spike (2310896-MS2)			Prepared	: 09/27/23	11:46 Anal	yzed: 09/27	/23 19:17					
QC Source Sample: FC-091923-21	82 (A3I126	<u>0-01)</u>										
<u>1311/6020B</u>												
Arsenic	4950	50.0	100	ug/L	10	5000	ND	99	50-150%			
Barium	10400	2500	5000	ug/L	10	10000	ND	104	50-150%			
Cadmium	1030	50.0	100	ug/L	10	1000	ND	103	50-150%			
Chromium	5090	50.0	100	ug/L	10	5000	ND	102	50-150%			
Lead	5180	25.0	50.0	ug/L	10	5000	ND	104	50-150%			
Mercury	98.8	3.75	7.00	ug/L	10	100	ND	99	50-150%			
Silver	1000	50.0	100	ug/L	10	1000	ND	100	50-150%			
Matrix Spike (2310896-MS4)			Prepared	: 09/27/23	11:46 Anal	yzed: 09/28	/23 12:00					
QC Source Sample: FC-091923-21	82 (A3I126	0-01RE2)										
<u>1311/6020B</u>												
Selenium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%			Q-1

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23J0013 - ASTM D7511-	12mod (S)					Soi	I				
Blank (23J0013-BLK1)			Prepared	: 10/02/23	08:21 Ana	lyzed: 10/03	/23 15:57					
<u>D7511-12</u> Total Cyanide	ND	50.0	100	ug/kg w	vet 1							
LCS (23J0013-BS1)			Prepared	: 10/02/23	08:21 Ana	lyzed: 10/03	/23 15:59					
<u>D7511-12</u> Total Cyanide	400	50.0	100	ug/kg w	vet 1	400		100	84-116%			
Matrix Spike (23J0013-MS1)			Prepared	: 10/02/23	08:21 Ana	lyzed: 10/03	/23 16:15					
QC Source Sample: FC-091923-21	82 (A3I126	<u>0-01)</u>										
<u>D7511-12</u> Total Cyanide	9450	846	1690	ug/kg d	ry 5	1350	7020	179	64-136%			Q-0
Matrix Spike Dup (23J0013-M	SD1)		Prepared	: 10/02/23	08:21 Ana	lyzed: 10/03	/23 16:21					
OC Source Sample: FC-091923-21	82 (A3I126	<u>0-01)</u>										
<u>D7511-12</u>	00.50	0.40	1700		-	12(0	7020	105	(4.12/0/	-	470/	
Total Cyanide	8850	849	1700	ug/kg d	ry 5	1360	7020	135	64-136%	7	4 /%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALITY CONTROL (QC) SAMPLE RESULTS

			Percent	Dry Weig	jht						
Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
ry Weigh	t) - 2022					Soil					
		Prepared:	09/21/23	12:05 Analy	yzed: 09/22/	/23 06:30					
<u>11265-01)</u> 75.8		1.00	%	1		73.8			3	10%	
		Prepared:	09/21/23	12:05 Analy	yzed: 09/22/	/23 06:30					PRO
<u>(1226-02)</u> 99.2		1.00	%	1		99.4			0.2	10%	
		Prepared:	09/21/23	12:05 Analy	yzed: 09/22/	23 06:30					
<u>(1226-03)</u> 80.6		1.00	%	1		80.8			0.2	10%	
		Prepared:	09/21/23	12:05 Analy	yzed: 09/22/	23 06:30					PRO
<u>11226-04)</u> 98.9		1.00	%	1		99.5			0.6	10%	
		Prepared:	09/21/23 1	2:05 Analy	yzed: 09/22/	23 06:30					
<u>(1226-05)</u> 83 7		1.00	⁰∕∩	1		83.7			0.02	10%	
		Prepared:	09/21/23 1	2:05 Analy	yzed: 09/22/	/23 06:30					PRO
<u>[1226-06)</u> 99.2		1.00	%	1		99.3			0.07	10%	
		Prepared:	09/21/23	12:05 Analy	yzed: 09/22/	23 06:30					
<u>11226-07)</u> 91.8		1.00	%	1		92.2			0.4	10%	
		Prepared:	09/21/23 1	2:05 Analy	yzed: 09/22/	/23 06:30					PRO
<u>(1226-08)</u> 99.2		1.00	%	1		99.4			0.2	10%	
	Result pry Weigh (1265-01) 75.8 (1226-02) 99.2 (1226-03) 80.6 (1226-04) 98.9 (1226-04) 98.9 (1226-05) 83.7 (1226-06) 99.2 (1226-06) 99.2 (1226-07) 91.8 (1226-08) 99.2	Detection Limit Pry Weight) - 2022 (11265-01) 75.8 99.2 (11226-02) 99.2 (11226-03) 80.6 (11226-04) 98.9 (11226-05) 83.7 (11226-06) 99.2 (11226-06) 99.2 (11226-07) 91.8 (11226-08) 99.2	Detection Limit Reporting Limit rry Weight) - 2022 Prepared: (1265-01) 75.8 75.8 1.00 Prepared: Prepared: (1226-02) 99.2 99.2 1.00 Prepared: 1.00 (1226-03) 80.6 80.6 1.00 Prepared: 1.00 Prepared: (1226-03) 83.7 83.7 1.00 Prepared: 1.00 Prepared: (1226-05) 83.7 99.2 1.00 Prepared: 1.00 Prepared: (1226-06) 99.2 1.00 Prepared: 1.00 Prepared: 1226-07) 91.8 1.00	Detection Reporting Result Limit Limit Units Pry Weight) - 2022 Prepared: 09/21/23 Prepared: 09/21/23 Prepared: 09/21/23 11226-02) 99.2 1.00 % Prepared: 09/21/23 99.2 1.00 % 11226-02) 99.2 1.00 % Prepared: 09/21/23 11226-03) 80.6 1.00 % 11226-04) 98.9 1.00 % Prepared: 09/21/23 1 11226-05) 83.7 1.00 % Prepared: 09/21/23 1 11226-06) 99.2 1.00 % Prepared: 09/21/23 1 11226-07) 91.8 1.00 % Prepared: 09/21/23 1 1.00 % %	Detection Reporting Result Limit Units Dilution pry Weight) - 2022 Prepared: 09/21/23 12:05 Anal 11265-01) 75.8 1.00 % 1 Prepared: 09/21/23 12:05 Anal 1 11226-02) 99.2 1.00 % 1 Prepared: 09/21/23 12:05 Anal 1 11226-02) 99.2 1.00 % 1 Prepared: 09/21/23 12:05 Anal 1 1 11226-03) 80.6 1.00 % 1 Prepared: 09/21/23 12:05 Anal 1 11226-04) 98.9 1.00 % 1 Prepared: 09/21/23 12:05 Anal 1 1 11226-05) 83.7 1.00 % 1 Prepared: 09/21/23 12:05 Anal 1 1 1226-06) 99.2	Percent Diy veryit Result Detection Reporting Spike Imit Limit Units Dilution Amount vry Weight) - 2022 Prepared: 09/21/23 12:05 Analyzed: 09/22. 1265-01) 75.8 1.00 % 1 Prepared: 09/21/23 12:05 Analyzed: 09/22. 11226-02. 99.2 1.00 % 1 Prepared: 09/21/23 12:05 Analyzed: 09/22. 11226-03. 80.6 1.00 % 1 Prepared: 09/21/23 12:05 Analyzed: 09/22. 11226-03. 80.6 1.00 % 1 Prepared: 09/21/23 12:05 Analyzed: 09/22. 11226-04. 98.9 1.00 % 1 Prepared: 09/21/23 12:05 Analyzed: 09/22. 11226-05. 83.7 1.00 % 1 Prepared: 09/21/23 12:05 Analyzed: 09/22. 1226-06. 99.2 1.00 %	Detection Result Reporting Limit Spike Units Spike Dilution Source Amount rry Weight) - 2022 Soil Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 11265-011 75.8 1.00 % 1 73.8 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1 73.8 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1 99.4 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1 99.4 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1 1 80.8 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1 1 99.5 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1 1 99.5 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1 1 1 1 1 1 <t< td=""><td>Result Detection Limit Reporting Limit Spike Units Spike Dilution Source Amount % REC rry Weight) - 2022 Soil Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 % REC 1265-01) 75.8 1.00 % 1 73.8 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 11226-02) 99.2 1.00 % 1 99.4 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 100 11226-02) 99.2 1.00 % 1 99.4 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 100 11226-05) 83.7 1.00 % 1 83.7 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1226-05) 99.2</td><td>Detection Reporting Limit Spike Uits Spike Amount Source Result % REC % REC Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1226-01) 75.8 1.00 % 1 73.8 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1226-02) 99.2 1.00 % 1 99.4 99.2 1.00 % 1 99.4 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1226-03) 80.6 1.00 % 1 99.5 98.9 1.00 % 1 83.7 Prepared: 09/21/23 12:05 Analyzed: 09/22/23</td><td>Percent by weight Result Detection Limit Reporting Limit Dilution Spike Amount Source Result % REC % RPD my Weight) - 2022 Soil Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">% REC % REC</td><td>Detection Reporting Limit Dilution Spike Amount Source Result % REC % REC Limits RPD Limits RPD Limit ry Weight) - 2022 Soil Soil </td></t<>	Result Detection Limit Reporting Limit Spike Units Spike Dilution Source Amount % REC rry Weight) - 2022 Soil Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 % REC 1265-01) 75.8 1.00 % 1 73.8 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 11226-02) 99.2 1.00 % 1 99.4 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 100 11226-02) 99.2 1.00 % 1 99.4 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 100 11226-05) 83.7 1.00 % 1 83.7 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1226-05) 99.2	Detection Reporting Limit Spike Uits Spike Amount Source Result % REC % REC Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1226-01) 75.8 1.00 % 1 73.8 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1226-02) 99.2 1.00 % 1 99.4 99.2 1.00 % 1 99.4 Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 1226-03) 80.6 1.00 % 1 99.5 98.9 1.00 % 1 83.7 Prepared: 09/21/23 12:05 Analyzed: 09/22/23	Percent by weight Result Detection Limit Reporting Limit Dilution Spike Amount Source Result % REC % RPD my Weight) - 2022 Soil Prepared: 09/21/23 12:05 Analyzed: 09/22/23 06:30 Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">% REC % REC	Detection Reporting Limit Dilution Spike Amount Source Result % REC % REC Limits RPD Limits RPD Limit ry Weight) - 2022 Soil Soil

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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
Batch 23I0688 - Total Solids (Dry Weight) - 2022 Soil												
Duplicate (2310688-DUP9)			Prepared	: 09/21/23	12:05 Ana	yzed: 09/22/	/23 06:30					
QC Source Sample: Non-SDG (A3I1227-01)												
% Solids	81.7		1.00	%	1		82.6			1	10%	

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

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<u>Sevenson Environmental S</u> 2749 Lockport Road Niagara Falls, NY 14305	Services, Inc.	Pr Pro		<u>Report ID:</u> A3I1260 - 10 18 23	1006						
	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: 23J0006 A3I1260-01	Solid	NWTPH-Dx	09/19/23 02:00	10/02/23 05:07	5.01g/5mL	10g/5mL	2.00				
	Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx										
<u>Prep: EPA 5035A</u>					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 2310840 A311260-01RE1	Solid	NWTPH-Gx (MS)	09/19/23 02:00	09/20/23 15:49	5.33g/5mL	5g/5mL	0.94				
Volatile Organic Compounds by EPA 8260D											
Prep: EPA 5035A			<u> </u>		Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 2310840 A311260-01RE1	Solid	5035A/8260D	09/19/23 02:00	09/20/23 15:49	5.33g/5mL	5g/5mL	0.94				
<u>Batch: 2310960</u> A3I1260-01RE2	Solid	5035A/8260D	09/19/23 02:00	09/20/23 15:49	5.33g/5mL	5g/5mL	0.94				
		Regulated TCLP Vol	atile Organic Com	oounds by EPA 1311/	/8260D						
Prep: EPA 1311/5030C T	CLP Volatile	S S		,	Sample	Default	RL Prep				
Lab Number	Matrix	- Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
<u>Batch: 2310913</u> A3I1260-01	Solid	1311/8260D	09/19/23 02:00	09/27/23 18:03	5mL/5mL	5mL/5mL	1.00				
		Semivolatile	e Organic Compou	nds by EPA 8270E							
Prep: EPA 3546					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 2310893 A311260-01	Solid	EPA 8270E	09/19/23 02:00	09/27/23 11:36	5.08g/2mL	15g/2mL	2.95				
	Total Metals by EPA 6020B (ICPMS)										
			,	(/							

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SAMPLE PREPARATION INFORMATIONTotal Metals by EPA 6020B (ICPMS)Prep: EPA 3051ASampleSampleDefaultLab NumberMatrixMethodSampledPreparedInitial/FinalInitial/FinalBatch: 23J0037SolidEPA 6020B09/19/23 02:0010/02/23 15:460.476g/50mL0.5g/50mLTCLP Metals by EPA 6020B (ICPMS)Prep: EPA 1311/3015ASampleDefault	RL Prep Factor 1.05 RL Prep Factor									
Total Metals by EPA 6020B (ICPMS) Prep: EPA 3051A Sample Default Lab Number Matrix Method Sampled Prepared Initial/Final Initial/Final Batch: 23J0037 A311260-01 Solid EPA 6020B 09/19/23 02:00 10/02/23 15:46 0.476g/50mL 0.5g/50mL TCLP Metals by EPA 6020B (ICPMS) Prep: EPA 1311/3015A Sample Default	RL Prep Factor 1.05 RL Prep Factor									
Prep: EPA 3051A Sample Default Lab Number Matrix Method Sampled Prepared Initial/Final Initial/Final Batch: 23J0037 A311260-01 Solid EPA 6020B 09/19/23 02:00 10/02/23 15:46 0.476g/50mL 0.5g/50mL TCLP Metals by EPA 6020B (ICPMS) Prep: EPA 1311/3015A	RL Prep Factor 1.05 RL Prep Factor									
Lab NumberMatrixMethodSampledPreparedInitial/FinalInitial/FinalBatch: 23J0037A311260-01SolidEPA 6020B09/19/23 02:0010/02/23 15:460.476g/50mL0.5g/50mLTCLP Metals by EPA 6020B (ICPMS)Prep: EPA 1311/3015A	Factor 1.05 RL Prep Factor									
Batch: 23J0037 A311260-01 Solid EPA 6020B 09/19/23 02:00 10/02/23 15:46 0.476g/50mL 0.5g/50mL TCLP Metals by EPA 6020B (ICPMS) Prep: EPA 1311/3015A Sample Default	1.05 RL Prep Factor									
TCLP Metals by EPA 6020B (ICPMS) Prep: EPA 1311/3015A Sample Default	RL Prep Factor									
Prep: EPA 1311/3015A Sample Default	RL Prep Factor									
•	Factor									
Lab Number Matrix Method Sampled Prepared Initial/Final Initial/Final										
Batch: 2310896										
A311260-01 Solid 1311/6020B 09/19/23 02:00 09/27/23 11:46 10mL/50mL 10mL/50mL A311260-01RE2 Solid 1311/6020B 09/19/23 02:00 09/27/23 11:46 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									
Batch: 23J0013 A311260-01 Solid D7511-12 09/19/23 02:00 10/02/23 08:21 2.5116g/50mL 2.5g/50mL	1.00									
Percent Dry Weight										
Prep: Total Solids (Dry Weight) - 2022 Sample Default	RL Prep									
Lab NumberMatrixMethodSampledPreparedInitial/FinalInitial/Final	Factor									
Batch: 2310688 A311260-01 Solid EPA 8000D 09/19/23 02:00 09/21/23 12:05	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									
Batch: 2310823 A311260-01 Solid EPA 1311 09/19/23 02:00 09/26/23 15:40 100g/2000.4g 100g/2000g	NA									
Prep: EPA 1311 TCLP/ZHE Sample Default	RL Prep									
Lab Number Matrix Method Sampled Prepared Initial/Final Initial/Final	Factor									
Batch: 2310848 A311260-01 Solid EPA 1311 ZHE 09/19/23 02:00 09/26/23 14:08 25.2g/500.2g 25g/500g	NA									

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<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

QUALIFIER DEFINITIONS

<u>Client Sample and Quality Control (QC) Sample Qualifier Definitions:</u>

Apex Laboratories

- **E** Estimated Value. The result is above the calibration range of the instrument.
- F-13 The chromatographic pattern does not resemble the fuel standard used for quantitation
- H-10 This sample was TCLP extracted (leached) outside of the recommended holding time.
- ICV-01 Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- 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-03** Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- 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-16 Reanalysis of an original Batch QC sample.
- Q-18 Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source 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 +11%. 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 +12%. 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 +138%. 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 +18%. 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 +2%. The results are reported as Estimated Values.

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

Sevenson Env 2749 Lockpor	rironmental Services, Inc. t Road	Project: Project Number:	<u>Gasco Filtercake</u> 111323 Chin Bund	Report ID:
Niagara Falls	, NY 14305	Project Manager:	Chip Byra	A311260 - 10 18 23 1006
Q-54e	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	32200000000000000000000000000000000000
Q-54f	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +22%. The
Q-54g	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +23%. The
Q-54h	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +26%. The
Q-54i	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +32%. The
Q-54j	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +33%. The
Q-54k	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +34%. The
Q-541	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +36%. The
Q-54m	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +4%. The
Q-54n	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +43%. The
Q-540	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +46%. The
Q-54p	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +51%. The
Q-54q	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +53%. The
Q-54r	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +6%. The
Q-54s	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +60%. The
Q-54t	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +65%. The
Q-54u	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +67%. The
Q-54v	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by +7%. The
Q-54w	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by -10%. The
Q-54x	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in E	EPA method 8260/8270 by -2%. The

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<u>Sevenson Envi</u> 2749 Lockport Niagara Falls,	<u>ironmental Services, Inc.</u> t Road NY 14305	Project: Project Number: Project Manager:	<u>Gasco Filtercake</u> 111323 Chip Byrd	<u>Report ID:</u> A3I1260 - 10 18 23 1006
Q-54y	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA method 820	60/8270 by 46%. The
Q-54z	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA method 820	60/8270 by -8%. The
Q-55	Daily CCV/LCS recovery for this analyte was belo detection at the reporting level.	w the +/-20% crite	ria listed in EPA 8260, however there is adequat	e sensitivity to ensure
Q-56	Daily CCV/LCS recovery for this analyte was above	ve the +/-20% crites	ia listed in EPA 8260	
R-04	Reporting levels elevated due to preparation and/or	analytical dilution	necessary for analysis.	
S-01	Surrogate recovery for this sample is not available interference.	due to sample dilut	ion required from high analyte concentration an	ıd/or matrix
S-05	Surrogate recovery is estimated due to sample dilut	tion required for hi	gh analyte concentration and/or matrix interfere	nce.
S-06	Surrogate recovery is outside of established control	l limits.		
TCLP	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23I0823.	
TCLPa	Limited sample volume. Leachate was prepared usi leaching, the standard 20x ratio of sample to leacha	ing less than the sp ate fluid was mainta	ecified amount of sample per EPA 1311 or 1312 iined. Results may not meet regulatory requiren	. For consistency in nents.
TCLPb	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23I0848/23I0801.	
V-15	Sample aliquot was subsampled from the sample co sampling.	ontainer. The subsa	mpled aliquot was preserved in the laboratory v	vithin 48 hours of

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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.

- <u>" dry"</u> 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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

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).

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

REPORTING NOTES AND CONVENTIONS (Cont.):

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 ½ 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.

-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, if results are not reported to the MDL.

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.

Apex Laboratories



Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3I1260 - 10 18 23 1006

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 <u>exception</u> of any analyte(s) listed below:

Apex Lab	<u>oratories</u>				
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Apex Laboratories, LLC

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



Apex Laboratories



Apex Laboratories, LLC

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

Sevenson E	nvironmental Services, Inc. Project: Gasco	Filtercake	
2749 Lockp	ort Road Project Number: 11132	3	<u>Report ID:</u>
Niagara Fal	lls, NY 14305 Project Manager: Chip l	Byrd	A3I1260 - 10 18 23 1006
	APEX LABS COOLER RECEI Client: 520205501 $5a05255$, $2vc.$ Project/Project #: $62520 - Fi H rca \neq e$ Delivery Info: Date/time received: $9/20/23$ Date/time received: $9/20/23$ 0007 By: $E55$ Delivery Info: Date/time received: $9/20/23$ 0007 By: $E55$ Delivered by: Apex Client_ESS_FedEx_UPS_Radio_Mathematication Mathematication Mathematication Cooler Inspection Date/time inspected: $9/20/23$ 005 Chain of Custody included? Yes No Signed/dated by client? Yes No	PT FORM Element WO#: A3 $\boxed{1240}$ N1323 $\boxed{1323}$ $\boxed{5}$	
	Containers/volumes received appropriate for analysis? Yes $\sum N_{0}$ Do VOA vials have visible headspace? Yes No NA	0 Comments:	
	Comments		
	Water samples: pH checked: Yes <u>No NA</u> pH appropriate	?Yes_No_NAY_pHID:	
	Comments:		
	Additional information:		
	Labeled by: Witness:	Cooler Inspected by: TS Form Y-003	R-01 -

Apex Laboratories



Apex Laboratories, LLC

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

Thursday, November 2, 2023

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

RE: A3J1665 - Gasco -- Filtercake - 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 A3J1665, which was received by the laboratory on 10/25/2023 at 10:15:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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.

Cooler Receipt Information					
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.					
(See Cooler Receipt Form for details)					
Default Cooler 4.1 degC					

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

Sevenson Environmental Services, Inc.	Project: Gase	Filtercake	
2749 Lockport Road	Project Number: 11132	3	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip	Byrd	A3J1665 - 11 02 23 0938

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION							
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received			
FC-102423-2199	A3J1665-01	Solid	10/24/23 07:30	10/25/23 10:15			

Apex Laboratories

Darwin Thomas, Business Development Director



Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3J1665 - 11 02 23 0938

ANALYTICAL SAMPLE RESULTS

Gasco -- Filtercake

Diesel and/or Oil Hydrocarbons by NWTPH-Dx								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Matrix: Solid	ł	Batch:	23J1037	CONT
Diesel	3600000	335000	669000	ug/kg dry	10	10/27/23 06:53	NWTPH-Dx	F-13
Oil	ND	669000	1340000	ug/kg dry	10	10/27/23 06:53	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ery: 100 %	Limits: 50-150 %	5 10	10/27/23 06:53	NWTPH-Dx	S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

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
FC-102423-2199 (A3J1665-01)				Matrix: Solid	d	Batch:	23J1058	V-15
Gasoline Range Organics	244000	20100	40200	ug/kg dry	50	10/27/23 01:03	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recover	ry: 114 %	Limits: 50-150 %	5 I	10/27/23 01:03	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			97 %	50-150 %	5 I	10/27/23 01:03	NWTPH-Gx (MS)	

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

Sevenson	Environmental	Services,	Inc.
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:
A3J1665 - 11 02 23 0938

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Matrix: Sol	lid	Batch:	23J1058	V-15
Acetone	ND	8050	8050	ug/kg dry	50	10/27/23 01:03	5035A/8260D	ICV-02
Acrylonitrile	ND	402	805	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Benzene	551	40.2	80.5	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Bromobenzene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Bromochloromethane	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Bromodichloromethane	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Bromoform	ND	402	805	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Bromomethane	ND	4020	4020	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
2-Butanone (MEK)	ND	2010	4020	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
n-Butylbenzene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
sec-Butylbenzene	217	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	J
tert-Butylbenzene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Carbon disulfide	ND	2010	4020	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Carbon tetrachloride	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Chlorobenzene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Chloroethane	ND	2010	4020	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Chloroform	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Chloromethane	ND	1010	2010	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
2-Chlorotoluene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
4-Chlorotoluene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Dibromochloromethane	ND	402	805	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	1010	2010	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Dibromomethane	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,2-Dichlorobenzene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,3-Dichlorobenzene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,4-Dichlorobenzene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Dichlorodifluoromethane	ND	402	805	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,1-Dichloroethane	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,1-Dichloroethene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
cis-1,2-Dichloroethene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
trans-1,2-Dichloroethene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	

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Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc
2749 Loci	cport Road		

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:								
A3J1665 - 11 02 23 0938								

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Matrix: Sol	id	Batch:	23J1058	V-15
1,2-Dichloropropane	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,3-Dichloropropane	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
2,2-Dichloropropane	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,1-Dichloropropene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
cis-1,3-Dichloropropene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
trans-1,3-Dichloropropene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Ethylbenzene	322	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Hexachlorobutadiene	ND	402	805	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
2-Hexanone	ND	2010	4020	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Isopropylbenzene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
4-Isopropyltoluene	201	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	J
Methylene chloride	ND	2010	4020	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	2010	4020	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Naphthalene	10800	805	1610	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
n-Propylbenzene	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Styrene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Tetrachloroethene (PCE)	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Toluene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,2,3-Trichlorobenzene	ND	1010	2010	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,2,4-Trichlorobenzene	ND	1010	2010	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,1,1-Trichloroethane	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,1,2-Trichloroethane	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Trichloroethene (TCE)	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Trichlorofluoromethane	ND	402	805	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,2,3-Trichloropropane	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,2,4-Trimethylbenzene	507	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
1,3,5-Trimethylbenzene	ND	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
Vinyl chloride	ND	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	
m,p-Xylene	229	201	402	ug/kg dry	50	10/27/23 01:03	5035A/8260D	J
o-Xylene	221	101	201	ug/kg dry	50	10/27/23 01:03	5035A/8260D	

Apex Laboratories



Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3J1665 - 11 02 23 0938

ANALYTICAL SAMPLE RESULTS

Gasco -- Filtercake

Volatile Organic Compounds by EPA 8260D									
Analyte	Sample Result	Detection Limit	Reporting Limit	U	nits	Dilution	Date Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Mat	rix: Solid	1	Batch:	23J1058	V-15
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 102 %	Limits:	80-120 %	1	10/27/23 01:03	5035A/8260D	
Toluene-d8 (Surr)			93 %		80-120 %	1	10/27/23 01:03	5035A/8260D	
4-Bromofluorobenzene (Surr)			107 %		79-120 %	1	10/27/23 01:03	5035A/8260D	

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

Sevenson Environmental Services, Inc.
2749 Lockport Road

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3J1665 - 11 02 23 0938

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
FC-102423-2199 (A3J1665-01)				Matrix: Solid		Batch:	23J1123	CONT
Benzene	ND	10.0	10.0	ug/L	50	10/30/23 05:31	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	10/30/23 05:31	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	10/30/23 05:31	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	10/30/23 05:31	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	10/30/23 05:31	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	10/30/23 05:31	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	10/30/23 05:31	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	10/30/23 05:31	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	10/30/23 05:31	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	10/30/23 05:31	1311/8260D	
Vinyl chloride	ND	25.0	25.0	ug/L	50	10/30/23 05:31	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 100 %	Limits: 80-120 %	1	10/30/23 05:31	1311/8260D	
Toluene-d8 (Surr)			100 %	80-120 %	1	10/30/23 05:31	1311/8260D	
4-Bromofluorobenzene (Surr)			97 %	80-120 %	1	10/30/23 05:31	1311/8260D	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson Environmental Services, In	<u>c.</u>
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:
A3J1665 - 11 02 23 0938

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Matrix: Sol	id	Batch:	23J1038	CONT
Acenaphthene	37500	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	В
Acenaphthylene	ND	3040	3040	ug/kg dry	100	10/27/23 12:58	EPA 8270E	R-02
Anthracene	32000	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Benz(a)anthracene	17900	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Benzo(a)pyrene	18900	716	1430	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Benzo(b)fluoranthene	14900	716	1430	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Benzo(k)fluoranthene	6340	716	1430	ug/kg dry	100	10/27/23 12:58	EPA 8270E	M-05
Benzo(g,h,i)perylene	11100	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Chrysene	24100	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Dibenz(a,h)anthracene	1070	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Fluoranthene	87600	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Fluorene	24000	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Indeno(1,2,3-cd)pyrene	8340	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
1-Methylnaphthalene	13600	955	1910	ug/kg dry	100	10/27/23 12:58	EPA 8270E	В
2-Methylnaphthalene	9870	955	1910	ug/kg dry	100	10/27/23 12:58	EPA 8270E	В
Naphthalene	4640	955	1910	ug/kg dry	100	10/27/23 12:58	EPA 8270E	Q-29, B
Phenanthrene	152000	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Pyrene	104000	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Carbazole	1900	716	1430	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Dibenzofuran	3210	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2-Chlorophenol	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
4-Chloro-3-methylphenol	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,4-Dichlorophenol	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,4-Dimethylphenol	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,4-Dinitrophenol	ND	11900	23900	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	11900	23900	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2-Methylphenol	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
3+4-Methylphenol(s)	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2-Nitrophenol	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
4-Nitrophenol	ND	9550	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Pentachlorophenol (PCP)	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Phenol	ND	955	1910	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	

Apex Laboratories



Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc.
2749 Loci	kport Road		

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

Report ID:						
A3J1665 - 11 02 23 0938						

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Matrix: Sol	id	Batch:	23J1038	CONT
2,3,5,6-Tetrachlorophenol	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,4,5-Trichlorophenol	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,4,6-Trichlorophenol	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	7160	14300	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Butyl benzyl phthalate	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Diethylphthalate	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Dimethylphthalate	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Di-n-butylphthalate	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Di-n-octyl phthalate	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
N-Nitrosodimethylamine	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
N-Nitrosodiphenylamine	ND	5010	5010	ug/kg dry	100	10/27/23 12:58	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Hexachlorobenzene	ND	476	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Hexachlorobutadiene	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Hexachlorocyclopentadiene	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Hexachloroethane	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2-Chloronaphthalene	ND	955	955	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
1,2,4-Trichlorobenzene	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
4-Bromophenyl phenyl ether	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Aniline	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
4-Chloroaniline	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2-Nitroaniline	ND	9550	19100	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
3-Nitroaniline	ND	9550	19100	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
4-Nitroaniline	ND	9550	19100	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Nitrobenzene	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,4-Dinitrotoluene	ND	9550	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
2,6-Dinitrotoluene	ND	4760	9550	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Benzoic acid	ND	59800	119000	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Benzyl alcohol	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	

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Apex Laboratories, LLC

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

Sevenson	Environmental	Services,	Inc
2749 Loc	kport Road		

Niagara Falls, NY 14305

Project:	Gasco Filtercake
Project Number:	111323
Project Manager:	Chip Byrd

Report ID:					
A3J1665 - 11 02 23 0938					

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Matrix: Solic	ł	Batch:	23J1038	CONT
Isophorone	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Azobenzene (1,2-DPH)	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	11900	23900	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
3,3'-Dichlorobenzidine	ND	9550	19100	ug/kg dry	100	10/27/23 12:58	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	11900	23900	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
1,3-Dinitrobenzene	ND	11900	23900	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
1,4-Dinitrobenzene	ND	11900	23900	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Pyridine	ND	2390	4760	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
1,2-Dichlorobenzene	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
1,3-Dichlorobenzene	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
1,4-Dichlorobenzene	ND	1190	2390	ug/kg dry	100	10/27/23 12:58	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recov	very: 21 %	Limits: 37-122 %	100	10/27/23 12:58	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			108 %	44-120 %	100	10/27/23 12:58	EPA 8270E	S-05
Phenol-d6 (Surr)			47 %	33-122 %	100	10/27/23 12:58	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			69 %	54-127 %	100	10/27/23 12:58	EPA 8270E	S-05
2-Fluorophenol (Surr)			43 %	35-120 %	100	10/27/23 12:58	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			76 %	39-132 %	100	10/27/23 12:58	EPA 8270E	S-05

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3J1665 - 11 02 23 0938

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Matrix: Sol	id			
Batch: 23J1140								
Arsenic	11400	1900	3800	ug/kg dry	10	10/30/23 17:17	EPA 6020B	CONT
Barium	207000	1900	3800	ug/kg dry	10	10/30/23 17:17	EPA 6020B	CONT
Cadmium	ND	380	761	ug/kg dry	10	10/30/23 17:17	EPA 6020B	CONT
Chromium	ND	1900	3800	ug/kg dry	10	10/30/23 17:17	EPA 6020B	CONT
Mercury	ND	152	304	ug/kg dry	10	10/30/23 17:17	EPA 6020B	CONT
Selenium	ND	1900	3800	ug/kg dry	10	10/30/23 17:17	EPA 6020B	CONT
Silver	ND	380	761	ug/kg dry	10	10/30/23 17:17	EPA 6020B	CONT
FC-102423-2199 (A3J1665-01RE1)				Matrix: Sol	id			
Batch: 23J1140								
Lead	ND	380	761	ug/kg dry	10	10/30/23 22:52	EPA 6020B	CONT

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

Sevenson Environmental Services, Inc.	Project:	Gasco Filtercake	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3J1665 - 11 02 23 0938

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
FC-102423-2199 (A3J1665-01)				Matrix: So	lid			
Batch: 23J1115								
Arsenic	ND	50.0	100	ug/L	10	10/28/23 01:38	1311/6020B	CONT
Barium	ND	2500	5000	ug/L	10	10/28/23 01:38	1311/6020B	CONT
Cadmium	ND	50.0	100	ug/L	10	10/28/23 01:38	1311/6020B	CONT
Chromium	ND	50.0	100	ug/L	10	10/28/23 01:38	1311/6020B	CONT
Lead	ND	25.0	50.0	ug/L	10	10/28/23 01:38	1311/6020B	CONT
Mercury	ND	3.75	7.00	ug/L	10	10/28/23 01:38	1311/6020B	CONT
Selenium	ND	50.0	100	ug/L	10	10/28/23 01:38	1311/6020B	CONT
Silver	ND	50.0	100	ug/L	10	10/28/23 01:38	1311/6020B	CONT

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

Sevenson Environmental Services, Inc.Project:Gasco -- Filtercake2749 Lockport RoadProject Number:111323Report ID:Niagara Falls, NY 14305Project Manager:Chip ByrdA3J1665 - 11 02 23 0938

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
FC-102423-2199 (A3J1665-01)				Matrix: Sol	id	Batch:	23J1042	CONT
Total Cyanide	5550	879	1760	ug/kg dry	5	10/26/23 17:31	D7511-12	

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtercake	
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3J1665 - 11 02 23 0938

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight											
Analyte	Sample Detection Reporting Date Analyte Result Limit Limit Units Dilution Analyzed Method Ref.										
FC-102423-2199 (A3J1665-01)				Matrix: So	lid Batch: 23J1039			CONT			
% Solids	27.8		1.00	%	1	10/27/23 06:20	EPA 8000D				

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

Sevenson Environmental Services, Inc.	Project: Gasco Filtercake									
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>								
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3J1665 - 11 02 23 0938								
ANALYTICAL SAMPLE RESULTS										

TCLP Extraction by EPA 1311 (ZHE)										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
			Matrix: Solid Batch: 23J1004							
FC-102423-2199 (A3J1665-01)				Matrix: So	olid	Batch:	23J1004	CONT		
FC-102423-2199 (A3J1665-01) TCLP ZHE Extraction	PREP			Matrix: So N/A	iid	Batch: 10/25/23 15:21	23J1004 EPA 1311 ZHE	CONT		

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

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
Batch 23J1037 - EPA 3546 (F	uels)						Sol	id				
Blank (23J1037-BLK1)			Prepared	: 10/26/23	09:41 Ana	lyzed: 10/27	/23 05:44					
NWTPH-Dx												
Diesel	ND	10000	20000	ug/kg w	et 1							
Oil	ND	20000	40000	ug/kg w	et 1							
Surr: o-Terphenyl (Surr)		Recov	ery: 100 %	Limits: 50	0-150 %	Dili	ution: 1x					
LCS (23J1037-BS1)			Prepared	: 10/26/23	09:41 Ana	lyzed: 10/27	/23 06:20					
NWTPH-Dx												
Diesel	109000	10000	20000	ug/kg w	et 1	125000		87	38-132%			
Surr: o-Terphenyl (Surr)		Reco	very: 96%	Limits: 50	0-150 %	Dili	ution: 1x					
Duplicate (23J1037-DUP1)			Prepared	: 10/26/23	09:41 Ana	lyzed: 10/27	//23 07:14					CONT
QC Source Sample: FC-102423-2	199 (A3J166	<u>5-01)</u>										
<u>NWTPH-Dx</u>												
Diesel	4020000	359000	718000	ug/kg d	ry 10		3600000			11	30%	F-11
Oil	ND	718000	1440000	ug/kg d	ry 10		ND				30%	
Surr: o-Terphenyl (Surr)		Reco	very: 86 %	Limits: 50	0-150 %	Dili	ution: 10x					S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

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
Batch 23J1058 - EPA 5035A							Soi	<u>il</u>				
Blank (23J1058-BLK1)			Preparec	1: 10/26/23	08:19 Anal	yzed: 10/26/	/23 16:29	_	_		_	_
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 98 %	Limits: 5	0-150 %	Dilu	ution: 1x				_	
1,4-Difluorobenzene (Sur)			99 %	51	0-150 %		"					
LCS (23J1058-BS2)			Prepared	1: 10/26/23	08:19 Anal	yzed: 10/26/	/23 15:08					
NWTPH-Gx (MS)												
Gasoline Range Organics	23700	2500	5000	ug/kg w	vet 50	25000		95	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 99%	Limits: 5	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			96 %	5	0-150 %		"					
Duplicate (23J1058-DUP1)			Prepared	1: 10/18/23	10:40 Anal	yzed: 10/26/	/23 19:55					
<u>QC Source Sample: Non-SDG</u> (A3.	<u>J1690-01)</u>											
Gasoline Range Organics	ND	4600	4600	ug/kg d	'ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recove	ery: 105 %	Limits: 5	0-150 %	Dilu	ution: 1x				,	
1,4-Difluorobenzene (Sur)			98 %	50	0-150 %		"					
Duplicate (23J1058-DUP2)			Prepared	1: 10/25/23	14:54 Anal	yzed: 10/27/	/23 00:37					V-16
QC Source Sample: Non-SDG (A3.	J1672-06)											
Gasoline Range Organics	569000	6800	13600	ug/kg d	'ry 100		570000			0.2	30%	
Surr: 4-Bromofluorobenzene (Sur)	<u>`</u> _	Recove	ery: 117 %	Limits: 50	0-150 %	Dilu	ution: 1x					
1,4-Difluorobenzene (Sur)			97 %	50	9-150 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			volatile Org	yanic Corr	ipounds	S DY EPA C	20UD					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1058 - EPA 5035A							Soi	1				
Blank (23J1058-BLK1)			Prepared	: 10/26/23 08	8:19 Ana	lyzed: 10/26	/23 16:29					
5035A/8260D												
Acetone	ND	1000	1000	ug/kg wet	50							ICV-0
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1.4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1.1-Dichloroethene	ND	12.5	25.0	ug/kø wet	50							
cis-1 2-Dichloroethene	ND	12.5	25.0	110/ko wet	50							
trans_1 2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
uans-1,2-Diemoroculene	ND	12.5	25.0	ug/kg wet	. 50							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1058 - EPA 5035A							Soi					
Blank (23J1058-BLK1)			Prepared	: 10/26/23 08	:19 Ana	yzed: 10/26/	/23 16:29					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	100	200	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	50							
- ·	ND	12.5	25.0	ug/kg wet	50							

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

Sevenson Environmental Services, Inc. Project: Gasco -- Filtercake 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3J1665 - 11 02 23 0938 **QUALITY CONTROL (QC) SAMPLE RESULTS** Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 23J1058 - EPA 5035A Soil Blank (23J1058-BLK1) Prepared: 10/26/23 08:19 Analyzed: 10/26/23 16:29 Surr: Toluene-d8 (Surr) Recovery: 98 % Limits: 80-120 % Dilution: 1x 4-Bromofluorobenzene (Surr) 101 % 79-120 % LCS (23J1058-BS1) Prepared: 10/26/23 08:19 Analyzed: 10/26/23 15:33 5035A/8260D ICV-02 Acetone 1740 1000 1000 ug/kg wet 50 2000 87 80-120% ---Acrylonitrile 936 50.0 100 50 1000 94 80-120% ug/kg wet ---------Benzene 976 5.00 10.0 ug/kg wet 50 1000 98 80-120% ---25.0 Bromobenzene 1000 12.5 50 1000 100 80-120% ug/kg wet ---------Bromochloromethane 934 25.0 50.0 ug/kg wet 50 1000 93 80-120% ---------Bromodichloromethane 989 25.0 50.0 1000 99 ug/kg wet 50 ---80-120% ------Bromoform 1090 50.0 100 ug/kg wet 50 1000 109 80-120% Bromomethane 1040 500 500 ug/kg wet 50 1000 104 80-120% ---------2-Butanone (MEK) 1860 250 500 ug/kg wet 50 2000 93 80-120% --n-Butylbenzene 1120 25.0 50.0 50 1000 112 80-120% ug/kg wet ---------sec-Butylbenzene 964 25.050.0 ug/kg wet 50 1000 96 80-120% --tert-Butylbenzene 944 25.0 50.0 50 1000 94 80-120% ug/kg wet ----------Carbon disulfide 902 250 500 ug/kg wet 50 1000 ---90 80-120% ---____ Carbon tetrachloride 1110 25.0 50.0 ug/kg wet 50 1000 111 80-120% ---------Chlorobenzene 1020 12.5 25.0ug/kg wet 50 1000 102 80-120% ---Chloroethane 1110 250 500 50 1000 111 80-120% ug/kg wet ---------1000 80-120% Chloroform 958 25.050.0 ug/kg wet 50 96 ------Chloromethane 848 125 250 50 1000 85 80-120% ug/kg wet ---------2-Chlorotoluene 1070 25.050.0 ug/kg wet 50 1000 ---107 80-120% ____ 4-Chlorotoluene 1070 25.0 50.0 ug/kg wet 50 1000 107 80-120% ---------50.0 100 Dibromochloromethane 1100 ug/kg wet 50 1000 110 80-120% ---------1,2-Dibromo-3-chloropropane 956 125 250 ug/kg wet 50 1000 96 80-120% ---1,2-Dibromoethane (EDB) 1060 1000 106 25.050.0 ug/kg wet 50 80-120% ---Dibromomethane 988 25.0 50.0 ug/kg wet 50 1000 99 80-120% ---------1,2-Dichlorobenzene 1070 12.5 25.0ug/kg wet 50 1000 ----107 80-120% ____ ---1,3-Dichlorobenzene 1140 12.5 25.0 ug/kg wet 50 1000 114 80-120% ---------1000 12.5 25.0 50 1000 100 80-120% 1.4-Dichlorobenzene ug/kg wet ___ Dichlorodifluoromethane 834 50.0 100 ug/kg wet 50 1000 83 80-120% ---1,1-Dichloroethane 958 12.5 25.0 1000 80-120% ug/kg wet 50 96

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The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyre Detection Reporting Limit Limit Limit Dittoin Spike Source % REC MRPD Limit N Batch 231063- EPA 5035A Prepared: 10/26/20 (8:19) Amlyzet: 10/26/23 (15:23) V <				volatile Org	ganic Com	pounds	by EPA 8	3260D					
Barch 231083 - EPA 80354 Prepare: 10/26/23 08/19 Nalyzei: 10/26/23 15:37 LIS (250 u/k g wet 50 1000 1,1-Dichloroethane 962 12.5 25.0 u/k g wet 50 1000 96 80-120% cis-1,2-Dichloroethane 954 12.5 25.0 u/k g wet 50 1000 96 80-120% 1,2-Dichloroethane 954 12.5 25.0 u/k g wet 50 1000 96 80-120% 1,2-Dichloropropane 107 25.0 50.0 u/k g wet 50 1000 106 80-120% 1,2-Dichloropropane 1170 25.0 50.0 u/k g wet 50 1000 104 80-120% 1,3-Dichloropropane 1040 25.0 50.0 u/k g wet 50 <th>Analyte</th> <th>Result</th> <th>Detection Limit</th> <th>Reporting Limit</th> <th>Units</th> <th>Dilution</th> <th>Spike Amount</th> <th>Source Result</th> <th>% REC</th> <th>% REC Limits</th> <th>RPD</th> <th>RPD Limit</th> <th>Notes</th>	Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
LCS (23)1088-BS1) Prepared: 10/26/23 08:19 Analyzed: 10/26/23 15:33 1.1-Dichloroethane (DCC) 1000 12.5 25.0 ug/kg wet 50 1000 90 80-120% 1.1-Dichloroethene 962 12.5 25.0 ug/kg wet 50 1000 99 80-120% 1.2-Dichloroethene 954 12.5 25.0 ug/kg wet 50 1000 95 80-120% 1.2-Dichloroepropane 963 12.5 25.0 ug/kg wet 50 1000 99 80-120% 1.2-Dichloroepropane 1060 25.0 50.0 ug/kg wet 50 1000 117 80-120% 1.1-Dichloroepropene 1040 25.0 50.0 ug/kg wet 50 1000 112 80-120% 1.1-Dichloroepropene 1040	Batch 23J1058 - EPA 5035A							So	il				
1.2-Dickloroethane (EDC) 1000 12.5 25.0 ug/kg wet 50 1000 100 80-120% 1.1-Dickloroethane 962 12.5 25.0 ug/kg wet 50 1000 96 80-120% trans-1.2-Dickloroethane 954 12.5 25.0 ug/kg wet 50 1000 96 80-120% 1.2-Dickloroethane 963 12.5 25.0 ug/kg wet 50 1000 99 80-120% 1.2-Dickloropropane 991 25.0 50.0 ug/kg wet 50 1000 106 80-120% 1.1-Dickloropropane 1060 25.0 50.0 ug/kg wet 50 1000 106 80-120% 1.1-Dickloropropene 1202 25.0 50.0 ug/kg wet 50 1000 106 80-120% 1.1-Dickloropropene 1220 25.0 50.0 </td <td>LCS (23J1058-BS1)</td> <td></td> <td></td> <td>Prepared</td> <td>: 10/26/23 08</td> <td>:19 Ana</td> <td>lyzed: 10/26</td> <td>/23 15:33</td> <td></td> <td></td> <td></td> <td></td> <td></td>	LCS (23J1058-BS1)			Prepared	: 10/26/23 08	:19 Ana	lyzed: 10/26	/23 15:33					
1,1-Dickloroothene 962 12.5 25.0 ug/kg wet 50 1000 96 80-120% rans-1,2-Dickloroothene 992 12.5 25.0 ug/kg wet 50 1000 99 80-120% 1,2-Dickloroothene 991 12.5 25.0 ug/kg wet 50 1000 96 80-120% 1,2-Dicklorooppane 991 25.0 50.0 ug/kg wet 50 1000 106 80-120% 1,1-Dicklorooppane 100 25.0 50.0 ug/kg wet 50 1000 106 80-120% 1,1-Dickloroopopane 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% Ehylbenzene 1100 12.5 25.0 ug/kg wet 50 1000 104 80-120% Ehylbenzene 1610 250 50.0 ug/kg wet <td>1,2-Dichloroethane (EDC)</td> <td>1000</td> <td>12.5</td> <td>25.0</td> <td>ug/kg wet</td> <td>50</td> <td>1000</td> <td></td> <td>100</td> <td>80-120%</td> <td>,</td> <td></td> <td></td>	1,2-Dichloroethane (EDC)	1000	12.5	25.0	ug/kg wet	50	1000		100	80-120%	,		
cis-1,2-Dichloroethene 992 12.5 25.0 ug/kg wet 50 1000 99 80-120% 1,2-Dichloropopane 963 12.5 25.0 ug/kg wet 50 1000 95 80-120% 1,3-Dichloropopane 191 25.0 50.0 ug/kg wet 50 1000 99 80-120% 1,3-Dichloropopane 1170 25.0 50.0 ug/kg wet 50 1000 106 80-120% 1,1-Dichloropropene 1000 25.0 50.0 ug/kg wet 50 1000 104 80-120% Ethylbenzene 100 12.5 25.0 ug/kg wet 50 1000 104 80-120% Hexachlorobutidine 100 25.0 50.0 ug/kg wet 50 1000 81 80-120% 2-Hexanone 1610 25.0 50.0 ug/kg wet	1,1-Dichloroethene	962	12.5	25.0	ug/kg wet	50	1000		96	80-120%	,		
trans-1.2-Dichloroothene95412.525.0 ug/kg wet5010009580-120%1.2-Dichloropropane96312.525.0 ug/kg wet5010009980-120%1.3-Dichloropropane117025.050.0 ug/kg wet50100010680-120%1.1-Dichloropropene116025.050.0 ug/kg wet50100010680-120%1.1-Dichloropropene120025.050.0 ug/kg wet50100010480-120%trans-1.3-Dichloropropene104025.050.0 ug/kg wet50100010480-120%Ethylbenzene110012.525.0 ug/kg wet50100010480-120%2-Hexanone1610250500 ug/kg wet5010008180-120%1-biopropylenzene9825.050.0 ug/kg wet5010009880-120%2-Hexanone1610250500 ug/kg wet5010009680-120%1-biopropylenzene9825.0500 ug/kg wet5010009680-120%1-biopropylenzene96	cis-1,2-Dichloroethene	992	12.5	25.0	ug/kg wet	50	1000		99	80-120%	,		
1.2-Dichloropropane 963 12.5 25.0 ug/kg wet 50 1000 96 80-120% 1.3-Dichloropropane 1170 25.0 50.0 ug/kg wet 50 1000 96 80-120% 2.2-Dichloropropane 1100 25.0 50.0 ug/kg wet 50 1000 106 80-120% 1.1-Dichloropropene 1060 25.0 50.0 ug/kg wet 50 1000 122 80-120% trans-1.3-Dichloropropene 1040 25.0 50.0 ug/kg wet 50 1000 110 80-120% Hexachlorobutadiene 1050 50.0 100 ug/kg wet 50 1000 98 80-120% 2-Hexanone 1610 250 50.0 ug/kg wet 50 1000 97 80-120% 4-Isopropylbenzene 982 25.0 50.0	trans-1,2-Dichloroethene	954	12.5	25.0	ug/kg wet	50	1000		95	80-120%	,		
1.3-Dichloropropane 991 25.0 50.0 ug/kg wet 50 1000 99 80-120% 2.2-Dichloropropane 1170 25.0 50.0 ug/kg wet 50 1000 117 80-120% 1,1-Dichloropropene 1202 25.0 50.0 ug/kg wet 50 1000 106 80-120% trans-1,3-Dichloropropene 1202 25.0 50.0 ug/kg wet 50 1000 104 80-120% trans-1,3-Dichloropropene 100 12.5 25.0 yg/kg wet 50 1000 105 80-120% Hexachlorobutadiene 1610 250 500 ug/kg wet 50 1000 98 80-120% Isopropylbenzene 971 25.0 50.0 ug/kg wet 50 1000 98 80-120% 4-Methyl-2-pentanone (MiBK) 1880 250	1,2-Dichloropropane	963	12.5	25.0	ug/kg wet	50	1000		96	80-120%	,		
2.2-Dichloropropane117025.050.0ug/kg wet50100011780-120%1,1-Dichloropropene106025.050.0ug/kg wet50100010680-120%cis-1,3-Dichloropropene122025.050.0ug/kg wet50100011080-120%Ethylbenzene110012.525.0ug/kg wet50100011080-120%Ethylbenzene161025.050.0ug/kg wet50100010580-120%2-Hexanone161025.050.0ug/kg wet5010008180-120%4-Isopropylbenzene97125.050.0ug/kg wet5010009780-120%Methylene chloride960250500ug/kg wet5010009480-120%Naphthalene841100200ug/kg wet50100010380-120%Naphthalene841100200ug/kg wet50100010380-120%Naphthalene841100200ug/kg wet50100010380-120%Naphthalene103012.525.0ug/kg wet50	1,3-Dichloropropane	991	25.0	50.0	ug/kg wet	50	1000		99	80-120%	,		
1,1-Dichloropropene 1060 25.0 50.0 ug/kg wet 50 1000 106 80-120% cis.1,3-Dichloropropene 1220 25.0 50.0 ug/kg wet 50 1000 122 80-120% trans-1,3-Dichloropropene 1040 25.0 50.0 ug/kg wet 50 1000 104 80-120% Ehylbenzene 1100 12.5 25.0 ug/kg wet 50 1000 105 80-120% Hexachlorobutadiene 1610 250 50.0 ug/kg wet 50 1000 98 80-120% Alsoprophylonzene 982 25.0 50.0 ug/kg wet 50 1000 96 80-120% Methylene chloride 960 250 500 ug/kg wet 50 1000 97 80-120% Methylene hloride (MTBE) 1880 250 50.0	2,2-Dichloropropane	1170	25.0	50.0	ug/kg wet	50	1000		117	80-120%	,		
cis-1,3-Dichloropropene122025.050.0ug/kg wet50100012280-120%trans-1,3-Dichloropropene104025.050.0ug/kg wet50100010480-120%Ethylbenzene110012.525.0ug/kg wet50100011080-120%2-Hexanone1610250500ug/kg wet5010008180-120%2-Hexanone1610250500ug/kg wet5010009880-120%4-Isopropylbenzene98225.050.0ug/kg wet5010009780-120%4-dispropylbenzene960250500ug/kg wet5010009480-120%Methyl tert-butyl ether (MTBE)103025.050.0ug/kg wet5010008480-120%Naphthalene841100200ug/kg wet50100010380-120%1,1,1,2-Tetrachloroethane19925.050.0ug/kg wet50100010380-120%1,1,1,2-Tetrachloroethane95925.050.0ug/kg wet50100010980-120%1,1,2,2-Tetrachloroethane9501	1,1-Dichloropropene	1060	25.0	50.0	ug/kg wet	50	1000		106	80-120%	,		
trans-1,3-Dichloropropene104025.050.0ug/kg wet50100010480-120%Ethylbenzene110012.525.0ug/kg wet50100011080-120%Hexachlorobutadicne105050.0100ug/kg wet5010008180-120%2-Hexanone161025050.0ug/kg wet5010009880-120%4-Isopropylbenzene98225.050.0ug/kg wet5010009780-120%4-Isopropyloluene97125.050.0ug/kg wet5010009680-120%Methylene chloride96025050.0ug/kg wet5010009480-120%Methyl tert-butyl ether (MTBE)103025.050.0ug/kg wet50100010380-120%Naphthalene841100200ug/kg wet50100010380-120%1,1,2-Tetrachloroethane199025.050.0ug/kg wet50100010380-120%1,1,2-Tetrachloroethane95925.050.0ug/kg wet50100010980-120%1,1,2-Tetrachloroethane9592	cis-1,3-Dichloropropene	1220	25.0	50.0	ug/kg wet	50	1000		122	80-120%	,		Q-:
Ethylbenzene110012.525.0 ug/kg wet501000110 $80-120\%$ Hexachlorobutadiene105050.0100 ug/kg wet501000105 $80-120\%$ 2-Hexanone1610250500 ug/kg wet50100081 $80-120\%$ Isopropylbenzene98225.050.0 ug/kg wet50100098 $80-120\%$ Atlsopropyloluene97125.050.0 ug/kg wet50100096 $80-120\%$ Methyl-2-pentanone (MiBK)1880250500 ug/kg wet50100094 $80-120\%$ Naphthalene841100200 ug/kg wet50100084 $80-120\%$ Naphthalene841100200 ug/kg wet50100084 $80-120\%$ Styrene99025.050.0 ug/kg wet50100099 $80-120\%$ 1,1,2-Tetrachloroethane19925.050.0 ug/kg wet501000109 $80-120\%$ 1,1,2-Tetrachloroethane95925.050.0 ug/kg wet501000109 $80-120\%$ 1,1,2,3-Trichlorobenzene1030 <td>trans-1,3-Dichloropropene</td> <td>1040</td> <td>25.0</td> <td>50.0</td> <td>ug/kg wet</td> <td>50</td> <td>1000</td> <td></td> <td>104</td> <td>80-120%</td> <td>,</td> <td></td> <td></td>	trans-1,3-Dichloropropene	1040	25.0	50.0	ug/kg wet	50	1000		104	80-120%	,		
Hexachlorobutadiene105050.0100ug/kg wet50100010580-120%2-Hexanone1610250500ug/kg wet5020008180-120%Isopropylbenzene98225.050.0ug/kg wet5010009880-120%4-Isopropylbenzene97125.050.0ug/kg wet5010009780-120%Methylene chloride960250500ug/kg wet5010009680-120%Methyl-2-pentanone (MiBK)1880250500ug/kg wet50100010380-120%Naphthalene841100200ug/kg wet5010008480-120%Naphthalene103012.525.0ug/kg wet50100010380-120%1,1,2,2-Tetrachloroethane109012.525.0ug/kg wet50100010980-120%1,1,2,2-Tetrachloroethane95925.050.0ug/kg wet50100010980-120%1,1,2,2-Tetrachloroethane95925.050.0ug/kg wet50100010980-120%1,1,2,3-Trichloroethane98625.0	Ethylbenzene	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%	,		
2-Hexanone1610250500 ug/kg wet5020008180-120%Isopropylbenzene98225.050.0 ug/kg wet5010009880-120%4-Isopropylbenzene97125.050.0 ug/kg wet5010009780-120%Methylene chloride960250500 ug/kg wet5010009480-120%4-Methyl-2-pentanone (MiBK)1880250500 ug/kg wet5010009480-120%Methyl tert-butyl ether (MTBE)103025.050.0 ug/kg wet5010008480-120%Naphthalene841100200 ug/kg wet50100010380-120%n-Propylbenzene103012.525.0 ug/kg wet50100010380-120%1,1,2.2-Tetrachloroethane109012.525.0 ug/kg wet5010009980-120%1,1,2.2-Tetrachloroethane95925.050.0 ug/kg wet50100010880-120%1,1,2.3-Tichloroethane108012525.0 ug/kg wet50100010880-120%1,2,3-Tichloroetha	Hexachlorobutadiene	1050	50.0	100	ug/kg wet	50	1000		105	80-120%	,		
Isopropylbenzene98225.050.0ug/kg wet5010009880-120%4-Isopropylbluene97125.050.0ug/kg wet5010009780-120%Methylene chloride960250500ug/kg wet5010009680-120%4-Methyl-2-pentanone (MiBK)1880250500ug/kg wet5010009480-120%Methyl tert-butyl ether (MTBE)103025.050.0ug/kg wet50100010380-120%Naphthalene841100200ug/kg wet50100010380-120%n-Propylbenzene103012.525.0ug/kg wet50100010380-120%1,1,2.7 Etrachloroethane109012.525.0ug/kg wet50100010980-120%1,1,2.7 Etrachloroethane95925.050.0ug/kg wet50100010880-120%1,1,2.3 Trichlorobenzene108012.525.0ug/kg wet50100010880-120%1,1,2.4 Trichloroethane105012.525.0ug/kg wet50100010880-120%1,1,2.4 Trichloroethan	2-Hexanone	1610	250	500	ug/kg wet	50	2000		81	80-120%	,		
4-Isopropyloluene 971 25.0 50.0 ug/kg wet 50 1000 97 80-120% Methylene chloride 960 250 500 ug/kg wet 50 1000 96 80-120% 4-Methyl-2-pentanone (MiBK) 1880 250 500 ug/kg wet 50 1000 94 80-120% Methyl tert-butyl ether (MTBE) 1030 25.0 50.0 ug/kg wet 50 1000 84 80-120% Naphthalene 841 100 200 ug/kg wet 50 1000 84 80-120% n-Propylbenzene 1030 12.5 25.0 ug/kg wet 50 1000 103 80-120% 1,1,2.2-Tetracholroethane 1090 12.5 25.0 ug/kg wet 50 1000 100 80-120% 1,1,2.2-Tetracholroethane 959 25.0 <td>Isopropylbenzene</td> <td>982</td> <td>25.0</td> <td>50.0</td> <td>ug/kg wet</td> <td>50</td> <td>1000</td> <td></td> <td>98</td> <td>80-120%</td> <td>,</td> <td></td> <td></td>	Isopropylbenzene	982	25.0	50.0	ug/kg wet	50	1000		98	80-120%	,		
Methylene chloride960250500ug/kg wet50100096 $80-120\%$ 4-Methyl-2-pentanone (MiBK)1880250500ug/kg wet50200094 $80-120\%$ Methyl tert-butyl ether (MTBE)103025.050.0ug/kg wet501000103 $80-120\%$ Naphthalene 841 100200ug/kg wet501000 844 $80-120\%$ n-Propylbenzene103012.525.0ug/kg wet50100099 $80-120\%$ Styrene99025.050.0ug/kg wet50100099 $80-120\%$ 1,1,2,2-Tetrachloroethane109012.525.0ug/kg wet50100096 $80-120\%$ 1,1,2,2-Tetrachloroethane95925.050.0ug/kg wet50100096 $80-120\%$ 1,2,3-Trichloroethane (PCE)110012.525.0ug/kg wet50100099 $80-120\%$ 1,2,3-Trichlorobenzene108012525.0ug/kg wet501000103 $80-120\%$ 1,2,4-Trichloroethane105012.525.0ug/kg wet501000103 $80-120\%$	4-Isopropyltoluene	971	25.0	50.0	ug/kg wet	50	1000		97	80-120%	,		
4-Methyl-2-pentanone (MiBK)1880250500 ug/kg wet5020009480-120%Methyl tert-butyl ether (MTBE)103025.050.0 ug/kg wet50100010380-120%Naphthalene841100200 ug/kg wet5010008480-120%n-Propylbenzene103012.525.0 ug/kg wet5010009980-120%1,1,12-Tetrachloroethane109012.525.0 ug/kg wet5010009980-120%1,1,2.2-Tetrachloroethane95925.050.0 ug/kg wet5010009680-120%1,1,2.2-Tetrachloroethane95925.050.0 ug/kg wet5010009680-120%Toluene98625.050.0 ug/kg wet5010009980-120%1,2,3-Trichlorobenzene1080125250 ug/kg wet50100010380-120%1,1,1-Trichloroethane105012.525.0 ug/kg wet50100010380-120%1,1,2-Trichloroethane101012.525.0 ug/kg wet50100010380-120%1,1	Methylene chloride	960	250	500	ug/kg wet	50	1000		96	80-120%	,		
Methyl tert-butyl ether (MTBE)103025.050.0 ug/kg wet50100010380-120%Naphthalene841100200 ug/kg wet5010008480-120%n-Propylbenzene103012.525.0 ug/kg wet50100010380-120%Styrene99025.050.0 ug/kg wet5010009980-120%1,1,2-Tetrachloroethane109012.525.0 ug/kg wet5010009680-120%1,1,2,2-Tetrachloroethane95925.050.0 ug/kg wet5010009680-120%Tetrachloroethene (PCE)110012.525.0 ug/kg wet5010009980-120%1,2,3-Trichlorobenzene1080125250 ug/kg wet50100010380-120%1,1,1-Trichloroethane105012.525.0 ug/kg wet50100010380-120%1,1,2-Trichloroethane101012.525.0 ug/kg wet50100010380-120%1,1,1-Trichloroethane101012.525.0 ug/kg wet50100010380-120%1,1,1-T	4-Methyl-2-pentanone (MiBK)	1880	250	500	ug/kg wet	50	2000		94	80-120%	,		
Naphthalene841100200 $ug/kg wet$ 5010008480-120%n-Propylbenzene103012.525.0 $ug/kg wet$ 50100010380-120%Styrene99025.050.0 $ug/kg wet$ 5010009980-120%1,1,1,2-Tetrachloroethane109012.525.0 $ug/kg wet$ 50100010980-120%1,1,2,2-Tetrachloroethane95925.050.0 $ug/kg wet$ 5010009680-120%Tetrachloroethane (PCE)110012.525.0 $ug/kg wet$ 5010009980-120%Toluene98625.050.0 $ug/kg wet$ 50100010880-120%1,2,4-Trichlorobenzene1080125250 $ug/kg wet$ 50100010880-120%1,1,2-Trichloroethane105012.5250 $ug/kg wet$ 50100010380-120%1,1,2-Trichloroethane101012.525.0 $ug/kg wet$ 50100010380-120%1,1,2-Trichloroethane101012.525.0 $ug/kg wet$ 50100010180-120%1,1,2-Trichloroethane <td< td=""><td>Methyl tert-butyl ether (MTBE)</td><td>1030</td><td>25.0</td><td>50.0</td><td>ug/kg wet</td><td>50</td><td>1000</td><td></td><td>103</td><td>80-120%</td><td>,</td><td></td><td></td></td<>	Methyl tert-butyl ether (MTBE)	1030	25.0	50.0	ug/kg wet	50	1000		103	80-120%	,		
n-Propylbenzene103012.525.0ug/kg wet501000103 $80-120\%$ Styrene99025.050.0ug/kg wet50100099 $80-120\%$ 1,1,1,2-Tetrachloroethane109012.525.0ug/kg wet50100096 $80-120\%$ 1,1,2,2-Tetrachloroethane95925.050.0ug/kg wet50100096 $80-120\%$ Tetrachloroethene (PCE)110012.525.0ug/kg wet50100099 $80-120\%$ Toluene98625.050.0ug/kg wet50100099 $80-120\%$ 1,2,3-Trichlorobenzene1080125250ug/kg wet501000103 $80-120\%$ 1,1,1-Trichloroethane105012.525.0ug/kg wet501000103 $80-120\%$ 1,1,2-Trichloroethane101012.525.0ug/kg wet501000103 $80-120\%$ 1,1,2-Trichloroethane101012.525.0ug/kg wet501000103 $80-120\%$ 1,1,2-Trichloroethane101012.525.0ug/kg wet501000101 $80-120\%$ 1,1,2-Trichloroe	Naphthalene	841	100	200	ug/kg wet	50	1000		84	80-120%	,		
Styrene99025.050.0ug/kg wet50100099 $80-120\%$ $1,1,1,2$ -Tetrachloroethane109012.525.0ug/kg wet501000109 $80-120\%$ $1,1,2,2$ -Tetrachloroethane95925.050.0ug/kg wet50100096 $80-120\%$ Tetrachloroethane92525.050.0ug/kg wet50100096 $80-120\%$ Tetrachloroethene (PCE)110012.525.0ug/kg wet50100099 $80-120\%$ Toluene98625.050.0ug/kg wet50100099 $80-120\%$ $1,2,3$ -Trichlorobenzene1080125250ug/kg wet501000108 $80-120\%$ $1,2,4$ -Trichlorobenzene1030125250ug/kg wet501000103 $80-120\%$ $1,1,1$ -Trichloroethane101012.525.0ug/kg wet501000105 $80-120\%$ $1,1,2$ -Trichloroethane101012.525.0ug/kg wet501000101 $80-120\%$ $1,1,2$ -Trichloroethane101012.525.0ug/kg wet501000101 $80-120\%$ Tr	n-Propylbenzene	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%	,		
1,1,1,2-Tetrachloroethane109012.525.0ug/kg wet50100010980-120% $1,1,2,2$ -Tetrachloroethane95925.050.0ug/kg wet5010009680-120%Tetrachloroethene (PCE)110012.525.0ug/kg wet5010009980-120%Toluene98625.050.0ug/kg wet5010009980-120% $1,2,3$ -Trichlorobenzene1080125250ug/kg wet50100010880-120% $1,2,4$ -Trichlorobenzene1030125250ug/kg wet50100010380-120% $1,1,1$ -Trichloroethane105012.525.0ug/kg wet50100010580-120% $1,1,2$ -Trichloroethane101012.525.0ug/kg wet50100010180-120% $1,1,2$ -Trichloroethane101012.525.0ug/kg wet50100010180-120% $1,1,2$ -Trichloroethane101012.525.0ug/kg wet50100010180-120%Trichlorofluoromethane121050.0100ug/kg wet50100012180-120%	Styrene	990	25.0	50.0	ug/kg wet	50	1000		99	80-120%	,		
1,1,2,2-Tetrachloroethane95925.050.0 ug/kg wet50100096 $80-120%$ Tetrachloroethene (PCE)110012.525.0 ug/kg wet501000110 $80-120%$ Toluene98625.050.0 ug/kg wet50100099 $80-120%$ $1,2,3$ -Trichlorobenzene1080125250 ug/kg wet501000108 $80-120%$ $1,2,4$ -Trichlorobenzene1030125250 ug/kg wet501000103 $80-120%$ $1,1,1$ -Trichloroethane105012.525.0 ug/kg wet501000105 $80-120%$ $1,1,2$ -Trichloroethane101012.525.0 ug/kg wet501000101 $80-120%$ $1,1,2$ -Trichloroethane101012.525.0 ug/kg wet501000101 $80-120%$ Trichloroethane101012.525.0 ug/kg wet50100099 $80-120%$ Trichlorofluoromethane121050.0100 ug/kg wet501000121 $80-120%$ $1,2,3$ -Trichloropropane100025.050.0 ug/kg wet50100099 $80-120%$ -	1,1,1,2-Tetrachloroethane	1090	12.5	25.0	ug/kg wet	50	1000		109	80-120%	,		
Tetrachloroethene (PCE)110012.525.0ug/kg wet501000110 $80-120\%$ Toluene98625.050.0ug/kg wet50100099 $80-120\%$ 1,2,3-Trichlorobenzene1080125250ug/kg wet501000108 $80-120\%$ 1,2,4-Trichlorobenzene1030125250ug/kg wet501000103 $80-120\%$ 1,1,1-Trichloroethane105012.525.0ug/kg wet501000105 $80-120\%$ 1,1,2-Trichloroethane101012.525.0ug/kg wet501000101 $80-120\%$ 1,1,2-Trichloroethane101012.525.0ug/kg wet501000101 $80-120\%$ Trichloroethane (TCE)99012.525.0ug/kg wet50100099 $80-120\%$ Trichlorofluoromethane121050.0100ug/kg wet501000100 $80-120\%$ 1,2,3-Trichloropropane100025.050.0ug/kg wet501000100 $80-120\%$ 1,2,4-Trimethylbenzene99125.050.0ug/kg wet50100099 $80-120\%$ 1	1,1,2,2-Tetrachloroethane	959	25.0	50.0	ug/kg wet	50	1000		96	80-120%	,		
Toluene98625.050.0 ug/kg wet50100099 $80-120\%$ $1,2,3$ -Trichlorobenzene1080125250 ug/kg wet501000108 $80-120\%$ $1,2,4$ -Trichlorobenzene1030125250 ug/kg wet501000103 $80-120\%$ $1,1,1$ -Trichlorobenzene105012.525.0 ug/kg wet501000105 $80-120\%$ $1,1,2$ -Trichlorobenae101012.525.0 ug/kg wet501000101 $80-120\%$ $1,1,2$ -Trichlorobenae101012.525.0 ug/kg wet501000101 $80-120\%$ Trichlorobenae101012.525.0 ug/kg wet50100099 $80-120\%$ Trichlorobenae121050.0100 ug/kg wet501000121 $80-120\%$ $1,2,3$ -Trichloropropane100025.050.0 ug/kg wet501000100 $80-120\%$ $1,2,4$ -Trimethylbenzene99125.050.0 ug/kg wet50100099 $80-120\%$ $1,2,4$ -Trimethylbenzene99125.050.0 ug/kg wet50100099 $80-120\%$	Tetrachloroethene (PCE)	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%	,		
1,2,3-Trichlorobenzene1080125250 ug/kg wet501000108 $80-120%$ $1,2,4$ -Trichlorobenzene1030125250 ug/kg wet501000103 $80-120%$ $1,1,1$ -Trichloroethane105012.525.0 ug/kg wet501000105 $80-120%$ $1,1,2$ -Trichloroethane101012.525.0 ug/kg wet501000101 $80-120%$ $1,1,2$ -Trichloroethane101012.525.0 ug/kg wet501000101 $80-120%$ Trichloroethane121050.0100 ug/kg wet501000121 $80-120%$ $1,2,3$ -Trichloropropane100025.050.0 ug/kg wet501000100 $80-120%$ $1,2,4$ -Trimethylbenzene99125.050.0 ug/kg wet50100099 $80-120%$ $1,2,4$ -Trimethylbenzene99125.050.0 ug/kg wet50100099 $80-120%$ $1,2,5$ -Trimethylbenzene99125.050.0 ug/kg wet50100099 $80-120%$ $1,2,5$ -Trimethylbenzene99125.050.0 ug/kg wet50100099 $80-$	Toluene	986	25.0	50.0	ug/kg wet	50	1000		99	80-120%	,		
1,2,4-Trichlorobenzene 1030 125 250 $ug/kg wet$ 50 1000 $$ 103 $80-120%$ $$ $$ $1,1,1$ -Trichloroethane 1050 12.5 25.0 $ug/kg wet$ 50 1000 $$ 105 $80-120%$ $$ $$ $1,1,2$ -Trichloroethane 1010 12.5 25.0 $ug/kg wet$ 50 1000 $$ 101 $80-120%$ $$ $$ Trichloroethane 1010 12.5 25.0 $ug/kg wet$ 50 1000 $$ 99 $80-120%$ $$ $$ Trichlorofluoromethane 1210 50.0 100 $ug/kg wet$ 50 1000 $$ 121 $80-120%$ $$ $$ $1,2,3$ -Trichloropropane 1000 25.0 50.0 $ug/kg wet$ 50 1000 $$ 100 $80-120%$ $$ $$ $1,2,4$ -Trimethylbenzene 991 25.0 50.0 $ug/kg wet$ 50 1000 $$ 99 $80-120%$ $$ $$ $1,2,4$ -Trimethylbenzene 991 25.0 50.0 $ug/kg wet$ 50 1000 $$ 99 $80-120%$ $$ $$ $1,2,5$ Trimethylbenzene 991 25.0 50.0 $ug/kg wet$ 50 1000 $$ 99 $80-120%$ $$	1,2,3-Trichlorobenzene	1080	125	250	ug/kg wet	50	1000		108	80-120%	,		
1,1,1-Trichloroethane105012.525.0 ug/kg wet501000105 $80-120%$ $1,1,2$ -Trichloroethane101012.525.0 ug/kg wet501000101 $80-120%$ Trichloroethane(TCE)99012.525.0 ug/kg wet50100099 $80-120%$ Trichlorofluoromethane121050.0100 ug/kg wet501000121 $80-120%$ $1,2,3$ -Trichloropropane100025.050.0 ug/kg wet501000100 $80-120%$ $1,2,4$ -Trimethylbenzene99125.050.0 ug/kg wet50100099 $80-120%$ $1,2,5$ Trimethylbenzene97825.050.0 ug/kg wet50100099 $80-120%$	1,2,4-Trichlorobenzene	1030	125	250	ug/kg wet	50	1000		103	80-120%	,		
1,1,2-Trichloroethane 1010 12.5 25.0 ug/kg wet 50 1000 101 80-120% Trichloroethene (TCE) 990 12.5 25.0 ug/kg wet 50 1000 99 80-120% Trichlorofluoromethane 1210 50.0 100 ug/kg wet 50 1000 121 80-120% 1,2,3-Trichloropropane 1000 25.0 50.0 ug/kg wet 50 1000 100 80-120% 1,2,4-Trimethylbenzene 991 25.0 50.0 ug/kg wet 50 1000 99 80-120% 1,2,4-Trimethylbenzene 991 25.0 50.0 ug/kg wet 50 1000 99 80-120% 1,2,4-Trimethylbenzene 991 25.0 50.0 ug/kg wet 50 1000 99 80-120%	1,1,1-Trichloroethane	1050	12.5	25.0	ug/kg wet	50	1000		105	80-120%	,		
Trichloroethene (TCE) 990 12.5 25.0 ug/kg wet 50 1000 99 80-120% Trichlorofluoromethane 1210 50.0 100 ug/kg wet 50 1000 121 80-120% 1,2,3-Trichloropropane 1000 25.0 50.0 ug/kg wet 50 1000 100 80-120% 1,2,4-Trimethylbenzene 991 25.0 50.0 ug/kg wet 50 1000 99 80-120% 1,2,4-Trimethylbenzene 991 25.0 50.0 ug/kg wet 50 1000 99 80-120% 1,2,4-Trimethylbenzene 978 25.0 50.0 ug/kg wet 50 1000 99 80-120%	1,1,2-Trichloroethane	1010	12.5	25.0	ug/kg wet	50	1000		101	80-120%	,		
Trichlorofluoromethane 1210 50.0 100 ug/kg wet 50 1000 121 80-120% 1,2,3-Trichloropropane 1000 25.0 50.0 ug/kg wet 50 1000 100 80-120% 1,2,4-Trimethylbenzene 991 25.0 50.0 ug/kg wet 50 1000 99 80-120% 1,2,5 Trimethylbenzene 078 25.0 50.0 ug/kg wet 50 1000 99 80-120%	Trichloroethene (TCE)	990	12.5	25.0	ug/kg wet	50	1000		99	80-120%	,		
1,2,3-Trichloropropane 1000 25.0 50.0 ug/kg wet 50 1000 100 80-120% 1,2,4-Trimethylbenzene 991 25.0 50.0 ug/kg wet 50 1000 99 80-120% 1,2,5-Trimethylbenzene 978 25.0 50.0 ug/kg wet 50 1000 99 80-120%	Trichlorofluoromethane	1210	50.0	100	ug/kg wet	50	1000		121	80-120%	,		Q-:
1,2,4-Trimethylbenzene 991 25.0 50.0 ug/kg wet 50 1000 99 80-120%	1,2,3-Trichloropropane	1000	25.0	50.0	ug/kg wet	50	1000		100	80-120%	,		
1.25 Trimethylhamona 0.79 25.0 50.0 wells must 50 1000 09 90.1200/	1,2,4-Trimethylbenzene	991	25.0	50.0	ug/kg wet	50	1000		99	80-120%	,		
1,5,5-111110011710012010 9/8 25.0 50.0 4g/kg wet 50 1000 98 80-120%	1,3,5-Trimethylbenzene	978	25.0	50.0	ug/kg wet	50	1000		98	80-120%	,		

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- FiltercakeProject Number:111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Com	pounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1058 - EPA 5035A							So	il				
LCS (23J1058-BS1)			Preparec	1: 10/26/23 08	3:19 Anal	lyzed: 10/26	/23 15:33					
Vinyl chloride	814	12.5	25.0	ug/kg wet	50	1000		81	80-120%			
m,p-Xylene	2020	25.0	50.0	ug/kg wet	50	2000		101	80-120%			
o-Xylene	946	12.5	25.0	ug/kg wet	50	1000		95	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	wery: 96%	Limits: 80-1	20 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			97 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			98 %	79-1	20 %		"					
Duplicate (23J1058-DUP1)			Prepared	1: 10/18/23 10):40 Anal	lyzed: 10/26	/23 19:55					
OC Source Sample: Non-SDG (A3)	J1690-01)											
Acetone	ND	920	920	ug/kg drv	50		ND				30%	ICV-(
Acrylonitrile	ND	46.0	92.0	ug/kg dry	50		ND				30%	
Benzene	ND	4.60	9.20	ug/kg dry	50		ND				30%	
Bromobenzene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Bromoform	ND	46.0	92.0	ug/kg dry	50		ND				30%	
Bromomethane	ND	460	460	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	230	460	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	230	460	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
Chloroethane	ND	230	460	ug/kg dry	50		ND				30%	
Chloroform	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Chloromethane	ND	115	230	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	46.0	92.0	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	115	230	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	23.0	46.0	ug/kg drv	50		ND				30%	
Dibromomethane	ND	23.0	46.0	ug/kg drv	50		ND				30%	
1,2-Dichlorobenzene	ND	11.5	23.0	ug/kg drv	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1058 - EPA 5035A							Soi	I				
Duplicate (23J1058-DUP1)			Prepared	: 10/18/23 10	:40 Anal	yzed: 10/26/	/23 19:55					
QC Source Sample: Non-SDG (A3J	<u>1690-01)</u>											
1,3-Dichlorobenzene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	46.0	92.0	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	11.5	23.0	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	11.5	23.0	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	11.5	23.0	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	23.0	46.0	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	23.0	46.0	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	46.0	92.0	ug/kg dry	50		ND				30%	
2-Hexanone	ND	230	460	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Methylene chloride	ND	230	460	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	230	460	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Naphthalene	ND	92.0	184	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	11.5	23.0	ug/kg dry	50		ND				30%	
Styrene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	11.5	23.0	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	23.0	46.0	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	70.4	11.5	23.0	ug/kg dry	50		69.5			1	30%	
Toluene	ND	23.0	46.0	ug/kg dry	50		ND				30%	
1,2,3-Trichlorobenzene	ND	115	230	ug/kg dry	50		ND				30%	
1,2,4-Trichlorobenzene	ND	115	230	ug/kg dry	50		ND				30%	
1,1,1-Trichloroethane	ND	11.5	23.0	ug/kg dry	50		ND				30%	
1,1,2-Trichloroethane	ND	11.5	23.0	ug/kg dry	50		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyse Detection Reporting Limit Onlisi Dubition Sprike Annown Source Result Sprike Result Sprike Result Sprike Result RPD Limit RPD Report Source Subsection (2311088-DIP) Deplication (2311088-DIP) Trichlorosthorost			`	Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Batch 2.3.1058 - EPA 8035A Prepared: 10/18/23 10:40 Analyzed: 10/26/23 19:55 OC.surve Sample: NBD 11.5 23.0 ug/kg dry 50 ND 30% 12,3.7 frichlorosophane ND 23.0 46.0 ug/kg dry 50 ND 30% 1,2,3.7 frichlorosopopane ND 23.0 46.0 ug/kg dry 50 ND 30% 1,2,4.7 frinkethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% 1,2,4.7 frinkethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% 0.4/1004d ND 11.5 23.0 ug/kg dry 50 ND 30% 0.4/100 MB 11.5 23.0 ug/kg dry 100 30%	Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Duplicate (23J1058-DUP1) Prepared: 10/18/23 10-40 Analyzed: 10/26/23 19:55 OC.surve Sample: Nn-SNG(A3L100+01) Trichlorothone (TCE) ND 11.5 23.0 ug/kg dry 50 ND 30% 1;2,3-Trichloropropane ND 23.0 46.0 ug/kg dry 50 ND 30% 1,2,4-Trinethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% 1,2,4-Trinethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% 1,2,4-Trinethylbenzene ND 11.5 23.0 ug/kg dry 50 ND 30% way-kylene ND 11.5 23.0 ug/kg dry 50 ND 30% Wart H-du/luonobenzene (Surr) T15 72.0 ug/kg dry <td< th=""><th>Batch 23J1058 - EPA 5035A</th><th></th><th></th><th></th><th></th><th></th><th></th><th>Soi</th><th>I</th><th></th><th></th><th></th><th></th></td<>	Batch 23J1058 - EPA 5035A							Soi	I				
OC Source Sample: Non-SDG (A311699-01) Trichlorouthance (TCE) ND 11.5 23.0 ug/kg dry 50 ND 30% 12,3-Trichloropropane ND 23.0 46.0 ug/kg dry 50 ND 30% 12,3-Trinethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% 12,3-Trinethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% Viryl chloride ND 11.5 23.0 ug/kg dry 50 ND 30% e-Xylene ND 11.5 23.0 ug/kg dry 50 ND 30% <td< td=""><td>Duplicate (23J1058-DUP1)</td><td></td><td></td><td>Preparec</td><td>1: 10/18/23 1</td><td>0:40 Ana</td><td>lyzed: 10/26</td><td>/23 19:55</td><td></td><td></td><td></td><td></td><td></td></td<>	Duplicate (23J1058-DUP1)			Preparec	1: 10/18/23 1	0:40 Ana	lyzed: 10/26	/23 19:55					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	QC Source Sample: Non-SDG (A3.	J1690-01)											
Trichlorofluoromethane ND 46.0 92.0 ug/kg dry 50 ND 30% 1,2,3-Trichloropropane ND 23.0 46.0 ug/kg dry 50 ND 30% 1,3,5-Trinethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% Vinyl chloride ND 11.5 23.0 ug/kg dry 50 ND 30% o-Xylene ND 11.5 23.0 ug/kg dry 50 ND 30% o-Xylene ND 11.5 23.0 ug/kg dry 50 ND 30% iter: 1.1.5 23.0 ug/kg dry 50 ND 30% iter: 1.05 79.120 % Iter:	Trichloroethene (TCE)	ND	11.5	23.0	ug/kg dr	y 50		ND				30%	
1,2,3-Trinchloropropane ND 23.0 46.0 ug/kg dry 50 ND 30% 1,2,4-Trinnchylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% Vinyl chloride ND 11.5 23.0 ug/kg dry 50 ND 30% vinyl chloride ND 23.0 46.0 ug/kg dry 50 ND 30% viryl chloride ND 11.5 23.0 ug/kg dry 50 ND 30% virylene ND 11.5 23.0 ug/kg dry 50 ND 30% burr: 1.4-01/diparobenzene (Surr) Recovery: 102 % Linits: 8b-120 % Dilution: 1x 30%	Trichlorofluoromethane	ND	46.0	92.0	ug/kg dr	y 50		ND				30%	
1,2,4-Trimethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% 1,3,5-Trimethylbenzene ND 23.0 46.0 ug/kg dry 50 ND 30% vinyl chloride ND 11.5 23.0 ug/kg dry 50 ND 30% o-Xylene ND 11.5 23.0 ug/kg dry 50 ND 30% warr: 1.4-Diffuorbenzene (Surr) Recovery: 102 % Linits: 80-120 % ND 30% warr: 1.4-Diffuorbenzene (Surr) 95% 88-120 %	1,2,3-Trichloropropane	ND	23.0	46.0	ug/kg dr	y 50		ND				30%	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,2,4-Trimethylbenzene	ND	23.0	46.0	ug/kg dr	y 50		ND				30%	
	1,3,5-Trimethylbenzene	ND	23.0	46.0	ug/kg dr	y 50		ND				30%	
m.p. Xylene ND 23.0 46.0 ug/kg dry 50 ND 30% o-Xylene ND 11.5 23.0 ug/kg dry 50 ND 30% war: i.d.2fwar 102 % Limits: 80-120 % " 30% war: i.d.2fwar 102 % Limits: 80-120 % " " 30% der. 105 % 79-120 % " " 30% V-16 OC Source Sample: Non-SDG (A3J1672-06) Acetone ND 136 272 ug/kg dry 100 ND 30% ICV Acetone ND 136 272 ug/kg dry 100 ND 30% ICV Acetone ND 136 272 ug/kg dry 100 ND -	Vinyl chloride	ND	11.5	23.0	ug/kg dr	y 50		ND				30%	
o-Xylene ND 11.5 23.0 ug/kg dry 50 ND 30% uarr: 1.4-Difluoroberzene (Surr) Recovery: 102 % Limits: 80-120 % Diflution: 1x -4-Bronofluoroberzene (Surr) 105 % 79-120 % " " 30% Opticate (23J1058-DUP2) Prepared: 10/25/23 14:54 Analyzed: 10/27/23 00:37 V-16 OC Source Sample: ND 27/2 ug/kg dry 100 ND 30% Kevee OC Source Sample: ND 27/2 ug/kg dry 100 ND 30% Kevee OC Source Sample: ND 136 27/2 ug/kg dry 100 ND 30% Source Bromobinerie ND 34.0 68.0 ug/kg dry 100 ND 30	m,p-Xylene	ND	23.0	46.0	ug/kg dr	y 50		ND				30%	
Surr: 1.4-Difhuorobenzene (Surr) Recovery: 102 % Limits: 80-120 % Dilution: Ix Toluene-d8 (Surr) 95 % 80-120 % " " 4-Bromofluorobenzene (Surr) 105 % 79-120 % " " Puplicate (23J1058-DUP2) Prepared: 10/25/23 14:54 Analyzed: 10/27/23 00:37 V-16 Occ Source Sample: NonSDG (A3J1672-66) Acetone ND 2720 2720 ug/kg dry 100 ND 30% ICV Acetone ND 13.6 27.2 ug/kg dry 100 ND 30% Box Bromobenzene ND 13.6 27.2 ug/kg dry 100 ND 30% Box	o-Xylene	ND	11.5	23.0	ug/kg dr	y 50		ND				30%	
Toluene-d8 (Surr) 95 % 80-120 % " 4-Bromofluorobenzene (Surr) 105 % 79-120 % " Duplicate (23J1058-DUP2) Prepared: 10/25/23 14:54 Analyzed: 10/27/23 00:37 V-16 OC Source Sample: ND 2720 2720 ug/kg dry 100 ND 30% ICV Acetone ND 136 272 ug/kg dry 100 ND 30% ICV Acetone ND 13.6 27.2 ug/kg dry 100 ND 30% ICV Acetone ND 13.6 27.2 ug/kg dry 100 ND 30% ICV Bromochorentane ND 68.0 136 ug/kg dry 100 ND 30% ICV Bromochorentane ND 68.0 136 ug/kg dry 100 ND 30% ICV Pationonethane ND 1360	Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 102 %	Limits: 80-	-120 %	Dili	ution: 1x					
4-Bromofluorobenzene (Surr) 105 % 79-120 % " Duplicate (23J1058-DUP2) Prepared: 10/25/23 14:54 Analyzed: 10/27/23 00:37 V-16 OC.Source Sample: Non-SDG (A3J1672-06) Acetone ND 2720 ug/kg dry 100 ND 30% ICV Acetone ND 2720 ug/kg dry 100 ND 30% ICV Acetone ND 13.6 27.2 ug/kg dry 100 ND 30% ICV Benzene ND 13.6 27.2 ug/kg dry 100 ND 30% ICV Bromochloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromoform ND 1360 1360 ug/kg dry 100 ND 30% 2-Butonoform </td <td>Toluene-d8 (Surr)</td> <td></td> <td></td> <td>95 %</td> <td>80-</td> <td>-120 %</td> <td></td> <td>"</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Toluene-d8 (Surr)			95 %	80-	-120 %		"					
Duplicate (23J1058-DUP2) Prepared: 10/25/23 14:54 Analyzed: 10/27/23 00:37 V-16 OC Source Sample: Non-SDG (A3J1672-06)	4-Bromofluorobenzene (Surr)			105 %	79-	-120 %		"					
Acctone ND 2720 2720 ug/kg dry 100 ND 30% ICV Acrylonitrile ND 136 272 ug/kg dry 100 ND 30% ICV Acrylonitrile ND 13.6 27.2 ug/kg dry 100 ND 30% Bromobenzene ND 34.0 68.0 ug/kg dry 100 ND 30% Bromochloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromodichloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromoform ND 1360 1360 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 1360 ug/kg dry <t< th=""><th>OC Source Sample: Non-SDG (A3.</th><th>J1672-06)</th><th></th><th>Preparec</th><th>1: 10/25/23 1</th><th>4:54 Ana</th><th>lyzed: 10/27</th><th>/23 00:37</th><th></th><th></th><th></th><th></th><th>V-16</th></t<>	OC Source Sample: Non-SDG (A3.	J1672-06)		Preparec	1: 10/25/23 1	4:54 Ana	lyzed: 10/27	/23 00:37					V-16
Acrylonitrile ND 136 27.2 ug/kg dry 100 ND 30% Benzene ND 13.6 27.2 ug/kg dry 100 ND 30% Bromobenzene ND 34.0 68.0 ug/kg dry 100 ND 30% Bromobenzene ND 68.0 136 ug/kg dry 100 ND 30% Bromochloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromoform ND 68.0 136 ug/kg dry 100 ND 30% Bromoform ND 136 272 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 1360 ug/kg dry 100 ND 30% see-Butylbenzene 674 68.0 136 ug	Acetone	ND	2720	2720	ug/kg dr	v 100		ND				30%	ICV-
International Problem 2012 ug/kg dry 100 ND 30% Benzene ND 13.6 27.2 ug/kg dry 100 ND 30% Bromobenzene ND 68.0 136 ug/kg dry 100 ND 30% Bromobenzene ND 68.0 136 ug/kg dry 100 ND 30% Bromobenzene ND 68.0 136 ug/kg dry 100 ND 30% Bromodichloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromosentane ND 1360 1360 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 136 ug/kg dry 100 ND 30% sec-Butylbenzene 674 68.0 136 ug/	Acrylonitrile	ND	136	272	ug/kg dr	v 100		ND				30%	
Bromobenzene ND 34.0 68.0 ug/kg dry 100 ND 30% Bromochloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromochloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromodichloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromoform ND 1360 272 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 1360 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 136 ug/kg dry 100 ND 30% sec-Butylbenzene 674 68.0 136 ug/kg dry 100 925 7 30% Carbon disulfide ND <t< td=""><td>Benzene</td><td>ND</td><td>13.6</td><td>27.2</td><td>ug/kg dr</td><td>v 100</td><td></td><td>ND</td><td></td><td></td><td></td><td>30%</td><td></td></t<>	Benzene	ND	13.6	27.2	ug/kg dr	v 100		ND				30%	
Bromochloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromochloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromodichloromethane ND 136 272 ug/kg dry 100 ND 30% Bromodichloromethane ND 1360 1360 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 1360 ug/kg dry 100 ND 30% sec-Butylbenzene 674 68.0 136 ug/kg dry 100 ND 30% tert-Butylbenzene 996 68.0 136 ug/kg dry 100 ND 7 30% Carbon disulfide ND 680 1360 ug/kg dry 100 ND 7 30% Chlorobenzene	Bromobenzene	ND	34.0	68.0	ug/kg dr	v 100		ND				30%	
Bromodichloromethane ND 68.0 136 ug/kg dry 100 ND 30% Bromodichloromethane ND 136 272 ug/kg dry 100 ND 30% Bromomethane ND 1360 1360 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 1360 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 1360 ug/kg dry 100 ND 30% sec-Butylbenzene 674 68.0 136 ug/kg dry 100 925 7 30% tert-Butylbenzene ND 680 1360 ug/kg dry 100 ND 7 30% Carbon disulfide ND 68.0 136 ug/kg dry 100 ND<	Bromochloromethane	ND	68.0	136	ug/kg dr	v 100		ND				30%	
Bromoform ND 136 272 ug/kg dry 100 ND 30% Bromomethane ND 1360 1360 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 1360 ug/kg dry 100 ND 30% n-Butylbenzene 674 68.0 136 ug/kg dry 100 656 30% sec-Butylbenzene 996 68.0 136 ug/kg dry 100 925 7 30% tert-Butylbenzene ND 680 1360 ug/kg dry 100 ND 7 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% Carbon tetrachloride ND 68.0 1360 ug/kg dry 100 ND 30% Chlorobenzene<	Bromodichloromethane	ND	68.0	136	ug/kg dry	v 100		ND				30%	
Bromomethane ND 1360 1360 ug/kg dry 100 ND 30% 2-Butanone (MEK) ND 680 1360 ug/kg dry 100 ND 30% n-Butylbenzene 674 68.0 136 ug/kg dry 100 656 30% sec-Butylbenzene 996 68.0 136 ug/kg dry 100 656 3 30% tert-Butylbenzene 996 68.0 136 ug/kg dry 100 925 7 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% Carbon tetrachloride ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 136 ug/kg dry </td <td>Bromoform</td> <td>ND</td> <td>136</td> <td>272</td> <td>ug/kg dr</td> <td>v 100</td> <td></td> <td>ND</td> <td></td> <td></td> <td></td> <td>30%</td> <td></td>	Bromoform	ND	136	272	ug/kg dr	v 100		ND				30%	
2-Butanone (MEK) ND 680 1360 ug/kg dry 100 ND 30% n-Butylbenzene 674 68.0 136 ug/kg dry 100 656 3 30% sec-Butylbenzene 996 68.0 136 ug/kg dry 100 656 3 30% tert-Butylbenzene 996 68.0 136 ug/kg dry 100 925 7 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% R Carbon tetrachloride ND 68.0 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 1360 ug/kg dry 100 ND	Bromomethane	ND	1360	1360	ug/kg dr	v 100		ND				30%	
n-Butylbenzene 674 68.0 136 ug/kg dry 100 656 3 30% sec-Butylbenzene 996 68.0 136 ug/kg dry 100 925 7 30% tert-Butylbenzene ND 272 272 ug/kg dry 100 ND 7 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% Carbon tetrachloride ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 136 ug/kg dry 100 ND 30% Chloroform ND 68.0 136 ug/kg dry 100 ND 30% Chl	2-Butanone (MEK)	ND	680	1360	ug/kg dr	y 100		ND				30%	
sec-Butylbenzene 996 68.0 136 ug/kg dry 100 925 7 30% tert-Butylbenzene ND 272 272 ug/kg dry 100 ND 7 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% R Carbon disulfide ND 680 136 ug/kg dry 100 ND 30% Carbon tetrachloride ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 34.0 68.0 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 1360 ug/kg dry 100 ND 30% Chloroform	n-Butylbenzene	674	68.0	136	ug/kg dry	y 100		656			3	30%	
tert-Butylbenzene ND 272 272 ug/kg dry 100 ND 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% R Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% R Carbon tetrachloride ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 34.0 68.0 ug/kg dry 100 ND 30% Chlorobenzene ND 680 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 680 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 340 680 ug/kg dry <td>sec-Butylbenzene</td> <td>996</td> <td>68.0</td> <td>136</td> <td>ug/kg dr</td> <td>y 100</td> <td></td> <td>925</td> <td></td> <td></td> <td>7</td> <td>30%</td> <td></td>	sec-Butylbenzene	996	68.0	136	ug/kg dr	y 100		925			7	30%	
Carbon disulfide ND 680 1360 ug/kg dry 100 ND 30% Carbon tetrachloride ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 34.0 68.0 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 1360 ug/kg dry 100 ND 30% Chloroform ND 68.0 136 ug/kg dry 100 ND 30% Chloromethane ND 340 680 ug/kg dry 100 ND	tert-Butylbenzene	ND	272	272	ug/kg dr	y 100		ND				30%	R-
Carbon tetrachloride ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 34.0 68.0 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 ug/kg dry 100 ND 30% Chlorobenzene ND 680 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 340 680 ug/kg dry 100 ND 30% Chlorobenzene ND 272 272 ug/kg dry 100 ND	Carbon disulfide	ND	680	1360	ug/kg dr	y 100		ND				30%	
Chlorobenzene ND 34.0 68.0 ug/kg dry 100 ND 30% Chlorobenzene ND 680 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 680 1360 ug/kg dry 100 ND 30% Chlorobenzene ND 68.0 136 ug/kg dry 100 ND 30% Chlorobenzene ND 340 680 ug/kg dry 100 ND 30% 2-Chlorobuene ND 272 272 ug/kg dry 100 ND 30% R-	Carbon tetrachloride	ND	68.0	136	ug/kg dr	y 100		ND				30%	
Chloroethane ND 680 1360 ug/kg dry 100 ND 30% Chloroefnam ND 68.0 136 ug/kg dry 100 ND 30% Chloromethane ND 340 680 ug/kg dry 100 ND 30% 2-Chlorotoluene ND 272 272 ug/kg dry 100 ND 30%	Chlorobenzene	ND	34.0	68.0	ug/kg dr	y 100		ND				30%	
Chloroform ND 68.0 136 ug/kg dry 100 ND 30% Chloromethane ND 340 680 ug/kg dry 100 ND 30% 2-Chlorotoluene ND 272 272 ug/kg dry 100 ND 30%	Chloroethane	ND	680	1360	ug/kg dr	y 100		ND				30%	
Chloromethane ND 340 680 ug/kg dry 100 ND 30% 2-Chlorotoluene ND 272 272 ug/kg dry 100 ND 30% Re	Chloroform	ND	68.0	136	ug/kg dr	y 100		ND				30%	
2-Chlorotoluene ND 272 272 ug/kg dry 100 ND 30% R-	Chloromethane	ND	340	680	ug/kg dr	y 100		ND				30%	
	2-Chlorotoluene	ND	272	272	ug/kg dr	y 100		ND				30%	R-

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Org	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1058 - EPA 5035A							Soi	1				
Duplicate (23J1058-DUP2)			Prepared	: 10/25/23 14	1:54 Anal	lyzed: 10/27/	/23 00:37					V-16
QC Source Sample: Non-SDG (A3J	<u>1672-06)</u>											
4-Chlorotoluene	ND	272	272	ug/kg dry	100		ND				30%	R-0
Dibromochloromethane	ND	136	272	ug/kg dry	100		ND				30%	
1,2-Dibromo-3-chloropropane	ND	340	680	ug/kg dry	100		ND				30%	
1,2-Dibromoethane (EDB)	ND	68.0	136	ug/kg dry	100		ND				30%	
Dibromomethane	ND	68.0	136	ug/kg dry	100		ND				30%	
1,2-Dichlorobenzene	ND	34.0	68.0	ug/kg dry	100		ND				30%	
1,3-Dichlorobenzene	ND	34.0	68.0	ug/kg dry	100		ND				30%	
1,4-Dichlorobenzene	ND	34.0	68.0	ug/kg dry	100		ND				30%	
Dichlorodifluoromethane	ND	136	272	ug/kg dry	100		ND				30%	
1,1-Dichloroethane	ND	34.0	68.0	ug/kg dry	100		ND				30%	
1,2-Dichloroethane (EDC)	ND	34.0	68.0	ug/kg dry	100		ND				30%	
1,1-Dichloroethene	ND	34.0	68.0	ug/kg dry	100		ND				30%	
cis-1,2-Dichloroethene	ND	34.0	68.0	ug/kg dry	100		ND				30%	
trans-1,2-Dichloroethene	ND	34.0	68.0	ug/kg dry	100		ND				30%	
1,2-Dichloropropane	ND	34.0	68.0	ug/kg dry	100		ND				30%	
1,3-Dichloropropane	ND	68.0	136	ug/kg dry	100		ND				30%	
2,2-Dichloropropane	ND	68.0	136	ug/kg dry	100		ND				30%	
1,1-Dichloropropene	ND	68.0	136	ug/kg dry	100		ND				30%	
cis-1,3-Dichloropropene	ND	68.0	136	ug/kg dry	100		ND				30%	
trans-1,3-Dichloropropene	ND	68.0	136	ug/kg dry	100		ND				30%	
Ethylbenzene	ND	34.0	68.0	ug/kg dry	100		ND				30%	
Hexachlorobutadiene	ND	136	272	ug/kg dry	100		ND				30%	
2-Hexanone	ND	1360	1360	ug/kg dry	100		ND				30%	
Isopropylbenzene	ND	68.0	136	ug/kg dry	100		ND				30%	
4-Isopropyltoluene	ND	68.0	136	ug/kg drv	100		ND				30%	
Methylene chloride	ND	680	1360	ug/kg drv	100		ND				30%	
- 4-Methyl-2-pentanone (MiBK)	ND	1360	1360	ug/kg drv	100		ND				30%	
Methyl tert-butyl ether (MTBF)	ND	68.0	136	ug/kg drv	100		ND				30%	
Naphthalene	ND	544	544	ug/kg drv	100		ND				30%	R-(
n-Propylbenzene	ND	34.0	68.0	uo/ko dru	100		ND				30%	-
Styrene	ND	68.0	136	uo/ko dru	100		ND				30%	
1.1.1.2-Tetrachloroethane	ND	34.0	68.0	ug/ka den	100		ND				30%	
1 1 2 2-Tatrachloroothana		0- 1 .0 070	272	ug/kg ury	100						200/	D
1,1,2,2-1etrachioroethane	ND	272	212	ug/kg dry	100		ND				30%	R

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Cor	npounds	by EPA 8	8260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1058 - EPA 5035A							Soi	I				
Duplicate (23J1058-DUP2)			Prepared	1: 10/25/23 1	4:54 Ana	lyzed: 10/27	//23 00:37					V-16
QC Source Sample: Non-SDG (A3	<u> J1672-06)</u>											
Tetrachloroethene (PCE)	ND	34.0	68.0	ug/kg dry	y 100		ND				30%	
Toluene	ND	68.0	136	ug/kg dry	y 100		ND				30%	
1,2,3-Trichlorobenzene	ND	340	680	ug/kg dry	y 100		ND				30%	
1,2,4-Trichlorobenzene	ND	340	680	ug/kg dry	y 100		ND				30%	
1,1,1-Trichloroethane	ND	34.0	68.0	ug/kg dry	y 100		ND				30%	
1,1,2-Trichloroethane	ND	34.0	68.0	ug/kg dry	y 100		ND				30%	
Trichloroethene (TCE)	ND	34.0	68.0	ug/kg dry	y 100		ND				30%	
Trichlorofluoromethane	ND	136	272	ug/kg dry	y 100		ND				30%	
1,2,3-Trichloropropane	ND	544	544	ug/kg dry	y 100		ND				30%	R-0
1,2,4-Trimethylbenzene	ND	68.0	136	ug/kg dry	y 100		ND				30%	
1,3,5-Trimethylbenzene	ND	68.0	136	ug/kg dry	y 100		ND				30%	
Vinyl chloride	ND	34.0	68.0	ug/kg dry	y 100		ND				30%	
m,p-Xylene	ND	68.0	136	ug/kg dry	y 100		ND				30%	
o-Xylene	ND	68.0	68.0	ug/kg dry	y 100		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 102 %	Limits: 80-	-120 %	Dil	ution: 1x					
Toluene-d8 (Surr)			92 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			109 %	79-	120 %		"					
Matrix Spike (23J1058-MS1)			Preparec	1: 10/25/23 1	3:00 Ana	lyzed: 10/26	5/23 23:20					
QC Source Sample: Non-SDG (A3	<u>J1684-03)</u>											
<u>5035A/8260D</u>												
Acetone	1950	1020	1020	ug/kg dry	y 50	2050	ND	95	36-164%			ICV-0
Acrylonitrile	1030	51.2	102	ug/kg dry	y 50	1020	ND	101	65-134%			
Benzene	1090	5.12	10.2	ug/kg dry	y 50	1020	ND	106	77-121%			
Bromobenzene	1080	12.8	25.6	ug/kg dry	y 50	1020	ND	105	78-121%			
Bromochloromethane	1040	25.6	51.2	ug/kg dry	y 50	1020	ND	102	78-125%			
Bromodichloromethane	1040	25.6	51.2	ug/kg dry	y 50	1020	ND	102	75-127%			
Bromoform	1100	51.2	102	ug/kg dry	y 50	1020	ND	107	67-132%			
Bromomethane	1180	512	512	ug/kg dry	v 50	1020	ND	115	53-143%			
2-Butanone (MEK)	2110	256	512	ug/kg dry	v 50	2050	ND	103	51-148%			
n-Butylbenzene	1240	25.6	51.2	ug/kg dry	v 50	1020	ND	121	70-128%			
sec-Butylbenzene	1090	25.6	51.2	ug/kg dry	v 50	1020	ND	106	73-126%			
tert-Butylbenzene	1070	25.6	51.2	ug/kø dry	v 50	1020	ND	104	73-125%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			volatile Org	ganic Com	pounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1058 - EPA 5035A							Soi	I				
Matrix Spike (23J1058-MS1)			Prepared	: 10/25/23 13	:00 Ana	lyzed: 10/26	/23 23:20					
QC Source Sample: Non-SDG (A3.	<u>J1684-03)</u>											
Carbon disulfide	1010	256	512	ug/kg dry	50	1020	ND	99	63-132%			
Carbon tetrachloride	1180	25.6	51.2	ug/kg dry	50	1020	ND	115	70-135%			
Chlorobenzene	1060	12.8	25.6	ug/kg dry	50	1020	ND	104	79-120%			
Chloroethane	1080	256	512	ug/kg dry	50	1020	ND	106	59-139%			
Chloroform	1020	25.6	51.2	ug/kg dry	50	1020	ND	100	78-123%			
Chloromethane	927	128	256	ug/kg dry	50	1020	ND	91	50-136%			
2-Chlorotoluene	1180	25.6	51.2	ug/kg dry	50	1020	ND	115	75-122%			
4-Chlorotoluene	1170	25.6	51.2	ug/kg dry	50	1020	ND	114	72-124%			
Dibromochloromethane	1100	51.2	102	ug/kg dry	50	1020	ND	108	74-126%			
1,2-Dibromo-3-chloropropane	959	128	256	ug/kg dry	50	1020	ND	94	61-132%			
1,2-Dibromoethane (EDB)	1140	25.6	51.2	ug/kg dry	50	1020	ND	111	78-122%			
Dibromomethane	1060	25.6	51.2	ug/kg dry	50	1020	ND	103	78-125%			
1,2-Dichlorobenzene	1100	12.8	25.6	ug/kg dry	50	1020	ND	107	78-121%			
1,3-Dichlorobenzene	1200	12.8	25.6	ug/kg dry	50	1020	ND	118	77-121%			
1,4-Dichlorobenzene	1050	12.8	25.6	ug/kg dry	50	1020	ND	103	75-120%			
Dichlorodifluoromethane	1130	51.2	102	ug/kg dry	50	1020	ND	111	29-149%			
1,1-Dichloroethane	1050	12.8	25.6	ug/kg dry	50	1020	ND	102	76-125%			
1,2-Dichloroethane (EDC)	1030	12.8	25.6	ug/kg dry	50	1020	ND	100	73-128%			
1,1-Dichloroethene	1070	12.8	25.6	ug/kg dry	50	1020	ND	104	70-131%			
cis-1,2-Dichloroethene	1120	12.8	25.6	ug/kg dry	50	1020	ND	109	77-123%			
trans-1,2-Dichloroethene	1060	12.8	25.6	ug/kg dry	50	1020	ND	104	74-125%			
1,2-Dichloropropane	1070	12.8	25.6	ug/kg dry	50	1020	ND	105	76-123%			
1,3-Dichloropropane	1040	25.6	51.2	ug/kg dry	50	1020	ND	102	77-121%			
2,2-Dichloropropane	1110	25.6	51.2	ug/kg dry	50	1020	ND	109	67-133%			
1,1-Dichloropropene	1230	25.6	51.2	ug/kg drv	50	1020	ND	120	76-125%			
cis-1,3-Dichloropropene	1240	25.6	51.2	ug/kg drv	50	1020	ND	121	74-126%			Q-5
trans-1,3-Dichloropropene	1030	25.6	51.2	ug/kg drv	50	1020	ND	100	71-130%			
Ethylbenzene	1170	12.8	25.6	ug/kg drv	50	1020	ND	114	76-122%			
Hexachlorobutadiene	1160	51.2	102	ug/kg drv	50	1020	ND	113	61-135%			
2-Hexanone	1750	256	512	ug/kg dry	50	2050	ND	85	53-145%			
Isopropylhenzene	1000	250	51.2	uo/ka dm	50	1020	ND	107	68-134%			
4-Isonronvltaluene	1090	25.0	51.2	ug/kg dur	50	1020		105	73_1770/		_	
Methylene chlorida	1000	25.0	51.2	ug/kg ury	50	1020		105	70.1200/			
wieuryiene chioride	1030	200	312	ug/kg ary	50	1020	ND	101	/0-128%			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

		١	/olatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1058 - EPA 5035A							So	il				
Matrix Spike (23J1058-MS1)			Prepared	1: 10/25/23 1	3:00 Anal	yzed: 10/26	/23 23:20					
QC Source Sample: Non-SDG (A3J	<u>1684-03)</u>											
4-Methyl-2-pentanone (MiBK)	2010	256	512	ug/kg dry	y 50	2050	ND	98	65-135%			
Methyl tert-butyl ether (MTBE)	1120	25.6	51.2	ug/kg dry	y 50	1020	ND	109	73-125%			
Naphthalene	993	102	205	ug/kg dry	y 50	1020	ND	97	62-129%			
n-Propylbenzene	1140	12.8	25.6	ug/kg dry	y 50	1020	ND	111	73-125%			
Styrene	1070	25.6	51.2	ug/kg dry	y 50	1020	ND	104	76-124%			
1,1,1,2-Tetrachloroethane	1080	12.8	25.6	ug/kg dry	y 50	1020	ND	105	78-125%			
1,1,2,2-Tetrachloroethane	968	25.6	51.2	ug/kg dry	y 50	1020	ND	95	70-124%			
Tetrachloroethene (PCE)	1180	12.8	25.6	ug/kg dry	y 50	1020	ND	116	73-128%			
Toluene	1040	25.6	51.2	ug/kg dry	y 50	1020	ND	102	77-121%			
1,2,3-Trichlorobenzene	1150	128	256	ug/kg dry	y 50	1020	ND	112	66-130%			
1,2,4-Trichlorobenzene	1160	128	256	ug/kg dry	y 50	1020	ND	113	67-129%			
1,1,1-Trichloroethane	1120	12.8	25.6	ug/kg dry	y 50	1020	ND	109	73-130%			
1,1,2-Trichloroethane	1050	12.8	25.6	ug/kg dry	y 50	1020	ND	103	78-121%			
Trichloroethene (TCE)	1140	12.8	25.6	ug/kg dry	y 50	1020	ND	112	77-123%			
Trichlorofluoromethane	1510	51.2	102	ug/kg dry	y 50	1020	ND	148	62-140%			Q-5
1,2,3-Trichloropropane	1030	25.6	51.2	ug/kg dry	y 50	1020	ND	101	73-125%			
1,2,4-Trimethylbenzene	1060	25.6	51.2	ug/kg dry	y 50	1020	ND	104	75-123%			
1,3,5-Trimethylbenzene	1070	25.6	51.2	ug/kg dry	y 50	1020	ND	105	73-124%			
Vinyl chloride	1010	12.8	25.6	ug/kg dry	y 50	1020	ND	99	56-135%			
m,p-Xylene	2140	25.6	51.2	ug/kg dry	y 50	2050	ND	105	77-124%			
o-Xylene	1040	12.8	25.6	ug/kg dry	y 50	1020	ND	102	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 101 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			95 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			103 %	79-	120 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

Notes

TCLP

В

B-02, J

QUALITY CONTROL (QC) SAMPLE RESULTS

Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D Detection Reporting Spike % REC RPD Source Dilution Analyte Result Limit Units Amount Result % REC Limits RPD Limit Limit Water Batch 23J1123 - EPA 1311/5030C TCLP Volatiles Blank (23J1123-BLK1) Prepared: 10/29/23 13:35 Analyzed: 10/30/23 04:09 1311/8260D Benzene 10.0 5.00 10.0 ug/L 50 50 ND 250 500 2-Butanone (MEK) ug/L ---------Carbon tetrachloride ND 25.0 50.0 ug/L 50 ---------Chlorobenzene ND 12.5 25.0 50 ug/L -------------Chloroform ND 25.0 50.0 ug/L 50 ---ND 1,4-Dichlorobenzene 12.5 25.0 50 ug/L ----------------____ 1,1-Dichloroethene ND 12.5 25.0 ug/L 50 ___ ---1,2-Dichloroethane (EDC) 12.5 25.0 ND ug/L 50 ----------------Tetrachloroethene (PCE) ND 12.5 25.0 ug/L 50 ---Trichloroethene (TCE) 14.0 12.5 25.0 ug/L 50 -------------------Vinyl chloride ND 25.0 25.0 ug/L 50 ____ ----------------Surr: 1,4-Difluorobenzene (Surr) Recovery: 102 % Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 100 % 80-120 % " 4-Bromofluorobenzene (Surr) 97% 80-120 % LCS (23J1123-BS1) Prepared: 10/29/23 13:35 Analyzed: 10/30/23 03:15

LCS (23J1123-BS1)			Prepareo	1: 10/29/23 13	3:35 Ana	lyzed: 10/30/	23 03:15				TCLP
<u>1311/8260D</u>											
Benzene	954	5.00	10.0	ug/L	50	1000		95	80-120%	 	В
2-Butanone (MEK)	1760	250	500	ug/L	50	2000		88	80-120%	 	
Carbon tetrachloride	1240	25.0	50.0	ug/L	50	1000		124	80-120%	 	Q-56
Chlorobenzene	969	12.5	25.0	ug/L	50	1000		97	80-120%	 	
Chloroform	1030	25.0	50.0	ug/L	50	1000		103	80-120%	 	
1,4-Dichlorobenzene	914	12.5	25.0	ug/L	50	1000		91	80-120%	 	
1,1-Dichloroethene	1110	12.5	25.0	ug/L	50	1000		111	80-120%	 	
1,2-Dichloroethane (EDC)	1070	12.5	25.0	ug/L	50	1000		107	80-120%	 	
Tetrachloroethene (PCE)	1000	12.5	25.0	ug/L	50	1000		100	80-120%	 	
Trichloroethene (TCE)	904	12.5	25.0	ug/L	50	1000		90	80-120%	 	B-02
Vinyl chloride	790	25.0	25.0	ug/L	50	1000		79	80-120%	 	Q-55
Surr: 1,4-Difluorobenzene (Surr)		Recove	ry: 93%	Limits: 80-1	120 %	Dilu	tion: 1x				
Toluene-d8 (Surr)			96 %	80-1	20 %		"				
4-Bromofluorobenzene (Surr)			95 %	80-1	20 %		"				

Duplicate (23J1123-DUP1)

Prepared: 10/29/23 13:35 Analyzed: 10/30/23 05:04

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project:Gasco -- FiltercakeProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

		Regulated	TCLP Vola	tile Orgar	nic Comp	ounds by	EPA 13 ⁻	11/8260D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1123 - EPA 1311/503	OC TCLP	Volatiles					Wa	iter				
Duplicate (23J1123-DUP1)			Prepare	d: 10/29/23	13:35 Ana	lyzed: 10/30	/23 05:04					
QC Source Sample: Non-SDG (A3	<u>J1604-01)</u>											
Benzene	508	5.00	10.0	ug/L	50		506			0.5	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	25.0	25.0	ug/L	50		ND				30%	
Vinyl chloride	ND	25.0	25.0	ug/L	50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 93 %	Limits: 80	0-120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			100 %	80)-120 %		"					
4-Bromofluorobenzene (Surr)			97 %	80)-120 %		"					
Matrix Spike (23J1123-MS1)			Prepare	d: 10/29/23	13:35 Ana	lyzed: 10/30	/23 06:26					
QC Source Sample: Non-SDG (A3	J1666-01)											
<u>1311/8260D</u>												
Benzene	972	5.00	10.0	ug/L	50	1000	ND	97	79-120%			
2-Butanone (MEK)	1670	250	500	ug/L	50	2000	ND	84	56-143%			
Carbon tetrachloride	1310	25.0	50.0	ug/L	50	1000	ND	131	72-136%			Q-54
Chlorobenzene	996	12.5	25.0	ug/L	50	1000	ND	100	80-120%			
Chloroform	1050	25.0	50.0	ug/L	50	1000	ND	105	79-124%			
1,4-Dichlorobenzene	950	12.5	25.0	ug/L	50	1000	ND	95	79-120%			
1,1-Dichloroethene	1160	12.5	25.0	ug/L	50	1000	ND	116	71-131%			
1,2-Dichloroethane (EDC)	1060	12.5	25.0	ug/L	50	1000	ND	106	73-128%			
Tetrachloroethene (PCE)	1080	12.5	25.0	ug/L	50	1000	ND	108	74-129%			
Trichloroethene (TCE)	944	12.5	25.0	ug/L	50	1000	ND	94	79-123%			B-0
Vinyl chloride	792	25.0	25.0	ug/L	50	1000	ND	79	58-137%			Q-54
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 93 %	Limits: 80	0-120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			97 %	80)-120 %		"					
4-Bromofluorobenzene (Surr)			95 %	80)-120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	Compour	nds by EP	A 8270E						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	_
Batch 23J1038 - EPA 3546							Sol	id					
Blank (23J1038-BLK1)			Prepared	: 10/26/23 0)9:42 Ana	lyzed: 10/26	/23 17:43						
<u>EPA 8270E</u>													_
Acenaphthene	4.53	1.33	2.67	ug/kg we	et 1								В
Acenaphthylene	ND	1.33	2.67	ug/kg we	et 1								
Anthracene	ND	1.33	2.67	ug/kg we	et 1								
Benz(a)anthracene	ND	1.33	2.67	ug/kg we	et 1								
Benzo(a)pyrene	ND	2.00	4.00	ug/kg we	et 1								
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg we	et 1								
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg we	et 1								
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg we	et 1								
Chrysene	ND	1.33	2.67	ug/kg we	et 1								
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg we	et 1								
Fluoranthene	ND	1.33	2.67	ug/kg we	et 1								
Fluorene	ND	1.33	2.67	ug/kg we	et 1								
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg we	et 1								
1-Methylnaphthalene	8.44	2.67	5.33	ug/kg we	et 1								В
2-Methylnaphthalene	17.0	2.67	5.33	ug/kg we	et 1								В
Naphthalene	143	2.67	5.33	ug/kg we	et 1								В
Phenanthrene	ND	1.33	2.67	ug/kg we	et 1								
Pyrene	ND	1.33	2.67	ug/kg we	et 1								
Carbazole	ND	2.00	4.00	ug/kg we	et 1								
Dibenzofuran	ND	1.33	2.67	ug/kg we	et 1								
2-Chlorophenol	ND	6.67	13.3	ug/kg we	et 1								
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg we	et 1								
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg we	et 1								
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg we	et 1								
2,4-Dinitrophenol	ND	33.3	66.7	ug/kg we	et 1								
4,6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg we	et 1								
2-Methylphenol	ND	3.33	6.67	ug/kg we	et 1								
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg we	et 1								
2-Nitrophenol	ND	13.3	26.7	ug/kg we	et 1								
4-Nitrophenol	ND	13.3	26.7	110/kg we	et 1								
Pentachlorophenol (PCP)	ND	13.3	26.7	110/ko we	et 1								
Phenol	ND	2 67	5 3 3	110/ko we									
2 3 4 6-Tetrachloronhenol		6.67	13 3	ug/kg we									
2,5,1,6 Tetraemorophenor	13D	0.07	15.5	ug/kg wt	. 1								

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1038 - EPA 3546							Sol	id				
Blank (23J1038-BLK1)			Prepared	: 10/26/23 0	9:42 Ana	lyzed: 10/26	/23 17:43					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg we	t 1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg we	t 1							
Diethylphthalate	ND	13.3	26.7	ug/kg we	t 1							
Dimethylphthalate	ND	13.3	26.7	ug/kg we	t 1							
Di-n-butylphthalate	ND	13.3	26.7	ug/kg we	t 1							
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg we	t 1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg we	t 1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg we	t 1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg we	t 1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg we	t 1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg we	t 1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg we	t 1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg we	t 1							
Hexachloroethane	ND	3.33	6.67	ug/kg we	t 1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg we	t 1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg we	t 1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg we	t 1							
Aniline	ND	6.67	13.3	ug/kg we	t 1							
4-Chloroaniline	ND	3.33	6.67	ug/kg we	t 1							
2-Nitroaniline	ND	26.7	53.3	ug/kg we	t 1							
3-Nitroaniline	ND	26.7	53.3	ug/kg we	t 1							
4-Nitroaniline	ND	26.7	53.3	ug/kg we	t 1							
Nitrobenzene	ND	13.3	26.7	ug/kg we	t 1							
2.4-Dinitrotoluene	ND	13.3	26.7	ug/kg we	t 1							
2.6-Dinitrotoluene	ND	13.3	26.7	ug/kg we	t 1							
Benzoic acid	ND	167	333	ug/ko we	t 1							
Benzyl alcohol	ND	6.67	13.3	ug/ko we	t 1							
Isophorone	ND	3 22	6.67	ug/lea wa	· · ·							

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	Compoun	ds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1038 - EPA 3546							So	lid				
Blank (23J1038-BLK1)			Prepared	1: 10/26/23 0	9:42 Anal	yzed: 10/26	/23 17:43					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	et 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	et 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	et 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	et 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Recov	very: 106 %	Limits: 37-	-122 %	Dilı	ution: 1x					
2-Fluorobiphenyl (Surr)			91 %	44-	120 %		"					
Phenol-d6 (Surr)			105 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			91 %	54-	127 %		"					
2-Fluorophenol (Surr)			88 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			112 %	39-	-132 %		"					
LCS (23J1038-BS1)			Prepared	l: 10/26/23 0	9:42 Anal	yzed: 10/26/	/23 18:17					Q-18
EPA 8270E												
Acenaphthene	499	5.32	10.7	ug/kg we	et 4	533		94	40-123%			
Acenaphthylene	519	5.32	10.7	ug/kg we	et 4	533		97	32-132%			
Anthracene	498	5.32	10.7	ug/kg we	et 4	533		93	47-123%			
Benz(a)anthracene	484	5.32	10.7	ug/kg we	et 4	533		91	49-126%			
Benzo(a)pyrene	554	8.00	16.0	ug/kg we	et 4	533		104	45-129%			
Benzo(b)fluoranthene	535	8.00	16.0	ug/kg we	et 4	533		100	45-132%			
Benzo(k)fluoranthene	553	8.00	16.0	ug/kg we	et 4	533		104	47-132%			
Benzo(g,h,i)perylene	506	5.32	10.7	ug/kg we	et 4	533		95	43-134%			
Chrysene	481	5.32	10.7	ug/kg we	et 4	533		90	50-124%			
Dibenz(a,h)anthracene	511	5.32	10.7	ug/kg we	et 4	533		96	45-134%			
Fluoranthene	514	5.32	10.7	ug/kg we	et 4	533		96	50-127%			
Fluorene	480	5.32	10.7	ug/kg we	et 4	533		90	43-125%			
Indeno(1,2,3-cd)pyrene	466	5.32	10.7	ug/kg we	et 4	533		87	45-133%			
1-Methylnaphthalene	555	10.7	21.3	ug/kg we	et 4	533		104	40-120%			

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Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile (Organic C	ompoun	ds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
atch 23J1038 - EPA 3546		<u>, </u>	. <u> </u>				Sol	lid				
LCS (23J1038-BS1)			Prepared	: 10/26/23 09	9:42 Anal	yzed: 10/26/	/23 18:17					Q-18
Naphthalene	767	10.7	21.3	ug/kg wet	4	533		144	35-123%			B, Q-2
Phenanthrene	476	5.32	10.7	ug/kg wet	4	533		89	50-121%			
Pyrene	512	5.32	10.7	ug/kg wet	4	533		96	47-127%			
Carbazole	504	8.00	16.0	ug/kg wet	4	533		95	50-123%			
Dibenzofuran	533	5.32	10.7	ug/kg wet	4	533		100	44-120%			
2-Chlorophenol	574	26.7	53.2	ug/kg wet	4	533		108	34-121%			
4-Chloro-3-methylphenol	554	53.2	107	ug/kg wet	4	533		104	45-122%			
2,4-Dichlorophenol	657	26.7	53.2	ug/kg wet	4	533		123	40-122%			Q-29, Q-4
2,4-Dimethylphenol	705	26.7	53.2	ug/kg wet	4	533		132	30-127%			Q-29, Q-4
2,4-Dinitrophenol	665	133	267	ug/kg wet	4	533		125	10-137%			Q-4
4,6-Dinitro-2-methylphenol	575	133	267	ug/kg wet	4	533		108	29-132%			Q-4
2-Methylphenol	702	13.3	26.7	ug/kg wet	4	533		132	32-122%			Q-29, Q-4
3+4-Methylphenol(s)	723	13.3	26.7	ug/kg wet	4	533		135	34-120%			Q-2
2-Nitrophenol	634	53.2	107	ug/kg wet	4	533		119	36-123%			Q-4
4-Nitrophenol	568	53.2	107	ug/kg wet	4	533		107	30-132%			
Pentachlorophenol (PCP)	499	53.2	107	ug/kg wet	4	533		94	25-133%			
Phenol	693	10.7	21.3	ug/kg wet	4	533		130	34-121%			Q-2
2,3,4,6-Tetrachlorophenol	519	26.7	53.2	ug/kg wet	4	533		97	44-125%			
2,3,5,6-Tetrachlorophenol	544	26.7	53.2	ug/kg wet	4	533		102	40-120%			
2,4,5-Trichlorophenol	598	26.7	53.2	ug/kg wet	4	533		112	41-124%			
2,4,6-Trichlorophenol	593	26.7	53.2	ug/kg wet	4	533		111	39-126%			
Bis(2-ethylhexyl)phthalate	518	80.0	160	ug/kg wet	4	533		97	51-133%			
Butyl benzyl phthalate	525	53.2	107	ug/kg wet	4	533		98	48-132%			
Diethylphthalate	417	53.2	107	ug/kg wet	4	533		78	50-124%			
Dimethylphthalate	506	53.2	107	ug/kg wet	4	533		95	48-124%			
Di-n-butylphthalate	489	53.2	107	ug/kg wet	4	533		92	51-128%			
Di-n-octyl phthalate	571	53.2	107	ug/kg wet	4	533		107	45-140%			
N-Nitrosodimethylamine	385	13.3	26.7	ug/kg wet	4	533		72	23-120%			
N-Nitroso-di-n-propylamine	543	13.3	26.7	ug/kg wet	4	533		102	36-120%			
N-Nitrosodiphenylamine	526	13.3	26.7	ug/kg wet	4	533		99	38-127%			
Bis(2-Chloroethoxy) methane	526	13.3	26.7	ug/kg wet	4	533		99	36-121%			
Bis(2-Chloroethyl) ether	457	13.3	26.7	ug/kg wet	4	533		86	31-120%			
2.2'-Oxybis(1-Chloropropane)	450	13.3	26.7	ug/kg wet	4	533		84	39-120%			
Hexachlorobenzene	511	5.32	10.7	ug/kø wet	4	533		96	45-122%			
	211	2.52	10.7	45/15 Wet		000			.0 122/0			

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
3atch 23J1038 - EPA 3546							Sol	lid				
LCS (23J1038-BS1)			Prepared	1: 10/26/23 09):42 Ana	lyzed: 10/26/	/23 18:17					Q-18
Hexachlorobutadiene	464	13.3	26.7	ug/kg wet	4	533		87	32-123%			
Hexachlorocyclopentadiene	642	26.7	53.2	ug/kg wet	4	533		120	10-140%			O-4
Hexachloroethane	482	13.3	26.7	ug/kg wet	4	533		90	28-120%			×
2-Chloronaphthalene	525	5.32	10.7	ug/kg wet	4	533		98	41-120%			
1,2,4-Trichlorobenzene	500	13.3	26.7	ug/kg wet	4	533		94	34-120%			
4-Bromophenyl phenyl ether	527	13.3	26.7	ug/kg wet	4	533		99	46-124%			
4-Chlorophenyl phenyl ether	510	13.3	26.7	ug/kg wet	4	533		96	45-121%			
Aniline	357	26.7	53.2	ug/kg wet	4	533		67	10-120%			O-3
4-Chloroaniline	432	13.3	26.7	ug/kg wet	4	533		81	17-120%			
2-Nitroaniline	525	107	213	ug/kg wet	4	533		99	44-127%			
3-Nitroaniline	468	107	213	ug/kg wet	4	533		88	33-120%			
4-Nitroaniline	534	107	213	ug/kg wet	4	533		100	51-125%			
Nitrobenzene	575	53.2	107	ug/kg wet	4	533		108	34-122%			
2,4-Dinitrotoluene	483	53.2	107	ug/kg wet	4	533		91	48-126%			
2,6-Dinitrotoluene	497	53.2	107	ug/kg wet	4	533		93	46-124%			
Benzoic acid	1100	668	668	ug/kg wet	4	1070		103	10-140%			Q-4
Benzyl alcohol	689	26.7	53.2	ug/kg wet	4	533		129	29-122%			Q-2
Isophorone	471	13.3	26.7	ug/kg wet	4	533		88	30-122%			
Azobenzene (1,2-DPH)	478	13.3	26.7	ug/kg wet	4	533		90	39-125%			
Bis(2-Ethylhexyl) adipate	506	133	267	ug/kg wet	4	533		95	61-121%			
3,3'-Dichlorobenzidine	1990	107	213	ug/kg wet	4	1070		187	22-121%	·		Q-29, Q-31 O-5
1,2-Dinitrobenzene	538	133	267	ug/kg wet	4	533		101	44-120%			
1,3-Dinitrobenzene	513	133	267	ug/kg wet	4	533		96	43-127%			
1,4-Dinitrobenzene	547	133	267	ug/kg wet	4	533		103	37-132%			
Pyridine	375	26.7	53.2	ug/kg wet	4	533		70	10-120%			
1,2-Dichlorobenzene	488	13.3	26.7	ug/kg wet	4	533		91	33-120%			
1,3-Dichlorobenzene	464	13.3	26.7	ug/kg wet	4	533		87	30-120%			
1,4-Dichlorobenzene	470	13.3	26.7	ug/kg wet	4	533		88	31-120%			
Gurr: Nitrobenzene-d5 (Surr)		Recov	ery: 112 %	Limits: 37-1	122 %	Dilu	tion: 4x					
2-Fluorobiphenyl (Surr)			<i>99 %</i>	44-1	20 %		"					
Phenol-d6 (Surr)			121 %	33-1	'22 %		"					
p-Terphenyl-d14 (Surr)			104 %	54-1	'27 %		"					
2-Fluorophenol (Surr)			93 %	35-1	20 %		"					
2.4 6-Tribromonhanol (Sum)			111 0%	20 1	32 %		"					

Apex Laboratories



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

<u>Sevenson Environmental Serv</u> 2749 Lockport Road Niagara Falls, NY 14305	<u>ices, Inc.</u>		Pro	Project: ject Numbe ject Manage	<u>Gasco -</u> r: 111323 r: Chip B	<u> Filtercake</u> yrd	2		ł	<u>R</u> A3J1665	<u>eport ID</u> - 11 02 23	<u>:</u> 3 0938
		QU.	ALITY CO	ONTROL	(QC) SA	AMPLE F	RESULTS	3				
		Se	mivolatile	Organic C	ompour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1038 - EPA 3546							Sol	id				
Duplicate (23J1038-DUP1)			Prepared	: 10/26/23 0	9:42 Ana	lyzed: 10/27	//23 13:32					CONT
QC Source Sample: FC-102423-2	199 (A3J166	5-01)										
EPA 8270E	•											
Acenaphthene	37000	476	955	ug/kg dry	100		37500			1	30%	E
Acenaphthylene	ND	3650	3650	ug/kg dry	100		ND				30%	R-02
Anthracene	32500	476	955	ug/kg dry	100		32000			2	30%	
Benz(a)anthracene	19200	476	955	ug/kg dry	/ 100		17900			7	30%	
Benzo(a)pyrene	21800	716	1430	ug/kg dry	100		18900			14	30%	
Benzo(b)fluoranthene	18000	716	1430	ug/kg dry	100		14900			18	30%	
Benzo(k)fluoranthene	5890	716	1430	ug/kg dry	/ 100		6340			8	30%	M-05
Benzo(g,h,i)perylene	12700	476	955	ug/kg dry	/ 100		11100			13	30%	
Chrysene	26000	476	955	ug/kg dry	/ 100		24100			7	30%	
Dibenz(a,h)anthracene	1310	476	955	ug/kg dry	/ 100		1070			20	30%	
Fluoranthene	92900	476	955	ug/kg dry	/ 100		87600			6	30%	
Fluorene	25800	476	955	ug/kg dry	v 100		24000			7	30%	
Indeno(1.2.3-cd)pyrene	9760	476	955	ug/kg dry	/ 100		8340			16	30%	
1-Methylnaphthalene	13600	955	1910	ug/kg dry	/ 100		13600			0.06	30%	E
2-Methylnaphthalene	10100	955	1910	ug/kg dry	/ 100		9870			3	30%	E
Naphthalene	5200	955	1910	ug/kg dry	/ 100		4640			11	30%	B, Q-29
Phenanthrene	153000	476	955	ug/kg dry	/ 100		152000			0.4	30%	
Pvrene	110000	476	955	ug/kg dry	100		104000			6	30%	
Carbazole	2390	716	1430	ug/kg dry	100		1900			23	30%	
Dibenzofuran	3260	476	955	ug/kg dry	7 100		3210			1	30%	
2-Chlorophenol	ND	2390	4760	ug/kg dry	100		ND				30%	
4-Chloro-3-methylphenol	ND	4760	9550	ug/kg dry	7 100		ND				30%	
2.4-Dichlorophenol	ND	2390	4760	ug/kg dry	7 100		ND				30%	
2.4-Dimethylphenol	ND	2390	4760	ug/kg dry	100		ND				30%	
2.4-Dinitrophenol	ND	11900	23900	ug/kg dry	7 100		ND				30%	
4.6-Dinitro-2-methylphenol	ND	11900	23900	ug/kg dry	100		ND				30%	
2-Methylphenol	ND	1190	2390	ug/kg dry	100		ND				30%	
3+4-Methylphenol(s)	ND	1190	2390	ug/kø dry	100		ND				30%	
2-Nitrophenol	ND	4760	9550	ug/kg dry	100		ND				30%	
4-Nitrophenol	ND	9550	9550	ug/kø dry	100		ND				30%	
Pentachlorophenol (PCP)	ND	4760	9550	ug/kg dry	100		ND				30%	
		.,	2000									

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1038 - EPA 3546							Sol	id				
Duplicate (23J1038-DUP1)			Prepared	: 10/26/23 0	9:42 Ana	lyzed: 10/27	/23 13:32					CONT
QC Source Sample: FC-102423-21	99 (A3J160	<u>55-01)</u>										
Phenol	ND	955	1910	ug/kg dry	y 100		ND				30%	
2,3,4,6-Tetrachlorophenol	ND	2390	4760	ug/kg dry	y 100		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	2390	4760	ug/kg dry	y 100		ND				30%	
2,4,5-Trichlorophenol	ND	2390	4760	ug/kg dry	y 100		ND				30%	
2,4,6-Trichlorophenol	ND	2390	4760	ug/kg dry	y 100		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	7160	14300	ug/kg dry	y 100		ND				30%	
Butyl benzyl phthalate	ND	4760	9550	ug/kg dry	y 100		ND				30%	
Diethylphthalate	ND	4760	9550	ug/kg dry	y 100		ND				30%	
Dimethylphthalate	ND	4760	9550	ug/kg dry	y 100		ND				30%	
Di-n-butylphthalate	ND	4760	9550	ug/kg dry	y 100		ND				30%	
Di-n-octyl phthalate	ND	4760	9550	ug/kg dry	y 100		ND				30%	
N-Nitrosodimethylamine	ND	1190	2390	ug/kg dry	y 100		ND				30%	
N-Nitroso-di-n-propylamine	ND	1190	2390	ug/kg dry	y 100		ND				30%	
N-Nitrosodiphenylamine	ND	5010	5010	ug/kg dry	y 100		ND				30%	R-0
Bis(2-Chloroethoxy) methane	ND	1190	2390	ug/kg dry	y 100		ND				30%	
Bis(2-Chloroethyl) ether	ND	1190	2390	ug/kg dry	y 100		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	1190	2390	ug/kg dry	y 100		ND				30%	
Hexachlorobenzene	ND	476	955	ug/kg dry	y 100		ND				30%	
Hexachlorobutadiene	ND	1190	2390	ug/kg dry	y 100		ND				30%	
Hexachlorocyclopentadiene	ND	2390	4760	ug/kg dry	y 100		ND				30%	
Hexachloroethane	ND	1190	2390	ug/kg dry	y 100		ND				30%	
2-Chloronaphthalene	ND	955	955	ug/kg dry	y 100		ND				30%	
1,2,4-Trichlorobenzene	ND	1190	2390	ug/kg dry	y 100		ND				30%	
4-Bromophenyl phenyl ether	ND	1190	2390	ug/kg dry	y 100		ND				30%	
4-Chlorophenyl phenyl ether	ND	1190	2390	ug/kg dry	y 100		ND				30%	
Aniline	ND	2390	4760	ug/kg dry	y 100		ND				30%	
4-Chloroaniline	ND	1190	2390	ug/kg dry	y 100		ND				30%	
2-Nitroaniline	ND	9550	19100	ug/kg dry	y 100		ND				30%	
3-Nitroaniline	ND	9550	19100	ug/kg dry	v 100		ND				30%	
4-Nitroaniline	ND	9550	19100	uø/kø dry	z 100		ND				30%	
Nitrobenzene	ND	4760	9550	uo/ko dry	, 100 , 100		ND				30%	
2 4-Dinitrotoluene	ND	9550	9550	ug/kg dr	, 100 , 100	-	ND				30%	
2,5 Dimitrotoluene	ND	9550 4760	9550	ug/kg dry	, 100 , 100		ND				30%	
2,0-Dimitrototuene	IND	4/00	9550	ug/kg dry	100		ND				3070	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile	Organic C	Compour	nds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1038 - EPA 3546							Sol	id				
Duplicate (23J1038-DUP1)			Prepared	l: 10/26/23 0	9:42 Ana	lyzed: 10/27	/23 13:32					CONT
QC Source Sample: FC-102423-2	199 (A3J160	<u> 55-01)</u>										
Benzoic acid	ND	59800	119000	ug/kg dr	y 100		ND				30%	
Benzyl alcohol	ND	2390	4760	ug/kg dr	y 100		ND				30%	
Isophorone	ND	1190	2390	ug/kg dr	y 100		ND				30%	
Azobenzene (1,2-DPH)	ND	1190	2390	ug/kg dr	y 100		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	11900	23900	ug/kg dr	y 100		ND				30%	
3,3'-Dichlorobenzidine	ND	9550	19100	ug/kg dr	y 100		ND				30%	Q-52
1,2-Dinitrobenzene	ND	11900	23900	ug/kg dr	y 100		ND				30%	
1,3-Dinitrobenzene	ND	11900	23900	ug/kg dr	y 100		ND				30%	
1,4-Dinitrobenzene	ND	11900	23900	ug/kg dr	y 100		ND				30%	
Pyridine	ND	2390	4760	ug/kg dr	y 100		ND				30%	
1,2-Dichlorobenzene	ND	1190	2390	ug/kg dr	y 100		ND				30%	
1,3-Dichlorobenzene	ND	1190	2390	ug/kg dr	y 100		ND				30%	
1,4-Dichlorobenzene	ND	1190	2390	ug/kg dr	y 100		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Recov	ery: 105 %	Limits: 37-	-122 %	Dilt	ution: 100x					S-05
2-Fluorobiphenyl (Surr)			132 %	44-	120 %		"					S-05
Phenol-d6 (Surr)			85 %	33-	122 %		"					S-05
p-Terphenyl-d14 (Surr)			99 %	54-	127 %		"					S-05
2-Fluorophenol (Surr)			65 %	35-	120 %		"					S-05
2,4,6-Tribromophenol (Surr)			102 %	39-	132 %		"					S-05

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: **111323** Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by E	PA 6020	DB (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1140 - EPA 3051A							So	lid				
Blank (23J1140-BLK1)			Prepared	: 10/30/23 10):15 Ana	lyzed: 10/30)/23 17:06					
EPA 6020B												
Arsenic	ND	500	1000	ug/kg wet	10							
Barium	ND	500	1000	ug/kg wet	10							
Cadmium	ND	100	200	ug/kg wet	10							
Chromium	ND	500	1000	ug/kg wet	10							
Mercury	ND	40.0	80.0	ug/kg wet	10							
Selenium	ND	500	1000	ug/kg wet	10							
Silver	ND	100	200	ug/kg wet	10							
Blank (23J1140-BLK2)			Prepared	: 10/30/23 10):15 Ana	lyzed: 10/30)/23 22:41					
EPA 6020B												
Lead	ND	100	200	ug/kg wet	10							Q-
LCS (23J1140-BS1)			Prepared	: 10/30/23 10):15 Ana	lyzed: 10/30)/23 17:12					
EPA 6020B												
Arsenic	50400	500	1000	ug/kg wet	10	50000		101	80-120%)		
Barium	50100	500	1000	ug/kg wet	10	50000		100	80-120%			
Cadmium	51400	100	200	ug/kg wet	10	50000		103	80-120%)		
Chromium	49500	500	1000	ug/kg wet	10	50000		99	80-120%			
Mercury	1020	40.0	80.0	ug/kg wet	10	1000		102	80-120%	,		
Selenium	25200	500	1000	ug/kg wet	10	25000		101	80-120%)		
Silver	27800	100	200	ug/kg wet	10	25000		111	80-120%)		
LCS (23J1140-BS2)			Prepared	: 10/30/23 10):15 Ana	lyzed: 10/30)/23 22:47					
EPA 6020B			1			-						
Lead	47500	100	200	ug/kg wet	10	50000		95	80-120%)		Q-
Duplicate (23J1140-DUP1)			Prepared	: 10/30/23 10):15 Ana	lyzed: 10/30	0/23 17:40					
QC Source Sample: Non-SDG (A3	J1757-01)		1			-	-					
Arsenic	550	510	1020	ug/kg wet	10		770			33	20%	CON
Barium	ND	510	1020	ug/kg wet	10		ND				20%	CON
Cadmium	ND	102	204	110/ko wet	10		ND				20%	CON
Chromium	520000	510	1020	ug/kg wet	10		661000			24	20%	CONT,Q-

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by E	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1140 - EPA 3051A							So	lid				
Duplicate (23J1140-DUP1)			Prepared	: 10/30/23 1	0:15 Ana	lyzed: 10/30)/23 17:40					
<u>QC</u> Source Sample: Non-SDG (A3.	J1757-01)											
Mercury	ND	40.8	81.6	ug/kg we	t 10		ND				20%	CON
Selenium	ND	510	1020	ug/kg we	t 10		ND				20%	CON
Silver	ND	102	204	ug/kg we	t 10		ND				20%	CON
Duplicate (23J1140-DUP2)			Prepared	: 10/30/23 1	0:15 Ana	lyzed: 10/30)/23 23:15					
QC Source Sample: Non-SDG (A3)	J1757-01RE	<u></u>										
Lead	ND	102	204	ug/kg we	t 10		ND				20%	CONT,Q-
Matrix Spike (23J1140-MS1)			Prepared	: 10/30/23 1	0:15 Ana	lyzed: 10/30)/23 17:46					
QC Source Sample: Non-SDG (A3)	<u>J1757-01)</u>											
EPA 6020B												
Arsenic	47200	481	962	ug/kg we	t 10	48100	770	97	75-125%			CON
Barium	47100	481	962	ug/kg we	t 10	48100	ND	98	75-125%			CON
Cadmium	48000	96.2	192	ug/kg we	t 10	48100	ND	100	75-125%			CON
Chromium	609000	481	962	ug/kg we	t 10	48100	661000	-108	75-125%			CONT,Q-
Mercury	974	38.5	76.9	ug/kg we	t 10	962	ND	101	75-125%			CON
Selenium	21500	481	962	ug/kg we	t 10	24000	ND	89	75-125%			CON
Silver	25800	96.2	192	ug/kg we	t 10	24000	ND	107	75-125%			CON
Matrix Spike (23J1140-MS3)			Prepared	: 10/30/23 1	0:15 Ana	lyzed: 10/31	/23 21:36					
QC Source Sample: Non-SDG (A3.	J1757-01RE	21)										
EPA 6020B												
Lead	42600	100	200	ug/kg we	t 10	50000	ND	85	75-125%			CONT.O-

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1115 - EPA 1311/30	015A						Sol	lid				
Blank (23J1115-BLK1)			Prepared	: 10/27/23	16:00 Anal	yzed: 10/28	/23 01:18					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							TCLPa
Barium	ND	2500	5000	ug/L	10							TCLPa
Cadmium	ND	50.0	100	ug/L	10							TCLPa
Chromium	ND	50.0	100	ug/L	10							TCLPa
Lead	ND	25.0	50.0	ug/L	10							TCLPa
Mercury	ND	3.75	7.00	ug/L	10							TCLPa
Selenium	ND	50.0	100	ug/L	10							TCLPa
Silver	ND	50.0	100	ug/L	10							TCLPa
LCS (23J1115-BS1)			Prepared	: 10/27/23	16:00 Anal	yzed: 10/28	/23 01:23					
<u>1311/6020B</u>												
Arsenic	5270	50.0	100	ug/L	10	5000		105	80-120%			TCLPa
Barium	10700	2500	5000	ug/L	10	10000		107	80-120%			TCLPa
Cadmium	1070	50.0	100	ug/L	10	1000		107	80-120%			Q-41, TCLPa
Chromium	5400	50.0	100	ug/L	10	5000		108	80-120%			Q-41, TCLPa
Lead	5620	25.0	50.0	ug/L	10	5000		112	80-120%			Q-41, TCLPa
Mercury	101	3.75	7.00	ug/L	10	100		101	80-120%			TCLPa
Selenium	1060	50.0	100	ug/L	10	1000		106	80-120%			TCLPa
Silver	979	50.0	100	ug/L	10	1000		98	80-120%			Q-41, TCLPa
Duplicate (23J1115-DUP1)			Prepared	: 10/27/23	16:00 Anal	yzed: 10/28	/23 01:44					
QC Source Sample: FC-102423	-2199 (A3J166	<u>55-01)</u>										
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10		ND				20%	CONT
Barium	ND	2500	5000	ug/L	10		ND				20%	CONT
Cadmium	ND	50.0	100	ug/L	10		ND				20%	CONT
Chromium	ND	50.0	100	ug/L	10		ND				20%	CONT
Lead	ND	25.0	50.0	ug/L	10		ND				20%	CONT
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	CONT
Selenium	ND	50.0	100	ug/L	10		ND				20%	CONT
Silver	ND	50.0	100	ug/L	10		ND				20%	CONT

Matrix Spike (23J1115-MS1)

Prepared: 10/27/23 16:00 Analyzed: 10/28/23 01:49

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323

Project:

Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasco -- Filtercake

				Metals by	r EPA 602	0B (ICPM:	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23J1115 - EPA 1311/301	5A						So	lid				
Matrix Spike (23J1115-MS1)			Prepared	: 10/27/23	16:00 Ana	lyzed: 10/28	/23 01:49					
OC Source Sample: FC-102423-21	99 (A3J166	5-01)										
<u>1311/6020B</u>												
Arsenic	5140	50.0	100	ug/L	10	5000	ND	103	50-150%	,		CON
Barium	10700	2500	5000	ug/L	10	10000	ND	107	50-150%	·,		CON
Cadmium	1070	50.0	100	ug/L	10	1000	ND	107	50-150%			CONT,Q-4
Chromium	5310	50.0	100	ug/L	10	5000	ND	106	50-150%			CONT,Q-4
Lead	5530	25.0	50.0	ug/L	10	5000	ND	111	50-150%			CONT,Q-4
Mercury	103	3.75	7.00	ug/L	10	100	ND	103	50-150%	·		CON
Selenium	1050	50.0	100	ug/L	10	1000	ND	105	50-150%	·		CON
Silver	915	50.0	100	ug/L	10	1000	ND	91	50-150%			CONT,Q-4

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

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
Batch 23J1042 - ASTM D7511-	12mod (S)						Soil	I				
Blank (23J1042-BLK1)			Prepared:	: 10/26/23	10:40 Anal	yzed: 10/26/	/23 17:25					
<u>D7511-12</u> Total Cyanide	ND	50.0	100	ug/kg w	vet 1							
LCS (23J1042-BS1)			Prepared	: 10/26/23	10:40 Anal	yzed: 10/26/	/23 17:27					
<u>D7511-12</u> Total Cyanide	415	50.0	100	ug/kg w	/et 1	400		104	84-116%			
Matrix Spike (23J1042-MS1)			Prepared	: 10/26/23	10:40 Anal	yzed: 10/26/	/23 17:33					CONT
QC Source Sample: FC-102423-21	99 (A3J166:	<u>5-01)</u>										
<u>D7511-12</u> Total Cyanide	6910	889	1780	ug/kg d	ry 5	1420	5550	96	64-136%			
Matrix Spike Dup (23J1042-MSD1) Prepared: 10/26/23 10:40 Analyzed: 10/26/23 17:35 CO							CONT					
OC Source Sample: FC-102423-21	99 (A3J166:	<u>5-01)</u>										
<u>D7511-12</u>	<i>(</i>) <i>(</i>)	000			-	1.400		01	(1.10.00)	-	4704	
Total Cyanide	6840	889	1780	ug/kg a	try 5	1420	5550	91	64-136%	1	47%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

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
Batch 23J1039 - Total Solids (Dry	Weigh	nt) - 2022					Soil	I				
Duplicate (23J1039-DUP1)			Prepared:	10/26/23 ()9:54 Analy	vzed: 10/27/.	23 06:20					
<u>OC Source Sample: Non-SDG (A3J16</u> % Solids	<u>72-01)</u> 76.9		1.00	%	1		78.6			2	10%	
Duplicate (23J1039-DUP2)			Prepared:	10/26/23 0)9:54 Analy	/zed: 10/27/2	23 06:20					
<u>QC Source Sample: Non-SDG (A3J16</u> % Solids	<u>72-02)</u> 79.1		1.00	%	1		79.0			0.09	10%	
Duplicate (23J1039-DUP3)			Prepared:	10/26/23 0)9:54 Analy	/zed: 10/27/2	23 06:20					
<u>QC Source Sample: Non-SDG (A3J16</u> % Solids	<u>72-03)</u> 78.8		1.00	%	1		78.8			0.008	10%	
Duplicate (23J1039-DUP4)			Prepared:	10/26/23 0)9:54 Analy	/zed: 10/27/2	23 06:20					
<u>OC Source Sample: Non-SDG (A3J16</u> % Solids	<u>82.3</u>		1.00	%	1		82.0			0.4	10%	
Duplicate (23J1039-DUP5)			Prepared:	10/26/23 ()9:54 Analy	zed: 10/27/2	23 06:20					
<u>QC Source Sample: Non-SDG (A3J16</u> % Solids	<u>72-05)</u> 66.6		1.00	%			67.5			1	10%	
Duplicate (23J1039-DUP6)	_		Prepared:	10/26/23 0)9:54 Analy	/zed: 10/27/2	23 06:20	_	_	_	_	
QC Source Sample: Non-SDG (A3J16 % Solids	<u>72-06)</u> 79.0		1.00	%	1		79.8			1	10%	
Duplicate (23J1039-DUP7)			Prepared:	10/26/23 0)9:54 Analy	/zed: 10/27/2	23 06:20					
QC Source Sample: Non-SDG (A3J16 % Solids	<u>72-07)</u> 80.4		1.00	%	1		80.5			0.1	10%	
Duplicate (23J1039-DUP8)			Prepared:	10/26/23 1	8:07 Analy	/zed: 10/27/2	23 06:20					
OC Source Sample: Non-SDG (A3J16 % Solids	<u>78-16)</u> 88.5		1.00	%	1		88.2			0.3	10%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits R	RPD	RPD Limit	Notes

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

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

<u>Sevenson Environment:</u> 2749 Lockport Road Niagara Falls, NY 1430	al Services, Inc. 95	Pi Pr	<u>Report ID:</u> A3J1665 - 11 02 23 0938						
SAMPLE PREPARATION INFORMATION									
Diesel and/or Oil Hydrocarbons by NWTPH-Dx									
Prep: EPA 3546 (Fuel	<u>s)</u>				Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23J1037 A3J1665-01	Solid	NWTPH-Dx	10/24/23 07:30	10/26/23 09:41	10.75g/5mL	10g/5mL	0.93		
	Gaso	line Range Hydrocart	oons (Benzene throu	ugh Naphthalene) b	y NWTPH-Gx				
Prep: EPA 5035A					Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
<u>Batch: 23J1058</u> A3J1665-01	Solid	NWTPH-Gx (MS)	10/24/23 07:30	10/25/23 12:45	3.3g/5mL	5g/5mL	1.52		
Volatile Organic Compounds by EPA 8260D									
<u>Prep: EPA 5035A</u>					Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23J1058 A3J1665-01	Solid	5035A/8260D	10/24/23 07:30	10/25/23 12:45	3.3g/5mL	5g/5mL	1.52		
Regulated TCLP Volatile Organic Compounds by EPA 1311/8260D									
Prep: EPA 1311/50300	TCLP Volatiles				Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23J1123 A3J1665-01	Solid	1311/8260D	10/24/23 07:30	10/29/23 13:35	5mL/5mL	5mL/5mL	1.00		
		Semivolatile	e Organic Compour	ds by EPA 8270E					
Prep: EPA 3546					Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
<u>Batch: 23J1038</u> A3J1665-01	Solid	EPA 8270E	10/24/23 07:30	10/26/23 09:42	15.08g/2mL	15g/2mL	1.00		
		Total	Metals by EPA 6020)B (ICPMS)					
Prep: EPA 3051A			,, ,	(-	Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23J1140 A3J1665-01	Solid	EPA 6020B	10/24/23 07:30	10/30/23 10:15	0.473g/50mL	0.5g/50mL	1.06		
Apex Laboratories The results in this report apply to the samples analyzed in accordance with the chain of									



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

<u>Sevenson Environmen</u> 2749 Lockport Road Niagara Falls, NY 143	<u>tal Services, Inc.</u> 905	I P	<u>Report ID:</u> A3J1665 - 11 02 23 0938						
	SAMPLE PREPARATION INFORMATION								
		Tota	I Metals by EPA 602	0B (ICPMS)					
Prep: EPA 3051A					Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
A3J1665-01RE1	Solid	EPA 6020B	10/24/23 07:30	10/30/23 10:15	0.473g/50mL	0.5g/50mL	1.06		
[TCL	P Metals by EPA 602	OB (ICPMS)					
Prep: EPA 1311/3015	A				Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23J1115 A3J1665-01	Solid	1311/6020B	10/24/23 07:30	10/27/23 16:00	10mL/50mL	10mL/50mL	1.00		
	Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection								
Prep: ASTM D7511-1	<u>2mod (S)</u>				Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
A3J1665-01	Solid	D7511-12	10/24/23 07:30	10/26/23 10:40	2.5594g/50mL	2.5g/50mL	0.98		
			Percent Dry We	ight					
Prep: Total Solids (Dr	v Weight) - 2022		•	•	Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
<u>Batch: 23J1039</u> A3J1665-01	Solid	EPA 8000D	10/24/23 07:30	10/26/23 12:30			NA		
		T	CLP Extraction by E	PA 1311					
	P)				Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23J1047 A3J1665-01	Solid	EPA 1311	10/24/23 07:30	10/26/23 15:45	100g/2000g	100g/2000g	NA		
Prep: EPA 1311 TCLF	P/ZHE				Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 23J1004 A3J1665-01	Solid	EPA 1311 ZHE	10/24/23 07:30	10/25/23 15:21	25g/500.9g	25g/500g	NA		

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

QUALIFIER DEFINITIONS

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

Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)

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В

w.)							
The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.							
Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.							
ple.							
Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.							
Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.							
may not have							
by +1%. The							
by +2%. The							
by +4%. The							
by -1%. The							
vity to ensure							
the sample.							
ance with the chain of munications. This							
anc mu							



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<u>Sevenson Env</u> 2749 Lockpor Niagara Falls	<u>vironmental Services, Inc.</u> rt Road 5, NY 14305	Project: Project Number: Project Manager:	<u>Gasco Filtercake</u> 111323 Chip Byrd	<u>Report ID:</u> A3J1665 - 11 02 23 0938			
S-05	Surrogate recovery is estimated due to same	ple dilution required for hig	gh analyte concentration and/	or matrix interference.			
TCLP	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 23J1004.						
TCLPa	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 23J1047.						
V-15	Sample aliquot was subsampled from the sa sampling.	ample container. The subsa	mpled aliquot was preserved	in the laboratory within 48 hours of			
V-16	Sample aliquot was subsampled from the sa sampling.	ample container in the labo	ratory. The subsampled aliqu	ot was not preserved within 48 hours of			

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Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- Filtercake</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

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.

- <u>" dry"</u> 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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

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).

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

REPORTING NOTES AND CONVENTIONS (Cont.):

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 ½ 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.

-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, if results are not reported to the MDL.

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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Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- Filtercake
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3J1665 - 11 02 23 0938

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 <u>exception</u> of any analyte(s) listed below:

Apex Laboratories										
Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation					

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

2749 Lockport RoadProject Number: 111323ReportNiagara Falls, NY 14305Project Manager: Chip ByrdA3J1665 - 11 0APEX LABS COOLER RECEIPT FORMClient: $Gevenson Fnummertal Services, Element WO#: A3J1065Project/Project #: Ga5c_0 - FiltercakeDelivery Info:Date/time received: 10/15/r_3 = 1015By: EST$	<u>t ID:</u> 2 23 0938
Niagara Falls, NY 14305 Project Manager: Chip Byrd A3J1665 - 11 0 APEX LABS COOLER RECEIPT FORM Client: Gevenson Fnummwertal Gewices, Element WO#: A3 51/065 Project/Project #: Ga 50 - Filtercake Delivery Info: 10/25/23 @ 1015 Date/time received: 10/25/23 @ 1015	2 23 0938
APEX LABS COOLER RECEIPT FORM Client: Gevenson Envenmental Services, Element WO#: A3 511065 Project/Project #: Gasco - Filtercake Delivery Info: Date/time received: Date/time received: 10/25/23 @ 1015	
Delivered by: Apex \angle Client ESS FedEx \angle PS Radio Morgan SDS Evergreen Other Cooler Inspection Date/time inspected: $\sqrt{D25/23}$ $@$ 102 By: $\underline{E \leq 1}$ Chain of Custody included? Yes \angle No	
Labeled by: APL Witness: Cooler Inspected by: KRS DJS	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



Pace Analytical® ANALYTICAL REPORT November 07, 2023

Sevenson Environmental - ORL

Sample Delivery Group: Samples Received: Project Number:

L1670708 10/26/2023 1113

Description:

Report To:

William Byrd

Entire Report Reviewed By:

tidson

Donna Eidson Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

ACCOUNT: Sevenson Environmental - ORL PROJECT: 1113

SDG: L1670708

DATE/TIME: 11/07/23 08:38 PAGE: 1 of 10

Тс Ss Cn Śr ʹQc Gl ΆI Sc

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¹Cp ²Tc ³Ss ⁴Cn ⁵Sr ⁶Qc ⁷Gl ⁸Al ⁹Sc

SAMPLE SUMMARY

FC-102423-2199 L1670708-01 Solids and Chemic	Collected by	Collected date/time 10/24/23 07:30	Received date/10/26/23 09:00	time		
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Radiochemistry by Method DOE Ga-01-R/901.1	WG2150273	1	10/30/23 12:16	11/02/23 11:27	ZRG	Mt. Juliet, TN



Ср

SDG: L1670708 DATE/TIME: 11/07/23 08:38

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson Project Manager



SDG: L1670708 DAT 11/07/2 PAGE: 4 of 10

SAMPLE RESULTS - 01

Radiochemistry by Method DOE Ga-01-R/901.1

, ,								
	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
Analyte	pCi/g		+/-	+ / -	pCi/g	pCi/g	date / time	
Potassium-40	0.820		0.443	0.443	0.817	0.291	11/02/2023 11:27	WG2150273
Thallium-208	0.0156	U	0.0459	0.0459	0.0897	0.0386	11/02/2023 11:27	WG2150273
Lead-210	-0.897	U	3.06	3.06	5.75	2.65	11/02/2023 11:27	WG2150273
Lead-212	0.0975	J	0.0699	0.0699	0.118	0.0538	11/02/2023 11:27	WG2150273
Lead-214	0.0230	U	0.0773	0.0773	0.180	0.0811	11/02/2023 11:27	WG2150273
Bismuth-212	0.0353	U	0.541	0.541	1.17	0.484	11/02/2023 11:27	WG2150273
Bismuth-214 (Ra-226)	0.127	J	0.0931	0.0931	0.171	0.0730	11/02/2023 11:27	WG2150273
Radium-226 (186 KeV)	0.313	U	0.411	0.411	0.780	0.358	11/02/2023 11:27	WG2150273
Actinium-228 (Ra-228)	0.236	Ţ	0.160	0.160	0.296	0.120	11/02/2023 11:27	WG2150273
Thorium-234 (U-238)	-0.102	U	0.523	0.523	1.36	0.538	11/02/2023 11:27	WG2150273
Protactinium-234m	-0.573	U	5.49	5.49	35.1	14.0	11/02/2023 11:27	WG2150273
Uranium-235	0.0281	U	0.0411	0.0411	0.0798	0.0367	11/02/2023 11:27	WG2150273

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Radiochemistry by Method DOE Ga-01-R/901.1

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3995042-1 TI/02/23 00:09												
	MB Result	MB Qualifier	MB 2 sigma CE	MB MDA	MB Lc							
Analyte	pCi/g		+ / -	pCi/g	pCi/g							
Actinium-228 (Ra-228)	0.0703	<u>U</u>	0.0899	0.163	0.0581							
Americium-241	0.0615	<u>U</u>	0.128	0.228	0.105							
Bismuth-212	-0.178	<u>U</u>	0.442	1.02	0.426							
Bismuth-214 (Ra-226)	0.162		0.0706	0.100	0.0398							
Cesium-137	0.0448		0.0308	0.0438	0.0159							
Cobalt-60	0.0369	<u>U</u>	0.0255	0.0676	0.0241							
Lead-210	1.30	<u>U</u>	2.88	5.12	2.37							
Lead-212	-0.00224	<u>U</u>	0.0489	0.0929	0.0421							
Lead-214	0.0498	<u>U</u>	0.0616	0.133	0.0590							
Potassium-40	0.479	J	0.404	0.793	0.297							
Protactinium-234m	1.86	<u>U</u>	4.96	32.1	13.1							
Radium-226 (186 KeV)	0.263	<u>U</u>	0.391	0.745	0.345							
Thallium-208	0.0117	<u>U</u>	0.0327	0.0649	0.0271							
Thorium-234 (U-238)	1.01	J	0.568	1.08	0.424							
Uranium-235	0.0196	U	0.0391	0.0750	0.0348							

L1663372-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1663372-01 11/02/23 10:22 • (DUP) R3995042-4 11/02/23 14:52													
	Original Result	Original 2 sigma CE	Original MDA	Original Lc	DUP Result	DUP 2 sigma CE	DUP MDA	DUP Lc	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
Analyte	pCi/g	+ / -	pCi/g	pCi/g	pCi/g	+ / -	pCi/g	pCi/g	%			%	
Actinium-228 (Ra-228)	0.0696	0.0548	0.0946	0.0366	0.0385	0.0538	0.134	0.0539	57.6	0.405	U	20	3
Bismuth-212	-0.0208	0.215	0.474	0.199	-0.182	0.238	0.593	0.249	0.000	0.504	U	20	3
Bismuth-214 (Ra-226)	0.243	0.0570	0.0682	0.0293	0.186	0.0598	0.0825	0.0352	26.6	0.689		20	3
Lead-210	171	17.3	5.50	2.65	167	17.0	5.22	2.50	2.30	0.161		20	3
Lead-212	0.0343	0.0339	0.0591	0.0275	0.0745	0.0454	0.0776	0.0359	74.0	0.710	J	20	3
Lead-214	0.209	0.0465	0.0721	0.0326	0.149	0.0573	0.105	0.0478	33.6	0.815		20	3
Potassium-40	0.870	0.288	0.313	0.111	0.0713	0.325	0.691	0.288	170	1.84	U	20	3
Radium-226 (186 KeV)					-0.0653	0.339	0.670	0.317	200	0.528	U	20	3
Thallium-208	0.0269	0.0173	0.0285	0.0119	0.00901	0.0218	0.0438	0.0188	99.7	0.642	U	20	3
Thorium-234 (U-238)	-0.108	0.408	0.983	0.399	0.139	0.425	1.02	0.414	200	0.419	U	20	3
Uranium-235	0.00897	0.0246	0.0466	0.0221	0.00473	0.0338	0.0681	0.0322	62.0	0.102	U	20	3
Protactinium-234m					-1.13	2.65	19.5	8.04	200	0.908	U	20	3

DATE/TIME: 11/07/23 08:38

WG2150273

Radiochemistry by Method DOE Ga-01-R/901.1

QUALITY CONTROL SUMMARY

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

LCS) R3995042-2 11/02/23 10:35 • (LCSD) R3995042-3 11/02/23 11:23													
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits			
Analyte	pCi/g	pCi/g	pCi/g	%	%	%			%	%			
Americium-241	47.3	49.6	55.5	105	117	75.0-125			11.2	20			
Cesium-137	72.4	78.8	83.3	109	115	80.0-120			5.49	20			
Cobalt-60	86.9	92.6	93.8	107	108	80.0-120			1.30	20			

DATE/TIME: 11/07/23 08:38

PAGE: 7 of 10

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

SDG: L1670708 Τс

Ss

Cn

Sr

Qc

GI

AI

Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky ¹⁶	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	Al30792	Tennessee ¹⁴	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SDG: L1670708

			Billing Info	mation:			-70%5	1	Analysis /	Container ,	/ Preservati	ve		Chain of Custor	ly Page of		
Sevenson Environment	tal			an a		Pres Chk								Pace	Analytical* Center for Testing & Incovation		
Report to: William Byrd			Email To: wbyrd@	sevenson.co	m		ag 1/21	AN A						12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858			
Project Description: Filter Cake				City/State Collected: Portland, Oregon								1. 1.		Phone: 800-767-5 Fax: 615-758-585			
Phone: 7165832754 Fax:	Client Project	#	Lab Project #				or gal					L# 110708 A072					
Collected by (print):	Site/Facility ID	D #	P.O. #				6 oz							Acctnum: SEVENENVORL			
Collected by (signature):	Rush? (I	ab MUST B	e Notified)		1.55 1.55	-T-1							Template: Prelogin:				
Immediately Packed on Ice N Y		de dia de la como		Date Re	sults Needed	No. of	EC-FUI							TSR: Donna PB:	Eidson		
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	GSPI					1.15	6	Shipped Via: Remarks	Sample # (lab only)		
FC-102423-2199	Grab	SS		10-24-202	3 0730	1	×		1947 - 1 1957 - 1 1957 - 1					WM LIST	-01		
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and the second second second second		44						132.4	- Andrews								
		5															
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								tion and the second sec						11 - 11 11 - 12			
				1 States			4										
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks: No ice					16	m	nM	pH Flow		Temp		COC Sea COC Sig Bottles	Sample Receipt 1 Present/Intac ned/Accurate: arrive intact bottles used.	Checklist		
DW - Drinking Water OT - Other <u>SCM</u>	Samples retu	rned via: edExCo	ourier		Tracking #	00	M	1			0	5	Suffici VOA Zer	ent volume sent <u>If Applic</u> o Headspace:	able		
Relinquished by : (Signature)	l-	Date:	1223	Time: 11:25	Received by: (Sign	ature)			Trip Blar	hk Received	HCL/	Меон	Preserv	ation Correct/(Checked: _YN		
Relinquished by : (Signature)	- 6 1	Date:	P.S.	Time:	Received by: (Sign	ature)			Terho:	NO °C	Bottles Rec	eived:	If preserv	vation required by I	.ogin: Date/Time		
Relinguished by : (Signature)		Date:		Time:	Received for lab b	y: (Signa	ature)	1	Date:	Nolas	Time:	1)	Hold:		Condition: NCF OK		

AND A CONTRACTOR

	Billing Information:								Analysis	/ Contain	er / Preserva	Ci	hain of Custody	Page of		
Sevenson Environment	al					Pres Chk									Pace A	nalytical
Report to:			Email To:				1/2 full							1;	2065 Lebanon Rd	ine for Treating & Innovation
William Byrd			wbyrd@	sevenson.	:om		ag							N Pl	Agunt Juliet, TN 3712 hone: 615-758-5858	
Project Description: Filter Cake				City/State Collected: P	ortland, Oregor	1	zip b						-	P1 Fa	hone: 800-767-5859 ax: 615-758-5859	
Phone: 7165832754 Fax:	Client Project	#		Lab Project #			r gal							L	.#	
Collected by (print):	Site/Facility ID)#		P.O. #										A	able #	NENVORL
Collected by (signature):	Rush? (i	.ab MUST Be	Notified)	Quote #			11-11							T P	emplate: Prelogin:	
Immediately Packed on ice N Y				Date F	lesults Needed	No.	C-FU							T: Pi	^{'SR:} Donna Ei 'B:	idson
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	SPE							SI	hipped Via:	
FC-102423-2199	Grab	SS		10-24-20	23 0730	1	S X							w	Remarks	Sample # (lab only)
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* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks: No ice								рН Eloy		Temp		COC Se COC Si Bottle	Sample al Pres Igned/Ac	Receipt Che sent/Intact: ccurate: ve intact:	<u>ecklist</u> NPYN YN YN
DW - Drinking Water OT - Other_SCM	Samples retur UPSFe	ned via: dEx Cou	nier		Tracking #								Suffic VOA Ze	ient vo	olume sent: If <u>Applicabl</u> ispace:	±YN ±YN
Relinquished by : (Signature)		Date:	2023	ime: 11:75	Received by: (Signat	ure)			Trip Bla	nk Receiv	ed: Yes / N HCL /	lo / MeoH	Preser	vation	Correct/Che	cked: Y N
Relinquished by (Signature)		Date:	Т	ime:	Received by: (Signat	ure)			Temp:	°C	Bottles Re	ceived:	If prese	If preservation required by Login: Date/Time		
Relinquished by : (Signature) Date: Time: Received for lab by					(Signat	ignature) Date: Time: Hold:								Condition: NCF / OK		

Table 1 - Jan-Oct 2023 Filter Press Cake Residuals

		Drop Number Sample ID	2053 FC-012323-2053	2067 FC-022023-2067	2081 FC-032023-2081	2096 FC-041623-2245	2115 FC-052323-2115	2131 FC-062023-2131	2148 FC-071923-2148	2167 FC-082223-2167	2182 FC-091923-2182	2199 FC-102423-2199
	EFA TOXICITY CITA Degulatory Three Actual FPA TC	LAB ID ractenstic (TC) schold Volues 20x FPA TC	Results Qualifier	Results Qualifier	A3C0842-01 Results Qualifier	Results Qualifier	A3E1675-01 Results Qualifier	A3F1367-01 Results Qualifier	Results Qualifier	A3H1300-01 Results Qualifier	A311260-01 Results Qualifier	Results Qualifier
Diesel (ug/kg dry)	values in ug/L	values in ug/kg*	11,900,000 F-13	5,100,000 F-13	2,120,000 F-13	2,570,000 F-13	7,130,000 F-13	5,690,000 F-13	1,570,000 F-13	3150000 F-13	9260000 F-13	3,600,000 F-13
Oil (ug/kg dry)			<2,180,000	<855000	<834000	<365000	<2,970,000	<402000	<75900	<716000	<2720000	<669000
Gasoline Range Hydrocarbons (Benzene thro	ough Naphthalene) by N\	NTPH-Gx (ug/kg dry)	987,000	161,000	98,500	63,800	152,000	45100	68,000	203000	87000	244,000
Volatile Organic Compounds by EPA 8260D Acetone			μg/kg dry <26100	μg/kg dry <7590	μg/kg dry <3490	μg/kg dry <3000	μg/kg dry <3240	μg/kg dry <3450	μg/kg dry <3370	μg/kg dry <4050	μg/kg dry <2800	μg/kg dry <8050 ICV-02
Benzene	500	10,000	391 J <652	<739 159 <190	<pre><349 168 <87.3</pre>	72.1	104 <81.0	<34.5 <86.3	50.5 J <84.2	114 <101	56.0	551 <101
Bromochloromethane Bromodichloromethane			<1300 <1300	<380 <380	<175 <175	<150 <150	<162 <162	<173 <173	<168 <168	<203 <203	<140 <140	<201 <201
Bromoform Bromomethane			<2610 <26100	<759 <7590	<349 <3490	<300 <3000	<648 <3240	<345 <3450	<337 <3370	<405 <4050	<280 <2800	<402 <4020
2-Butanone (MEK) n-Butylbenzene	200,000	4,000,000	<13000 <1300	<3800 <380	<1750 <175	<1500 <300	<1620 <162	<1730 <173	<1680 <168	<2030 <203	<1400 224 J	<2010 <201
tert-Butylbenzene			<1300 <1300 <1300	<380 <380	<175 <175	<150 <150	<162 <162	<173 <173 <173	<168	<203 <203 <203	<140	<pre>217 J <201 <2010</pre>
Carbon tetrachloride Chlorobenzene	500 100,000	10,000 2,000,000	<1300 <652	<380 <190	<175 <87.3	<150 <75.1	NA <81.0	<173 <86.3	<168 <84.2	<203 <101	<140 <70.0	<201 <101
Chloroethane Chloroform	6,000	120,000	<13000 <1300	<3800 <380	<1750 <175	<1500 <150	<1620 <162	<1730 <173	<1680 <168	<2030 <203	<1400 <140	<2010 <201
Chloromethane 2-Chlorotoluene			<6520 <1300	<1900 <380	<873 <175	<751 <150	<1620 <162	<863 <173	<842 <168	<1010 <203	<700 <140	<1010 <201
4-Chlorotoluene Dibromochloromethane			<1300 <2610	<380 <759	<175 <349	<150 <300	<162 <324	<173 <345	<168 <337	<203 <405	<140 <280	<201 <402
1,2-Dibromoethane (EDB) Dibromomethane			<1300 <1300	<380 <380	<175	<150 <150	<162 <162	<173	<168 <168	<203 <203	<140 <140	<201 <201
1,2-Dichlorobenzene 1,3-Dichlorobenzene			<652 <652	<190 <190	<87.3 <87.3	<75.1 <75.1	<81.0 <81.0	<86.3 <86.3	<84.2 <84.2	<101 <101	<70.0 <70.0	<101 <101
1,4-Dichlorobenzene Dichlorodifluoromethane	7,500	150,000	<652 <2610	<190 <1520 ICV-02	<87.3 <349	<75.1 <300	<81.0 <648	<86.3 <345	<84.2 <337	<101 <405	<70.0 <280	<101 <402
1,1-Dichloroethane 1,2-Dichloroethane (EDC)	500	10,000	<652 <652	<190 <190	<87.3 <87.3	<75.1 <75.1	<81.0 <81.0	<86.3 <86.3	<84.2 <84.2	<101 <101	<70.0 <70.0	<101 <101 <101
cis-1,2-Dichloroethene trans-1,2-Dichloroethene		14,000	<652 <652 <652	<190 <190 <190	<87.3 <87.3	<75.1 <75.1	<81.0 <81.0	<86.3 <86.3	<84.2 <84.2	<101 <101 <101	<70.0 <70.0	<101 <101 <101
1,2-Dichloropropane 1,3-Dichloropropane			<652 <1300	<190 <380	<87.3 <175	<75.1 <150	<81.0 <162	<86.3 <173	<84.2 <168	<101 <203	<70.0 <140	<101 <201
2,2-Dichloropropane 1,1-Dichloropropene			<1300 <1300	<380 <380	<175 <175	<150 <150	<162 <162	<173 <173	<168 <168	<203 <203	<140 <140	<201 <201
cis-1,3-Dichloropropene trans-1,3-Dichloropropene			<1300 <1300 <652	<380 <380 304	<175 <175 279	<150 <150 <150	<162 <162 308	<1/3 <173 <86.3	<168 <84.2	<203 <203 <101	<140 <140 95.1	<201 <201 322
Hexachlorobutadiene	500	10,000	<2610 <26100	<759 <3800	<349 <3490	<300 <1500	<324 <1620	<345 <3450	<337 <1680	<405 <2030	<280 <1400	<402 <2010
Isopropylbenzene 4-Isopropyltoluene			<1300 <1300	<380 <380	<175 <175	<150 <150	<162 172 J	<173 <173	<168 <168	<203 <203	<140 <140	<201 201 J
Methylene chloride 4-Methyl-2-pentanone (MiBK)			<13000 <13000	<3800 <3800	<1750 <3490	<1500 <1500	<1620 <1620	<1730 <1730	<1680 <1680	<2030 <2030	<1400 <1400	<2010 <2010
Naphthalene			49800 <652	<pre> 380 1810 <190</pre>	521 J <87.3	<751 R-06 <75.1	651 <81.0	<345 <86.3	801 <84.2	969 <101	6250 70.0 I	10800 <101
Styrene 1,1,1,2-Tetrachloroethane			<1300 <652	<380 <190	<175 <87.3	<150 <75.1	<162 <81.0	<173 <86.3	<168 <84.2	<203 <101	<140 <70.0	<201 <101
1,1,2,2-Tetrachloroethane Tetrachloroethene (PCE)	700	14,000	<1300 <652	<380 <190	<175 <87.3	<150 <75.1	<162 <81.0	<173 <86.3	<168 <84.2	<203 <101	<140 <70.0	<201 <101
Toluene 1,2,3-Trichlorobenzene			<1300 <6520	<380 <1900	<175 <873	<150 <751	<162 <810	<173 <863	<168 <842	<203 <1010	<140 <700	<201 <1010
1,1,1-Trichloroethane 1,1,2-Trichloroethane			<652 <652 <652	<190 <190 <190	<87.3 <87.3	<75.1 <75.1	<81.0 <81.0	<86.3 <86.3	<84.2 <84.2 <84.2	<1010 <101 <101	<70.0 <70.0	<1010 <101 <101
Trichloroethene (TCE) Trichlorofluromethane	500	10,000	<652 <2610	<190 <759	<87.3 <349	<75.1 <300	<81.0 <648	<86.3 <345	<84.2 <337	<101 <811	<70.0 <280	<101 <402
1,2,3-Trichloropropane 1,2,4-Trimethylbenzene			<1300 1850 J	<380 683 J	<175 409	<150 <451 R-06	<162 697	<173 <173	<168 259 J	<203 373 J	<140 369	<201 507
1,3,5-Trimethylbenzene Vinyl chloride	200	4,000	<1300 <652 <1300	<380 <190 <380	175 J <87.3	<300 <75.1 <150	246 J <81.0	<173 <86.3 <173	<168 <84.2 <168	<203 <101 <203	143 J <70.0	<201 <101 299 I
o-Xylene			<652	220 J	147 J	<150	204	<86.3	<84.2	<101	<70.0	221
TCLP Volatile Organic Compounds by EPA Benzene	A1311/8260D 500	10,000	μg/L <6.25	μg/L <6.25	μg/L <6.25	μg/L <6.25	μg/L <6.25	μg/L <6.25	μg/L <6.25	μg/L <6.25	μg/L <6.25	μg/L <10.0
2-Butanone (MEK) Carbon tetrachloride	200,000 500	4,000,000 10,000	<250 <25.0	<250 <25.0	<250 <25.0	<250 <25.0	<250 <25.0	<250 <25.0	<250 <25.0	<250 <25.0	<250 <12.5	<250 <25.0
Chlorobenzene Chloroform	100,000 6,000	2,000,000 120,000	<12.5 <25.0	<12.5 <25.0	<12.5 <25.0	<12.5 <25.0	<12.5 <25.0	<12.5 <25.0	<12.5 <25.0	<12.5 <25.0	<12.5 <25.0	<12.5 <25.0
1,4-Dichlorobenzene 1,1-Dichloroethene 1,2-Dichloroethane (EDC)	7,500 700 500	150,000 14,000 10,000	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5	<12.5 <12.5 <12.5
Tetrachloroethene (PCE) Trichloroethene (TCE)	700	14,000 10,000	<12.5 <12.5	<12.5 <12.5	<12.5 <12.5	<12.5 <12.5	<12.5 <12.5	<12.5 <12.5	<12.5 <12.5	<12.5 <12.5	<12.5 <12.5	<12.5
Vinyl chloride	200	4,000	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<25.0
Semivolatile Organic Compounds by EPA Acenaphthene	A 8270E		μg/kg dry 47300	μg/kg dry 51600	μg/kg dry 27,400	μg/kg dry 23,000	μg/kg dry 82600	μg/kg dry 54,700	μg/kg dry 20400	μg/kg dry 22200	μg/kg dry 52600	μg/kg dry 37,500 B
Acenaphthylene Anthracene			<3670 R-02 36700	<4780 R-02 43800	<3330 R-02 29,800	<4130 R-02 26,900	<5620 67900	<6300 R-02 49600	<2790 23800	<2460 R-02 25900	<5370 51700	<3040 R-02 32000
Benz(a)anthracene Benzo(a)pyrene			19300 22800	25000 27400	19,800 26,200	18,800 19,600	36400 39000	28400 31100	15800 16600	16600 18400	29600 32000	17900 18900
Benzo(b)fluoranthene Benzo(k)fluoranthene			17400 6540 M-05	23200 7890 M-05	19,100 B-02 7,710 M-05	16,200 6,090	30500 12100 M-05	25900 10300 M-05	13000 6620 J	14900 5150 M-05	26200 10900 M-05	14900 6340 M-05
Benzo(g,h,i)perylene Chrysene			13100 25600	16100 33400	14,000 25,500	11,900 25,200	25400 52600	21000 38800	9520 21700	11300 22200	20000 39900	11100 24100
Fluoranthene			<1420 99100	114000 25400	94,000	<2000 86,800	<2800 Q-37, Q-42 198000	1840 J 141000	<2790 82900	80000	<2670 155000 24500	87600
Indeno(1,2,3-cd)pyrene			11900	14900 19600	12,500	10200	21500	16000	8490	8700	17000	8340
2-MethInaphthalene			17800 18800	16300	4,580 2,260	<2010	22500	2310 J	<5600	523 J	9160 J	9870 B 4640 0-29 B
Pyrene			192000 116000	246000	149,000 111,000	143,000 102 000	399000 332000	259,000 169,000	129000 99600	113000 93400	283000	152000 104000
Carbazole			2580 J 3800	<1710 4360	1,990 J 2,640	<1500 1,880 J	<4210 7130	<1620 <3880 R-02	<4190 <2790	<668 R-02 1520	<4020 <5370	1900 3210
2-Chlorophenol 4-Chloro-3-methyplenol			<7120 <14200	<5690 <11400	<5560 <11100	<5010 <10000	<14000 <28000	<5390 <10700	<14000 <27900	<989 <1970	<13400 <26700	<2390 <4760
2,4-Dichlorophenol			<7120 <7120	<5690 <5690	<5560 <5560	<5010 <5010	<14000 <14000	<5390 <5390	<14000 <14000	<989 <989	<13400 <13400	<2390 <2390
2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol			<35600 <35600	<28400 <28400	<27800 <27800	<25000 <25000	<70000 <70000	<26900 <26900	<69800 <69800	<4940 <4940	<66900 <66900	<11900 <11900
2-Methylphenol 3+4-Methyphenol(s)	200,000	4,000,000	<3560 <3560	<2840 <2840	<2780 <2780	<2500 <2500	<7000 <7000	<2690 <2690	<6980 <6980	<494 <494	<6690 <6690	<1190 <1190
2-Niptrophenol 4-Nitrophenol			<14200 <28500	<11400 <22800	<11100 <11100	<10000 <20100	<28000 <56200	<10,700 <21,600	<27900 <27900	<1970 <4110 R-02	<26700 <26700	<4760 <9550
Pentachlorophenol(PCP) Phenol	100,000	2,000,000	<14200 <2850	<11400 <2280	<11100 <2230	<10000 <2010	<28000 <5620	<10,700 <2,160	<27900 <5600	<1970 <369	<26700 <5370	<4760 <955
2,3,4,6-Tetrachlorophenol 2,3,5,6-Tetrachlorophenol			<7120 <7120	<5690 <5690	<5560 <5560	<5010 <5010	<14000 <14000	<5390 <5390	<14000 <14000	<989 <989	<13400 <13400	<2390 <2390
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	400,000 2,000	8,000,000 40,000	<7120 <7120	<5690 <5690	<5560 <5560	<5010 <5010	<14000 <14000	<5390 <5390	<14000 <14000	<989 <989	<13400 <13400	<2390 <2390
Bis(2-ethylhexyl)phthalate Butyl benzyl phtalate			<21400 <14200	<17100 <11400	<16700 <11100	<15000 <10000	<42100 <28000	<16200 <10700	<41900 <27900	<2970 <1970	<40200 <26700	<7160 <4760
Dietnyphthalate Dimethylphthalate			<14200	<11400 <11400	<11100 <11100	<10000	<28000	<10700	<27900	<1970 <1970	<26700	<4760 <4760
Di-n-butylphthalate Di-n-octyl phthalate			<14200 <14200	<11400 <2840	<11100 <11100 <2780	<10000 <10000	<28000 <7000	<10700 <10700	<27900 <27900	<1970 <1970	<26700 <26700	<4760 <1100
N-Nitrosodinetnylamine N-Nitroso-di-n-propylamine			<3560	<2840 <2840	<2780	<2500	<7000	<2690 <2690	<6980	<494 <494	<6690	<1190 <1190 <5010 P-02
Bis(2-Chloroethoxy) methane			<3560 <3560	<2840 <2840	<2780 <2780	<2500 <2500	<7000	<2690 <2690	<6980 <6980	<494 <494	<6690 <6690	<1190 <1190
2,2'- Oxybis (1-Chloropropane)	120	2 600	<3560 <1420	<2840 <1140	<2780 <1110	<2500 <2500 <1000	<7000 <7000 <2800	<2690 <1070	<6980 <2790	<494 <197	<6690 <2670	<1190 <1190 <476
Hexachlorobutadiene	500	10,000	<3560 <7120	<2840 <5690	<2780 <5560	<2500 <5010	<7000 <14000	<2690 <5390	<6980 <14000	<494 <989	<6690 <13400	<1190 <2390
Hexachloroethane 2-Chloronanhthalene	3,000	60,000	<3560 <1420	<2840 <1140	<2780 <1110	<2500 <1000	<7000 <2800	<2690 <1070	<6980 <2790	<494 <197	<6690 <2670	<1190 <955
1,2,4-Trichlorobenzene 4-Bromophenvl phenvl ether			<3560 <3560	<2840 <2840	<2780 <2780	<2500 <2500	<7000 <7000	<2690 <2690	<6980 <6980	<494 <494	<6690 <6690	<1190 <1190
4-Chlorophenyl phenyl ether Aniline			<3560 <7120	<2840 <5690	<2780 <5560	<2500 <5010	<7000 <14000	<2690 <5390	<6980 <14000	<494 <989	<6690 <13400	<1190 <2390
4-Chloroaniline 2-Nitroaniline			<3560 <28500	<2840 <22800	<2780 <22300	<2500 <20100	<7000 <56200	<2690 <21600	<6980 <56000	<494 <3960	<6690 <53700	<1190 <9550
3-Nitroaniline 4-Nitroaniline			<28500 <28500	<22800 <22800	<22300 <22300	<20100 <20100	<56200 <56200	<21600 <21600	<56000 <56000	<3960 <3960	<53700 <53700	<9550 <9550
Nitrobenzene 2,4-Dinitrotoluene	2,000 130	40,000 2,600	<14200 <14200	<11400 <11400	<11100 <11100	<10000 <10000	<28000 <28000	<10700 <10700	<27900 <27900	<1970 <3960	<26700 <26700	<4760 <9550
2,6-Dinitrotoluene			<14200	<11400	<11100	<10000	<28000	<10700	<27900	<1970	<26700	<4760

Table 1 - Jan-Oct 2023 Filter Press Cake Residuals

Benzoic acid			<178000		<143000		<139000		<126000		<351000		<135000		<350000		<24800		<336000		<59800	
Benzyl alchohol			<7120		<5690		<5560		<5010		<14000		<5390		<14000		<989		<13400		<2390	
Isophorone			<3560		<2840		<2780		<2500		<7000		<2690		<6980		<494		<6690		<1190	
Azobenzene (1,2-DPH)			<3560		<2840		<2780		<2500		<7000		<2690		<6980		<494		<6690		<1190	
Bis(2-Ethylhexyl)adipate			<35600		<28400		<27800		<25000		<70000		<26900		<69800		<4940		<66900		<11900	
3,3'-Dichlorobenzidine			<28500	Q-52	<22800	Q-52	<22300	Q-52	<20100	Q-52	<56200	Q-52	<21600	Q-52	<56000	Q-52	<3960	Q-52	<53700	Q-52	<9550	Q-52
1,2-Dinitrobenzene			<35600		<28400		<27800		<25000		<70000		<26900		<69800		<4940		<66900		<11900	
1,3-Dinitrobenzene			<35600		<28400		<27800		<25000		<70000		<26900		<69800		<4940		<66900		<11900	
1,4-Dinitrobenzene			<35600		<28400		<27800		<25000		<70000		<26900		<69800		<4940		<66900		<11900	
Pyridine	5,000	100,000	<7120		<5690		<5560		<5010		<14000		<5390		<14000		<989		<13400		<2390	
1,2-Dichlorobenzene			<3560		<2840		<2780		<2500		<7000		<2690		<6980		<494		<6690		<1190	
1,3-Dichlorobenzene			<3560		<2840		<2780		<2500		<7000		<2690		<6980		<494		<6690		<1190	
1,4-Dichlorobenzene	7,500	150,000	<3560		<2840		<2780		<2500		<7000		<2690		<6980		<494		<6690		<1190	
Total Metals by EPA 6020B(ICPMS)			μg/k	g dry	μg/k	g dry	μg/	′kg dry	μg/k	g dry	μg/kg	g dry	μg/k	g dry	μg/k	g dry	μg/k	g dry	μg/k	g dry	µg/k	g dry
Arsenic	5,000	100,000	8950		8430		9760	CONT	6360	CONT	8360		9130	CONT	8990	CONT	7680	CONT	8790		11400	CONT
Barium	100,000	2,000,000	217000		227000		220,000	CONT	178000	CONT	211000		218000	CONT	198000	CONT	175000	CONT	197000		207000	CONT
Cadmium	1,000	20,000	<526		<458		<450	CONT	<410	CONT	<418		<431	CONT	<421	CONT	<392	CONT	<358		<380	CONT
Chromium	5,000	100,000	<2630		<2290		<2250	CONT	<2050	CONT	<2090		<2150	CONT	<2100	CONT	<1960	CONT	<1790		<1900	CONT
Lead	5,000	100,000	<526		<458		635	CONT,J	<410	CONT	<418		<431	CONT	<421	CONT	<392	CONT	<358		<380	CONT
Mercury	200	4,000	<210		<183		<180	CONT	<164	CONT	<167		<172	CONT	<168	CONT	<157	CONT	<143		<152	CONT
Selenium	1,000	20,000	<2030		<2290		<2250	CONT	<2050		<2090		<2150	CONT	<2100	CONT	<1960	CONT	<1/90		<1900	CONT
TCLP Motals by EDA 6020B (ICDMS)	5,000	100,000	<520 110	/1	×436	//	\4 50		<u>\410</u>		<u>\410</u>	/1	\451 11g	/	<u>\421</u>	/1	119	/	\ _ _	·/I	< <u>560</u>	
Arsonic	5 000	100.000	۳6/ ۲۵.0 ×	/ L	ع¤ ح∈0.0	0.446	۴		۳5 ۲۵ ۵ - ۲۵		μ6/ 		μ5 <50.0		۳۵. ۲۵.۵ م-		۳۵. ۲۵.۵۰		۳ε ح50.0	/ L	۳۵/ ۲۵۰۰ - ۲۵۰۰	
Alselic	100.000	2 000 000	<2500		<2500	Q-440	<2500	$CONT O_{-44a}$	<2500		<2500		<250.0		<2500	CONT	<2500		<2500		<250.0	CONT
Cadmium	1 000	2,000,000	<50.0		<50.0	0-44b	<50.0	CONT O-44a	<50.0		<50.0		<50.0	CONT	<50.0	CONT	<50.0	CONT	<50.0		<50.0	CONT
Chromium	5,000	100,000	<50.0		<50.0	0-44h	<50.0	CONT 0-44a	<50.0		<50.0		<50.0	CONT	<50.0	CONT	<100	CONT	<50.0		<50.0	CONT
Lead	5,000	100,000	<25.0		<25.0	0-44h	<25.0	CONT 0-44a	<25.0		<25.0		<25.0	CONT	<25.0	CONT	<25.0	CONT	<25.0		<25.0	CONT
Mercury	200	4,000	<3.75		<3.75	0-44b	<3.75	CONT 0-44a	<3.75		<3.75		<3.75	CONT	<3.75	CONT	<3.75	CONT	<3.75		<3.75	CONT
Selenium	1.000	20,000	<50.0		<50.0	0-44b	<50.0	CONT. 0-44a	<50.0		<50.0		<50.0	CONT	<50.0	CONT	<50.0	CONT	<50.0		<50.0	CONT
Silver	5.000	100.000	<50.0		<50.0	0-44b	<50.0	CONT.O-44a	<50.0	CONT	<50.0		<50.0	CONT	<50.0	CONT	<50.0	CONT	<50.0		<50.0	CONT
	-,																					
Total Cyanide (ug/kg dry)			5340		5420		4050		6400		5130		4100	Q-42	6980		6620	Q-42	7020	Q-42	5550	
Percent Dry Weight																						
%Solids			18.4		22.9		23.9		26.4		26.3		24.7		25.3		26.9		29.4		27.8	

NOTES:

*If laboratory results from the totals test reported in ug/kg exceed the "20x TC Threshold" value, then see results

of the TCLP test for direct comparison to actual TC regulatory levels reported in ug/L for regulatory status determination.

B = Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)

B-02 = Analyte detected in an associated blank at a level between one-half the MRL and the MRL.

CONT = The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part if the Apex Quality System

ICV-02 = Estimated Result. Initial Calibration Verification (IVC) failed low.

J = Estimated Result. Result is detected below the lowest point of the calibration curve, but above the specified MDL.

F-13 = The chromatographic pattern does not resemble the fuel standard used for quantitation.

M-05= Estimated results. Peak separation for structural isomers is insufficient for accurate quantification

Q-29 = Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.

Q-37 = Sample is non-homogenous. Sample results are less than MRL and duplicate results have hits greater than the MRL. See Duplicate results.

Q-42 = Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits.

Q-44a = Room temperature during the 18 hr. TCLP tumbling procedure exceeded EPA recommended temperature range by no more than +/-2 degrees C for a maximum of 4 Hrs.

Q-44b = Room temperature during the 18 hr. TCLP tumbling procedure exceeded EPA recommended temperature range by no more than +/-2 degrees C for a maximum of 25.7.

Q-52 = Due to erratic or low blank spike recoveries results are considered estimated.

R-02 = The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

R-06 = Reporting level raised due to possible carryover from a previous sample.

Table 2 - Charted Pace Anaytical Results

Sample Indentification	FC-102423-2199													
Report Date	2-Nov-23													
Pace Analytical Report	L1670708													
PaceSample Indentification	L1670708-01													
Radiochemistry by Method DOE Ga-01-R/901.1														
Analyte (*1)	WM Limits (*2)	Results	Qualifier	2 sigma CE	TPU	MDA	Lc							
	pCi/g	pCi/g		+/-	+/-	pCi/g	pCi/g							
Potassium-40		0.820		0.433	0.443	0.817	0.291							
Thallium-208		0.0156	U	0.0459	0.0459	0.0897	0.0386							
Lead-210	10	-0.897	U	3.06	3.06	5.75	2.65							
Lead-212		0.0975	J	0.0699	0.0699	0.118	0.0538							
Lead-214		0.0230	U	0.0773	0.0773	0.180	0.0811							
Bismuth-212		0.0353	U	0.541	0.541	1.17	0.484							
Bismuth-214 (Ra-226)	5	0.127	J	0.0931	0.0931	0.171	0.0730							
Radium-226 (186 KeV)	5	0.313	U	0.411	0.411	0.780	0.358							
Actinium-228 (Ra-228)	20	0.236	J	0.160	0.160	0.296	0.120							
Thorium-234 (U-238)	10	-0.102	U	0.523	0.523	1.360	0.538							
Protactinium-234m		-0.537	U	5.49	5.49	35.1	14.0							
Uranium-235	10	0.0281	U	0.0411	0.0411	0.0798	0.0367							

Columns Headings Define

Result = The actual analtical final results reported on sample.

Qualifier = provides a letter and/or number that corresponds to additional infromation about results

2 sigma CE = Confidence level

TPU = Total Propagated Uncertainty - a DOD required uncertainty that is calculated using the 1 sigma counting error plus all measurable variables

(uncertainties from pipettors, beakers, graduated cylinders, standards, etc).

MDA = Minimum Detectable Activity reported at a 99% confidence level

Lc=Decision Level or Critical Level = a DOE required Detection limit at a 95% confidence level

NOTES:

J = The identification of the analyte is acceptable: the reported value is an estimate.

U= Below Detectable Limits: Indicates that the analyte was not detected.

Waste Management (WM) uses a custom gamma spec isotope list agreed upon with Oregon Department of Energy (*1).

The main isotopes of concern are Radium226, Radium228, Uranium, Thorium, and Lead210 (and all their daughter products).

For a material to not require a pathway exemption to be disposed of in Oregon it needs to be below the limits

provided in OAR 345-050's table 1 which WM has simplified (*2).

Please keep in mind that factors such as uncertainty effect the final value.



Non-Hazardous WAM Approval

Requested Management Facility: Hillsboro Landfill

Profile Number: 1151160R

Common Name: Non-hazardous Filter Cake

Waste Acceptance Expiration Date: 12/02/2023 I NA WM Regulatory Volume Limit: _____

APPROVAL DETAILS

Approval Decision: Approved Not Approved

Management Method: Direct Landfill

Profile Renewal: Yes No

Profile Expiration Date: 12/02/2023

Periodic Testing Due Date: **NA** Other Due Date: _____ **NA**

(Specify) _____

Management Facility Precautions, Special Handling Procedures or Limitation on approval:

Generator Conditions

- Shall not contain free liquids.
- Waste manifest or applicable shipping document must accompany load.
- The waste profile number must appear on the shipping papers.

Facility Conditions

ODOE Concurrence 12/02/22

WM Authorization Name: Leslie Fichera

WM Authorization Signature: Leslie Fichen

Agency Authorization (if Required): _____

Title: Waste Approval Manager



Date:

THINK GREEN?

QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

Last Revised January 25, 2018 ©2018 Waste Management