



Sevenson Environmental Services
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February 2, 2023

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

RE: NW Natural Source Control Groundwater Treatment Facility - Liquid Phase Carbon (Solids Residuals) Request

Dear Mark:

Sevenson Environmental Services, Inc. (SES), on behalf of NW Natural, has prepared the following package for Waste Management, Inc. This package includes lab analyses for Groundwater Treatment System Liquid Phase Carbon Tank T-541 for spent carbon disposal.

Carbon was evacuated from T-541 granular activated carbon tank. Spent carbon was placed into two separate covered drop boxes for transportation. Future carbon disposal from individual activated carbon tanks (T-531, T-532, T-541, and T-542) will follow in a like manner for disposal on a quarterly time schedule. Sevenson Environmental Services (SES) collected samples from the T-541 granular activated carbon tank after removal of spent carbon. The individual samples were composited into a single sample for testing. The analytical laboratory (Apex Laboratories, LLC) analyzed the composite sample for dry weight, total metals, leachable metals (toxicity characteristic leaching procedure-TCLP), total petroleum hydrocarbons (TPH), total cyanide, volatile organic compounds (VOCs), leachable VOCs (TCLP), and semi-volatile organic compounds (SVOCs), TCPL SVOCs, and heat of combustion. These laboratory testing results are summarized on Table 1.

A composite sample was also sent to Pace Analytical for Radiochemistry testing as required by Waste Management, Inc. and the Oregon Department of Energy for disposal profiling, with these results summarized on Table 2. Table 2 includes Minimum Detectable Activity (MDA) for main isotopes of concern and limits for disposal in Oregon. Neither the detected concentrations nor the MDA for the constituents exceed the limits for disposal.

As per discussions with Waste Management, Inc., it is understood that the original profile for this waste stream (123695OR) requires renewal at this time with an updated profile form and generator certification. Attached please find the updated profile form for this waste stream, as necessary for Waste Management, Inc. use in renewal of profile 123695OR. Also attached please find the Apex Laboratory analytical report (A2G0563) dated August 25, 2022 documenting the

chemistry of the residual treatment materials, and Tables 1 and 2, a summary of those testing results. The August 2022 analytical results confirm that the residuals in the drop box conform to the description included within previously approved profile for this waste stream and that renewal of profile 123695OR is appropriate.

As indicated on the laboratory testing and as described in the attached profile (123695OR), it is requested that Waste Management Inc. recertify the disposal profile 123695OR for use and approve disposal of these contaminated treatment residuals as non-hazardous waste at the Hillsboro Landfill located in Hillsboro, Oregon.

Prior to arranging for disposal of future residuals from the granular activated carbon tanks under Profile 123695OR, sampling and characterization will be completed from the tank to be evacuated in order to confirm the residuals match the profile in-place at that time. These data will be provided for Waste Management's information and use prior to disposal.

In response to the EZ Profile Addendum #D.7, requesting documentation regarding the State-mandated cleanup, NW Natural's Voluntary Agreement with DEQ, no. WMCVC-NWR-94-13, dated August 8, 1994 and amended July 19, 2006, has been previously provided to Waste Management.

Based on the preceding analytical testing and screening procedure, it is concluded that this material is acceptable for disposal at a Resource Conservation and Recovery Act (RCRA) Subtitle D non-hazardous waste disposal facility. Upon acceptance by the disposal facility, the waste will be transported to and disposed of at Waste Management's Hillsboro Landfill.

Sincerely,



William Byrd
Groundwater Treatment Plant Superintendent
Sevenson Environment Services

Cc: Robert Wyatt (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.)

Enclosures:

Table 1 - T-541 Charted Lab Analyses

Table 2 - Charted PACE Analytical Results
Waste Management Profile #123695OR
Waste Management Previous Approval 123695OR
Apex Laboratory Report # A2G0563
Pace Report #L1569422

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 processes;

Yes ¹	No	Waste Classifications
		Nuclear Materials
		Mineral Ore mining/overburden processing or extraction <i>Uranium, Radium, Thorium, Plutonium, Cobalt, Strontium, Zirconium, Polonium, Beryllium</i>
		Phosphate Fertilizer Production <i>Phosphogypsum, Scale, Residuals, Slag</i>
		Coal and Coal Burning Wastes <i>Coal Fly/Bottom Ash</i>
		Petroleum Refining/Production <i>Filter Socks, Pipe Scale, Stratum Water, Refinery Process Sediments, Tank Bottoms</i>
		Drinking Water and Wastewater Treatment Wastes <i>Filter Socks, Pipe Scale, Stratum Water, Tank Bottoms, Bio-solids, Grit and Screenings, septic</i>
		Other Processing Wastes <i>Ceramic, Refractory, Zircon sand, Bauxite to Alumina processing, Titanium, Zirconium, Baghouse Dusts with refractory, "Mag-Thor" metals, Ceramic Insulators, Sand Blasting waste</i>
		Geothermal Wastes <i>Filter Socks, Pipe Scale, Stratum Water, Tank Bottoms</i>
		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, or 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: <input type="text"/> State License No: <input type="text"/>

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

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 _____ Date _____
 Title _____
 Company _____

Certification Signature

Table 1 Carbon T-541

Sample: (Type)			
Sample ID		T-541 Carbon 07202022-02	
LAB ID		A2G0563-02	
	EPA TCLP Level (20 x) in ug/kg dry (Actual TCLP Level in µg/L)	Results	Qualifier
Diesel and/or Oil Hydrocarbons by NWTPH-Dx (ug/kg dry)			
Diesel		3140000	F-13, Q-42
Oil		<681000	
Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx (ug/kg dry)			
Gasoline Range Organics		200000	
Volatile Organic Compounds by EPA 8260B (ug/kg dry)			
Acetone		<2330	ICV-02
Acrylonitrile		<233	
Benzene	10,000 (500 µg/L)	8100	
Bromobenzene		<29.1	
Bromochloromethane		<58.3	
Bromodichloromethane		8570	
Bromoform		646	
Bromomethane		<1170	
2-Butanone (MEK)		<1170	ICV-02
n-Butylbenzene		<58.3	
sec-Butylbenzene		64.1	J
tert-Butylbenzene		<58.3	
Carbon disulfide		<1170	
Carbon tetrachloride	10,000 (500µg/L)	80.4	J
Chlorobenzene	2,000,000 (100,000 µg/L)	58.3	
Chloroethane		<583	
Chloroform	120,000 (6,000 µg/L)	39000	
Chloromethane		<291	
2-Chlorotoluene		<58.3	
4-Chlorotoluene		<58.3	
Dibromochloromethane		2350	
1,2-Dibromo-3-chloropropane		<291	
1,2-Dibromoethane (EDB)		<58.3	
Dibromomethane		<58.3	
1,2-Dichlorobenzene		57.1	J
1,3-Dichlorobenzene		<29.1	
1,4-Dichlorobenzene	150,000 (7,500 µg/L)	<29.1	
Dichlorodifluoromethane		<117	
1,1-Dichloroethane		<29.1	
1,2-Dichloroethane (EDC)	10,000 (500 µg/L)	<29.1	
1,1-Dichloroethene	14,000 (700 µg/L)	<29.1	
cis-1,2-Dichloroethene		347	
trans-1,2-Dichloroethene		<29.1	
1,2-Dichloropropane		<29.1	
1,3-Dichloropropane		<58.3	
2,2-Dichloropropane		<58.3	
1,1-Dichloropropene		<58.3	
cis-1,3-Dichloropropene		<58.3	
trans-1,3-Dichloropropene		<58.3	
Ethylbenzene		3240	
Hexachlorobutadiene	10,000 (500 µg/L)	<117	
2-Hexanone		<1170	
Isopropylbenzene		308	
4-Isopropyltoluene		88.6	J
Methylene chloride		<583	
4-Methyl-2-pentanone (MiBK)		<583	
Methyl tert-butyl ether (MTBE)		212	
Naphthalene		26100	
n-Propylbenzene		80.4	
Styrene		<58.3	
1,1,1,2-Tetrachloroethane		<29.1	
1,1,2,2-Tetrachloroethane		<117	
Tetrachloroethene (PCE)	14,000 (700 µg/L)	<29.1	
Toluene		351	
1,2,3-Trichlorobenzene		<291	
1,2,4-Trichlorobenzene		<291	
1,1,1-Trichloroethane		<29.1	
1,1,2-Trichloroethane		<29.1	

Table 1 Carbon T-541

Trichloroethene (TCE)	10,000 (500 µg/L)	<29.1	
Trichlorofluoromethane		<117	
1,2,3-Trichloropropane		<58.3	
1,2,4-Trimethylbenzene		684	
1,3,5-Trimethylbenzene		267	
Vinyl chloride	4,000 (200 µg/L)	<29.1	
m,p-Xylene		1170	
o-Xylene		1160	
TCLP Volatile Organic Compounds by EPA 1311/8260D (mg/L)			
	(Actual TCLP Level in ug/L)		
Acetone		<0.500	
Benzene	10,000 (500 µg/L)	<0.00625	
Bromobenzene		<0.0125	
Bromochloromethane		<0.0250	
Bromodichloromethane		<0.0250	
Bromoform		<0.0250	
Bromomethane		<0.250	
2-Butanone (MEK)		<0.250	
n-Butylbenzene		<0.0250	
sec-Butylbenzene		<0.0250	
tert-Butylbenzene		<0.0250	
Carbon tetrachloride	10,000 (500µg/L)	<0.0250	
Chlorobenzene	2,000,000 (100,000 µg/L)	<0.0125	
Chloroethane		<0.250	
Chloroform	120,000 (6,000 µg/L)	0.103	
Chloromethane		<0.125	
2-Chlorotoluene		<0.0250	
4-Chlorotoluene		<0.0250	
1,2-Dibromo-3-chloropropane		<0.125	
Dibromochloromethane		<0.0250	
1,2-Dibromoethane (EDB)		<0.0125	
Dibromomethane		<0.0250	
1,2-Dichlorobenzene		<0.0125	
1,3-Dichlorobenzene		<0.0125	
1,4-Dichlorobenzene	150,000 (7,500 µg/L)	<0.0125	
Dichlorodifluoromethane		<0.0250	
1,1-Dichloroethane		<0.0125	
1,1-Dichloroethene	10,000 (500 µg/L)	<0.0125	
1,2-Dichloroethane (EDC)	14,000 (700 µg/L)	<0.0125	
cis-1,2-Dichloroethene		<0.0250	
trans-1,2-Dichloroethene		<0.0125	
1,2-Dichloropropane		<0.0125	
1,3-Dichloropropane		<0.0250	
2,2-Dichloropropane		<0.0250	
1,1-Dichloropropene		<0.0250	
cis-1,3-Dichloropropene		<0.0250	
trans-1,3-Dichloropropene		<0.0250	
Ethylbenzene		<0.0125	
Hexachlorobutadiene	10,000 (500 µg/L)	<0.125	
2-Hexanone		<0.250	
Isopropylbenzene		<0.0250	
4-Isopropyltoluene		<0.0250	
4-Methyl-2-pentanone (MiBK)		<0.250	
Methyl tert-butyl ether (MTBE)		<0.0250	
Methylene chloride		<0.250	
Naphthalene		<1.25	R-04
n-Propylbenzene		<0.0125	
Styrene		<0.0250	
1,1,1,2-Tetrachloroethane		<0.0125	
1,1,2,2-Tetrachloroethane		<0.0125	
Tetrachloroethene (PCE)	14,000 (700 µg/L)	<0.0125	
Toluene		<0.0250	
1,2,3-Trichlorobenzene		<0.0250	
1,2,4-Trichlorobenzene		<0.0500	
1,1,1-Trichloroethane		<0.0125	
1,1,2-Trichloroethane		<0.0125	
Trichloroethene (TCE)	10,000 (500 µg/L)	<0.0125	
Trichlorofluoromethane		<0.0500	
1,2,3-Trichloropropane		<0.0250	
1,2,4-Trimethylbenzene		<0.0250	
1,3,5-Trimethylbenzene		<0.0250	

Table 1 Carbon T-541

Vinyl chloride	4,000 (200 µg/L)	<0.0125	
m,p-Xylene		<0.0250	
o-Xylene		<0.0125	
Cyanide - Total (Non-Aqueous Water Leach) by EPA 9013M/9014 (ug/kg dry)			
Total Cyanide		10700	Q-42
Semivolatile Organic Compounds by EPA 8270D (ug/kg dry)			
	EPA TCLP Level (20 x) in ug/kg dry (Actual TCLP Level in µg/L)		
Acenaphthene		<3820	R-02
Acenaphthylene		<886	
Anthracene		<886	
Benz(a)anthracene		<441	
Benzo(a)pyrene		<664	
Benzo(b)fluoranthene		<664	
Benzo(k)fluoranthene		<664	
Benzo(g,h,i)perylene		<441	
Chrysene		<1990	R-02
Dibenz(a,h)anthracene		<441	
Fluoranthene		33200	
Fluorene		25200	
Indeno(1,2,3-cd)pyrene		<441	
1-Methlnaphthalene		98800	
2-Methlnaphthalene		102000	
Naphthalene		347000	
Phenanthrene		359000	
Pyrene		729	J
Carbazole		74600	
Dibenzofuran		71800	
2-Chlorophenol		<2210	
4-Chloro-3-methylphenol		<4410	
2,4-Dichlorophenol		<2210	
2,4-Dimethylphenol		<2210	
2,4-Dinitrophenol		<22100	
4,6-Dinitro-2-methylphenol	4,000,000 (200,000µg/L)	<11100	
2-Methylphenol	4,000,000 (200,000µg/L)	<1110	
3+4-Methylphenol(s)		<1110	
2-Nitrophenol		<4410	
4-Nitrophenol		<18100	R-02
Pentachlorophenol(PCP)	2,000,000 (100,000µg/L)	<4410	
Phenol		<886	
2,3,4,6-Tetrachlorophenol		<2210	
2,3,5,6-Tetrachlorophenol		<2210	
2,4,5-Trichlorophenol	8,000,000 (400,000µg/L)	<2210	
Nitrobenzene		<4410	
2,4,6-Trichlorophenol	40,000 (2,000µg/L)	<2210	
Bis(2-ethylhexyl)phthalate		<6640	
Butyl benzyl phthalate		<4410	
Diethylphthalate		<4410	
Dimethylphthalate		<4410	
Di-n-butylphthalate		<4410	
Di-n-octyl phthalate		<4410	
N-Nitrosodimethylamine		<1110	
N-Nitroso-di-n-propylamine		<1110	
N-Nitrosodiphenylamine		<1110	
Bis(2-Chloroethoxy) methane		<1110	
Bis(2-Chloroethyl) ether		<1110	
Bis(2-Chloroisopropyl) ether		<1110	
2,2'- Oxybis (1-Chloropropane)		<1110	
Hexachlorobenzene	2,600 (130µg/L)	<441	
Hexachlorobutadiene	10,000 (500µg/L)	<1110	
Hexachlorocyclopentadiene		<2210	
Hexachloroethane	60,000 (3,000µg/L)	<1110	
2-Chloronaphthalene		5650	M-05
1,2,4-Trichlorobenzene		<1110	
4-Bromophenyl phenyl ether		<1110	
4-Chlorophenyl phenyl ether		<1110	
Aniline		<2210	
4-Chloroaniline		<1110	
2-Nitroaniline		<8860	
3-Nitroaniline		<8860	
4-Nitroaniline		<8860	

Table 1 Carbon T-541

Nitrobenzene	40,000 (2,000µg/L)		
2,4-Dinitrotoluene	2,600 (130µg/L)	<4410	
2,6-Dinitrotoluene		<4410	
Benzoic acid		<55400	
Benzyl alcohol		<2210	
Isophorone		<5640	R-02
Azobenzene (1,2-DPH)		<3820	R-02
Bis(2-Ethylhexyl)adipate		<11100	
3,3'-Dichlorobenzidine		<8860	
1,2-Dinitrobenzene		<11100	
1,3-Dinitrobenzene		<11100	
1,4-Dinitrobenzene	100,000 (5,000µg/L)	<11100	
Pyridine		<2210	
1,2-Dichlorobenzene		<1110	
1,3-Dichlorobenzene		<1110	
1,4-Dichlorobenzene	150,000 (7,500µg/L)	<1110	
TCLP Semivolatile Organic Compounds by EPA 1311/8270E (ug/kg dry)			
	EPA TCLP Level (20 x) in ug/kg dry (Actual TCLP Level in µg/L)		
Acenaphthene		<1.00	
Acenaphthylene		<1.00	
Anthracene		<1.00	
Benz(a)anthracene		<1.00	
Benzo(a)pyrene		<1.50	
Benzo(b)fluoranthene		<1.50	
Benzo(k)fluoranthene		<1.50	
Benzo(g,h,i)perylene		<1.00	
Chrysene		<1.00	
Dibenz(a,h)anthracene		<1.00	
Fluoranthene		<1.00	
Fluorene		1.42	J
Indeno(1,2,3-cd)pyrene		<1.00	
1-Methlnaphthalene		<2.00	
2-Methlnaphthalene		<2.00	
Naphthalene		8.91	
Phenanthrene		3.42	B
Pyrene		<1.00	
Carbazole		2.51	J
Dibenzofuran		1.05	J
2-Chlorophenol		<5.00	
4-Chloro-3-methyphenol		<10.0	
2,4-Dichlorophenol		<5.00	
2,4-Dimethyphenol		<5.00	
2,4-Dinitrophenol		<25.0	
4,6-Dinitro-2-methylphenol	4,000,000 (200,000µg/L)	<25.0	
2-Methylphenol	4,000,000 (200,000µg/L)	<2.50	
3+4-Methyphenol(s)		<2.50	
2-Niptrophenol		<10.0	
4-Nitrophenol		<10.0	
Pentachlorophenol(PCP)	2,000,000 (100,000µg/L)	<10.0	
Phenol		<20.0	
2,3,4,6-Tetrachlorophenol		<5.00	
2,3,5,6-Tetrachlorophenol		<5.00	
2,4,5-Trichlorophenol	8,000,000 (400,000µg/L)	<5.00	
Nitrobenzene		<10.0	
2,4,6-Trichlorophenol	40,000 (2,000µg/L)	<5.00	
Bis(2-ethylhexyl)phthalate		<20.0	
Butyl benzyl phtalate		<20.0	
Diethylphthalate		<20.0	
Dimethylphthalate		<20.0	
Di-n-butylphthalate		<20.0	
Di-n-octyl phthalate		<20.0	
N-Nitrosodimethylamine		<2.50	
N-Nitroso-di-n-propylamine		<2.50	
N-Nitrosodiphenylamine		<2.50	
Bis(2-Chloroethoxy) methane		<2.50	
Bis(2-Chloroethyl) ether		<2.50	
Bis(2-Chloroisopropyl) ether		<2.50	
2,2'- Oxybis (1-Chloropropane)		<2.50	
Hexachlorobenzene	2,600 (130µg/L)	<1.00	
Hexachlorobutadiene	10,000 (500µg/L)	<2.50	

Table 1 Carbon T-541

Hexachlorocyclopentadiene		<5.00	
Hexachloroethane	60,000 (3,000µg/L)	<2.50	
2-Chloronaphthalene		<1.00	
1,2,4-Trichlorobenzene		<0.500	
4-Bromophenyl phenyl ether		<2.50	
4-Chlorophenyl phenyl ether		<2.50	
Aniline		<5.00	Q-30
4-Chloroaniline		<2.50	
2-Nitroaniline		<20.0	
3-Nitroaniline		<20.0	
4-Nitroaniline		<20.0	
Nitrobenzene	40,000 (2,000µg/L)		
2,4-Dinitrotoluene	2,600 (130µg/L)	<10.0	
2,6-Dinitrotoluene		<10.0	
Benzoic acid		<125	
Benzyl alcohol		<10.0	
Isophorone		<2.50	
Azobenzene (1,2-DPH)		<2.50	
Bis(2-Ethylhexyl)adipate		<25.0	
3,3'-Dichlorobenzidine			
1,2-Dinitrobenzene		<25.0	
1,3-Dinitrobenzene		<25.0	
1,4-Dinitrobenzene	100,000 (5,000µg/L)	<25.0	
Pyridine		<10.0	
1,2-Dichlorobenzene		<2.50	
1,3-Dichlorobenzene		<2.50	
1,4-Dichlorobenzene	150,000 (7,500µg/L)	<2.50	
Total Metals by EPA 6020 (ICPMS) (ug/kg dry)			
Arsenic	100,000 (5,000µg/L)	<931	
Barium	2,000,000 (100,000µg/L)	25900	
Cadmium	20,000 (1,000µg/L)	<186	
Chromium	100,000 (5,000µg/L)	1530	J
Lead	100,000 (5,000µg/L)	765	
Mercury	4,000 (200µg/L)	<74.5	
Selenium	20,000 (1,000µg/L)	<931	
Silver	100,000 (5,000µg/L)	<186	
TCLP Metals by EPA 6020 (ICPMS) (ug/L)			
Arsenic	100,000 (5,000µg/L)	<50.0	
Barium	2,000,000 (100,000µg/L)	<2500	
Cadmium	20,000 (1,000µg/L)	<50.0	
Chromium	100,000 (5,000µg/L)	<50.0	
Lead	100,000 (5,000µg/L)	<25.0	
Mercury	4,000 (200µg/L)	<3.75	
Selenium	20,000 (1,000µg/L)	<50.0	
Silver	100,000 (5,000µg/L)	<50.0	
Percent Dry Weight by EPA 8000C			
%Solids		70.7	
Heat of Combustion BTU/LB (D-240)			
		8320.0	

NOTES:

B = Analyte detected in an associated blank at a level above the MRL.

F-13 = The chromatographic pattern does not resemble the fuel standard used for quantitation

ICV-02 = Estimated Result. Initial Calibration Verification (IVC) 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-30 = Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be 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.

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 dilution necessary for analysis.

Table 2 - Charted Pace Analytical Results

Sample Identification	T-541-12192022				
Pace Analytical Report	L1569422				
PaceSample Identification	L1569422-01				
Radiochemistry by Method DOE Ga-01-R/901.1					
Analyte (*1)	WM Limits (*2)	Results	Qualifier	Uncertainty (+/-)	MDA
	pCi/g	pCi/g			pCi/g
Potassium-40		0.645	J	0.441	0.823
Thallium-208		0.00413	U	0.0332	0.0686
Lead-210	10	0.548	J	0.474	0.779
Lead-212		0.0985		0.0482	0.0832
Lead-214		0.118	J	0.0661	0.133
Bismuth-212		0.222	U	0.393	0.779
Bismuth-214 (Ra-226)	5	0.126		0.0742	0.125
Radium-226 (186 KeV)	5	0.366	J	0.237	0.390
Actinium-228 (Ra-228)	20	0.0413	U	0.0828	0.203
Thorium-234 (U-238)	10	0.314	J	0.209	0.491
Protactinium-234m		-2.51	U	4.06	28.0
Uranium-235	10	0.0344	J	0.0237	0.0377

NOTES:

J= The identification of the analyte is acceptable; the report value is an estimate

U= Below Detectable Limits

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.

RECEIVED SEP 8 2004

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SEP 09 2004

VOLUNTARY AGREEMENT FOR
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Schwabe, Williamson & Wyatt

DEQ NO. WMCVC-NWR-94-13

BETWEEN: Northwest Natural Gas Company
AND: Oregon Department of Environmental Quality (DEQ)
EFFECTIVE DATE: 8/8/94

Pursuant to ORS 465.260(2) and (4), the Director, Oregon Department of Environmental Quality (DEQ), enters this Agreement with the Northwest Natural Gas Company (NWNNG). This Agreement contains the following provisions:

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I. RECITALS

- A. NWNNG is a "person" under ORS 465.200(13).
- B. The NWNNG site is a "facility" under ORS 465.200(6). The NWNNG site occupies approximately 47 acres at 7540 N.W. St. Helens Road, Portland, Oregon and is the location of a former oil gasification plant. A vicinity map and a site map are included in Attachment A to this Agreement.

- C. From 1913 until 1956, NWNG, then known as the Portland Gas and Coke Company (GASCO) operated an oil gasification plant on the present property owned by NWNG. An adjoining approximately 73 acre portion of the property was sold by NWNG in 1962 and is currently the site of the Wacker Siltronics Corporation manufacturing facility. The former GASCO facility produced oil gas and lampblack briquettes. Other materials produced by the plant for sale included light oils, tar and electrode grade coke. Wastes generated at the facility included tar, wastewater containing dissolved and suspended hydrocarbons, and spent oxide. Many of these wastes were disposed of in on-site tar ponds. In 1971 the largest remaining tar pond was estimated to contain 6 million gallons of tar and tar/water emulsion. This tar pond was subsequently filled in with spent oxide material and rubble and spread out over the southeastern portion of the site. NWNG currently operates a liquified natural gas (LNG) plant at the site and leases portions of the former GASCO facility to Pacific Northern Oil Company (Pacific Northern) and Koppers Industries, Incorporated (Koppers).
- D. Investigations conducted to date indicate that petroleum hydrocarbons, volatile aromatic hydrocarbons and polycyclic aromatic hydrocarbons (PAHs) are present in subsurface soils and groundwater on the NWNG property. A total PAH concentration of 926 mg/l was detected in a 1984 sample collected from a monitoring well installed on the property leased from NWNG by Koppers. Ethylbenzene and xylene were detected in the same monitoring well at 380 mg/l and 2600 mg/l respectively. Analysis of a 1984 sediment sample collected from the NWNG LNG containment basin detected 300 mg/kg of total PAHs. Analysis of a 1993 water sample collected from the NWNG LNG containment basin detected 8.3 mg/l of benzene and 1.4 mg/l of total PAHs.

The substances described in this section are "hazardous substances" under ORS 465.200(9). The presence of hazardous substances in soil and groundwater at the facility constitutes a "release" or "threat of release" into the environment under ORS 465.200(14).

- E. NWNG requested DEQ oversight of its investigation and cleanup activities and executed a voluntary Letter Agreement with DEQ on January 3, 1994. NWNG provided a \$5,000 advance deposit to cover initial DEQ oversight costs.
- F. DEQ considers the activities required by this Agreement to be necessary to protect public health, safety, and welfare and the environment.

II. AGREEMENT

The parties agree as follows:

A. Work

1. Remedial Investigation and Feasibility Study.

NWNG shall perform a remedial investigation and feasibility study (RI/FS) satisfying OAR 340-122-070 and OAR 340-122-080, the terms and schedule of a DEQ-approved work plan developed by NWNG, and applicable elements of the general Scope of Work contained in Attachment B to this Agreement. NWNG may specify, in the proposed work plan, elements of the Scope of Work that NWNG considers inapplicable or unnecessary to the RI/FS for the facility. NWNG may propose to perform the work in phases or operable units.

2. Review

DEQ shall provide review, approvals/disapprovals, and oversight in accordance with the schedule set forth in the Scope of Work, or as soon as thereafter practicable in the event staff resources or workload prevent compliance with the schedule. Any DEQ delay shall correspondingly extend NWNG's schedule for a related deliverable or activity.

3. Additional Measures

NWNG may elect at any time during the term of this Agreement to undertake measures other than those required under this Agreement necessary to address a release or threatened release of hazardous substances at the facility which is the subject of this Agreement. Such other measures shall be subject to prior approval by DEQ, which approval shall be granted if DEQ determines that the additional measures will not compromise the validity of the RI/FS and will not threaten human health or the environment.

B. Public Participation

Upon execution of this Agreement, DEQ will provide public notice of this Agreement through issuance of a press release, at a minimum to a local newspaper of general circulation, describing the measures required under this Agreement. Copies of the Agreement will be made available to the public. DEQ shall provide NWNG a draft of such press release and consider any comments by NWNG on the draft press release, before publication.

C. DEQ Access and Oversight

1. DEQ shall use its best efforts, but not be obligated, to provide reasonable advance notice before entering the

facility. NWNG shall allow DEQ to enter and move freely about all portions of the facility at all reasonable times for the purposes, among other things, of inspecting records relating to work under this Agreement; observing NWNG's progress in implementing this Agreement; conducting such tests and taking such samples as DEQ deems necessary; verifying data submitted to DEQ by NWNG; and, using camera, sound recording, or other recording equipment for purposes relating to work under this Agreement.

2. NWNG shall permit DEQ to inspect and copy all records, files, photographs, documents, and data relating to work under this Agreement, except that NWNG shall not be required to permit DEQ inspection or copying of items subject to attorney-client or attorney work product privilege. DEQ shall use its best efforts, but not be obligated, to provide reasonable advance notice before records inspection and copying requests.
3. Attorney-client and work product privileges may not be asserted with respect to any records required under Section II.G.1 and II.G.2 of this Agreement. NWNG shall identify to DEQ, by addressor-addressee, date, general subject matter, and distribution, any document, record, or item withheld from DEQ on the basis of attorney-client or attorney work product privilege. DEQ reserves its rights under law to obtain documents DEQ asserts are improperly withheld by NWNG.

D. Project Managers

1. To the extent possible, all reports, notices, and other communications required under or relating to this Agreement shall be directed to:

DEQ Project Manager:

Eric Blischke
Department of Environmental Quality
Northwest Region
2020 S.W. Fourth Avenue, Suite 400
Portland, OR 97201
(503) 229-6802

NWNG Project Manager:

Sandra Hart
Northwest Natural Gas
Company
220 S.W. Second Avenue
Portland, OR 97209
(503) 226-4211

2. NWNG's and DEQ's Project Managers shall be available and have the authority to make day-to-day decisions necessary to complete the scope of work under this Agreement.

E. Notice and Samples

NWNG shall make every reasonable attempt to notify DEQ of any excavation, drilling, or sampling to be conducted under this Agreement at least five (5) working days before such activity but in no event less than twenty-four (24) hours before such activity. Upon DEQ's verbal request, NWNG shall make available to DEQ a

split or duplicate of any sample taken pursuant to this Agreement. DEQ shall make every effort to complete analysis of any split or duplicate sample on a schedule consistent with NWNG's schedule for related activities.

F. Quality Assurance

NWNG shall conduct all sampling, sample transport, and sample analysis in accordance with the Quality Assurance/ Quality Control (QA/QC) provisions approved by DEQ as part of the work plan. All plans prepared and work conducted as part of this Agreement shall be consistent with DEQ's "Quality Assurance Policy No. 760.00". NWNG shall ensure that each laboratory used by NWNG for analysis performs such analyses in accordance with such provisions.

G. Records

1. In addition to those technical reports and documents specifically required under this Agreement, NWNG shall provide to DEQ within ten (10) days of DEQ's written request copies of existing documents relating to work required under this Agreement, including QA/QC memoranda and audits, final plans, final reports, task memoranda, field notes, and laboratory analytical data that have undergone data quality validation.
2. If DEQ determines that review of raw data or preliminary laboratory reports is necessary in order to ensure protection of public health, safety, and welfare and the environment, that information will be provided by NWNG immediately upon DEQ's written request. When such information is requested, DEQ will fully inform NWNG of the reasons making the request necessary.
3. Except for preliminary drafts which have been superseded, NWNG and DEQ shall preserve all records and documents in possession or control of NWNG and DEQ, respectively, or their employees, agents, or contractors that relate in any way to activities under this Agreement for at least five (5) years after termination under Section II.R. of this Agreement; provided that after such 5-year period, NWNG and DEQ shall provide the other sixty (60) days notice before destruction or other disposal of such records and make them available for inspection and copying.
4. NWNG may assert a claim of confidentiality regarding any documents or records submitted to or copied by DEQ pursuant to this Agreement. DEQ shall treat documents and records for which a claim of confidentiality has been made in accordance with ORS 192.410 through 192.505. If NWNG does not make a claim of confidentiality at the time the documents or records are submitted to or copied by DEQ, the documents or records may be made available to the public without notice to NWNG.

H. Progress Reports

During each month of this Agreement, NWNG shall deliver to DEQ on or before the tenth (10th) day of each month two (2) copies of a progress report containing the following items. DEQ anticipates that the progress report will not exceed 2 pages in length.

1. Actions taken under this Agreement during the previous month;
2. Actions scheduled to be taken in the next month;
3. Sampling, test results, and any other data generated by NWNG during the previous month; and
4. A description of any problems experienced during the previous month and the actions taken to resolve them.

I. Other Applicable Laws

All actions under this Agreement shall be performed in accordance with all applicable federal, state, and local laws and regulations; except that, in accordance with ORS 465.315(2), DEQ in its discretion may exempt the on-site portion of any removal or remedial action from applicable requirements of ORS 466.005 to 466.385, ORS Chapter 459, or ORS Chapter 468 (1989).

J. Reimbursement of DEQ Oversight Costs

1. DEQ shall submit to NWNG a monthly statement of costs actually and reasonably incurred after issuance of this Agreement by DEQ or the State of Oregon in connection with any activities related to the facility or oversight of NWNG's implementation of this Agreement. Each invoice will include a summary of costs billed to date. DEQ will also include a direct labor summary showing the person charging the time, the number of hours and the nature of the work performed.
2. DEQ or State of Oregon oversight costs payable by NWNG shall include both direct and indirect costs. Direct costs include site-specific expenses, DEQ contractor costs, and DEQ legal costs. Indirect costs are those general management and support costs of the DEQ and of the Waste Management and Cleanup Division allocable to DEQ oversight of this Agreement and not charged as direct, site-specific costs. Indirect costs are based on a percentage of direct personal services costs. DEQ shall maintain work logs, payroll records, receipts and other documents to document work performed and expenses incurred under this Agreement and, upon request, shall make such records available to Respondent for inspection during the time of this Agreement and for at least one year thereafter.

3. Within thirty (30) days of receipt of the monthly statement, NWNG shall pay the amount of costs billed by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund".

K. Force Majeure

1. If any event occurs that is beyond NWNG's reasonable control and that causes or might cause a delay or deviation in performance of the requirements of this Agreement, NWNG shall promptly notify DEQ's Project Manager verbally of the cause of the delay or deviation and its anticipated duration, the measures that have been or will be taken to prevent or minimize the delay or deviation, and the timetable by which NWNG proposes to carry out such measures. NWNG shall confirm in writing this information within five (5) working days of the verbal notification.
2. If NWNG demonstrates to DEQ's satisfaction that the delay or deviation has been or will be caused by circumstances beyond the control and despite the due diligence of NWNG, DEQ shall extend times for performance of related activities under this Agreement as appropriate. Circumstances or events beyond NWNG's control might include but are not limited to acts of God, unforeseen strikes or work stoppages, fire, explosion, riot, sabotage, or war. Increased cost of performance or changed business or economic circumstances shall be presumed not to be circumstances beyond NWNG's control.

L. Prior Approval

Where DEQ review and approval is required for any plan or activity under this Agreement, NWNG shall not proceed to implement the plan or activity until DEQ approval is received. Any DEQ delay in granting or denying approval shall correspondingly extend the time for completion by NWNG. Prior approval shall not be required in emergencies or in instances where NWNG believes a delay in undertaking a particular action will threaten human health, safety or the environment; provided NWNG shall notify DEQ immediately after the emergency or activity and evaluate its impact on the RI/FS.

M. Dispute Resolution

In the event of disagreement between NWNG and DEQ regarding implementation of this Agreement, NWNG and DEQ shall, in the following order: 1) make a good faith effort to resolve the dispute between Project Managers; 2) if necessary, refer the dispute for resolution by the immediate supervisors of the Project Managers; and 3) if necessary, provide each other their respective positions in writing and refer the dispute for resolution by DEQ's Administrator of the Waste Management and Cleanup Division or the appropriate Region Administrator and NWNG's Chief Executive

Officer. DEQ's final decision after such dialogue shall be enforceable under this Agreement. If NWNG refuses or fails to follow DEQ's final decision, the parties shall be entitled to such rights and remedies, including but not limited to, judicial review and subject to such limitation as provided by applicable law.

N. Enforcement of Agreement and Reservation of Rights

1. In the event of NWNG's failure to comply with this Agreement (including any failure to reimburse oversight costs), DEQ may enforce this Agreement under ORS 465.260(5) or may terminate this Agreement after thirty (30) days written notice to NWNG.
2. In the event of DEQ's failure to provide oversight in accordance with this Agreement, NWNG may terminate this Agreement after thirty (30) days written notice to DEQ. Costs incurred or obligated by DEQ before the effective date of any termination of this Agreement shall be owed under the Agreement notwithstanding such termination.
3. NWNG does not admit any liability or violation of law by virtue of entering this Agreement.
4. Nothing in this Agreement shall prevent NWNG from exercising any rights of contribution or indemnification NWNG might have against any person regarding activities under this Agreement; provided, NWNG waives any right it might have under ORS 465.260(7) to seek reimbursement from the Hazardous Substance Remedial Action Fund for costs incurred under this Agreement.
5. NWNG agrees not to litigate, in any proceeding brought by DEQ to enforce this Agreement, any issue other than NWNG's compliance with this Agreement.

O. Hold Harmless

1. NWNG shall save and hold harmless the State of Oregon and its commissions, agencies, officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of NWNG or its officers, employees, contractors, agents, receivers, trustees, or assigns. The State of Oregon shall notify NWNG of any such claims or actions as soon as practicable after receiving notice that such a claim or action is threatened or has been filed. NWNG shall have the right to participate fully at its own expense in the defense or settlement of such claims, including the right to promptly receive related correspondence with the claimant and the opportunity to participate in related meetings and telephone conferences with the claimant. The state will confer with NWNG regarding litigation and settlement strategy and, to the extent practicable, will allow NWNG to review and comment on

pleadings and settlement documents before they are filed with the court or sent to the claimant. NWNG shall have no obligations under this subsection with respect to any claim settled or otherwise compromised without NWNG's having been provided the opportunity to participate in accordance with this subsection. Subject to Article XI, Section 7 of the Oregon constitution and the Oregon Tort Claims Act, DEQ and the State of Oregon shall be responsible for the acts and omissions of their own employees and agents, except for DEQ acts approving or omissions constituting approval of NWNG's activities under this Agreement. DEQ shall not be considered a party to any contract made by NWNG or its agents in carrying out activities under this Agreement.

2. To the extent permitted by Article XI, Section 7, or the Oregon Constitution and by the Oregon Tort Claims Act, the State of Oregon shall save and hold harmless NWNG and its officers, employees, contractors, and agents, and indemnify the foregoing, from and against any and all claims arising from acts or omissions related to this Agreement of the State of Oregon or its commissions, agencies, officers, employees, contractors, or agents (except for acts approving or omissions constituting approval of any activity of NWNG under this Agreement). NWNG shall not be considered a party to any contract made by DEQ or its agents in carrying out activities under this Agreement.

P. Parties Bound

This Agreement shall be binding on the parties and their respective successors, agents, and assigns. The undersigned representative of each party certifies that he or she is fully authorized to execute and bind such party to this Agreement. No change in ownership or corporate or partnership status relating to the facility shall in any way alter NWNG's obligations under this Agreement, unless otherwise approved in writing by DEQ.

Q. Modification

DEQ and NWNG may modify this Agreement by mutual written agreement.

R. Duration and Termination

Upon completion of work under this Agreement, NWNG shall submit to DEQ a written notice of completion. This Agreement shall be deemed satisfied and terminated upon payment of all oversight cost owed and upon DEQ's issuance of a letter acknowledging satisfactory completion of activities in accordance with this Agreement. Such letter shall be issued within sixty (60) days of receipt of notice of completion and payment of outstanding DEQ oversight costs, or as soon thereafter as is reasonably practicable.

NORTHWEST NATURAL GAS COMPANY

By: [Signature]
(Name)
Sr V.P.
(Title)

Date: _____

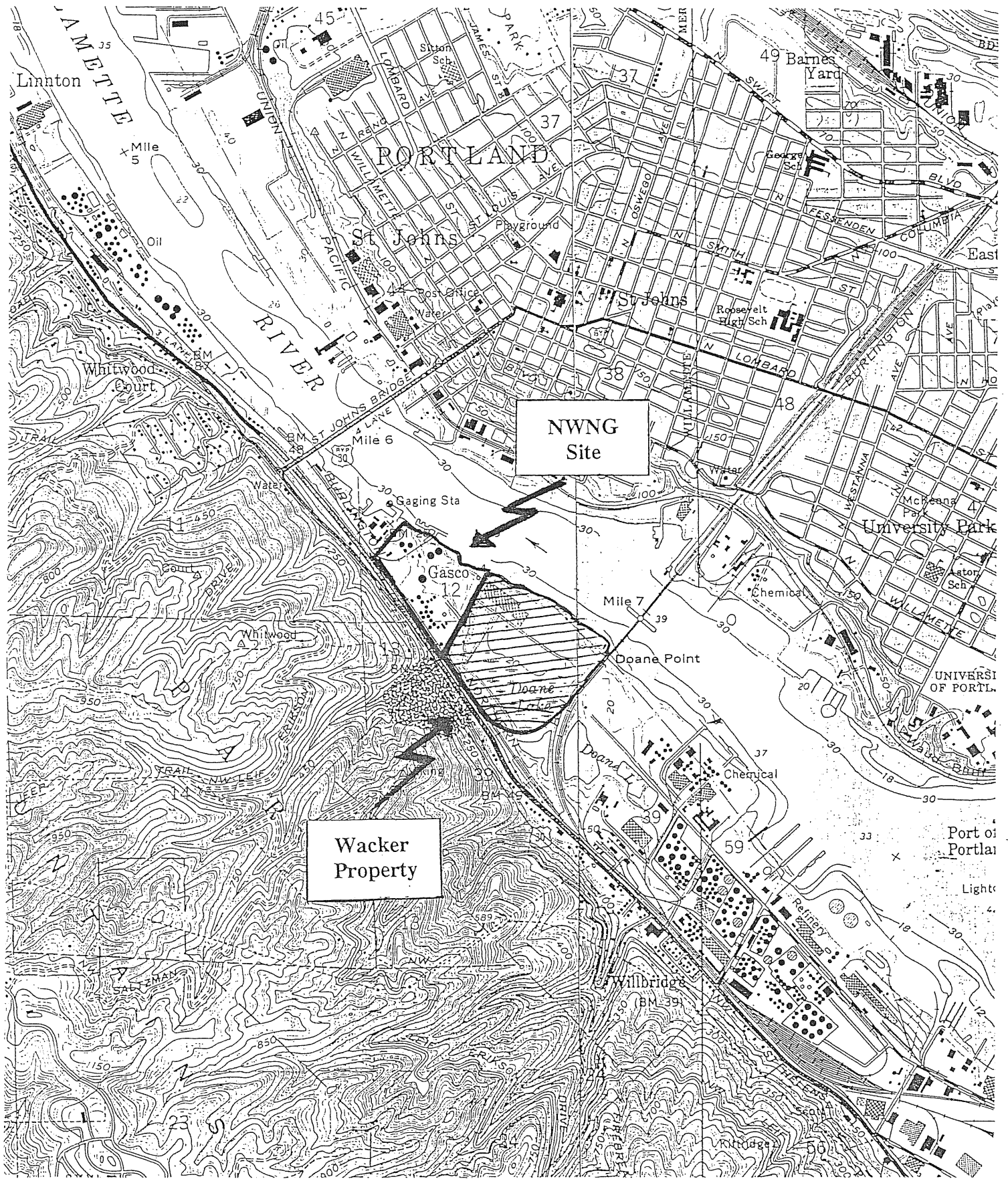
STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

By: [Signature]
(Name)

(Title)

Date: AUG 8 1994

ATTACHMENT A
VICINITY AND SITE MAPS



NWNG Site

Wacker Property

PORTLAND

Linnton

Whitwood Court

Whitwood

Gasco

Doane Point

Willbridge

49 Barnes Yard

University Park

UNIVERSITY OF PORTLAND

Port of Portland

Light

Mile 5

Mile 6

Mile 7

Oil

Water

Gaging Sta

Chemical

Chemical

Refinery

Willbridge

WILLAMETTE RIVER

WILLAMETTE RIVER

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U.S. CORPS OF
ENGINEERS DREDGING
FACILITIES

WILLAMETTE RIVER

NORTHWEST PORTLAND
INDUSTRIAL AREA

NORTHWEST
NATURAL GAS

PROCESS BUILDING

PACIFIC NORTHERN
OIL LEASE AREA

COMPANY

WACKER

GASCO
ADMIN. BLDG.

KOPPER'S
LEASE AREA

OLYMPIC PIPELINE AND UTILITIES EASEMENT

SILTRONIC

BURLINGTON NORTHERN R.R.

NORTH
DOANE
LAKE

N.W. ST. HELENS ROAD

ROCK
QUARRY



0 100 200 300 400 500

NORTH DOANE'S LAKE SITE INVESTIG

STUDY AREA FEATURES

CAMP DRESSER & McKEE INC
2300 15th STREET
SUITE 400
DENVER, COLORADO 80202

CDM

SHEET NO.

2-2

CDM 8433-110

ATTACHMENT B

SCOPE OF WORK

RI/FS Proposal	Provide to DEQ within 30 days of issuance of this agreement.
Meeting to discuss RI/FS Proposal	Between DEQ and NWNG within 15 days of DEQ's receipt of the RI/FS proposal; DEQ and NWNG will meet, if necessary, to review the proposal, concur on the RI/FS approach, and discuss the content and format of deliverables.
DEQ approval of RI/FS Proposal	To NWNG within 10 days of meeting or within 15 days of receipt of RI/FS Proposal if meeting not held.
Draft RI/FS Work Plan	To DEQ within 45 days of receipt of DEQ's approval of the RI/FS Proposal; the Draft RI/FS Work Plan shall include the draft Sampling and Analysis Plan (SAP), Health and Safety Plan (HASP), Quality Assurance Project Plan (QAPP), Endangerment Assessment Work Plan (EAWP) and Feasibility Study Work Plan (FSWP).
DEQ review and comments	To NWNG within 30 days of receipt of the Draft RI/FS Work Plan.
Revised Draft RI/FS Work Plan	To DEQ within 15 days of receipt of DEQ comments; the revised RI/FS Work Plan shall include a revised SAP, HASP, QAPP, EAWP and FSWP as necessary, addressing DEQ comments.
DEQ review and approval	To NWNG within 15 days of receipt of an approvable RI/FS Work Plan.
Implementation of RI	Within 15 days of receipt of DEQ approval; NWNG shall complete work according to the schedule specified in the approved Work Plan.
RI Letter Report	To DEQ within 30 days of completion of RI and receipt of laboratory data. Data shall be validated and any unusable data identified. Shall include a recommendation whether additional phases are required; format to be mutually agreed upon by DEQ and NWNG.
DEQ review and comments	To NWNG within 15 days of receipt.
Subsequent Phase Work Plan Addenda	If it is mutually determined by DEQ and NWNG that additional phases are required, NWNG shall submit a Work Plan Addendum according to a format and schedule agreed upon between the parties prior to starting each phase of the Remedial Investigation, the Endangerment Assessment and the Feasibility Study.
DEQ review and comment	To NWNG within 21 days of receipt of each Work Plan Addendum.

ATTACHMENT B

VOLUNTARY CLEANUP PROGRAM
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOPE OF WORK

I. OBJECTIVES AND SCHEDULE

A. OBJECTIVES

1. Work performed under this Agreement shall complement and incorporate existing site information with the following specific objectives:
 - i. Determine the magnitude, nature and extent of contamination at the Northwest Natural Gas Company (NWNG) site located at 7540 N.W. St. Helens Road. The investigation and cleanup, if required, shall include properties leased to Pacific Northern Oil Company and Koppers Industries, Incorporated. The investigation shall focus on, but not be limited to, petroleum related contaminants such as volatile aromatic compounds and polycyclic aromatic hydrocarbons (PAHs) and inorganic contaminants such as metals, cyanide and hydrogen sulfide.
2. Work performed under this Agreement shall complement and incorporate existing site information with the following overall objectives:
 - i. Identify the hazardous substances which have been released to the environment,
 - ii. Determine the full nature and extent of hazardous substances in affected media on and off-site,
 - iii. Determine the distribution of hazardous substance concentrations,
 - iv. Determine the direction and rate of migration of hazardous substances,
 - v. Identify migration pathways,
 - vi. Identify the environmental impact and risk to human health and/or the environment,
 - vii. Develop the information necessary to select a remedial action.

B. SCHEDULE

The Remedial Investigation/Feasibility Study (RI/FS) described in this Scope of Work may be completed in phases if that approach will better enable NWNG to meet the objectives listed above. All work under this Agreement will proceed in accordance with the schedule below, which assumes a phased approach and is measured in calendar days:

Subsequent Phase RI Letter Reports

Within 30 days of completion of subsequent phases of the RI work, NWNG shall issue additional Phase __ RI Letter Reports which summarize the RI work to date and include a recommendation whether additional phases are required.

DEQ review and comment

To NWNG within 15 days of receipt of the Letter report for each phase of the RI.

Draft RI Report Outline

To DEQ within 30 days of receipt of DEQ's comments on the final phase of the RI work and receipt of all laboratory data; the outline will provide a table of contents and a list of figures and tables.

DEQ Review and Comment

To NWNG within 15 days of receipt.

Draft RI Report

To DEQ within 60 days of receipt of DEQ's comments; the draft RI report will include a draft Endangerment Assessment, summarize all RI work to date and respond to all DEQ comments to-date.

DEQ review and comments

To NWNG within 45 days of receipt of the Draft RI Report.

Final RI Report

To DEQ within 30 days of receipt of DEQ comments.

Review and approval

To NWNG within 30 days of receipt of an approvable RI Report.

Draft FS Report

To DEQ within 60 days of DEQ approval of the Final RI Report

DEQ review and comments

To NWNG within 45 days of receipt of the Draft FS report

Final FS Report

To DEQ within 30 days of receipt of DEQ's comments

DEQ review and approval

To NWNG within 30 days of receipt of an approvable FS Report

II. RI/FS PROPOSAL

The RI/FS Proposal will be a brief discussion of NWNG's proposed approach to the RI/FS, addressing soil, groundwater, surface water, sediments, and air. The proposal will provide the framework for the RI/FS Work Plan and will include the following, assuming a phased approach:

- A. A summary of site-specific issues and a review of the results of previously completed work;
- B. A general description of each proposed phase, including the goals and objectives of each;
- C. Phase I sample locations, depths, proposed analytical methods, and the rationale for each (include map); and

- D. The estimated schedule for implementation of Phase I and subsequent phases if necessary.

III. REMEDIAL INVESTIGATION WORK PLAN

The RI Work Plan shall be based on the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, OSWER Directive 9355.3-01, 1988, and developed in accordance with OAR 340-122-080.

The Work Plan shall include, but not be limited to the following items:

A. PROJECT MANAGEMENT PLAN

1. A proposed schedule for submittals and implementation of all proposed activities.
2. A description of the personnel involved in the project, including their qualifications to do the proposed work.

B. SITE DESCRIPTION

A description of facility operations shall include, but not be limited to, the following:

1. A list of chemical products used on-site currently and historically.
2. The estimated volume of waste disposed of on-site and/or discharged off-site.
3. Time and volume of known spills.
4. A description of past and present waste treatment/disposal practices and areas.
5. The location of past and present raw material and finished product storage areas.
6. The approximate time periods for past operational, treatment, storage, disposal, and/or discharge practices where hazardous substances were involved relative to this investigation.

C. SITE CHARACTERIZATION PLAN

1. Soils

Objective: To identify releases of hazardous substances to soils and to assess the nature and extent of soil contamination.

Scope: The plan shall address all areas which could potentially have received spills, leaks from tanks or piping, been used for waste treatment, storage, or disposal, or have been affected by contaminated surface water or storm water runoff, and all other areas where soil contamination is known or suspected, to the extent necessary for DEQ to select a remedy for the site.

Procedures: The sampling program shall supplement previous soil

sampling at the facility. At a minimum, the plan shall include, but not be limited to, the following:

- a. The proposed location of soil borings including;
 - i. Depth of borings
 - ii. Sampling interval
 - iii. Sample collection methods
 - iv. Analytical parameters
 - v. Method to determine background concentrations for each parameter
 - vi. Rationale for each of the above
- b. Provisions for describing soil boring samples, to include:
 - i. The soil type according to the ASTM D 2487-85, Classification of Soils for Engineering Purposes, and
 - ii. Soil color, structure, texture, mineral composition, moisture, and percent recovery according to ASTM D 2488-84, Description and Identification of Soils (Visual-Manual Procedures)
 - iii. Other relevant characteristics such as visual identification of contamination, odor, and detection of vapors by use of field screening instruments such as HNU, OVA or other equivalent type equipment, and as described by a qualified geologist or geotechnical engineer.

2. Groundwater

Objective: To identify releases of hazardous substances and characterize the lateral and vertical extent of these releases to groundwater

Scope: The plan shall supplement previous investigations at the facility and shall identify releases of hazardous substances to groundwater, and shall also characterize the vertical and lateral extent of groundwater contamination, both on-site and migrating off-site to the extent necessary for DEQ to select a remedy for the site.

Procedures: The sampling program shall supplement previous groundwater sampling at the facility. At a minimum, the plan shall include, but not be limited to, the following:

- a. Well installation plan to include:
 - i. Proposed well locations.

- ii. Proposed well depths.
 - iii. Length of proposed screened intervals.
 - iv. Proposed drilling methods.
 - v. Proposed construction materials and installation methods.
 - vi. Proposed well development and completion methods.
 - vii. Proposed sample collection methods
 - viii. Proposed analytical parameters
 - ix. Proposed method to determine background concentrations of each parameter
 - x. Proposed schedule for sampling all monitoring wells
- b. Hydrologic characterization proposal to include:
- i. Provisions to collect and describe formation materials during drilling. NWNG may consider obtaining continuous cores and using borehole geophysics to supplement coring.
 - ii. A plan to characterize the hydrogeology including a description of:
 - (a) stratigraphy
 - (b) structural geology
 - (c) depositional history
 - (d) regional ground-water flow patterns
 - iii. A plan to describe the hydrogeologic properties of affected hydrogeologic units found at the site, and additional units as necessary to complete the RI/FS, including:
 - (a) hydraulic conductivity
 - (b) porosity
 - (c) lithology
 - (d) hydraulic interconnections between saturated zones
 - iv. Plans to identify the following for each affected aquifer, and additional aquifers as necessary to complete the RI/FS:
 - (a) A description of ground-water flow direction.
 - (b) Identification of vertical and horizontal gradient(s).
 - (c) Interpretation of the flow system including the rate (horizontal and vertical) of groundwater flow, and including seasonal variations.

- v. A plan to describe surface and subsurface features, characteristics, and interrelationships with a potential to influence groundwater flow patterns at the site, including:
 - (a) Identification of pumping groundwater wells, past and present.
 - (b) Influences of rivers, streams, and ditches.
 - (c) Influences of ponds and lakes.
 - (d) Identification of areas of recharge/discharge.

- c. A plan to conduct a well inventory to identify all active and inactive water wells within a one-mile radius of the facility, to include, as necessary:
 - i. Identification of all wells listed with the Oregon Water Resources Department and field confirmation of their location
 - ii. A door-to-door field survey to identify wells for which no logs are on file
 - iii. For all located wells, to the extent practicable, identify:
 - (a) Owner
 - (b) Address
 - (c) Map location
 - (d) Driller
 - (e) Date drilled
 - (f) Depth
 - (g) Casing and screen material, depths and intervals
 - (h) Seal types, depths and intervals
 - (i) Static water levels
 - (j) Approximate land surface elevation
 - (k) Reported water quality and use of well
 - iv. A plan to sample those private wells identified above which, based on the available hydrogeological information, may be at greatest risk of contamination.

3. Surface Water and Sediments

Objective: The Work Plan shall include a plan to identify and evaluate releases of hazardous substances to surface water, including their sediments.

Scope: The plan shall supplement previous investigations at the facility and shall identify all past, existing, and potential impacts to surface waters from the identified release to the extent necessary for DEQ to select a remedy for the site.

Procedures: The sampling program shall supplement previous surface water and sediment sampling at the facility. At a minimum, the plan shall include but not be limited to,

the following:

- a. A delineation of past and present surface drainage patterns at the site.
- b. Proposed sampling points in past and current surface drainages.
- c. Proposed sample collection methodology.
- d. Proposed analytical parameters
- e. Proposed method for determining background values for all parameters.
- f. A rationale for each of the above.

4. Air

Objective: To identify and characterize the release of hazardous substances to the air from unregulated sources at the facility.

Scope: The air assessment plan shall supplement previous investigations at the facility and shall be designed to determine if unregulated air emissions from the site threaten human health or the environment.

Procedures: The sampling plan shall supplement previous air sampling at the facility. At a minimum, the plan shall include, but not be limited to, the following:

- a. Proposed sample locations
- b. Proposed analytical parameters
- c. Proposed sample collection methods
- d. Methodology for determining background values for each parameter
- e. Rationale for each of the above

D. SAMPLING AND ANALYSIS PLAN (SAP)

Objective: To adequately document all sampling and analysis procedures.

Scope: The SAP shall be sufficiently detailed to function as a manual for field staff. In preparation of the SAP, the following guidance documents shall be utilized: Data Quality Objectives for Remedial Response Activities, EPA/540/G-87/004 (OSWER Directive 9355.0-7B), March, 1987; Test Methods for Evaluating Solid Waste, SW-846; and A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001 (OSWER Directive 9355.0-14), December, 1987. The SAP shall address all topics listed in Policy #760.000, Quality Assurance Policy.

Procedures: The Work Plan shall include a SAP for all sampling activities. The SAP shall include, at a minimum:

1. Proposed analytical parameters and rationale.
2. Description of sample collection methods, sampling equipment, and sample handling procedures.
3. Quality assurance and quality control procedures for both field and lab procedures, including a data quality objectives plan.
4. Chain of custody procedures.
5. Analytical methods for each parameter.
6. A methodology for determining background concentrations for all detected contaminants.
7. A methodology for determining statistically significant increases in concentrations for the sampling parameters.

E. HEALTH AND SAFETY PLAN (HASP)

The Health and Safety Plan shall:

1. Describe the known hazards and risks.
2. Identifying levels of protective clothing and equipment to be worn.
3. Describe decontamination procedures.
4. Identify any special requirements or training needs.
5. Provide a contingency plan for emergencies.

An existing Health and Safety Plan can be included by reference, if it adequately includes the above items.

F. ENDANGERMENT ASSESSMENT WORK PLAN

The Endangerment Assessment portion of the Work Plan shall be developed based on the *Risk Assessment Guidance for Superfund - Human Health Evaluation Manual Part A*, United States Environmental Protection Agency, Interim Final, July 1989, (RAGS-HHEM); *Risk Assessment Guidance for Superfund Volume II - Environmental Evaluation Manual* (EEM), United States Environmental Protection Agency, Interim Final, March 1989; *EPA Region 10, Supplemental Risk Assessment Guidance for Superfund*, United States Environmental Protection Agency, August 1991, (SRAGS); and, *Human Health Evaluation Manual, Supplemental Guidance: "Standard Default Exposure Factors"*, United States Environmental Protection Agency, March 1991, (HHE-SG).

1. Human Health Evaluation

Objective: The human health evaluation (HHE) is an analysis of the potential adverse health effects caused by hazardous substance release(s) from a site in the absence of any actions to control or mitigate these releases (i.e., under an assumption of no action). It is used to document the magnitude of the potential risk at a site and to evaluate the cause(s) of that risk. It is also

used to support risk management decisions, and to set remediation goals, if necessary.

Scope: This section shall describe the different tasks involved in preparing the HHE portion of the endangerment assessment. A suggested outline for the human health evaluation is given in Exhibit 9-1 of the RAGS-HHEM. The Work Plan should use this outline as a framework for discussing the methodologies and assumptions to be used in assessing the potential human health risks at the site.

The HHE shall include an estimate of the reasonable maximum exposure (RME) expected to occur under both current and future land use conditions. Guidance on quantifying the RME is given in Chapter 6 of the RAGS-HHEM, SRAGS, and HHE-SG. Quantifying the potential risks associated with the RME shall be the overall goal of the Endangerment Assessment.

The Work Plan should include, but not be limited to the following:

- a. A conceptual site model for the site. This model should be an iterative flow chart based on available site information showing contaminant sources, release mechanisms, transport routes and media, potential receptors, and other important information as appropriate. Iterations of this model shall be carried through the work plan and the endangerment assessment as additional information is generated. Exhibit 4-1 of the RAGS-HHEM presents an example of a conceptual site model.
- b. The exposure parameters for the RME based on both current and future land use scenarios.
- c. A list of all chemicals identified at the site (by media).
- d. The analytical methods used during the site investigation, and the method detection limits that were used for all analytes. In addition, an explanation of how non-detect values and qualified data will be used to estimate exposure point concentrations should be provided.
- e. The rationale for selecting chemicals that will be carried through the HHE.
- f. A discussion of how the fate and transport of site-related chemicals will be evaluated. In addition, a description of the fate and transport model that will be used to estimate the potential infiltration (or contribution) of chemicals in soil to ground water should be included.
- g. A summary table of the chemicals found, and their respective critical toxicity values (reference doses - RfDs), slope factors, and other relevant critical toxicity factors) and citations for these values; data on absorption factors that will be used (e.g., dermal absorption factors) should also be included.

- h. The exposure points and exposure point concentrations to be used in the HHE (and/or how they will be estimated). A description of the model(s) that will be to estimate exposure point concentrations should be provided, if necessary.
- i. An explanation of how the uncertainty analysis will be conducted.

2. Environmental Evaluation

Objective: The environmental evaluation (EE) provides an assessment of the potential threat to ecological populations, communities or ecosystems in the absence of any remedial action. It can provide a basis for determining whether or not remedial action is necessary, and can also be used to support risk management decisions.

Scope: The EE and the HHE are parallel activities used in the evaluation of hazardous substance sites. Much of the data and analyses relating to the nature, fate, and transport of a site's contaminants can be used for both evaluations. Available data (from the HHE or previous investigations) can be utilized, whenever appropriate, and additional data should be generated whenever necessary in order to conduct the ecological assessment.

The EE shall follow the organization presented in Chapter 6 of the EEM, as applicable. The Work Plan shall discuss the different tasks involved in evaluating whether or not the potential ecological impacts of the contaminants at a site warrant remedial action.

The Work Plan should include, but not be limited to the following:

- a. A list of all chemicals identified at the site (by media). The HHE can be referenced, if appropriate.
- b. The rationale for selecting chemicals that will be carried through the EE.
- c. A description of the site and study area. A description of how the EE will account for the ecosystems and populations potentially exposed to chemicals at the site (e.g., a description of the habitat and lists of species either collected or observed), and how they will be evaluated should be included.
- d. A discussion of how the fate and transport of site-related chemicals will be evaluated (through both physical and biological means). The HHE can be referenced, if and/or where appropriate.
- e. The exposure points and exposure point concentrations that will be used in the EE (and/or how they will be estimated). A discussion of actual or potential exposure pathways (and the media involved) should also be included.
- f. A description of how the potential environmental impacts or threats will be characterized. This should include

a description of the ecological endpoints that will be considered measurements of potential impact or probability of potential impact (e.g., Water Quality Criteria).

- g. An explanation of how the uncertainty analysis will be conducted.

G. FEASIBILITY STUDY WORK PLAN

The Feasibility Study portion of the Work Plan shall be developed in accordance with OAR 340-122-080 and Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, OSWER Directive 9355.3-01, 1988. The Feasibility Study shall develop an appropriate range of alternatives which meet the standards listed in OAR 340-122-040, and 340-122-090. The Feasibility Study shall be developed in parallel with Remedial Investigation activities.

Objective: To present an outline of the Feasibility Study process and identify potential remedial alternatives in order to obtain sufficient analytical data during the RI.

Scope: The purpose of the Feasibility Study is to develop and evaluate remedial alternatives for each contaminated medium, and recommend remedial actions to be taken at the facility

Procedures: A Work Plan shall be submitted which will include, but not be limited to the following:

1. A description of any interim remediation activities which have been implemented to date and the relationship of the interim measures to the ultimate corrective action.
2. The remedial action objectives.
3. A discussion of how volumes or areas of media to which response actions may be applied will be identified.
4. A discussion of how screening criteria will be developed to identify and select treatment technologies and process options.
5. A description of how process options will be evaluated.
6. The criteria for and selection of remedial action alternatives.
7. A preliminary screening of remedial technologies and alternatives based on available data.

H. MAPS

The Work Plan shall include maps of the facility which clearly show:

1. Site topography and surface drainage.
2. On-site structures, including tanks, sumps, catch basins, utilities, and pipelines.

3. The location of past spills, disposal areas, and all other waste and product management areas.
4. All pertinent structures adjacent to or nearby the site such as drainage ditches, pipelines, roadways, wells and utility corridors.
5. The location of all existing and proposed surface soil sample points, soil borings, monitoring wells, surface drainage, sediment, surface water, and air sample points.
6. The locations of hydrogeologic cross-sections.
7. The drawing date, orientation, and scale.

IV. REPORTS

- A. **MONTHLY REPORTS:** Monthly reports shall be submitted to DEQ by the 10th day of the month following the reporting period. These reports shall include, but shall not be limited to, the following:
 1. Activities that occurred during the past month.
 2. Description of data results collected during the past month.
 3. Description of any problems or difficulties experienced during the past month.
 4. Description of activities planned for the coming month.
- B. **LETTER REPORTS:** Letter Reports are to be submitted to DEQ within 30 days following the completion of each phase of the remedial investigation. These reports shall include, but shall not be limited to, the following:
 1. Introduction.
 2. Summary of work completed to date.
 3. A presentation of all data collected during the investigation.
 4. Conclusions and recommendations.
- C. **REMEDIAL INVESTIGATION REPORT:** The results of the Remedial Investigation shall be submitted to the DEQ as draft and final report in accordance with the following format:
 1. Executive Summary
 2. Introduction
 - a. Purpose
 - b. Report Organization
 3. Site Background
 - a. Site Description
 - i. Location

- ii. Physical features such as building, roads, utilities, wells, etc., include map
 - iii. Site History
 - b. Facility Operations
 - i. Past production processes, waste identification, location of hazardous materials handling and storage areas
 - ii. Location, time, volume of releases of hazardous substances, include map
 - iii. Past and present waste treatment/disposal practices and areas
 - c. Site Setting
 - i. Regional land use and history
 - ii. Geology
 - iii. Hydrogeology
 - iv. Surface water
 - v. Climatology
 - d. Previous Investigations
 - i. Summary of previous investigations
 - ii. List of reports referenced
- 4. Study Area Investigation
 - a. Soil
 - i. A map and description of the location of soil borings or surface samples including depth of borings, sampling interval, sampling methods, analytical parameters, analytical methods, as well as quality assurance and quality control procedures
 - ii. Description of soil samples; all boring and lithologic logs
 - iii. A map showing the locations of hydrogeologic cross-sections
 - iv. An evaluation and analysis of all data submitted; use tabular and graphic presentation; include discussion of data limitations
 - b. Groundwater
 - i. The well installation plan including well locations (provide map), well depth, length of

screened intervals, drilling methods, construction materials, and installation methods, well development and completion methods

- ii. All boring and lithologic logs; including well construction diagrams with surveyed location, elevation of top of casing, size and depth of well, screened interval
 - iii. A characterization of the hydrogeology including a description of formation materials, the hydrogeology, and hydrogeologic properties of each pertinent aquifer
 - iv. A description of the hydraulic influence from groundwater wells, and surface water bodies
 - v. All areas of recharge/discharge
 - vi. Results of the well inventory to identify all active and inactive water wells within a one-mile radius of the facility
 - vii. Results and data analysis including data limitations; tabular and graphic presentations
- c. Surface Water and Sediments
- i. A map with all relevant surface water bodies within 2 miles of the site
 - ii. A map with past and present surface drainage patterns and the stormwater collection system
 - iii. A map with all sample locations
 - iv. Results and data analysis including data limitations; tabular and graphic presentations
- d. Air
- i. A wind rose and discussion of predominant wind direction
 - ii. A map indicating all sample locations and elevations of sample points
 - iii. Results and data analysis including data limitations; tabular and graphic presentations
5. Summary and Conclusions
- a. A discussion of the nature and extent of contamination; discuss the data limitations
 - b. A discussion of the fate and transport of the contaminants of concern
 - c. Recommendations for further action

As part of the Remedial Investigation Report to DEQ, NWNG may incorporate existing data, reports or information, including data from any investigation activity conducted prior to the effective date of this Agreement, to the extent that such data is consistent with the procedures and quality assurance/quality control criteria approved by DEQ.

- C. **ENDANGERMENT ASSESSMENT REPORT:** The results of the Endangerment Assessment shall include the Human Health Evaluation and the Environmental Evaluation and shall follow the report formats described in the references cited in IV.F. of this Scope of Work. Any data limitations shall be noted in the report. If information is presented in sections of the RI Report, these may be referenced.
- D. **FEASIBILITY STUDY REPORT:** The results of the Feasibility Study shall be submitted to DEQ in a report which, at a minimum, includes a full evaluation of remedial action alternatives, giving a workable number of options which each appear to adequately address site problems and remedial action objectives. These alternatives shall include a no action option, at least one option which will achieve background, and at least one option which will achieve protection of public health, safety, and welfare and the environment. The report shall present the following for each alternative:
1. Description of the remedial action alternative, estimated cost, and rationale for selection.
 2. Performance expectation (i.e., reductions in contaminant concentration levels), reliability, and ability to implement.
 3. Design criteria and rationale.
 4. General operation and maintenance requirements.
 5. Monitoring program to assure both short-term and long-term performance of the alternative.
 6. Financial assurance mechanism to assure performance.
 7. Estimated time for implementation.
 8. Evaluation of the short-term and long-term effectiveness and risks of the alternative.
 9. Recommendation and justification of the remedial action selected from the developed alternatives.
 10. A schedule for implementation of the proposed remedial action.

AUG 08 2006

Schwabe, Williamson & Wyatt

**FIRST ADDENDUM
TO
VOLUNTARY AGREEMENT
FOR
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
DEQ NO. WMCVC-NWR-94-13**

The Oregon Department of Environmental Quality (DEQ) and NW Natural (NWN) agree to amend Voluntary Agreement No. WMCVC-NWR-94-13 dated August 8, 1994 (Agreement), as follows. All other terms of the Agreement remain in effect and apply to this First Addendum.

1. Recital I.B is amended, to read:

“The NWN Site is a “facility” within the meaning of ORS 465.200(13). The NWN Site includes property located at 7540 N.W. St. Helens Road, Portland, Oregon, currently owned by NWN (NWN Property), as well as adjacent property located at 7200 N.W. Front Avenue, Portland, Oregon, currently owned by Siltronic Corporation (Siltronic Property), to the extent the Siltronic Property is the location of or otherwise affected by wastes associated with manufactured gas process (MGP) operations on the NWN Site. This facility is generally referred to in this First Addendum as the “NWN Site”. The general location of the NWN Site is shown on Attachment AA to the First Addendum.”

2. Recital I.C is amended, to add:

“Waste management areas extended onto the northern portion of what is now the Siltronic Property, in areas of low elevation prone to flooding. The tar ponds at the NWN Property were periodically excavated and redeposited onto what is now the Siltronic Property. MGP operations ceased in 1956. NWN’s predecessor sold the Siltronic Property to Victor Rosenfeld and H.A. Anderson in 1962. Thereafter, wastes associated with the MGP operations within the northern Siltronic Property area may have been redistributed across portions of the Siltronic Property when that property was filled between 1966 and 1975. Wastes within tar ponds on the NWN Property were used as fill or redistributed on the NWN Property when the eastern corner of the NWN Property was filled during the 1972/1973 time-frame.”

3. Recital I.D is amended, to add:

“Investigations conducted to date on the Siltronic Property indicate that MGP waste (e.g., tar and oil, lampblack, and spent oxide) are present in subsurface soil and groundwater across the Siltronic Property, with the primary accumulation located on the northern portion of the property in the area of the former Gasco waste effluent ponds and the adjacent lowland. Dense nonaqueous phase liquid (DNAPL) in the vicinity of the former waste effluent ponds has been observed in four groundwater

monitoring wells on the Siltronic Property. Observed thicknesses ranged from two feet in monitoring well WS-10-27 to 12.5 feet in monitoring well WS-15-85. Approximately three to four feet of DNAPL is present in monitoring wells located adjacent to the Willamette River (WS-11-125 and WS-14-125). The location of the referenced monitoring wells is identified on Attachment BB to the First Addendum. Up to 25,000 ug/L benzene, 495,000 ug/L naphthalene, and 4,441 ug/L cyanide have been detected in groundwater at the Siltronic Property. Concentrations in soil have been detected up to: 35,432 mg/kg total PAH; 230 mg/kg dibenzofuran; 218 mg/kg benzene; and 15,000 mg/kg cyanide.

Investigations at the Siltronic Property have further identified elevated concentrations of chlorinated solvents in soil and groundwater. The chlorinated solvent contamination is being addressed by Siltronic Corporation and is outside the scope of this Agreement.”

4. A new Recital I.G is added, reading:

“The NWN Site is located within or adjacent to the Portland Harbor Superfund Site, which site was placed on the federal National Priorities List by the U.S. Environmental Protection Agency (EPA) in December 2000. By memorandum of understanding, EPA is the lead agency for implementing investigation and cleanup of in-water sediments contamination in the Willamette River in the Portland Harbor Superfund Site, and DEQ is the lead agency for implementing investigations and source control at upland facilities. This Agreement as amended is consistent with DEQ’s responsibilities at the Portland Harbor Superfund Site. Evaluation of the portions of the NWN Site located on the Siltronic Property as a potential source of contaminants to the Portland Harbor Superfund Site is also the subject of DEQ Order No. ECVC-NWR-00-27 issued by DEQ to NWN and Wacker Siltronic Corporation on October 4, 2000. DEQ separately issued Order No. VC-NWR-03-16 to Wacker Siltronic Corporation on February 5, 2004. This Agreement as amended does not supersede or affect obligations imposed under DEQ Orders No. ECVC-NWR-00-27 and VC-NWR-03-16.”

5. A new Recital I. H is added, reading:

“By entering into this First Addendum, NWN does not admit liability or responsibility for conditions that may be present at the NWN Site, including hazardous substance releases at or to the Siltronic Property resulting from or exacerbated by the acts or omissions of parties other than NWN.”

6. Section II.A.2 is deleted, and replaced with:

“2. DEQ Review and Approval

(a) Where DEQ review and approval is required for any plan or activity under the Agreement as amended, NWN may not proceed to implement the plan or activity until

DEQ approval is received. Any DEQ delay in granting or denying approval correspondingly extends the time for completion by NWN. For purposes of the Agreement as amended, "day" means calendar day unless otherwise specified.

(b) After review of any plan, report, or other item required to be submitted for DEQ approval under the Agreement as amended, DEQ shall in writing: (1) approve the deliverable in whole or in part; or (2) disapprove the deliverable in whole or in part and notify NWN of deficiencies and/or request modifications to cure the deficiencies.

(c) DEQ approvals, rejections, modifications, or identification of deficiencies shall be given as soon as practicable and state DEQ's reasons with reasonable specificity.

(d) In the event of DEQ disapproval or request for modification, NWN shall correct the deficiencies and resubmit the revised report or other item for approval within 30 days of receipt of the DEQ notice or within such other time as specified in the DEQ notice.

(e) In the event a deficiency identified by DEQ is not addressed by NWN in the revised deliverable, DEQ may modify the deliverable to cure the deficiency.

(f) In the event of approval or modification of the deliverable by DEQ, NWN shall implement the action required by the plan, report, or other item, as so approved or modified, or, as to any DEQ modifications, invoke dispute resolution under Section II.M of the Agreement.”

7. Section II.A.3 is deleted, and replaced with:

“3. Additional Measures

(a) NWN may elect at any time during the term of the Agreement as amended to undertake measures, beyond those required under the Agreement and the SOW, necessary to address the release or threatened release of hazardous substances at the facility. Such additional measures (including but not limited to engineering or institutional controls and other removal or remedial measures) are subject to prior approval by DEQ, which approval shall be granted if DEQ determines that the additional measures will not compromise the validity of the RI/FS, will not threaten human health or the environment, and will comply with applicable laws.

(b) DEQ may determine that, in addition to work specified in the SOW or an approved work plan, additional work is necessary to complete the RI/FS in satisfaction of the SOW and OAR Chapter 340 Division 122, or is necessary to address unanticipated threats to human health or the environment. DEQ may require that such additional work be incorporated into the applicable work plan by modification or be performed in accordance with a DEQ-specified schedule. NWN shall modify the work plan or implement the additional work in accordance with DEQ's directions and schedule, or invoke dispute resolution under Section II.M of the Agreement within 14 days of receipt of DEQ's directions.”

8. A new Section II.A.4 is added, reading:

“4. Source Control Measures

For any unpermitted discharge or release of hazardous substances at the NWN Property to the Willamette River or river sediments identified in the remedial investigation, NWN shall identify and evaluate source control measures in accordance with the SOW and the terms and schedule of a DEQ-approved work plan. DEQ will review and approve source control measures pursuant to OAR 340-122-0070 and in consultation with EPA. Upon DEQ approval of a source control measure, NWN shall develop a source control work plan in accordance with DEQ’s directions and, upon DEQ approval, implement the work plan.”

9. Section II. D is amended to update the current DEQ and NWN project managers:

DEQ Project Manager
[To Be Determined]
Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201

NW Natural Project Manager
Robert J. Wyatt
NW Natural
220 N.W. Second Avenue
Portland, Oregon 97209
(503) 226-4211 Ext. 5425

10. Section II.N.3. is amended, to add:

“Except as expressly provided in this Agreement, NWN reserves all rights, claims, and defenses relating to the NWN Site.”

11. A new Section II.S is added, reading:

“S. Stipulated Penalties

1. Subject to Sections II.K and M, upon any violation by NWN of any requirement of this Agreement as amended, and upon NWN’s receipt from DEQ of written notice of violation, NWN shall pay the stipulated penalties set forth in the following schedule:

(a) Up to \$5,000 for the first week of violation or delay and up to \$ 2,500 per day of violation or delay thereafter, for failure to provide access or records in accordance with Section II.C or G.

(b) Up to \$ 2,500 for the first week of violation or delay and up to \$ 1,000 per day of violation or delay thereafter, for:

(i) failure to submit a final work plan, addressing DEQ's comments on the draft work plan or incorporating DEQ modifications to the work plan, in accordance with the SOW's schedule and terms;

(ii) failure to perform work in accordance with an approved work plan's schedule and terms;

(iii) failure to perform additional work required by DEQ under Section II.A.3; or

(iv) failure to submit a final report, addressing DEQ's comments on the draft report or incorporating DEQ modifications to the report, in accordance with an approved work plan's schedule and terms.

(c) Up to \$500 for the first week of violation or delay and up to \$500 per day of violation or delay thereafter, for:

(i) failure to submit a draft work plan in accordance with the SOW's schedule and terms;

(ii) failure to submit progress reports in accordance with Section II.H; or

(iii) any other violation of the Agreement as amended, SOW, or an approved work plan.

2. Within 30 days of receipt of DEQ's written notice of violation, NWN either shall pay the amount of such stipulated penalty assessed, by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund", or request a contested case regarding the penalty assessment in accordance with Section II.T.3. NWN shall pay simple interest of 9% per annum on the unpaid balance of any stipulated penalties, which interest shall begin to accrue at the end of the 30-day payment period. Any unpaid amounts that are not the subject of a pending contested case, or that have been determined owing after a contested case, are a liquidated debt collectible under ORS 293.250 and other applicable law.

3. In assessing a penalty under this subsection, the Director may consider the factors set forth in OAR 340-12-045. NWN may request a contested case hearing regarding the penalty assessment in accordance with OAR Chapter 340 Division 11. The scope of any such hearing must be consistent with the stipulations set forth in Section 2 of the Agreement, must be limited to the occurrence or non-occurrence of the alleged violation, and may not review the amount of the penalty assessed. Penalties may not accrue pending any contested case regarding the alleged violation. Violations arising out of the same facts or circumstances or based on the same deadline are considered as one violation per day."

12. The Scope of Work (Attachment B to the Agreement) is amended in Section I.A.1.i., by revising the first sentence to read:

“Determine the magnitude, nature, and extent of apparent MGP waste-related contamination at the NW Natural (NWN) Site.”

13. The Scope of Work is amended in Section I.A.2, by adding the following objective:

”viii. Identify hot spots of contamination, if any, at the facility.”

14. The Scope of Work is amended in Section I.B, by adding:

“This schedule is applicable to the RI/FS for the portion of the NWN Site on the Siltronic Property. NWN shall compile and evaluate existing data on MGP-related constituents and provide to DEQ an outline of data needs to complete the remedial investigation for the portion of the NWN Site on the Siltronic Property including an RI proposal and schedule for the RI, within 120 days of execution of the First Addendum.”

15. The Scope of Work is amended in Section I.B, by adding:

“NWN shall provide DEQ with a work plan to identify and evaluate source control measures at the NWN Property. The work described in the work plan shall be consistent with the source control approach described in the December 2005 Portland Harbor Joint Source Control Strategy”.

16. For deliverables submitted after the date of execution of this First Addendum, the Scope of Work is amended in Section III.F, by deleting the entire section and replacing it with:

“F. Endangerment Assessment Work Plan

1. HUMAN HEALTH RISK ASSESSMENT PLAN

Objective: To evaluate the collective demographic, geographic, physical, chemical, and biological factors at the site, for the purposes of characterizing current and reasonably likely future risks to human health as a result of a threatened or actual release(s) of a hazardous substance. To document the magnitude of the potential risk at the site; support risk management decisions; and establish remedial action goals, if necessary.

Scope: The Human Health Risk Assessment shall evaluate risk in the context of current and reasonably likely future land and water uses, and in the absence of any actions to control or mitigate these risks (i.e., under an assumption of no action). The human health risk assessment portion of the work plan shall be developed based on the requirements specified in OAR 340-122-0084; DEQ guidance; and, as appropriate, the Risk Assessment Guidance for Superfund - Human Health Evaluation Manual Part A, United States Environmental Protection Agency (EPA), Interim Final, July 1989, (RAGS-HHEM); Human Health Evaluation Manual, Supplemental Guidance:

"Standard Default Exposure Factors", EPA, March 1991,(HHE-SG); and the Exposure Factors Handbook, EPA, 1996. A suggested outline for the human health evaluation is given in Exhibit 9-1 of the RAGS-HHEM. The work plan shall use this outline as a framework for discussing the methodologies and assumptions to be used in assessing the potential human health risks at the site.

Procedure: The work plan shall describe the different tasks involved in preparing the Human Health Risk Assessment. The Human Health Risk Assessment can be completed using either deterministic or probabilistic methodologies. If probabilistic methodologies are to be used, NWN shall discuss risk protocol with DEQ before the commencement of a probabilistic risk assessment. If deterministic methodologies will be used, then the Human Health Risk Assessment shall include an estimate of both the central tendency exposure (CTE) and the reasonable maximum exposure (RME) expected to occur under both current and future land use conditions. In general, RME exposures shall be based on the 90th percentile exposure case. Additional guidance on quantifying the RME is given in Chapter 6 of the RAGS-HHEM, SRAGS, and HHE-SG. Quantifying the potential risks associated with the RME shall be the overall goal of the risk assessment.

2. ECOLOGICAL RISK ASSESSMENT PLAN

Objective: To evaluate the collective demographic, geographic, physical, chemical, and biological factors at the site, for the purposes of characterizing current and reasonably likely future risks to the environment as a result of a threatened or actual release(s) of a hazardous substance; document the magnitude of the potential risk at a site; support risk management decisions; and establish remedial action goals, if necessary.

Scope: The Ecological Risk Assessment shall evaluate risk in the context of current and reasonably likely future land and water uses in the absence of any actions to control or mitigate these risks (i.e., under an assumption of no action). The Ecological Risk Assessment shall use a tiered approach (with four levels) to produce a focused and cost-effective assessment of risk. The Ecological Risk Assessment Work Plan shall be developed based on the requirements specified in OAR 340-122-0084; DEQ guidance; and, as appropriate, Proposed Guidelines for Ecological Risk Assessment, EPA, September 1996; Framework for Ecological Risk Assessment, EPA, February 1992; and Risk Assessment Guidance for Superfund, Volume II, Environmental Evaluation Manual, Interim Final, EPA, March 1989 (RAGS-EEM).

Procedure: The plan shall describe the different tasks involved in preparing the ecological risk assessment. Ecological risk assessments may include a Level I Scoping plan; a Level II Screening plan; and a Level III Baseline plan or Level IV Field Baseline plan. The Level III and Level IV baseline plans shall include an exposure analysis, an ecological response analysis, a risk characterization and an uncertainty analysis as required by OAR 340-122-0084(3). The ecological risk assessment can be completed using either deterministic or probabilistic methodologies. If probabilistic methodologies are to be used, NWN shall discuss risk protocol with DEQ before the

commencement of a probabilistic risk assessment. If deterministic methodologies are to be used, then the ecological risk assessment shall include an estimate of both the central tendency exposure (CTE) and the reasonable maximum exposure (RME) expected to occur. Estimating the potential risks associated with the RME shall be the overall goal of the risk assessment."

STIPULATED, AGREED, AND APPROVED FOR ISSUANCE:

NW Natural

By: Sandra K. Hart Date: 7-13-06
(Signature)

Sandra K. Hart
(Name)

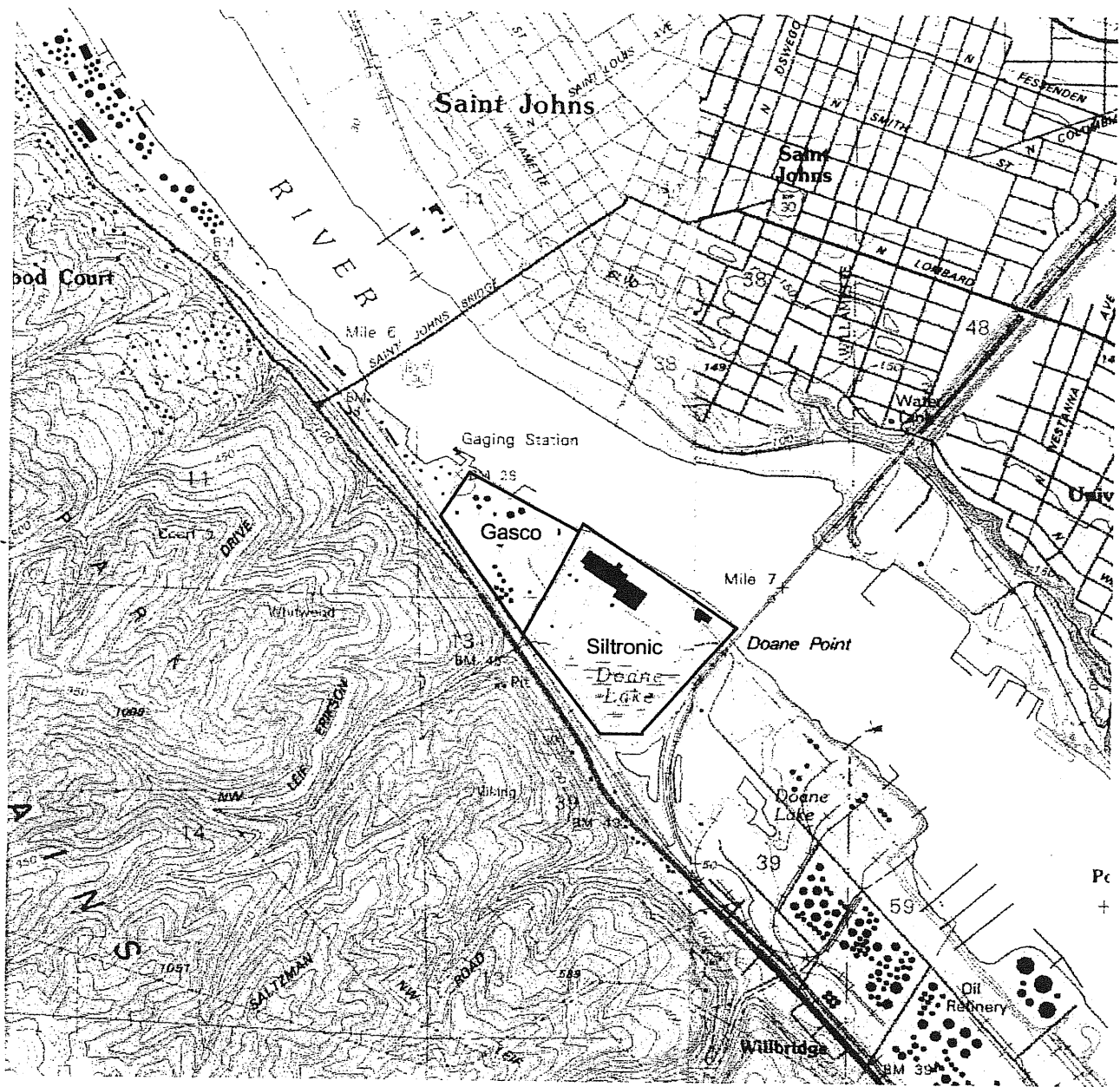
Director Risk Environment & Land
(Title)

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

By: Dick Pedersen Date: 7/19/06
(Signature)

Dick PEDERSEN
(Name)

REGIONAL ADMINISTRATOR
(Title)



Note: Base Map from Linnton (1990) and Portland (1990), Oregon, USGS 7.5-Minute Quadrangles

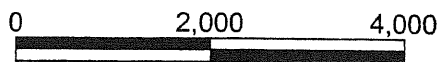
Attachment AA

NW Natural Site Location Map

Site Includes

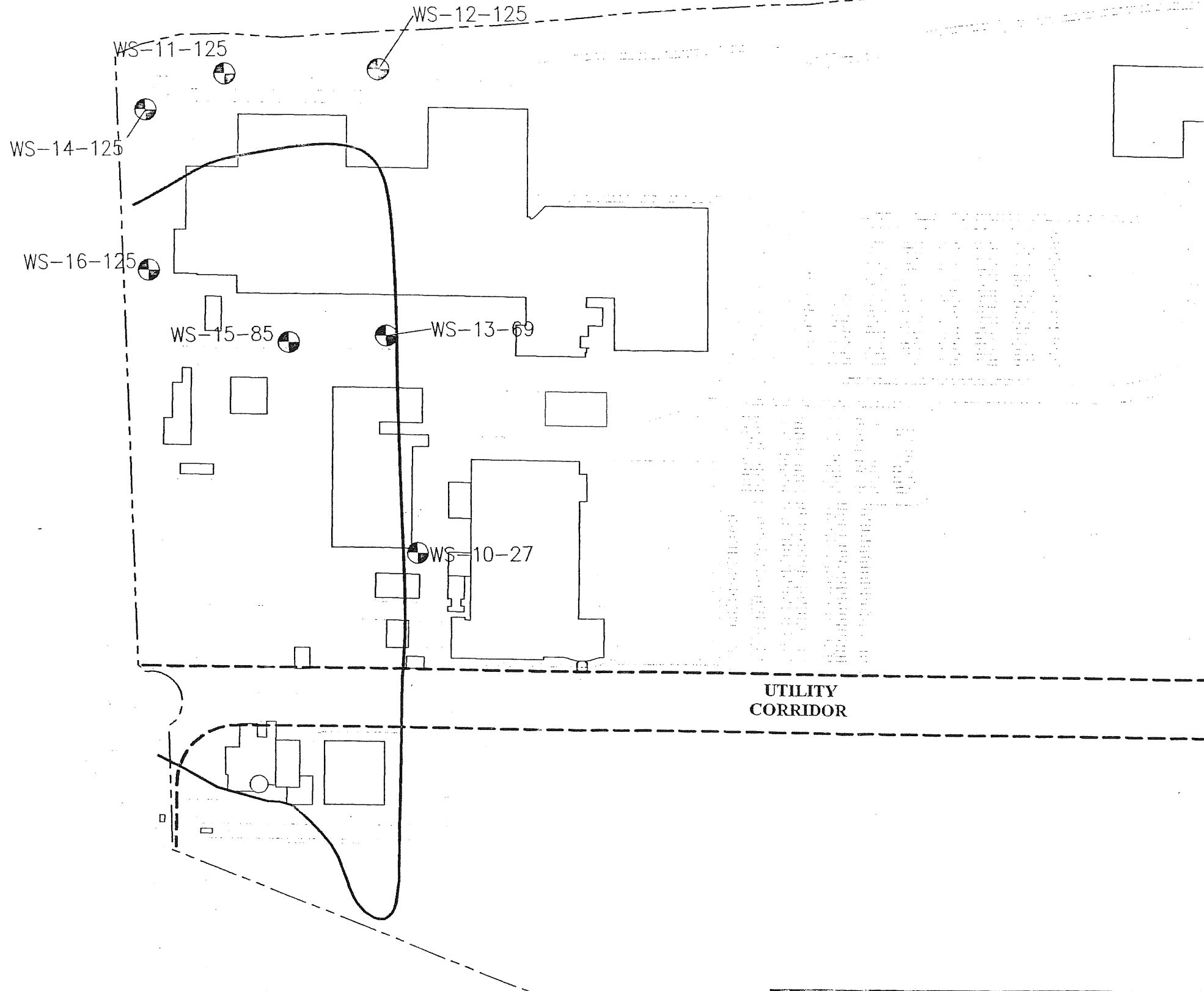
NW Natural Gasco Facility
7540 N.W. St. Helens Road

Siltronic Corporation Property
7200 N.W. Front Avenue
Portland, Oregon

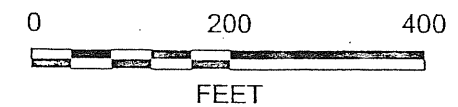
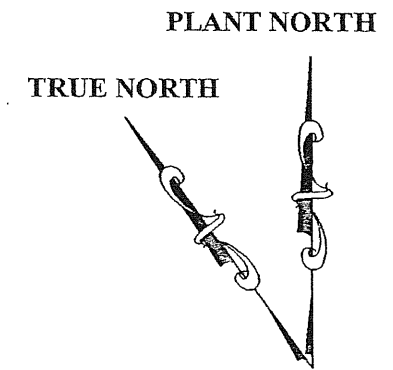


Approximate Scale in Feet
Contour Interval = 10 feet

File: G:\S\128.01_SILTRONIC CORPORATION\08_MGP_DNAPL\FIG 02_FORMER DISPOSAL AND MW.DWG Last edited: OCT. 04, 2005 @ 4:50 p.m. by: djlaus Xref: 01



LEGEND:
 - - - - - PROPERTY BOUNDARY
 ⊕ MONITORING WELL LOCATION
 ~~~~~ FORMER WASTE DISPOSAL EAGOON  
 - - - - - OLYMPIC PIPELINE RIGHT OF WAY



Vancouver: (360) 694-2691  
 Portland: (971) 544-2139

**MAUL  
 FOSTER  
 ALONGI INC.**

DATE 09/29/05  
 DWN. DLG  
 APPR. JGP  
 REVIS.  
 PROJECT NO.  
 8128.01.08

**Attachment BB**  
 Monitoring Well Location Map  
 Siltronic Corporation Property

**SECOND ADDENDUM  
TO  
VOLUNTARY AGREEMENT  
FOR  
REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
DEQ NO. WMCVC-NWR-94-13**

The Oregon Department of Environmental Quality (DEQ) and NW Natural (NWN) agree to amend Voluntary Agreement No. WMCVC-NWR-94-13 dated August 8, 1994, as amended August 8, 2006 (Agreement), as follows. All other terms of the Agreement remain in effect and apply to this Second Addendum.

1. Recital I.B is amended, to read:

“The NWN Site is a “facility” within the meaning of ORS 465.200(13). The NWN Site includes property located at 7540 N.W. St. Helens Road, Portland, Oregon, currently owned by NWN (NWN Property), as well as adjacent property located at 7200 N.W. Front Avenue, Portland, Oregon and currently owned by Siltronic Corporation (Siltronic Property, or Siltronic Site). This facility is generally referred to in this Second Addendum as the “NWN Site”. The general location of the NWN Site is shown on Attachment AA to the First Addendum.”

2. Recital I.C is amended, to read:

“From 1913 until 1956, NWN, then known as the Portland Gas and Coke Company (GASCO) owned and operated an oil manufactured gas plant (MGP) on the NWN Property. GASCO’s property included approximately 40-acres of adjoining property known as the “Allen Tract” that is currently the northern portion of the Siltronic Property. The GASCO MGP produced oil gas. Byproducts of the GASCO MGP operation included lampblack briquettes, light oils, tars and electrode grade coke. Wastes generated at the facility included tar, lampblack, wastewater containing dissolved and suspended hydrocarbons, and spent oxide. These wastes were disposed of on the NWN Property in piles and “tar ponds.”

Spent oxide piles and tar ponds also extended onto the northern portion of the Allen Tract in areas of low elevation prone to flooding. The tar ponds at the NWN Property were periodically excavated and redeposited onto portions of the Allen Tract. GASCO MGP operations ceased in 1956. GASCO sold the Allen Tract to Mr. Victor Rosenfeld, Mr. H.A. Anderson, and Mr. Gilbert Schnitzer in 1962. Thereafter, wastes associated with the GASCO MGP operations within the Allen Tract were redistributed across portions of the current Siltronic Site when that property was filled between 1966 and 1975. Wastes within tar ponds on the NWN Property were used as fill or redistributed on the NWN Property when the southeastern corner of the NWN Property was filled during the 1972/1973 time-frame.



NWN currently operates a liquefied natural gas (LNG) plant on the NWN Property and currently leases portions of the former GASCO MGP to Pacific Terminal Services, Inc. and Koppers Industries Incorporated (Koppers).”

3. The second paragraph of Recital I.D, as shown in Addendum #1 to the agreement, is replaced by:

“In addition to contamination associated with historic MGP operations, investigations completed by Siltronic within the former Allen Tract have identified soil and groundwater contamination due to releases of chlorinated solvents from their former operations. Trichloroethene (TCE) was used by Siltronic for manufacturing purposes and that use ceased in 1988. Historic releases of TCE occurred in the northern Siltronic Site from a former solvent underground storage tank system and from an unknown source beneath the Central Facilities Building. Site investigations confirm that releases of TCE and its breakdown products and TCE DNAPL are commingled with MGP contamination and DNAPL in the Allen Tract. Furthermore, investigations by Rhone Poulenc of the Siltronic Site have detected hazardous substances (e.g., pesticides) in groundwater.”

4. Recital I.G is amended to read:

“The NWN Site is located within or adjacent to the Portland Harbor Superfund Site, which site was placed on the federal National Priorities List by the U.S. Environmental Protection Agency (EPA) in December 2000. By memorandum of understanding, EPA is the lead agency for implementing investigation and cleanup of in-water sediments contamination in the Willamette River in the Portland Harbor Superfund Site, and DEQ is the lead agency for implementing investigations and source control at upland facilities. This Agreement as amended is consistent with DEQ’s responsibilities at the Portland Harbor Superfund Site. Evaluation of the portions of the NWN Site located on the Siltronic Property as a potential source of contaminants to the Portland Harbor Superfund Site is also the subject of DEQ Order No. ECVC-NWR-00-27 (i.e., the “Joint Order) issued by DEQ to NWN and Wacker Siltronic Corporation on October 4, 2000. In situations where potential conflicts arise between this Agreement and the Joint Order, this Agreement takes precedence.

5. A new Recital I.I is added, reading:

“On November 20, 2015, DEQ determined that, in order to expedite remedial action planning of the most contaminated portions of the Siltronic Site, NWN will be responsible for completing integrated RI/FS work for the area of the Siltronic Site historically used by GASCO for MGP operations.

The Former Gasco MGP Operable Unit (i.e., “Gasco OU”) within the NWN Site is defined to include the NWN Property, the approximately 40-acre portion of the current Siltronic Property formerly known as the Allen Tract, and the adjacent area of Doane Creek extending west to St. Helens Road from the southern boundary of the former Allen Tract. The location of the Gasco OU is shown on Attachment CC to

this Second Addendum. The Gasco OU does not include groundwater contamination not originating on the NWN Property or the Siltronic Property or the segment of Doane Creek extending beyond the southern Allen Tract boundary..

This Agreement defines the work NWN will perform within the Gasco OU. Except as expressly provided herein, nothing in this Agreement requires NWN to perform work beyond the boundaries of the Gasco OU. As used in this agreement, the “site” refers to the Gasco OU.”

6. Section II.A.1 is deleted, and replaced with:

“1. Remedial Investigation and Feasibility Study

(a) NWN shall complete a remedial investigation and feasibility study (RI/FS) for the Gasco OU satisfying OAR 340-122-080, the terms and schedule of DEQ approved work plans, and applicable elements of the general Scope of Work contained in Attachment B to this Agreement. NWN may propose in draft work plans, elements of the Scope of Work that NWN considers inapplicable or unnecessary to the RI/FS for the facility.

(b) As described in DEQ’s November 20, 2015 letter to NWN and Siltronic, NWN will complete an RI and human health and ecological risk assessment (HERA) for the Gasco OU. The RI and HERA for the portion of the Gasco OU beyond the NWN Property will be completed as an addendum to the approved *Remedial Investigation Report, NW Natural – Gasco Facility* (April 11, 2011) and *Human Health and Ecological Assessment Report – NW Natural Gasco Site* (December 2014 [ as revised by DEQ’s letter dated May 22, 2015]) for the NWN Property. The results of the RI and HERA will be integrated into a single FS for the Gasco OU.

(c) NWN will submit to DEQ electronic data and backup laboratory reports for investigations on the Siltronic Property beyond the boundaries of the Gasco OU completed subsequent NWN’s submittal of the *Remedial Investigation Data Summary Report, Historical Manufactured Gas Plant Activities, Siltronic Corporation Property* (March 31, 2011).”

7. Section II.A.2(f) is amended to read:

“(f) In the event of approval or modification of the following deliverables by DEQ, NWN shall implement the action required by the deliverable, as so approved or modified, or, as to any DEQ conditions of approval or modification, invoke dispute resolution within 14-days under Section II.M of the Agreement:

- RI/HERA Addendum report
- FS Work Plan
- FS Report
- Other deliverables identified in advance and included as ‘Independent Deliverables’ on the Project Schedule established under Section 1.B.”



8. Section II.A.4 is amended to read:

“4. Source Control Measures

(a) For any unpermitted discharge or release of hazardous substances from the Gasco OU to the Willamette River or river sediments identified in the RI, NWN shall identify and evaluate source control measures in accordance with the SOW and the terms and schedule of a DEQ-approved work plan. DEQ will review and approve source control measures pursuant to OAR 340-122-0070 and in consultation with EPA. Upon DEQ approval of a source control measure, NWN shall develop a source control work plan in accordance with DEQ’s directions and, upon DEQ approval, implement the work plan.

(b) NWN shall continue operation of the hydraulic containment and control system for the Gasco OU as an interim source control measure.

(c) NWN shall complete the ongoing source control evaluation for Doane Creek. Nothing in this Agreement or in DEQ Order No. ECVC-NWR-00-27 shall obligate NWN to implement source control measures for Doane Creek.”

9. Section II. D is amended to update the current DEQ and NWN project managers:

DEQ Project Manager

Dana Bayuk  
Department of Environmental Quality  
Northwest Region  
700 NE Multnomah Street  
Portland, Oregon 97232

NW Natural Project Manager

Robert J. Wyatt  
NW Natural  
220 N.W. Second Avenue  
Portland, Oregon 97209  
(503) 226-4211 Ext. 5425

10. The Scope of Work (Attachment B to the Agreement) is amended in Section I.A.1.i. by revising the first sentence to:

“Determine the magnitude, nature, and extent of contamination at the Gasco OU.”

11. The Scope of Work is amended by revising the last paragraph of Section I.B. to:

"NWN shall propose for DEQ approval a schedule for the Gasco OU RI/FS (the "Project Schedule"). The Project Schedule may be modified by agreement of the parties.

STIPULATED, AGREED, AND APPROVED FOR ISSUANCE:

NW Natural

By:  Date: 7 October 2016  
(Signature)

Thomas Imeson  
(Name)

Vice President  
(Title)

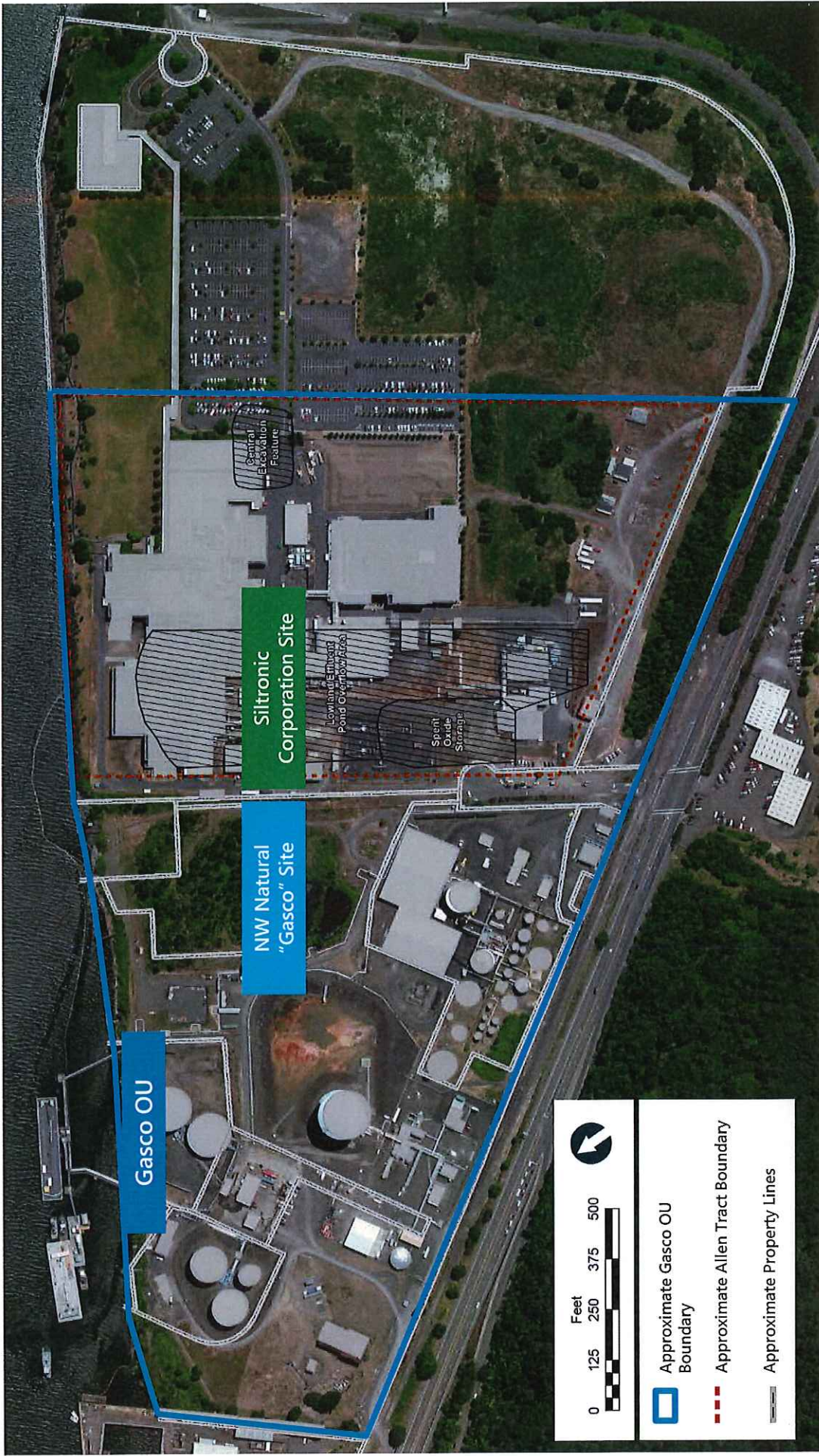
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

By:  Date: 11 October 2016  
(Signature)

Nina De Concini  
(Name)

NW Region Administrator  
(Title)





**ATTACHMENT CC**  
**Former Gasco Manufactured Gas Plant Operable Unit (Gasco OU)**

DEQ No. *WMCVC-NWR-94-13*





**ATTACHMENT CC**  
**Former Gasco Manufactured Gas Plant Operable Unit (Gasco OU)**



# Non-Hazardous WAM Approval

Requested Management Facility: Hillsboro Landfill

Profile Number: 1236950R Waste Acceptance Expiration Date: 08/06/2022  
Common Name: LF01 - Spent Granular Carbon WM Regulatory Volume Limit: \_\_\_\_\_  NA

### APPROVAL DETAILS

Approval Decision:  Approved  Not Approved Profile Renewal:  Yes  No

Management Method: Direct Landfill

Generator Name: NW Natural

Profile Expiration Date: 08/06/2022

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.

WM Authorization Name: Leslie Fichera Title: Waste Approval Manager

WM Authorization Signature: Leslie Fichera Date: 08/06/2021

Agency Authorization (if Required): \_\_\_\_\_ Date: \_\_\_\_\_

**THINK GREEN!**

**QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE**

Last Revised January 25, 2018  
©2018 Waste Management



Requested Facility: Hillsboro Landfill Profile Number: 123695OR
Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: 123695OR

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

- 1. Generator Name: NW Natural
2. Generator Site Address: 7900 NW St. Helens Road (City, State, ZIP) Portland OR 97210
3. County: Multnomah
4. Contact Name: Chip Byrd
5. Email: wbyrd@sevenson.com
6. Phone: (503) 286-1785 7. Fax: (503) 286-0298
8. Generator EPA ID: N/A
9. State ID: OR0000204701

C. MATERIAL INFORMATION

- 1. Common Name: LF01 - Spent Granular Carbon
Describe Process(es) Generating Material: See Attached
Site groundwater that has been impacted by historic manufactured gas plant (MGP) activities flows through Granular Carbon Tanks at rates 0 to 800 gpm. The primary constituents being treated include benzene, ethyl benzene, toluene, xylenes,
2. Material Composition and Contaminants: See Attached
Table with 2 columns: Component, Percentage
1. Carbon 100%
2. Miscellaneous (PPE Liner, etc.) 0-10%
3.
4.
Total comp. must be equal to or greater than 100% >=100%
3. State Waste Codes: N/A
4. Color: Black
5. Physical State at 70°F: Solid
6. Free Liquid Range Percentage: N/A
7. pH: N/A
8. Strong Odor: No
9. Flash Point: <140°F 140°-199°F >=200°

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

- 1. Analytical attached Yes
Please identify applicable samples and/or lab reports:
Apex #A2G0563 lab Report, sample ID #A2G0563-02, See Table 1 - T-541 Charted Lab Analyses. Pace Report #L1569422, sample ID #L1569422-01, See Table 2 - Charted PACE Analytical Result.
2. Other information attached (such as MSDS)? Yes

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided.

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): Robert J. Wyatt Date: January 16, 2023
Title: Director, Legacy Environmental Program
Company: NW Natural

B. BILLING INFORMATION

SAME AS GENERATOR

- 1. Billing Name: Severson Environmental Services
2. Billing Address: 2749 Lockport Road (City, State, ZIP) Niagara Falls NY 14305
3. Contact Name: Chip Byrd
4. Email: wbyrd@sevenson.com
5. Phone: (503) 286-1785 6. Fax: (503) 286-0298
7. WM Hauled? Yes No
8. P.O. Number: 111317-WB1
9. Payment Method: Credit Account Cash Credit Card

D. REGULATORY INFORMATION

- 1. EPA Hazardous Waste? Yes\* No
Code:
2. State Hazardous Waste? Yes No
Code:
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? Yes\* No
4. Contains Underlying Hazardous Constituents? Yes\* No
5. From an industry regulated under Benzene NESHAP? Yes\* No
6. Facility remediation subject to 40 CFR 63 GGGGG? Yes\* No
7. CERCLA or State-mandated clean-up? Yes\* No
8. NRC or State-regulated radioactive or NORM waste? Yes\* No
\*If Yes, see Addendum (page 2) for additional questions and space.
9. Contains PCBs? -> If Yes, answer a, b and c. Yes No
a. Regulated by 40 CFR 761? Yes No
b. Remediation under 40 CFR 761.61 (a)? Yes No
c. Were PCB imported into the US? Yes No
10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
11. Contains Asbestos? Yes No
-> If Yes: Non-Friable Non-Friable - Regulated Friable

F. SHIPPING AND DOT INFORMATION

- 1. One-Time Event Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: 40
Tons Yards Drums Gallons Other:
3. Container Type and Size: 18- 25 cubic yards closed container
4. USDOT Proper Shipping Name: N/A
Spent activated carbon

Certification Signature







Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: 123695OR

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): If more space is needed, please attach additional pages.

naphthalene, polycyclic aromatic hydrocarbons (PAHS), and metals. See attached Table 1 and Lab Report# A2G0563.

Material Composition and Contaminants (Continued from page 1): If more space is needed, please attach additional pages.

Table with 2 columns: Material Composition and Contaminants, and Total composition must be equal to or greater than 100%. Rows 5-9.

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

Empty box for listing USEPA listed and characteristic waste code numbers.

- b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)?
c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)?
d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)?

2. State Hazardous Waste -> Please list all state waste codes:

3. For material that is Treated, Delisted, or Excluded -> Please indicate the category, below:

- Delisted Hazardous Waste, Excluded Waste under 40 CFR 261.4, Treated Hazardous Waste Debris, Treated Characteristic Hazardous Waste

4. Underlying Hazardous Constituents -> Please list all Underlying Hazardous Constituents:

Empty box for listing underlying hazardous constituents.

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

- a. Are you a TSDF?
b. Does this material contain benzene?
c. What is your facility's current total annual benzene quantity in Megagrams?
d. Is this waste soil from a remediation?
e. Does the waste contain >10% water/moisture?
f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw?
g. Is material exempt from controls in accordance with 40 CFR 61.342?
h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF?

6. 40 CFR 63 GGGGG -> Does the material contain <500 ppmw VOHAPs at the point of determination?

7. CERCLA or State-Mandated clean up -> Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal.

8. NRC or state regulated radioactive or NORM Waste -> Please identify Isotopes and pCi/g:



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Thursday, August 25, 2022

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

RE: A2G0563 - Gasco -- Carbon - 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 A2G0563, which was received by the laboratory on 7/20/2022 at 12:10:00PM.

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

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

---

Cooler Receipt Information

(See Cooler Receipt Form for details)

|           |          |
|-----------|----------|
| Cooler #1 | 3.9 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.

---



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.*

---

Darwin Thomas, Business Development Director



**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL REPORT FOR SAMPLES**

**SAMPLE INFORMATION**

| Client Sample ID        | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-------------------------|---------------|--------|----------------|----------------|
| T-541 Carbon 07202022 A | A2G0563-01    | Soil   | 07/20/22 09:00 | 07/20/22 12:10 |
| T-541 Carbon 07202022 B | A2G0563-02    | Solid  | 07/20/22 09:00 | 07/20/22 12:10 |
| T-541 Carbon 07202022   | A2G0563-03    | Solid  | 07/20/22 09:00 | 07/20/22 12:10 |

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.*

Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

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

| Analyte                                     | Sample Result  | Detection Limit | Reporting Limit    | Units                   | Dilution | Date Analyzed         | Method Ref. | Notes             |
|---------------------------------------------|----------------|-----------------|--------------------|-------------------------|----------|-----------------------|-------------|-------------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |                |                 |                    | <b>Matrix: Solid</b>    |          | <b>Batch: 22G0856</b> |             |                   |
| Diesel                                      | <b>3140000</b> | 340000          | 681000             | ug/kg dry               | 20       | 07/26/22 22:02        | NWTPH-Dx    | <b>F-13, Q-42</b> |
| Oil                                         | ND             | 681000          | 1360000            | ug/kg dry               | 20       | 07/26/22 22:02        | NWTPH-Dx    |                   |
| <i>Surrogate: o-Terphenyl (Surr)</i>        |                |                 | <i>Recovery: %</i> | <i>Limits: 50-150 %</i> | 20       | 07/26/22 22:02        | NWTPH-Dx    | <i>S-01</i>       |

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

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

| Analyte                                        | Sample Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Date Analyzed         | Method Ref.           | Notes                |
|------------------------------------------------|---------------|------------------------|-----------------|-------------------------|----------|-----------------------|-----------------------|----------------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |               |                        |                 | <b>Matrix: Solid</b>    |          | <b>Batch: 22G0771</b> |                       | <b>V-15</b>          |
| <b>Gasoline Range Organics</b>                 | <b>200000</b> | 5830                   | 11700           | ug/kg dry               | 50       | 07/25/22 18:33        | NWTPH-Gx (MS)         |                      |
| <i>Surrogate: 4-Bromofluorobenzene (Sur)</i>   |               | <i>Recovery: 106 %</i> |                 | <i>Limits: 50-150 %</i> |          | <i>1</i>              | <i>07/25/22 18:33</i> | <i>NWTPH-Gx (MS)</i> |
| <i>1,4-Difluorobenzene (Sur)</i>               |               | <i>99 %</i>            |                 | <i>50-150 %</i>         |          | <i>1</i>              | <i>07/25/22 18:33</i> | <i>NWTPH-Gx (MS)</i> |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                        | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref. | Notes       |
|------------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|-------------|-------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22G0771</b> |             | <b>V-15</b> |
| Acetone                                        | ND            | 2330            | 2330            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D | ICV-02      |
| Acrylonitrile                                  | ND            | 233             | 233             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| <b>Benzene</b>                                 | <b>8100</b>   | 11.7            | 23.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| Bromobenzene                                   | ND            | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| Bromochloromethane                             | ND            | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| <b>Bromoform</b>                               | <b>646</b>    | 117             | 233             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| Bromomethane                                   | ND            | 1170            | 1170            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 2-Butanone (MEK)                               | ND            | 1170            | 1170            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D | ICV-02      |
| n-Butylbenzene                                 | ND            | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| <b>sec-Butylbenzene</b>                        | <b>64.1</b>   | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D | J           |
| tert-Butylbenzene                              | ND            | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| Carbon disulfide                               | ND            | 1170            | 1170            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| <b>Carbon tetrachloride</b>                    | <b>80.4</b>   | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D | J           |
| <b>Chlorobenzene</b>                           | <b>58.3</b>   | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| Chloroethane                                   | ND            | 583             | 1170            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| Chloromethane                                  | ND            | 291             | 583             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 2-Chlorotoluene                                | ND            | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 4-Chlorotoluene                                | ND            | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| <b>Dibromochloromethane</b>                    | <b>2350</b>   | 117             | 233             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 1,2-Dibromo-3-chloropropane                    | ND            | 291             | 583             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 1,2-Dibromoethane (EDB)                        | ND            | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| Dibromomethane                                 | ND            | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| <b>1,2-Dichlorobenzene</b>                     | <b>57.1</b>   | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D | J           |
| 1,3-Dichlorobenzene                            | ND            | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 1,4-Dichlorobenzene                            | ND            | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| Dichlorodifluoromethane                        | ND            | 117             | 233             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 1,1-Dichloroethane                             | ND            | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 1,2-Dichloroethane (EDC)                       | ND            | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 1,1-Dichloroethene                             | ND            | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| <b>cis-1,2-Dichloroethene</b>                  | <b>347</b>    | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| trans-1,2-Dichloroethene                       | ND            | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 1,2-Dichloropropane                            | ND            | 29.1            | 58.3            | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |
| 1,3-Dichloropropane                            | ND            | 58.3            | 117             | ug/kg dry            | 50       | 07/25/22 18:33        | 5035A/8260D |             |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                        | Sample Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Date Analyzed         | Method Ref.           | Notes              |
|------------------------------------------------|---------------|------------------------|-----------------|-------------------------|----------|-----------------------|-----------------------|--------------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |               |                        |                 | <b>Matrix: Solid</b>    |          | <b>Batch: 22G0771</b> |                       | <b>V-15</b>        |
| 2,2-Dichloropropane                            | ND            | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 1,1-Dichloropropene                            | ND            | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| cis-1,3-Dichloropropene                        | ND            | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| trans-1,3-Dichloropropene                      | ND            | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>Ethylbenzene</b>                            | <b>3240</b>   | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| Hexachlorobutadiene                            | ND            | 117                    | 233             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 2-Hexanone                                     | ND            | 1170                   | 1170            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>Isopropylbenzene</b>                        | <b>308</b>    | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>4-Isopropyltoluene</b>                      | <b>88.6</b>   | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           | J                  |
| Methylene chloride                             | ND            | 583                    | 1170            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 4-Methyl-2-pentanone (MiBK)                    | ND            | 583                    | 1170            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>Methyl tert-butyl ether (MTBE)</b>          | <b>212</b>    | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>n-Propylbenzene</b>                         | <b>80.4</b>   | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| Styrene                                        | ND            | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 1,1,1,2-Tetrachloroethane                      | ND            | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 1,1,2,2-Tetrachloroethane                      | ND            | 117                    | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| Tetrachloroethene (PCE)                        | ND            | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>Toluene</b>                                 | <b>351</b>    | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 1,2,3-Trichlorobenzene                         | ND            | 291                    | 583             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 1,2,4-Trichlorobenzene                         | ND            | 291                    | 583             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 1,1,1-Trichloroethane                          | ND            | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 1,1,2-Trichloroethane                          | ND            | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| Trichloroethene (TCE)                          | ND            | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| Trichlorofluoromethane                         | ND            | 117                    | 233             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| 1,2,3-Trichloropropane                         | ND            | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>1,2,4-Trimethylbenzene</b>                  | <b>684</b>    | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>1,3,5-Trimethylbenzene</b>                  | <b>267</b>    | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| Vinyl chloride                                 | ND            | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>m,p-Xylene</b>                              | <b>1170</b>   | 58.3                   | 117             | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <b>o-Xylene</b>                                | <b>1160</b>   | 29.1                   | 58.3            | ug/kg dry               | 50       | 07/25/22 18:33        | 5035A/8260D           |                    |
| <i>Surrogate: 1,4-Difluorobenzene (Surr)</i>   |               | <i>Recovery: 102 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>1</i>              | <i>07/25/22 18:33</i> | <i>5035A/8260D</i> |
| <i>Toluene-d8 (Surr)</i>                       |               | <i>95 %</i>            |                 | <i>80-120 %</i>         |          | <i>1</i>              | <i>07/25/22 18:33</i> | <i>5035A/8260D</i> |
| <i>4-Bromofluorobenzene (Surr)</i>             |               | <i>98 %</i>            |                 | <i>79-120 %</i>         |          | <i>1</i>              | <i>07/25/22 18:33</i> | <i>5035A/8260D</i> |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                        | Sample Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Date Analyzed         | Method Ref.           | Notes              |
|------------------------------------------------|---------------|------------------------|-----------------|-------------------------|----------|-----------------------|-----------------------|--------------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02RE2)</b> |               |                        |                 | <b>Matrix: Solid</b>    |          | <b>Batch: 22G0857</b> |                       | <b>V-15</b>        |
| <b>Bromodichloromethane</b>                    | <b>8570</b>   | 583                    | 1170            | ug/kg dry               | 500      | 07/27/22 09:00        | 5035A/8260D           |                    |
| <b>Chloroform</b>                              | <b>39000</b>  | 583                    | 1170            | ug/kg dry               | 500      | 07/27/22 09:00        | 5035A/8260D           |                    |
| <b>Naphthalene</b>                             | <b>26100</b>  | 1170                   | 2330            | ug/kg dry               | 500      | 07/27/22 09:00        | 5035A/8260D           |                    |
| <i>Surrogate: 1,4-Difluorobenzene (Surr)</i>   |               | <i>Recovery: 101 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>1</i>              | <i>07/27/22 09:00</i> | <i>5035A/8260D</i> |
| <i>Toluene-d8 (Surr)</i>                       |               | <i>97 %</i>            |                 | <i>80-120 %</i>         |          | <i>1</i>              | <i>07/27/22 09:00</i> | <i>5035A/8260D</i> |
| <i>4-Bromofluorobenzene (Surr)</i>             |               | <i>97 %</i>            |                 | <i>79-120 %</i>         |          | <i>1</i>              | <i>07/27/22 09:00</i> | <i>5035A/8260D</i> |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**ANALYTICAL SAMPLE RESULTS**

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

| Analyte                                        | Sample Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Date Analyzed         | Method Ref. | Notes       |
|------------------------------------------------|---------------|------------------------|-----------------|-------------------------|----------|-----------------------|-------------|-------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b>    |               |                        |                 | <b>Matrix: Solid</b>    |          | <b>Batch: 22G0954</b> |             | <b>TCLP</b> |
| Naphthalene                                    | ND            | 1.25                   | 2.50            | mg/L                    | 500      | 07/28/22 16:24        | 1311/8260D  | R-04        |
| <i>Surrogate: 1,4-Difluorobenzene (Surr)</i>   |               | <i>Recovery: 108 %</i> |                 | <i>Limits: 80-120 %</i> | 1        | 07/28/22 16:24        | 1311/8260D  |             |
| <i>Toluene-d8 (Surr)</i>                       |               | <i>101 %</i>           |                 | <i>80-120 %</i>         | 1        | 07/28/22 16:24        | 1311/8260D  |             |
| <i>4-Bromofluorobenzene (Surr)</i>             |               | <i>103 %</i>           |                 | <i>80-120 %</i>         | 1        | 07/28/22 16:24        | 1311/8260D  |             |
| <b>T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |               |                        |                 | <b>Matrix: Solid</b>    |          | <b>Batch: 22G1001</b> |             | <b>TCLP</b> |
| Acetone                                        | ND            | 0.500                  | 1.00            | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Benzene                                        | ND            | 0.00625                | 0.0125          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Bromobenzene                                   | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Bromochloromethane                             | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Bromodichloromethane                           | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Bromoform                                      | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Bromomethane                                   | ND            | 0.250                  | 0.250           | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 2-Butanone (MEK)                               | ND            | 0.250                  | 0.500           | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| n-Butylbenzene                                 | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| sec-Butylbenzene                               | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| tert-Butylbenzene                              | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Carbon tetrachloride                           | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Chlorobenzene                                  | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Chloroethane                                   | ND            | 0.250                  | 0.250           | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| <b>Chloroform</b>                              | <b>0.103</b>  | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Chloromethane                                  | ND            | 0.125                  | 0.250           | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 2-Chlorotoluene                                | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 4-Chlorotoluene                                | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,2-Dibromo-3-chloropropane                    | ND            | 0.125                  | 0.250           | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Dibromochloromethane                           | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,2-Dibromoethane (EDB)                        | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Dibromomethane                                 | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,2-Dichlorobenzene                            | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,3-Dichlorobenzene                            | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,4-Dichlorobenzene                            | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Dichlorodifluoromethane                        | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,1-Dichloroethane                             | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,1-Dichloroethene                             | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D  |             |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

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

| Analyte                                        | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref. | Notes       |
|------------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|-------------|-------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22G1001</b> |             | <b>TCLP</b> |
| 1,2-Dichloroethane (EDC)                       | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| cis-1,2-Dichloroethene                         | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| trans-1,2-Dichloroethene                       | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,2-Dichloropropane                            | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,3-Dichloropropane                            | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 2,2-Dichloropropane                            | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,1-Dichloropropene                            | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| cis-1,3-Dichloropropene                        | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| trans-1,3-Dichloropropene                      | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Ethylbenzene                                   | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Hexachlorobutadiene                            | ND            | 0.125           | 0.250           | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 2-Hexanone                                     | ND            | 0.250           | 0.500           | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Isopropylbenzene                               | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 4-Isopropyltoluene                             | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 4-Methyl-2-pentanone (MiBK)                    | ND            | 0.250           | 0.500           | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Methyl tert-butyl ether (MTBE)                 | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Methylene chloride                             | ND            | 0.250           | 0.500           | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| n-Propylbenzene                                | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Styrene                                        | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,1,1,2-Tetrachloroethane                      | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,1,1,2,2-Tetrachloroethane                    | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Tetrachloroethene (PCE)                        | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Toluene                                        | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,2,3-Trichlorobenzene                         | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,2,4-Trichlorobenzene                         | ND            | 0.0500          | 0.100           | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,1,1-Trichloroethane                          | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,1,2-Trichloroethane                          | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Trichloroethene (TCE)                          | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Trichlorofluoromethane                         | ND            | 0.0500          | 0.100           | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,2,3-Trichloropropane                         | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,2,4-Trimethylbenzene                         | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| 1,3,5-Trimethylbenzene                         | ND            | 0.0250          | 0.0500          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |
| Vinyl chloride                                 | ND            | 0.0125          | 0.0250          | mg/L                 | 50       | 07/29/22 16:02        | 1311/8260D  |             |

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ANALYTICAL REPORT

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503-718-2323  
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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

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

| Analyte                                        | Sample Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Date Analyzed         | Method Ref.           | Notes             |
|------------------------------------------------|---------------|------------------------|-----------------|-------------------------|----------|-----------------------|-----------------------|-------------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |               |                        |                 | <b>Matrix: Solid</b>    |          | <b>Batch: 22G1001</b> |                       | <b>TCLP</b>       |
| m,p-Xylene                                     | ND            | 0.0250                 | 0.0500          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D            |                   |
| o-Xylene                                       | ND            | 0.0125                 | 0.0250          | mg/L                    | 50       | 07/29/22 16:02        | 1311/8260D            |                   |
| <i>Surrogate: 1,4-Difluorobenzene (Surr)</i>   |               | <i>Recovery: 108 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>1</i>              | <i>07/29/22 16:02</i> | <i>1311/8260D</i> |
| <i>Toluene-d8 (Surr)</i>                       |               | <i>103 %</i>           |                 | <i>80-120 %</i>         |          | <i>1</i>              | <i>07/29/22 16:02</i> | <i>1311/8260D</i> |
| <i>4-Bromofluorobenzene (Surr)</i>             |               | <i>102 %</i>           |                 | <i>80-120 %</i>         |          | <i>1</i>              | <i>07/29/22 16:02</i> | <i>1311/8260D</i> |

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Darwin Thomas, Business Development Director



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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                     | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref. | Notes |
|---------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|-------------|-------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22H0028</b> |             |       |
| Acenaphthene                                | ND            | 3820            | 3820            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   | R-02  |
| Acenaphthylene                              | ND            | 886             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Anthracene                                  | ND            | 886             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Benz(a)anthracene                           | ND            | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Benzo(a)pyrene                              | ND            | 664             | 1330            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Benzo(b)fluoranthene                        | ND            | 664             | 1330            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Benzo(k)fluoranthene                        | ND            | 664             | 1330            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Benzo(g,h,i)perylene                        | ND            | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Chrysene                                    | ND            | 1990            | 1990            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   | R-02  |
| Dibenz(a,h)anthracene                       | ND            | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| <b>Fluoranthene</b>                         | <b>33200</b>  | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| <b>Fluorene</b>                             | <b>25200</b>  | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Indeno(1,2,3-cd)pyrene                      | ND            | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| <b>1-Methylnaphthalene</b>                  | <b>98800</b>  | 886             | 1770            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| <b>2-Methylnaphthalene</b>                  | <b>102000</b> | 886             | 1770            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| <b>Naphthalene</b>                          | <b>347000</b> | 886             | 1770            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| <b>Pyrene</b>                               | <b>729</b>    | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   | J     |
| <b>Carbazole</b>                            | <b>74600</b>  | 664             | 1330            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| <b>Dibenzofuran</b>                         | <b>71800</b>  | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 2-Chlorophenol                              | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 4-Chloro-3-methylphenol                     | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 2,4-Dichlorophenol                          | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 2,4-Dimethylphenol                          | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 2,4-Dinitrophenol                           | ND            | 22100           | 22100           | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 4,6-Dinitro-2-methylphenol                  | ND            | 11100           | 22100           | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 2-Methylphenol                              | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 3+4-Methylphenol(s)                         | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 2-Nitrophenol                               | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 4-Nitrophenol                               | ND            | 18100           | 18100           | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   | R-02  |
| Pentachlorophenol (PCP)                     | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| Phenol                                      | ND            | 886             | 1770            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 2,3,4,6-Tetrachlorophenol                   | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |
| 2,3,5,6-Tetrachlorophenol                   | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |       |

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ANALYTICAL REPORT

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                     | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref. | Notes       |
|---------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|-------------|-------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22H0028</b> |             |             |
| 2,4,5-Trichlorophenol                       | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Nitrobenzene                                | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 2,4,6-Trichlorophenol                       | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Bis(2-ethylhexyl)phthalate                  | ND            | 6640            | 13300           | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Butyl benzyl phthalate                      | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Diethylphthalate                            | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Dimethylphthalate                           | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Di-n-butylphthalate                         | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Di-n-octyl phthalate                        | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| N-Nitrosodimethylamine                      | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| N-Nitroso-di-n-propylamine                  | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| N-Nitrosodiphenylamine                      | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Bis(2-Chloroethoxy) methane                 | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Bis(2-Chloroethyl) ether                    | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 2,2'-Oxybis(1-Chloropropane)                | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Hexachlorobenzene                           | ND            | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Hexachlorobutadiene                         | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Hexachlorocyclopentadiene                   | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Hexachloroethane                            | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| <b>2-Chloronaphthalene</b>                  | <b>5650</b>   | 441             | 886             | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   | <b>M-05</b> |
| 1,2,4-Trichlorobenzene                      | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 4-Bromophenyl phenyl ether                  | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 4-Chlorophenyl phenyl ether                 | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Aniline                                     | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 4-Chloroaniline                             | ND            | 1110            | 2210            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 2-Nitroaniline                              | ND            | 8860            | 17700           | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 3-Nitroaniline                              | ND            | 8860            | 17700           | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 4-Nitroaniline                              | ND            | 8860            | 17700           | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 2,4-Dinitrotoluene                          | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| 2,6-Dinitrotoluene                          | ND            | 4410            | 8860            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Benzoic acid                                | ND            | 55400           | 111000          | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Benzyl alcohol                              | ND            | 2210            | 4410            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   |             |
| Isophorone                                  | ND            | 5640            | 5640            | ug/kg dry            | 200      | 08/01/22 20:13        | EPA 8270E   | R-02        |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                        | Sample Result | Detection Limit        | Reporting Limit      | Units                   | Dilution              | Date Analyzed   | Method Ref.           | Notes                 |                  |             |
|------------------------------------------------|---------------|------------------------|----------------------|-------------------------|-----------------------|-----------------|-----------------------|-----------------------|------------------|-------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b>    |               |                        | <b>Matrix: Solid</b> |                         | <b>Batch: 22H0028</b> |                 |                       |                       |                  |             |
| Azobenzene (1,2-DPH)                           | ND            | 3820                   | 3820                 | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             | R-02                  |                  |             |
| Bis(2-Ethylhexyl) adipate                      | ND            | 11100                  | 22100                | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| 3,3'-Dichlorobenzidine                         | ND            | 8860                   | 17700                | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| 1,2-Dinitrobenzene                             | ND            | 11100                  | 22100                | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| 1,3-Dinitrobenzene                             | ND            | 11100                  | 22100                | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| 1,4-Dinitrobenzene                             | ND            | 11100                  | 22100                | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| Pyridine                                       | ND            | 2210                   | 4410                 | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| 1,2-Dichlorobenzene                            | ND            | 1110                   | 2210                 | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| 1,3-Dichlorobenzene                            | ND            | 1110                   | 2210                 | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| 1,4-Dichlorobenzene                            | ND            | 1110                   | 2210                 | ug/kg dry               | 200                   | 08/01/22 20:13  | EPA 8270E             |                       |                  |             |
| <i>Surrogate: Nitrobenzene-d5 (Surr)</i>       |               | <i>Recovery: 102 %</i> |                      | <i>Limits: 37-122 %</i> |                       | <i>200</i>      | <i>08/01/22 20:13</i> | <i>EPA 8270E</i>      | <i>S-05</i>      |             |
| <i>2-Fluorobiphenyl (Surr)</i>                 |               |                        |                      | <i>66 %</i>             |                       | <i>44-120 %</i> | <i>200</i>            | <i>08/01/22 20:13</i> | <i>EPA 8270E</i> | <i>S-05</i> |
| <i>Phenol-d6 (Surr)</i>                        |               |                        |                      | <i>55 %</i>             |                       | <i>33-122 %</i> | <i>200</i>            | <i>08/01/22 20:13</i> | <i>EPA 8270E</i> | <i>S-05</i> |
| <i>p-Terphenyl-d14 (Surr)</i>                  |               |                        |                      | <i>62 %</i>             |                       | <i>54-127 %</i> | <i>200</i>            | <i>08/01/22 20:13</i> | <i>EPA 8270E</i> | <i>S-05</i> |
| <i>2-Fluorophenol (Surr)</i>                   |               |                        |                      | <i>12 %</i>             |                       | <i>35-120 %</i> | <i>200</i>            | <i>08/01/22 20:13</i> | <i>EPA 8270E</i> | <i>S-05</i> |
| <i>2,4,6-Tribromophenol (Surr)</i>             |               |                        |                      | <i>%</i>                |                       | <i>39-132 %</i> | <i>200</i>            | <i>08/01/22 20:13</i> | <i>EPA 8270E</i> | <i>S-01</i> |
| <b>T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |               |                        | <b>Matrix: Solid</b> |                         | <b>Batch: 22H0028</b> |                 |                       |                       |                  |             |
| <b>Phenanthrene</b>                            | <b>359000</b> | 4410                   | 8860                 | ug/kg dry               | 2000                  | 08/02/22 14:02  | EPA 8270E             |                       |                  |             |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                     | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref.   | Notes    |
|---------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|---------------|----------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22H0025</b> |               |          |
| Acenaphthene                                | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Acenaphthylene                              | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Anthracene                                  | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Benz(a)anthracene                           | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Benzo(a)pyrene                              | ND            | 1.50            | 3.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Benzo(b)fluoranthene                        | ND            | 1.50            | 3.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Benzo(k)fluoranthene                        | ND            | 1.50            | 3.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Benzo(g,h,i)perylene                        | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Chrysene                                    | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Dibenz(a,h)anthracene                       | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Fluoranthene                                | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| <b>Fluorene</b>                             | <b>1.42</b>   | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL | <b>J</b> |
| Indeno(1,2,3-cd)pyrene                      | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 1-Methylnaphthalene                         | ND            | 2.00            | 4.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 2-Methylnaphthalene                         | ND            | 2.00            | 4.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| <b>Naphthalene</b>                          | <b>8.91</b>   | 2.00            | 4.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| <b>Phenanthrene</b>                         | <b>3.42</b>   | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL | <b>B</b> |
| Pyrene                                      | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| <b>Carbazole</b>                            | <b>2.51</b>   | 1.50            | 3.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL | <b>J</b> |
| <b>Dibenzofuran</b>                         | <b>1.05</b>   | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL | <b>J</b> |
| 2-Chlorophenol                              | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 4-Chloro-3-methylphenol                     | ND            | 10.0            | 20.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 2,4-Dichlorophenol                          | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 2,4-Dimethylphenol                          | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 2,4-Dinitrophenol                           | ND            | 25.0            | 50.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 4,6-Dinitro-2-methylphenol                  | ND            | 25.0            | 50.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 2-Methylphenol                              | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 3+4-Methylphenol(s)                         | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 2-Nitrophenol                               | ND            | 10.0            | 20.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 4-Nitrophenol                               | ND            | 10.0            | 20.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Pentachlorophenol (PCP)                     | ND            | 10.0            | 20.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| Phenol                                      | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |
| 2,3,4,6-Tetrachlorophenol                   | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |          |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                     | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref.   | Notes |
|---------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|---------------|-------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22H0025</b> |               |       |
| 2,3,5,6-Tetrachlorophenol                   | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 2,4,5-Trichlorophenol                       | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Nitrobenzene                                | ND            | 10.0            | 20.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 2,4,6-Trichlorophenol                       | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Bis(2-ethylhexyl)phthalate                  | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Butyl benzyl phthalate                      | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Diethylphthalate                            | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Dimethylphthalate                           | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Di-n-butylphthalate                         | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Di-n-octyl phthalate                        | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| N-Nitrosodimethylamine                      | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| N-Nitroso-di-n-propylamine                  | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| N-Nitrosodiphenylamine                      | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Bis(2-Chloroethoxy) methane                 | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Bis(2-Chloroethyl) ether                    | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 2,2'-Oxybis(1-Chloropropane)                | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Hexachlorobenzene                           | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Hexachlorobutadiene                         | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Hexachlorocyclopentadiene                   | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Hexachloroethane                            | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 2-Chloronaphthalene                         | ND            | 1.00            | 2.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 1,2,4-Trichlorobenzene                      | ND            | 0.500           | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 4-Bromophenyl phenyl ether                  | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 4-Chlorophenyl phenyl ether                 | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Aniline                                     | ND            | 5.00            | 10.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL | Q-30  |
| 4-Chloroaniline                             | ND            | 2.50            | 5.00            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 2-Nitroaniline                              | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 3-Nitroaniline                              | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 4-Nitroaniline                              | ND            | 20.0            | 40.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 2,4-Dinitrotoluene                          | ND            | 10.0            | 20.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| 2,6-Dinitrotoluene                          | ND            | 10.0            | 20.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Benzoic acid                                | ND            | 125             | 250             | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |
| Benzyl alcohol                              | ND            | 10.0            | 20.0            | ug/L                 | 10       | 08/02/22 11:17        | 1311/8270E-LL |       |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                     | Sample Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Date Analyzed         | Method Ref.           | Notes                |
|---------------------------------------------|---------------|-----------------------|-----------------|-------------------------|----------|-----------------------|-----------------------|----------------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                       |                 | <b>Matrix: Solid</b>    |          | <b>Batch: 22H0025</b> |                       |                      |
| Isophorone                                  | ND            | 2.50                  | 5.00            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| Azobenzene (1,2-DPH)                        | ND            | 2.50                  | 5.00            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| Bis(2-Ethylhexyl) adipate                   | ND            | 25.0                  | 50.0            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| 1,2-Dinitrobenzene                          | ND            | 25.0                  | 50.0            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| 1,3-Dinitrobenzene                          | ND            | 25.0                  | 50.0            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| 1,4-Dinitrobenzene                          | ND            | 25.0                  | 50.0            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| Pyridine                                    | ND            | 10.0                  | 20.0            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| 1,2-Dichlorobenzene                         | ND            | 2.50                  | 5.00            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| 1,3-Dichlorobenzene                         | ND            | 2.50                  | 5.00            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| 1,4-Dichlorobenzene                         | ND            | 2.50                  | 5.00            | ug/L                    | 10       | 08/02/22 11:17        | 1311/8270E-LL         |                      |
| <i>Surrogate: Nitrobenzene-d5 (Surr)</i>    |               | <i>Recovery: 85 %</i> |                 | <i>Limits: 44-120 %</i> |          | <i>10</i>             | <i>08/02/22 11:17</i> | <i>1311/8270E-LL</i> |
| <i>2-Fluorobiphenyl (Surr)</i>              |               | <i>83 %</i>           |                 | <i>44-120 %</i>         |          | <i>10</i>             | <i>08/02/22 11:17</i> | <i>1311/8270E-LL</i> |
| <i>Phenol-d6 (Surr)</i>                     |               | <i>24 %</i>           |                 | <i>10-133 %</i>         |          | <i>10</i>             | <i>08/02/22 11:17</i> | <i>1311/8270E-LL</i> |
| <i>p-Terphenyl-d14 (Surr)</i>               |               | <i>91 %</i>           |                 | <i>50-134 %</i>         |          | <i>10</i>             | <i>08/02/22 11:17</i> | <i>1311/8270E-LL</i> |
| <i>2-Fluorophenol (Surr)</i>                |               | <i>35 %</i>           |                 | <i>19-120 %</i>         |          | <i>10</i>             | <i>08/02/22 11:17</i> | <i>1311/8270E-LL</i> |
| <i>2,4,6-Tribromophenol (Surr)</i>          |               | <i>97 %</i>           |                 | <i>43-140 %</i>         |          | <i>10</i>             | <i>08/02/22 11:17</i> | <i>1311/8270E-LL</i> |

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Darwin Thomas, Business Development Director



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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**ANALYTICAL SAMPLE RESULTS**

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

| Analyte                                     | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed  | Method Ref. | Notes    |
|---------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|----------------|-------------|----------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                 |                 | <b>Matrix: Solid</b> |          |                |             |          |
| Batch: 22G0896                              |               |                 |                 |                      |          |                |             |          |
| Arsenic                                     | ND            | 931             | 1860            | ug/kg dry            | 10       | 07/27/22 15:35 | EPA 6020B   |          |
| <b>Barium</b>                               | <b>25900</b>  | 931             | 1860            | ug/kg dry            | 10       | 07/27/22 15:35 | EPA 6020B   |          |
| Cadmium                                     | ND            | 186             | 372             | ug/kg dry            | 10       | 07/27/22 15:35 | EPA 6020B   |          |
| <b>Chromium</b>                             | <b>1530</b>   | 931             | 1860            | ug/kg dry            | 10       | 07/27/22 15:35 | EPA 6020B   | <b>J</b> |
| <b>Lead</b>                                 | <b>765</b>    | 186             | 372             | ug/kg dry            | 10       | 07/27/22 15:35 | EPA 6020B   |          |
| Mercury                                     | ND            | 74.5            | 149             | ug/kg dry            | 10       | 07/27/22 15:35 | EPA 6020B   |          |
| Selenium                                    | ND            | 931             | 1860            | ug/kg dry            | 10       | 07/27/22 15:35 | EPA 6020B   |          |
| Silver                                      | ND            | 186             | 372             | ug/kg dry            | 10       | 07/27/22 15:35 | EPA 6020B   |          |

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ANALYTICAL REPORT

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**ANALYTICAL SAMPLE RESULTS**

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

| Analyte                                     | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed  | Method Ref. | Notes |
|---------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|----------------|-------------|-------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                 |                 | <b>Matrix: Solid</b> |          |                |             |       |
| Batch: 22G1028                              |               |                 |                 |                      |          |                |             |       |
| Arsenic                                     | ND            | 50.0            | 100             | ug/L                 | 10       | 07/29/22 20:00 | 1311/6020B  |       |
| Barium                                      | ND            | 2500            | 5000            | ug/L                 | 10       | 07/29/22 20:00 | 1311/6020B  |       |
| Cadmium                                     | ND            | 50.0            | 100             | ug/L                 | 10       | 07/29/22 20:00 | 1311/6020B  |       |
| Chromium                                    | ND            | 50.0            | 100             | ug/L                 | 10       | 07/29/22 20:00 | 1311/6020B  |       |
| Lead                                        | ND            | 25.0            | 50.0            | ug/L                 | 10       | 07/29/22 20:00 | 1311/6020B  |       |
| Mercury                                     | ND            | 3.75            | 7.00            | ug/L                 | 10       | 07/29/22 20:00 | 1311/6020B  |       |
| Selenium                                    | ND            | 50.0            | 100             | ug/L                 | 10       | 07/29/22 20:00 | 1311/6020B  |       |
| Silver                                      | ND            | 50.0            | 100             | ug/L                 | 10       | 07/29/22 20:00 | 1311/6020B  |       |

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**ANALYTICAL SAMPLE RESULTS**

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

| Analyte                                        | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref. | Notes       |
|------------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|-------------|-------------|
| <b>T-541 Carbon 07202022 B (A2G0563-02RE2)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22G0718</b> |             |             |
| <b>Total Cyanide</b>                           | <b>10700</b>  | 834             | 1670            | ug/kg dry            | 10       | 07/22/22 13:19        | D7511-12    | <b>Q-42</b> |

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**ANALYTICAL SAMPLE RESULTS**

**Percent Dry Weight**

| Analyte                                     | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref. | Notes |
|---------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|-------------|-------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22G0746</b> |             |       |
| % Solids                                    | 58.1          | ---             | 1.00            | %                    | 1        | 07/25/22 05:44        | EPA 8000D   |       |
| <b>T-541 Carbon 07202022 (A2G0563-03)</b>   |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22G0677</b> |             |       |
| % Solids                                    | 70.7          | ---             | 1.00            | %                    | 1        | 07/22/22 07:21        | EPA 8000D   |       |

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**ANALYTICAL SAMPLE RESULTS**

**TCLP Extraction by EPA 1311**

| Analyte                                     | Sample Result | Detection Limit | Reporting Limit | Units                | Dilution | Date Analyzed         | Method Ref. | Notes |
|---------------------------------------------|---------------|-----------------|-----------------|----------------------|----------|-----------------------|-------------|-------|
| <b>T-541 Carbon 07202022 B (A2G0563-02)</b> |               |                 |                 | <b>Matrix: Solid</b> |          | <b>Batch: 22G0978</b> |             |       |
| TCLP Extraction                             | PREP          | ---             |                 | N/A                  | 1        | 07/28/22 17:58        | EPA 1311    |       |
| TCLP Extraction                             | PREP          | ---             |                 | N/A                  | 1        | 07/28/22 17:58        | EPA 1311    |       |

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                       | Result         | Detection Limit        | Reporting Limit                                   | Units                   | Dilution | Spike Amount         | Source Result | % REC | % REC Limits | RPD       | RPD Limit  | Notes      |
|---------------------------------------------------------------|----------------|------------------------|---------------------------------------------------|-------------------------|----------|----------------------|---------------|-------|--------------|-----------|------------|------------|
| <b>Batch 22G0856 - EPA 3546 (Fuels)</b>                       |                |                        |                                                   |                         |          | <b>Solid</b>         |               |       |              |           |            |            |
| <b>Blank (22G0856-BLK1)</b>                                   |                |                        | Prepared: 07/26/22 13:10 Analyzed: 07/26/22 21:20 |                         |          |                      |               |       |              |           |            |            |
| <u>NWTPH-Dx</u>                                               |                |                        |                                                   |                         |          |                      |               |       |              |           |            |            |
| Diesel                                                        | ND             | 9090                   | 25000                                             | ug/kg wet               | 1        | ---                  | ---           | ---   | ---          | ---       | ---        |            |
| Oil                                                           | ND             | 18200                  | 50000                                             | ug/kg wet               | 1        | ---                  | ---           | ---   | ---          | ---       | ---        |            |
| <i>Surr: o-Terphenyl (Surr)</i>                               |                | <i>Recovery: 91 %</i>  |                                                   | <i>Limits: 50-150 %</i> |          | <i>Dilution: 1x</i>  |               |       |              |           |            |            |
| <b>LCS (22G0856-BS1)</b>                                      |                |                        | Prepared: 07/26/22 13:10 Analyzed: 07/26/22 21:41 |                         |          |                      |               |       |              |           |            |            |
| <u>NWTPH-Dx</u>                                               |                |                        |                                                   |                         |          |                      |               |       |              |           |            |            |
| Diesel                                                        | 106000         | 10000                  | 25000                                             | ug/kg wet               | 1        | 125000               | ---           | 85    | 38-132%      | ---       | ---        |            |
| <i>Surr: o-Terphenyl (Surr)</i>                               |                | <i>Recovery: 102 %</i> |                                                   | <i>Limits: 50-150 %</i> |          | <i>Dilution: 1x</i>  |               |       |              |           |            |            |
| <b>Duplicate (22G0856-DUP1)</b>                               |                |                        | Prepared: 07/26/22 13:10 Analyzed: 07/26/22 22:23 |                         |          |                      |               |       |              |           |            |            |
| <u>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02)</u> |                |                        |                                                   |                         |          |                      |               |       |              |           |            |            |
| <u>NWTPH-Dx</u>                                               |                |                        |                                                   |                         |          |                      |               |       |              |           |            |            |
| Diesel                                                        | <b>8520000</b> | 322000                 | 644000                                            | ug/kg dry               | 20       | ---                  | 3140000       | ---   | ---          | <b>92</b> | <b>30%</b> | F-13, Q-17 |
| Oil                                                           | ND             | 644000                 | 1290000                                           | ug/kg dry               | 20       | ---                  | ND            | ---   | ---          | ---       | 30%        |            |
| <i>Surr: o-Terphenyl (Surr)</i>                               |                | <i>Recovery: %</i>     |                                                   | <i>Limits: 50-150 %</i> |          | <i>Dilution: 20x</i> |               |       |              |           |            | S-01       |

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                       | Result         | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|----------------|-----------------|---------------------------------------------------|-----------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0745 - EPA 5035A</b>              |                |                 |                                                   |           |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>Blank (22G0745-BLK1)</b>                   |                |                 | Prepared: 07/22/22 08:00 Analyzed: 07/22/22 15:22 |           |          |                                                   |               |       |              |     |           |       |
| <u>NWTPH-Gx (MS)</u>                          |                |                 |                                                   |           |          |                                                   |               |       |              |     |           |       |
| Gasoline Range Organics                       | ND             | 1670            | 3330                                              | ug/kg wet | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Surr: 4-Bromofluorobenzene (Sur)              |                | Recovery: 98 %  | Limits: 50-150 %                                  |           |          | Dilution: 1x                                      |               |       |              |     |           |       |
| 1,4-Difluorobenzene (Sur)                     |                | 98 %            | 50-150 %                                          |           |          | "                                                 |               |       |              |     |           |       |
| <b>LCS (22G0745-BS2)</b>                      |                |                 |                                                   |           |          | Prepared: 07/22/22 08:00 Analyzed: 07/22/22 14:55 |               |       |              |     |           |       |
| <u>NWTPH-Gx (MS)</u>                          |                |                 |                                                   |           |          |                                                   |               |       |              |     |           |       |
| Gasoline Range Organics                       | 25800          | 2500            | 5000                                              | ug/kg wet | 50       | 25000                                             | ---           | 103   | 80-120%      | --- | ---       |       |
| Surr: 4-Bromofluorobenzene (Sur)              |                | Recovery: 98 %  | Limits: 50-150 %                                  |           |          | Dilution: 1x                                      |               |       |              |     |           |       |
| 1,4-Difluorobenzene (Sur)                     |                | 99 %            | 50-150 %                                          |           |          | "                                                 |               |       |              |     |           |       |
| <b>Duplicate (22G0745-DUP1)</b>               |                |                 |                                                   |           |          | Prepared: 07/21/22 19:02 Analyzed: 07/22/22 20:19 |               |       |              |     |           |       |
| <u>QC Source Sample: Non-SDG (A2G0571-01)</u> |                |                 |                                                   |           |          |                                                   |               |       |              |     |           |       |
| Gasoline Range Organics                       | <b>6190000</b> | 969000          | 1940000                                           | ug/kg wet | 5000     | ---                                               | 6650000       | ---   | ---          | 7   | 30%       |       |
| Surr: 4-Bromofluorobenzene (Sur)              |                | Recovery: 98 %  | Limits: 50-150 %                                  |           |          | Dilution: 1x                                      |               |       |              |     |           |       |
| 1,4-Difluorobenzene (Sur)                     |                | 99 %            | 50-150 %                                          |           |          | "                                                 |               |       |              |     |           |       |

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                       | Result         | Detection Limit        | Reporting Limit                                   | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|----------------|------------------------|---------------------------------------------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0771 - EPA 5035A</b>              |                |                        |                                                   |                         |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>Blank (22G0771-BLK1)</b>                   |                |                        | Prepared: 07/25/22 08:00 Analyzed: 07/25/22 12:14 |                         |          |                                                   |               |       |              |     |           |       |
| <u>NWTPH-Gx (MS)</u>                          |                |                        |                                                   |                         |          |                                                   |               |       |              |     |           |       |
| Gasoline Range Organics                       | ND             | 1670                   | 3330                                              | ug/kg wet               | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| <i>Surr: 4-Bromofluorobenzene (Sur)</i>       |                | <i>Recovery: 100 %</i> |                                                   | <i>Limits: 50-150 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>1,4-Difluorobenzene (Sur)</i>              |                | <i>99 %</i>            |                                                   | <i>50-150 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <b>LCS (22G0771-BS2)</b>                      |                |                        |                                                   |                         |          | Prepared: 07/25/22 08:00 Analyzed: 07/25/22 10:27 |               |       |              |     |           |       |
| <u>NWTPH-Gx (MS)</u>                          |                |                        |                                                   |                         |          |                                                   |               |       |              |     |           |       |
| Gasoline Range Organics                       | 26600          | 2500                   | 5000                                              | ug/kg wet               | 50       | 25000                                             | ---           | 107   | 80-120%      | --- | ---       |       |
| <i>Surr: 4-Bromofluorobenzene (Sur)</i>       |                | <i>Recovery: 98 %</i>  |                                                   | <i>Limits: 50-150 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>1,4-Difluorobenzene (Sur)</i>              |                | <i>99 %</i>            |                                                   | <i>50-150 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <b>Duplicate (22G0771-DUP1)</b>               |                |                        |                                                   |                         |          | Prepared: 07/22/22 19:05 Analyzed: 07/25/22 20:21 |               |       |              |     |           |       |
| <u>QC Source Sample: Non-SDG (A2G0665-01)</u> |                |                        |                                                   |                         |          |                                                   |               |       |              |     |           |       |
| Gasoline Range Organics                       | <b>4570000</b> | 11600                  | 23200                                             | ug/kg dry               | 200      | ---                                               | 4790000       | ---   | ---          | 5   | 30%       |       |
| <i>Surr: 4-Bromofluorobenzene (Sur)</i>       |                | <i>Recovery: 90 %</i>  |                                                   | <i>Limits: 50-150 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>1,4-Difluorobenzene (Sur)</i>              |                | <i>99 %</i>            |                                                   | <i>50-150 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes  |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|--------|
| <b>Batch 22G0745 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |       |              |     |           |        |
| <b>Blank (22G0745-BLK1)</b>      |        |                 | Prepared: 07/22/22 08:00 Analyzed: 07/22/22 15:22 |           |          |              |               |       |              |     |           |        |
| <u>5035A/8260D</u>               |        |                 |                                                   |           |          |              |               |       |              |     |           |        |
| Acetone                          | ND     | 333             | 667                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       | ICV-02 |
| Acrylonitrile                    | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Benzene                          | ND     | 3.33            | 6.67                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromobenzene                     | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromochloromethane               | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromodichloromethane             | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromoform                        | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromomethane                     | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 2-Butanone (MEK)                 | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       | ICV-02 |
| n-Butylbenzene                   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| sec-Butylbenzene                 | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| tert-Butylbenzene                | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Carbon disulfide                 | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Carbon tetrachloride             | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chlorobenzene                    | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloroethane                     | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloroform                       | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloromethane                    | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 2-Chlorotoluene                  | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 4-Chlorotoluene                  | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dibromochloromethane             | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dibromo-3-chloropropane      | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dibromoethane (EDB)          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dibromomethane                   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,3-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,4-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dichlorodifluoromethane          | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,1-Dichloroethane               | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dichloroethane (EDC)         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,1-Dichloroethene               | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| cis-1,2-Dichloroethene           | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| trans-1,2-Dichloroethene         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0745 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |       |              |     |           |       |
| <b>Blank (22G0745-BLK1)</b>      |        |                 | Prepared: 07/22/22 08:00 Analyzed: 07/22/22 15:22 |           |          |              |               |       |              |     |           |       |
| 1,2-Dichloropropane              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dichloropropane              | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,2-Dichloropropane              | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1-Dichloropropene              | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| cis-1,3-Dichloropropene          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| trans-1,3-Dichloropropene        | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Ethylbenzene                     | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Hexachlorobutadiene              | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Hexanone                       | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Isopropylbenzene                 | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Isopropyltoluene               | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Methylene chloride               | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)      | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Naphthalene                      | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| n-Propylbenzene                  | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Styrene                          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane        | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane        | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Tetrachloroethene (PCE)          | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Toluene                          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichlorobenzene           | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trichlorobenzene           | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1-Trichloroethane            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2-Trichloroethane            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Trichloroethene (TCE)            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Trichlorofluoromethane           | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichloropropane           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trimethylbenzene           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,3,5-Trimethylbenzene           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Vinyl chloride                   | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| m,p-Xylene                       | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| o-Xylene                         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |

Surr: 1,4-Difluorobenzene (Surr)

Recovery: 100 % Limits: 80-120 %

Dilution: 1x

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**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                            | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes        |
|------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|------------|----------------|-----|-----------|--------------|
| <b>Batch 22G0745 - EPA 5035A</b>   |        |                       |                 |                         |          | <b>Soil</b>                                       |               |            |                |     |           |              |
| <b>Blank (22G0745-BLK1)</b>        |        |                       |                 |                         |          | Prepared: 07/22/22 08:00 Analyzed: 07/22/22 15:22 |               |            |                |     |           |              |
| <i>Surr: Toluene-d8 (Surr)</i>     |        | <i>Recovery: 99 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |            |                |     |           |              |
| <i>4-Bromofluorobenzene (Surr)</i> |        | <i>99 %</i>           |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |            |                |     |           |              |
| <b>LCS (22G0745-BS1)</b>           |        |                       |                 |                         |          | Prepared: 07/22/22 08:00 Analyzed: 07/22/22 14:29 |               |            |                |     |           |              |
| <b>5035A/8260D</b>                 |        |                       |                 |                         |          |                                                   |               |            |                |     |           |              |
| Acetone                            | 1360   | 500                   | 1000            | ug/kg wet               | 50       | 2000                                              | ---           | <b>68</b>  | <b>80-120%</b> | --- | ---       | ICV-02, Q-55 |
| Acrylonitrile                      | 852    | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 85         | 80-120%        | --- | ---       |              |
| Benzene                            | 1000   | 5.00                  | 10.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100        | 80-120%        | --- | ---       |              |
| Bromobenzene                       | 1000   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100        | 80-120%        | --- | ---       |              |
| Bromochloromethane                 | 931    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 93         | 80-120%        | --- | ---       |              |
| Bromodichloromethane               | 1070   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 107        | 80-120%        | --- | ---       |              |
| Bromoform                          | 848    | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 85         | 80-120%        | --- | ---       |              |
| Bromomethane                       | 1300   | 500                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | <b>130</b> | <b>80-120%</b> | --- | ---       | ICV-01, Q-56 |
| 2-Butanone (MEK)                   | 1400   | 250                   | 500             | ug/kg wet               | 50       | 2000                                              | ---           | <b>70</b>  | <b>80-120%</b> | --- | ---       | ICV-02, Q-55 |
| n-Butylbenzene                     | 1110   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 111        | 80-120%        | --- | ---       |              |
| sec-Butylbenzene                   | 1130   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 113        | 80-120%        | --- | ---       |              |
| tert-Butylbenzene                  | 1050   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 105        | 80-120%        | --- | ---       |              |
| Carbon disulfide                   | 844    | 250                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | 84         | 80-120%        | --- | ---       |              |
| Carbon tetrachloride               | 1150   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 115        | 80-120%        | --- | ---       |              |
| Chlorobenzene                      | 1010   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 101        | 80-120%        | --- | ---       |              |
| Chloroethane                       | 1220   | 250                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | <b>122</b> | <b>80-120%</b> | --- | ---       | Q-56         |
| Chloroform                         | 1010   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 101        | 80-120%        | --- | ---       |              |
| Chloromethane                      | 874    | 125                   | 250             | ug/kg wet               | 50       | 1000                                              | ---           | 87         | 80-120%        | --- | ---       |              |
| 2-Chlorotoluene                    | 1040   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 104        | 80-120%        | --- | ---       |              |
| 4-Chlorotoluene                    | 1010   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 101        | 80-120%        | --- | ---       |              |
| Dibromochloromethane               | 922    | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 92         | 80-120%        | --- | ---       |              |
| 1,2-Dibromo-3-chloropropane        | 838    | 125                   | 250             | ug/kg wet               | 50       | 1000                                              | ---           | 84         | 80-120%        | --- | ---       |              |
| 1,2-Dibromoethane (EDB)            | 1040   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 104        | 80-120%        | --- | ---       |              |
| Dibromomethane                     | 972    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 97         | 80-120%        | --- | ---       |              |
| 1,2-Dichlorobenzene                | 1020   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 102        | 80-120%        | --- | ---       |              |
| 1,3-Dichlorobenzene                | 1010   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 101        | 80-120%        | --- | ---       |              |
| 1,4-Dichlorobenzene                | 1000   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100        | 80-120%        | --- | ---       |              |
| Dichlorodifluoromethane            | 1270   | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | <b>127</b> | <b>80-120%</b> | --- | ---       | Q-56         |
| 1,1-Dichloroethane                 | 970    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 97         | 80-120%        | --- | ---       |              |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|------------|----------------|-----|-----------|-------|
| <b>Batch 22G0745 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |            |                |     |           |       |
| <b>LCS (22G0745-BS1)</b>         |        |                 | Prepared: 07/22/22 08:00 Analyzed: 07/22/22 14:29 |           |          |              |               |            |                |     |           |       |
| 1,2-Dichloroethane (EDC)         | 984    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| 1,1-Dichloroethene               | 1060   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 106        | 80-120%        | --- | ---       |       |
| cis-1,2-Dichloroethene           | 996    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 100        | 80-120%        | --- | ---       |       |
| trans-1,2-Dichloroethene         | 1020   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 102        | 80-120%        | --- | ---       |       |
| 1,2-Dichloropropane              | 999    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 100        | 80-120%        | --- | ---       |       |
| 1,3-Dichloropropane              | 1020   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 102        | 80-120%        | --- | ---       |       |
| 2,2-Dichloropropane              | 1040   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 104        | 80-120%        | --- | ---       |       |
| 1,1-Dichloropropene              | 1120   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 112        | 80-120%        | --- | ---       |       |
| cis-1,3-Dichloropropene          | 1020   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 102        | 80-120%        | --- | ---       |       |
| trans-1,3-Dichloropropene        | 1090   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 109        | 80-120%        | --- | ---       |       |
| Ethylbenzene                     | 1030   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 103        | 80-120%        | --- | ---       |       |
| Hexachlorobutadiene              | 1090   | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | 109        | 80-120%        | --- | ---       |       |
| 2-Hexanone                       | 1590   | 250             | 500                                               | ug/kg wet | 50       | 2000         | ---           | 80         | 80-120%        | --- | ---       |       |
| Isopropylbenzene                 | 1080   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 108        | 80-120%        | --- | ---       |       |
| 4-Isopropyltoluene               | 1110   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 111        | 80-120%        | --- | ---       |       |
| Methylene chloride               | 1030   | 250             | 500                                               | ug/kg wet | 50       | 1000         | ---           | 103        | 80-120%        | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)      | 1720   | 250             | 500                                               | ug/kg wet | 50       | 2000         | ---           | 86         | 80-120%        | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)   | 970    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 97         | 80-120%        | --- | ---       |       |
| Naphthalene                      | 1010   | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | 101        | 80-120%        | --- | ---       |       |
| n-Propylbenzene                  | 1050   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 105        | 80-120%        | --- | ---       |       |
| Styrene                          | 1030   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 103        | 80-120%        | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane        | 1150   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 115        | 80-120%        | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane        | 982    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| Tetrachloroethene (PCE)          | 1130   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 113        | 80-120%        | --- | ---       |       |
| Toluene                          | 979    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| 1,2,3-Trichlorobenzene           | 994    | 125             | 250                                               | ug/kg wet | 50       | 1000         | ---           | 99         | 80-120%        | --- | ---       |       |
| 1,2,4-Trichlorobenzene           | 984    | 125             | 250                                               | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| 1,1,1-Trichloroethane            | 1080   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 108        | 80-120%        | --- | ---       |       |
| 1,1,2-Trichloroethane            | 1040   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 104        | 80-120%        | --- | ---       |       |
| Trichloroethene (TCE)            | 1070   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 107        | 80-120%        | --- | ---       |       |
| Trichlorofluoromethane           | 1350   | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | <b>135</b> | <b>80-120%</b> | --- | ---       | Q-56  |
| 1,2,3-Trichloropropane           | 1010   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 101        | 80-120%        | --- | ---       |       |
| 1,2,4-Trimethylbenzene           | 1080   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 108        | 80-120%        | --- | ---       |       |
| 1,3,5-Trimethylbenzene           | 1090   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 109        | 80-120%        | --- | ---       |       |

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Darwin Thomas, Business Development Director





ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                 | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0745 - EPA 5035A</b>        |        |                       |                 |                         |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>LCS (22G0745-BS1)</b>                |        |                       |                 |                         |          | Prepared: 07/22/22 08:00 Analyzed: 07/22/22 14:29 |               |       |              |     |           |       |
| Vinyl chloride                          | 1100   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 110   | 80-120%      | --- | ---       |       |
| m,p-Xylene                              | 2060   | 25.0                  | 50.0            | ug/kg wet               | 50       | 2000                                              | ---           | 103   | 80-120%      | --- | ---       |       |
| o-Xylene                                | 1020   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 102   | 80-120%      | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i> |        | <i>Recovery: 99 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                |        | <i>99 %</i>           |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>      |        | <i>98 %</i>           |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |

| <b>Duplicate (22G0745-DUP1)</b>               |              |        |        |           |      | Prepared: 07/21/22 19:02 Analyzed: 07/22/22 20:19 |       |     |     |     |     |        |
|-----------------------------------------------|--------------|--------|--------|-----------|------|---------------------------------------------------|-------|-----|-----|-----|-----|--------|
| <b>QC Source Sample: Non-SDG (A2G0571-01)</b> |              |        |        |           |      |                                                   |       |     |     |     |     |        |
| Acetone                                       | ND           | 194000 | 388000 | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% | ICV-02 |
| Acrylonitrile                                 | ND           | 19400  | 38800  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Benzene                                       | <b>75200</b> | 1940   | 3880   | ug/kg wet | 5000 | ---                                               | 76000 | --- | --- | 1   | 30% |        |
| Bromobenzene                                  | ND           | 4840   | 9690   | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Bromochloromethane                            | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Bromodichloromethane                          | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Bromoform                                     | ND           | 19400  | 38800  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Bromomethane                                  | ND           | 194000 | 194000 | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| 2-Butanone (MEK)                              | ND           | 194000 | 194000 | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% | ICV-02 |
| n-Butylbenzene                                | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| sec-Butylbenzene                              | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| tert-Butylbenzene                             | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Carbon disulfide                              | ND           | 96900  | 194000 | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Carbon tetrachloride                          | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Chlorobenzene                                 | ND           | 4840   | 9690   | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Chloroethane                                  | ND           | 96900  | 194000 | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Chloroform                                    | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Chloromethane                                 | ND           | 48400  | 96900  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| 2-Chlorotoluene                               | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| 4-Chlorotoluene                               | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Dibromochloromethane                          | ND           | 19400  | 38800  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| 1,2-Dibromo-3-chloropropane                   | ND           | 48400  | 96900  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| 1,2-Dibromoethane (EDB)                       | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| Dibromomethane                                | ND           | 9690   | 19400  | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |
| 1,2-Dichlorobenzene                           | ND           | 4840   | 9690   | ug/kg wet | 5000 | ---                                               | ND    | --- | --- | --- | 30% |        |

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ANALYTICAL REPORT

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result        | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|---------------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0745 - EPA 5035A</b>              |               |                 |                                                   |           |          | <b>Soil</b>  |               |       |              |     |           |       |
| <b>Duplicate (22G0745-DUP1)</b>               |               |                 | Prepared: 07/21/22 19:02 Analyzed: 07/22/22 20:19 |           |          |              |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0571-01)</b> |               |                 |                                                   |           |          |              |               |       |              |     |           |       |
| 1,3-Dichlorobenzene                           | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,4-Dichlorobenzene                           | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Dichlorodifluoromethane                       | ND            | 19400           | 38800                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1-Dichloroethane                            | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,2-Dichloroethane (EDC)                      | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1-Dichloroethene                            | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| cis-1,2-Dichloroethene                        | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| trans-1,2-Dichloroethene                      | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,2-Dichloropropane                           | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,3-Dichloropropane                           | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2,2-Dichloropropane                           | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1-Dichloropropene                           | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| cis-1,3-Dichloropropene                       | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| trans-1,3-Dichloropropene                     | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Ethylbenzene                                  | <b>18200</b>  | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | 18200         | ---   | ---          | 0   | 30%       |       |
| Hexachlorobutadiene                           | ND            | 19400           | 38800                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2-Hexanone                                    | ND            | 96900           | 194000                                            | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Isopropylbenzene                              | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 4-Isopropyltoluene                            | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Methylene chloride                            | ND            | 96900           | 194000                                            | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 4-Methyl-2-pentanone (MiBK)                   | ND            | 96900           | 194000                                            | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Methyl tert-butyl ether (MTBE)                | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Naphthalene                                   | ND            | 19400           | 38800                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| n-Propylbenzene                               | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Styrene                                       | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,1,2-Tetrachloroethane                     | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,2,2-Tetrachloroethane                     | ND            | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Tetrachloroethene (PCE)                       | <b>5810</b>   | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | 6400          | ---   | ---          | 10  | 30%       | J     |
| Toluene                                       | <b>118000</b> | 9690            | 19400                                             | ug/kg wet | 5000     | ---          | 116000        | ---   | ---          | 1   | 30%       |       |
| 1,2,3-Trichlorobenzene                        | ND            | 48400           | 96900                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,4-Trichlorobenzene                        | ND            | 48400           | 96900                                             | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,1-Trichloroethane                         | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,2-Trichloroethane                         | ND            | 4840            | 9690                                              | ug/kg wet | 5000     | ---          | ND            | ---   | ---          | --- | 30%       |       |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result       | Detection Limit        | Reporting Limit                                   | Units                   | Dilution | Spike Amount        | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------------|------------------------|---------------------------------------------------|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0745 - EPA 5035A</b>              |              |                        |                                                   |                         |          | <b>Soil</b>         |               |       |              |     |           |       |
| <b>Duplicate (22G0745-DUP1)</b>               |              |                        | Prepared: 07/21/22 19:02 Analyzed: 07/22/22 20:19 |                         |          |                     |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0571-01)</b> |              |                        |                                                   |                         |          |                     |               |       |              |     |           |       |
| Trichloroethene (TCE)                         | ND           | 4840                   | 9690                                              | ug/kg wet               | 5000     | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| Trichlorofluoromethane                        | ND           | 19400                  | 38800                                             | ug/kg wet               | 5000     | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,3-Trichloropropane                        | ND           | 9690                   | 19400                                             | ug/kg wet               | 5000     | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,4-Trimethylbenzene                        | ND           | 9690                   | 19400                                             | ug/kg wet               | 5000     | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| 1,3,5-Trimethylbenzene                        | ND           | 9690                   | 19400                                             | ug/kg wet               | 5000     | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| Vinyl chloride                                | ND           | 4840                   | 9690                                              | ug/kg wet               | 5000     | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| m,p-Xylene                                    | <b>33700</b> | 9690                   | 19400                                             | ug/kg wet               | 5000     | ---                 | 33500         | ---   | ---          | 0.6 | 30%       |       |
| o-Xylene                                      | <b>6010</b>  | 4840                   | 9690                                              | ug/kg wet               | 5000     | ---                 | 6400          | ---   | ---          | 6   | 30%       | J     |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>       |              | <i>Recovery: 100 %</i> |                                                   | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i> |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                      |              | <i>100 %</i>           |                                                   | <i>80-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>            |              | <i>98 %</i>            |                                                   | <i>79-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |

|                                               |      |      |      |           |    |                                                   |    |     |         |     |     |               |
|-----------------------------------------------|------|------|------|-----------|----|---------------------------------------------------|----|-----|---------|-----|-----|---------------|
| <b>Matrix Spike (22G0745-MS1)</b>             |      |      |      |           |    | Prepared: 07/21/22 19:02 Analyzed: 07/23/22 02:36 |    |     |         |     |     |               |
| <b>QC Source Sample: Non-SDG (A2G0602-27)</b> |      |      |      |           |    |                                                   |    |     |         |     |     |               |
| <b>5035A/8260D</b>                            |      |      |      |           |    |                                                   |    |     |         |     |     |               |
| Acetone                                       | 1440 | 568  | 1140 | ug/kg dry | 50 | 2270                                              | ND | 64  | 36-164% | --- | --- | ICV-02, Q-54l |
| Acrylonitrile                                 | 992  | 56.8 | 114  | ug/kg dry | 50 | 1130                                              | ND | 87  | 65-134% | --- | --- |               |
| Benzene                                       | 1130 | 5.68 | 11.4 | ug/kg dry | 50 | 1130                                              | ND | 99  | 77-121% | --- | --- |               |
| Bromobenzene                                  | 1110 | 14.2 | 28.4 | ug/kg dry | 50 | 1130                                              | ND | 97  | 78-121% | --- | --- |               |
| Bromochloromethane                            | 1070 | 28.4 | 56.8 | ug/kg dry | 50 | 1130                                              | ND | 94  | 78-125% | --- | --- |               |
| Bromodichloromethane                          | 1140 | 28.4 | 56.8 | ug/kg dry | 50 | 1130                                              | ND | 100 | 75-127% | --- | --- |               |
| Bromoform                                     | 875  | 56.8 | 114  | ug/kg dry | 50 | 1130                                              | ND | 77  | 67-132% | --- | --- |               |
| Bromomethane                                  | 1550 | 568  | 568  | ug/kg dry | 50 | 1130                                              | ND | 137 | 53-143% | --- | --- | ICV-01, Q-54  |
| 2-Butanone (MEK)                              | 1520 | 284  | 568  | ug/kg dry | 50 | 2270                                              | ND | 67  | 51-148% | --- | --- | ICV-02, Q-54k |
| n-Butylbenzene                                | 1160 | 28.4 | 56.8 | ug/kg dry | 50 | 1130                                              | ND | 102 | 70-128% | --- | --- |               |
| sec-Butylbenzene                              | 1210 | 28.4 | 56.8 | ug/kg dry | 50 | 1130                                              | ND | 107 | 73-126% | --- | --- |               |
| tert-Butylbenzene                             | 1130 | 28.4 | 56.8 | ug/kg dry | 50 | 1130                                              | ND | 99  | 73-125% | --- | --- |               |
| Carbon disulfide                              | 906  | 284  | 568  | ug/kg dry | 50 | 1130                                              | ND | 80  | 63-132% | --- | --- |               |
| Carbon tetrachloride                          | 1270 | 28.4 | 56.8 | ug/kg dry | 50 | 1130                                              | ND | 112 | 70-135% | --- | --- |               |
| Chlorobenzene                                 | 1110 | 14.2 | 28.4 | ug/kg dry | 50 | 1130                                              | ND | 98  | 79-120% | --- | --- |               |
| Chloroethane                                  | 1190 | 284  | 568  | ug/kg dry | 50 | 1130                                              | ND | 105 | 59-139% | --- | --- | Q-54d         |

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result | Detection Limit | Reporting Limit | Units     | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|-----------------|-----------------|-----------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0745 - EPA 5035A</b>              |        |                 |                 |           |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>Matrix Spike (22G0745-MS1)</b>             |        |                 |                 |           |          | Prepared: 07/21/22 19:02 Analyzed: 07/23/22 02:36 |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0602-27)</b> |        |                 |                 |           |          |                                                   |               |       |              |     |           |       |
| Chloroform                                    | 1130   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 100   | 78-123%      | --- | ---       |       |
| Chloromethane                                 | 973    | 142             | 284             | ug/kg dry | 50       | 1130                                              | ND            | 86    | 50-136%      | --- | ---       |       |
| 2-Chlorotoluene                               | 1120   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 99    | 75-122%      | --- | ---       |       |
| 4-Chlorotoluene                               | 1090   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 96    | 72-124%      | --- | ---       |       |
| Dibromochloromethane                          | 956    | 56.8            | 114             | ug/kg dry | 50       | 1130                                              | ND            | 84    | 74-126%      | --- | ---       |       |
| 1,2-Dibromo-3-chloropropane                   | 825    | 142             | 284             | ug/kg dry | 50       | 1130                                              | ND            | 73    | 61-132%      | --- | ---       |       |
| 1,2-Dibromoethane (EDB)                       | 1110   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 98    | 78-122%      | --- | ---       |       |
| Dibromomethane                                | 1090   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 96    | 78-125%      | --- | ---       |       |
| 1,2-Dichlorobenzene                           | 1100   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 97    | 78-121%      | --- | ---       |       |
| 1,3-Dichlorobenzene                           | 1100   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 97    | 77-121%      | --- | ---       |       |
| 1,4-Dichlorobenzene                           | 1080   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 95    | 75-120%      | --- | ---       |       |
| Dichlorodifluoromethane                       | 1470   | 56.8            | 114             | ug/kg dry | 50       | 1130                                              | ND            | 129   | 29-149%      | --- | ---       | Q-54i |
| 1,1-Dichloroethane                            | 1150   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 101   | 76-125%      | --- | ---       |       |
| 1,2-Dichloroethane (EDC)                      | 1110   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 98    | 73-128%      | --- | ---       |       |
| 1,1-Dichloroethene                            | 1210   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 106   | 70-131%      | --- | ---       |       |
| cis-1,2-Dichloroethene                        | 1130   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 99    | 77-123%      | --- | ---       |       |
| trans-1,2-Dichloroethene                      | 1150   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 101   | 74-125%      | --- | ---       |       |
| 1,2-Dichloropropane                           | 1110   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 98    | 76-123%      | --- | ---       |       |
| 1,3-Dichloropropane                           | 1110   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 97    | 77-121%      | --- | ---       |       |
| 2,2-Dichloropropane                           | 927    | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 82    | 67-133%      | --- | ---       |       |
| 1,1-Dichloropropene                           | 1270   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 112   | 76-125%      | --- | ---       |       |
| cis-1,3-Dichloropropene                       | 1040   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 91    | 74-126%      | --- | ---       |       |
| trans-1,3-Dichloropropene                     | 1090   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 96    | 71-130%      | --- | ---       |       |
| Ethylbenzene                                  | 1120   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 98    | 76-122%      | --- | ---       |       |
| Hexachlorobutadiene                           | 1120   | 56.8            | 114             | ug/kg dry | 50       | 1130                                              | ND            | 99    | 61-135%      | --- | ---       |       |
| 2-Hexanone                                    | 1650   | 284             | 568             | ug/kg dry | 50       | 2270                                              | ND            | 73    | 53-145%      | --- | ---       |       |
| Isopropylbenzene                              | 1180   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 104   | 68-134%      | --- | ---       |       |
| 4-Isopropyltoluene                            | 1180   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 104   | 73-127%      | --- | ---       |       |
| Methylene chloride                            | 1100   | 284             | 568             | ug/kg dry | 50       | 1130                                              | ND            | 97    | 70-128%      | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)                   | 1870   | 284             | 568             | ug/kg dry | 50       | 2270                                              | ND            | 82    | 65-135%      | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)                | 1060   | 28.4            | 56.8            | ug/kg dry | 50       | 1130                                              | ND            | 93    | 73-125%      | --- | ---       |       |
| Naphthalene                                   | 1040   | 56.8            | 114             | ug/kg dry | 50       | 1130                                              | ND            | 92    | 62-129%      | --- | ---       |       |
| n-Propylbenzene                               | 1130   | 14.2            | 28.4            | ug/kg dry | 50       | 1130                                              | ND            | 100   | 73-125%      | --- | ---       |       |

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ANALYTICAL REPORT

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|------------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0745 - EPA 5035A</b>              |        |                        |                 |                         |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>Matrix Spike (22G0745-MS1)</b>             |        |                        |                 |                         |          | Prepared: 07/21/22 19:02 Analyzed: 07/23/22 02:36 |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0602-27)</b> |        |                        |                 |                         |          |                                                   |               |       |              |     |           |       |
| Styrene                                       | 1120   | 28.4                   | 56.8            | ug/kg dry               | 50       | 1130                                              | ND            | 99    | 76-124%      | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane                     | 1250   | 14.2                   | 28.4            | ug/kg dry               | 50       | 1130                                              | ND            | 110   | 78-125%      | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane                     | 1050   | 28.4                   | 56.8            | ug/kg dry               | 50       | 1130                                              | ND            | 92    | 70-124%      | --- | ---       |       |
| Tetrachloroethene (PCE)                       | 1230   | 14.2                   | 28.4            | ug/kg dry               | 50       | 1130                                              | ND            | 108   | 73-128%      | --- | ---       |       |
| Toluene                                       | 1070   | 28.4                   | 56.8            | ug/kg dry               | 50       | 1130                                              | ND            | 94    | 77-121%      | --- | ---       |       |
| 1,2,3-Trichlorobenzene                        | 1030   | 142                    | 284             | ug/kg dry               | 50       | 1130                                              | ND            | 91    | 66-130%      | --- | ---       |       |
| 1,2,4-Trichlorobenzene                        | 1000   | 142                    | 284             | ug/kg dry               | 50       | 1130                                              | ND            | 88    | 67-129%      | --- | ---       |       |
| 1,1,1-Trichloroethane                         | 1230   | 14.2                   | 28.4            | ug/kg dry               | 50       | 1130                                              | ND            | 108   | 73-130%      | --- | ---       |       |
| 1,1,2-Trichloroethane                         | 1120   | 14.2                   | 28.4            | ug/kg dry               | 50       | 1130                                              | ND            | 99    | 78-121%      | --- | ---       |       |
| Trichloroethene (TCE)                         | 1210   | 14.2                   | 28.4            | ug/kg dry               | 50       | 1130                                              | ND            | 106   | 77-123%      | --- | ---       |       |
| Trichlorofluoromethane                        | 1440   | 56.8                   | 114             | ug/kg dry               | 50       | 1130                                              | ND            | 127   | 62-140%      | --- | ---       | Q-54b |
| 1,2,3-Trichloropropane                        | 1080   | 28.4                   | 56.8            | ug/kg dry               | 50       | 1130                                              | ND            | 95    | 73-125%      | --- | ---       |       |
| 1,2,4-Trimethylbenzene                        | 1170   | 28.4                   | 56.8            | ug/kg dry               | 50       | 1130                                              | ND            | 103   | 75-123%      | --- | ---       |       |
| 1,3,5-Trimethylbenzene                        | 1180   | 28.4                   | 56.8            | ug/kg dry               | 50       | 1130                                              | ND            | 104   | 73-124%      | --- | ---       |       |
| Vinyl chloride                                | 1310   | 14.2                   | 28.4            | ug/kg dry               | 50       | 1130                                              | ND            | 116   | 56-135%      | --- | ---       |       |
| m,p-Xylene                                    | 2270   | 28.4                   | 56.8            | ug/kg dry               | 50       | 2270                                              | ND            | 100   | 77-124%      | --- | ---       |       |
| o-Xylene                                      | 1110   | 14.2                   | 28.4            | ug/kg dry               | 50       | 1130                                              | ND            | 98    | 77-123%      | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>       |        | <i>Recovery: 100 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                      |        | <i>98 %</i>            |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>            |        | <i>98 %</i>            |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes  |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|--------|
| <b>Batch 22G0771 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |       |              |     |           |        |
| <b>Blank (22G0771-BLK1)</b>      |        |                 | Prepared: 07/25/22 08:00 Analyzed: 07/25/22 12:14 |           |          |              |               |       |              |     |           |        |
| <u>5035A/8260D</u>               |        |                 |                                                   |           |          |              |               |       |              |     |           |        |
| Acetone                          | ND     | 667             | 667                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       | ICV-02 |
| Acrylonitrile                    | ND     | 66.7            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Benzene                          | ND     | 3.33            | 6.67                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromobenzene                     | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromochloromethane               | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromodichloromethane             | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromoform                        | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromomethane                     | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 2-Butanone (MEK)                 | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       | ICV-02 |
| n-Butylbenzene                   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| sec-Butylbenzene                 | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| tert-Butylbenzene                | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Carbon disulfide                 | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Carbon tetrachloride             | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chlorobenzene                    | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloroethane                     | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloroform                       | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloromethane                    | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 2-Chlorotoluene                  | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 4-Chlorotoluene                  | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dibromochloromethane             | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dibromo-3-chloropropane      | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dibromoethane (EDB)          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dibromomethane                   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,3-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,4-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dichlorodifluoromethane          | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,1-Dichloroethane               | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dichloroethane (EDC)         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,1-Dichloroethene               | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| cis-1,2-Dichloroethene           | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| trans-1,2-Dichloroethene         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |

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ANALYTICAL REPORT

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|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0771 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |       |              |     |           |       |
| <b>Blank (22G0771-BLK1)</b>      |        |                 | Prepared: 07/25/22 08:00 Analyzed: 07/25/22 12:14 |           |          |              |               |       |              |     |           |       |
| 1,2-Dichloropropane              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dichloropropane              | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,2-Dichloropropane              | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1-Dichloropropene              | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| cis-1,3-Dichloropropene          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| trans-1,3-Dichloropropene        | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Ethylbenzene                     | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Hexachlorobutadiene              | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Hexanone                       | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Isopropylbenzene                 | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Isopropyltoluene               | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Methylene chloride               | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)      | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Naphthalene                      | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| n-Propylbenzene                  | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Styrene                          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane        | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane        | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Tetrachloroethene (PCE)          | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Toluene                          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichlorobenzene           | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trichlorobenzene           | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1-Trichloroethane            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2-Trichloroethane            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Trichloroethene (TCE)            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Trichlorofluoromethane           | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichloropropane           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trimethylbenzene           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,3,5-Trimethylbenzene           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Vinyl chloride                   | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| m,p-Xylene                       | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| o-Xylene                         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |

Surr: 1,4-Difluorobenzene (Surr)

Recovery: 99 % Limits: 80-120 %

Dilution: 1x

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ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                            | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes        |
|------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|------------|----------------|-----|-----------|--------------|
| <b>Batch 22G0771 - EPA 5035A</b>   |        |                       |                 |                         |          | <b>Soil</b>                                       |               |            |                |     |           |              |
| <b>Blank (22G0771-BLK1)</b>        |        |                       |                 |                         |          | Prepared: 07/25/22 08:00 Analyzed: 07/25/22 12:14 |               |            |                |     |           |              |
| <i>Surr: Toluene-d8 (Surr)</i>     |        | <i>Recovery: 98 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |            |                |     |           |              |
| <i>4-Bromofluorobenzene (Surr)</i> |        | <i>96 %</i>           |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |            |                |     |           |              |
| <b>LCS (22G0771-BS1)</b>           |        |                       |                 |                         |          | Prepared: 07/25/22 08:00 Analyzed: 07/25/22 10:00 |               |            |                |     |           |              |
| <b>5035A/8260D</b>                 |        |                       |                 |                         |          |                                                   |               |            |                |     |           |              |
| Acetone                            | 1360   | 500                   | 1000            | ug/kg wet               | 50       | 2000                                              | ---           | <b>68</b>  | <b>80-120%</b> | --- | ---       | ICV-02, Q-55 |
| Acrylonitrile                      | 792    | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | <b>79</b>  | <b>80-120%</b> | --- | ---       | Q-55         |
| Benzene                            | 944    | 5.00                  | 10.0            | ug/kg wet               | 50       | 1000                                              | ---           | 94         | 80-120%        | --- | ---       |              |
| Bromobenzene                       | 974    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 97         | 80-120%        | --- | ---       |              |
| Bromochloromethane                 | 904    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 90         | 80-120%        | --- | ---       |              |
| Bromodichloromethane               | 1020   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 102        | 80-120%        | --- | ---       |              |
| Bromoform                          | 854    | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 85         | 80-120%        | --- | ---       |              |
| Bromomethane                       | 1230   | 500                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | <b>123</b> | <b>80-120%</b> | --- | ---       | ICV-01, Q-56 |
| 2-Butanone (MEK)                   | 1330   | 250                   | 500             | ug/kg wet               | 50       | 2000                                              | ---           | <b>66</b>  | <b>80-120%</b> | --- | ---       | ICV-02, Q-55 |
| n-Butylbenzene                     | 1070   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 107        | 80-120%        | --- | ---       |              |
| sec-Butylbenzene                   | 1080   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 108        | 80-120%        | --- | ---       |              |
| tert-Butylbenzene                  | 996    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100        | 80-120%        | --- | ---       |              |
| Carbon disulfide                   | 752    | 250                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | <b>75</b>  | <b>80-120%</b> | --- | ---       | Q-55         |
| Carbon tetrachloride               | 1110   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 111        | 80-120%        | --- | ---       |              |
| Chlorobenzene                      | 975    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 98         | 80-120%        | --- | ---       |              |
| Chloroethane                       | 1460   | 250                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | <b>146</b> | <b>80-120%</b> | --- | ---       | Q-56         |
| Chloroform                         | 968    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 97         | 80-120%        | --- | ---       |              |
| Chloromethane                      | 796    | 125                   | 250             | ug/kg wet               | 50       | 1000                                              | ---           | 80         | 80-120%        | --- | ---       |              |
| 2-Chlorotoluene                    | 1020   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 102        | 80-120%        | --- | ---       |              |
| 4-Chlorotoluene                    | 968    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 97         | 80-120%        | --- | ---       |              |
| Dibromochloromethane               | 901    | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 90         | 80-120%        | --- | ---       |              |
| 1,2-Dibromo-3-chloropropane        | 799    | 125                   | 250             | ug/kg wet               | 50       | 1000                                              | ---           | 80         | 80-120%        | --- | ---       |              |
| 1,2-Dibromoethane (EDB)            | 999    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100        | 80-120%        | --- | ---       |              |
| Dibromomethane                     | 942    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 94         | 80-120%        | --- | ---       |              |
| 1,2-Dichlorobenzene                | 1000   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100        | 80-120%        | --- | ---       |              |
| 1,3-Dichlorobenzene                | 984    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 98         | 80-120%        | --- | ---       |              |
| 1,4-Dichlorobenzene                | 974    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 97         | 80-120%        | --- | ---       |              |
| Dichlorodifluoromethane            | 1100   | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 110        | 80-120%        | --- | ---       |              |
| 1,1-Dichloroethane                 | 937    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 94         | 80-120%        | --- | ---       |              |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|------------|----------------|-----|-----------|-------|
| <b>Batch 22G0771 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |            |                |     |           |       |
| <b>LCS (22G0771-BS1)</b>         |        |                 | Prepared: 07/25/22 08:00 Analyzed: 07/25/22 10:00 |           |          |              |               |            |                |     |           |       |
| 1,2-Dichloroethane (EDC)         | 946    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 95         | 80-120%        | --- | ---       |       |
| 1,1-Dichloroethene               | 979    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| cis-1,2-Dichloroethene           | 948    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 95         | 80-120%        | --- | ---       |       |
| trans-1,2-Dichloroethene         | 954    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 95         | 80-120%        | --- | ---       |       |
| 1,2-Dichloropropane              | 943    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 94         | 80-120%        | --- | ---       |       |
| 1,3-Dichloropropane              | 980    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| 2,2-Dichloropropane              | 954    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 95         | 80-120%        | --- | ---       |       |
| 1,1-Dichloropropene              | 1040   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 104        | 80-120%        | --- | ---       |       |
| cis-1,3-Dichloropropene          | 984    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| trans-1,3-Dichloropropene        | 1060   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 106        | 80-120%        | --- | ---       |       |
| Ethylbenzene                     | 978    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| Hexachlorobutadiene              | 1060   | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | 106        | 80-120%        | --- | ---       |       |
| 2-Hexanone                       | 1510   | 250             | 500                                               | ug/kg wet | 50       | 2000         | ---           | <b>75</b>  | <b>80-120%</b> | --- | ---       | Q-55  |
| Isopropylbenzene                 | 1020   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 102        | 80-120%        | --- | ---       |       |
| 4-Isopropyltoluene               | 1070   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 107        | 80-120%        | --- | ---       |       |
| Methylene chloride               | 935    | 250             | 500                                               | ug/kg wet | 50       | 1000         | ---           | 94         | 80-120%        | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)      | 1610   | 250             | 500                                               | ug/kg wet | 50       | 2000         | ---           | 81         | 80-120%        | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)   | 922    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 92         | 80-120%        | --- | ---       |       |
| Naphthalene                      | 973    | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | 97         | 80-120%        | --- | ---       |       |
| n-Propylbenzene                  | 1020   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 102        | 80-120%        | --- | ---       |       |
| Styrene                          | 962    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 96         | 80-120%        | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane        | 1130   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 113        | 80-120%        | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane        | 968    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 97         | 80-120%        | --- | ---       |       |
| Tetrachloroethene (PCE)          | 1070   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 107        | 80-120%        | --- | ---       |       |
| Toluene                          | 940    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 94         | 80-120%        | --- | ---       |       |
| 1,2,3-Trichlorobenzene           | 968    | 125             | 250                                               | ug/kg wet | 50       | 1000         | ---           | 97         | 80-120%        | --- | ---       |       |
| 1,2,4-Trichlorobenzene           | 952    | 125             | 250                                               | ug/kg wet | 50       | 1000         | ---           | 95         | 80-120%        | --- | ---       |       |
| 1,1,1-Trichloroethane            | 1030   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 103        | 80-120%        | --- | ---       |       |
| 1,1,2-Trichloroethane            | 996    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 100        | 80-120%        | --- | ---       |       |
| Trichloroethene (TCE)            | 1020   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 102        | 80-120%        | --- | ---       |       |
| Trichlorofluoromethane           | 1650   | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | <b>165</b> | <b>80-120%</b> | --- | ---       | Q-56  |
| 1,2,3-Trichloropropane           | 962    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 96         | 80-120%        | --- | ---       |       |
| 1,2,4-Trimethylbenzene           | 1060   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 106        | 80-120%        | --- | ---       |       |
| 1,3,5-Trimethylbenzene           | 1060   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 106        | 80-120%        | --- | ---       |       |

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Darwin Thomas, Business Development Director



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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                 | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0771 - EPA 5035A</b>        |        |                       |                 |                         |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>LCS (22G0771-BS1)</b>                |        |                       |                 |                         |          | Prepared: 07/25/22 08:00 Analyzed: 07/25/22 10:00 |               |       |              |     |           |       |
| Vinyl chloride                          | 1000   | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100   | 80-120%      | --- | ---       |       |
| m,p-Xylene                              | 1980   | 25.0                  | 50.0            | ug/kg wet               | 50       | 2000                                              | ---           | 99    | 80-120%      | --- | ---       |       |
| o-Xylene                                | 964    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 96    | 80-120%      | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i> |        | <i>Recovery: 99 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                |        | <i>100 %</i>          |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>      |        | <i>98 %</i>           |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |

**Duplicate (22G0771-DUP1)** Prepared: 07/22/22 19:05 Analyzed: 07/25/22 20:21 **V-16**

| <b>QC Source Sample: Non-SDG (A2G0665-01)</b> |             |      |      |           |     |     |      |     |     |     |     |        |
|-----------------------------------------------|-------------|------|------|-----------|-----|-----|------|-----|-----|-----|-----|--------|
| Acetone                                       | ND          | 4640 | 4640 | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% | ICV-02 |
| Acrylonitrile                                 | ND          | 464  | 464  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Benzene                                       | ND          | 23.2 | 46.4 | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Bromobenzene                                  | ND          | 58.0 | 116  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Bromochloromethane                            | ND          | 116  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Bromodichloromethane                          | ND          | 116  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Bromoform                                     | ND          | 232  | 464  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Bromomethane                                  | ND          | 2320 | 2320 | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| 2-Butanone (MEK)                              | ND          | 2320 | 2320 | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% | ICV-02 |
| n-Butylbenzene                                | <b>8230</b> | 116  | 232  | ug/kg dry | 200 | --- | 8340 | --- | --- | 1   | 30% |        |
| sec-Butylbenzene                              | <b>5250</b> | 116  | 232  | ug/kg dry | 200 | --- | 5360 | --- | --- | 2   | 30% |        |
| tert-Butylbenzene                             | ND          | 116  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Carbon disulfide                              | ND          | 2320 | 2320 | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Carbon tetrachloride                          | ND          | 116  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Chlorobenzene                                 | ND          | 116  | 116  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Chloroethane                                  | ND          | 1160 | 2320 | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Chloroform                                    | ND          | 116  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Chloromethane                                 | ND          | 580  | 1160 | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| 2-Chlorotoluene                               | ND          | 232  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| 4-Chlorotoluene                               | ND          | 116  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Dibromochloromethane                          | ND          | 232  | 464  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| 1,2-Dibromo-3-chloropropane                   | ND          | 580  | 1160 | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| 1,2-Dibromoethane (EDB)                       | ND          | 116  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| Dibromomethane                                | ND          | 116  | 232  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |
| 1,2-Dichlorobenzene                           | ND          | 58.0 | 116  | ug/kg dry | 200 | --- | ND   | --- | --- | --- | 30% |        |

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|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result       | Detection Limit | Reporting Limit | Units     | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------------|-----------------|-----------------|-----------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0771 - EPA 5035A</b>              |              |                 |                 |           |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>Duplicate (22G0771-DUP1)</b>               |              |                 |                 |           |          | Prepared: 07/22/22 19:05 Analyzed: 07/25/22 20:21 |               |       |              |     |           | V-16  |
| <b>QC Source Sample: Non-SDG (A2G0665-01)</b> |              |                 |                 |           |          |                                                   |               |       |              |     |           |       |
| 1,3-Dichlorobenzene                           | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,4-Dichlorobenzene                           | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| Dichlorodifluoromethane                       | ND           | 232             | 464             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,1-Dichloroethane                            | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,2-Dichloroethane (EDC)                      | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,1-Dichloroethene                            | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| cis-1,2-Dichloroethene                        | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| trans-1,2-Dichloroethene                      | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,2-Dichloropropane                           | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,3-Dichloropropane                           | ND           | 116             | 232             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 2,2-Dichloropropane                           | ND           | 116             | 232             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,1-Dichloropropene                           | ND           | 116             | 232             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| cis-1,3-Dichloropropene                       | ND           | 116             | 232             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| trans-1,3-Dichloropropene                     | ND           | 116             | 232             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| Ethylbenzene                                  | <b>736</b>   | 58.0            | 116             | ug/kg dry | 200      | ---                                               | 750           | ---   | ---          | 2   | 30%       |       |
| Hexachlorobutadiene                           | ND           | 232             | 464             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 2-Hexanone                                    | ND           | 2320            | 2320            | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| Isopropylbenzene                              | <b>664</b>   | 116             | 232             | ug/kg dry | 200      | ---                                               | 675           | ---   | ---          | 2   | 30%       |       |
| 4-Isopropyltoluene                            | <b>5860</b>  | 116             | 232             | ug/kg dry | 200      | ---                                               | 5860          | ---   | ---          | 0   | 30%       |       |
| Methylene chloride                            | ND           | 1160            | 2320            | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 4-Methyl-2-pentanone (MiBK)                   | ND           | 5690            | 5690            | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       | R-02  |
| Methyl tert-butyl ether (MTBE)                | ND           | 116             | 232             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| Naphthalene                                   | <b>13200</b> | 232             | 464             | ug/kg dry | 200      | ---                                               | 13300         | ---   | ---          | 0.5 | 30%       |       |
| n-Propylbenzene                               | <b>2660</b>  | 58.0            | 116             | ug/kg dry | 200      | ---                                               | 2720          | ---   | ---          | 2   | 30%       |       |
| Styrene                                       | ND           | 116             | 232             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,1,2-Tetrachloroethane                     | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,2,2-Tetrachloroethane                     | <b>10100</b> | 10100           | 10100           | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       | R-02  |
| Tetrachloroethene (PCE)                       | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| Toluene                                       | <b>378</b>   | 116             | 232             | ug/kg dry | 200      | ---                                               | 392           | ---   | ---          | 4   | 30%       |       |
| 1,2,3-Trichlorobenzene                        | ND           | 1160            | 1160            | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,4-Trichlorobenzene                        | ND           | 580             | 1160            | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,1-Trichloroethane                         | ND           | 58.0            | 116             | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,2-Trichloroethane                         | ND           | 3250            | 3250            | ug/kg dry | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       | R-02  |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result       | Detection Limit        | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------------|------------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0771 - EPA 5035A</b>              |              |                        |                 |                         |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>Duplicate (22G0771-DUP1)</b>               |              |                        |                 |                         |          | Prepared: 07/22/22 19:05 Analyzed: 07/25/22 20:21 |               |       |              |     |           | V-16  |
| <b>QC Source Sample: Non-SDG (A2G0665-01)</b> |              |                        |                 |                         |          |                                                   |               |       |              |     |           |       |
| Trichloroethene (TCE)                         | ND           | 58.0                   | 116             | ug/kg dry               | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| Trichlorofluoromethane                        | ND           | 232                    | 464             | ug/kg dry               | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,3-Trichloropropane                        | ND           | 2550                   | 2550            | ug/kg dry               | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       | R-02  |
| 1,2,4-Trimethylbenzene                        | <b>91200</b> | 116                    | 232             | ug/kg dry               | 200      | ---                                               | 92800         | ---   | ---          | 2   | 30%       |       |
| 1,3,5-Trimethylbenzene                        | <b>47200</b> | 116                    | 232             | ug/kg dry               | 200      | ---                                               | 48000         | ---   | ---          | 2   | 30%       |       |
| Vinyl chloride                                | ND           | 58.0                   | 116             | ug/kg dry               | 200      | ---                                               | ND            | ---   | ---          | --- | 30%       |       |
| m,p-Xylene                                    | <b>21700</b> | 116                    | 232             | ug/kg dry               | 200      | ---                                               | 22400         | ---   | ---          | 3   | 30%       |       |
| o-Xylene                                      | <b>21500</b> | 58.0                   | 116             | ug/kg dry               | 200      | ---                                               | 22300         | ---   | ---          | 4   | 30%       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>       |              | <i>Recovery: 102 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                      |              | <i>102 %</i>           |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>            |              | <i>97 %</i>            |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |

|                                               |      |      |      |           |    |                                                   |    |     |         |     |     |               |
|-----------------------------------------------|------|------|------|-----------|----|---------------------------------------------------|----|-----|---------|-----|-----|---------------|
| <b>Matrix Spike (22G0771-MS1)</b>             |      |      |      |           |    | Prepared: 07/13/22 12:30 Analyzed: 07/25/22 21:42 |    |     |         |     |     |               |
| <b>QC Source Sample: Non-SDG (A2G0382-08)</b> |      |      |      |           |    |                                                   |    |     |         |     |     |               |
| <b>5035A/8260D</b>                            |      |      |      |           |    |                                                   |    |     |         |     |     |               |
| Acetone                                       | 2310 | 928  | 1860 | ug/kg dry | 50 | 3720                                              | ND | 62  | 36-164% | --- | --- | ICV-02, Q-54l |
| Acrylonitrile                                 | 1700 | 92.8 | 186  | ug/kg dry | 50 | 1860                                              | ND | 92  | 65-134% | --- | --- |               |
| Benzene                                       | 1880 | 9.28 | 18.6 | ug/kg dry | 50 | 1860                                              | ND | 101 | 77-121% | --- | --- |               |
| Bromobenzene                                  | 1890 | 23.2 | 46.4 | ug/kg dry | 50 | 1860                                              | ND | 102 | 78-121% | --- | --- |               |
| Bromochloromethane                            | 1760 | 46.4 | 92.8 | ug/kg dry | 50 | 1860                                              | ND | 95  | 78-125% | --- | --- |               |
| Bromodichloromethane                          | 2030 | 46.4 | 92.8 | ug/kg dry | 50 | 1860                                              | ND | 109 | 75-127% | --- | --- |               |
| Bromoform                                     | 1730 | 92.8 | 186  | ug/kg dry | 50 | 1860                                              | ND | 93  | 67-132% | --- | --- |               |
| Bromomethane                                  | 2310 | 928  | 928  | ug/kg dry | 50 | 1860                                              | ND | 124 | 53-143% | --- | --- | ICV-01, Q-54  |
| 2-Butanone (MEK)                              | 2500 | 464  | 928  | ug/kg dry | 50 | 3720                                              | ND | 67  | 51-148% | --- | --- | ICV-02, Q-54k |
| n-Butylbenzene                                | 2020 | 46.4 | 92.8 | ug/kg dry | 50 | 1860                                              | ND | 108 | 70-128% | --- | --- |               |
| sec-Butylbenzene                              | 2040 | 46.4 | 92.8 | ug/kg dry | 50 | 1860                                              | ND | 110 | 73-126% | --- | --- |               |
| tert-Butylbenzene                             | 1850 | 46.4 | 92.8 | ug/kg dry | 50 | 1860                                              | ND | 100 | 73-125% | --- | --- |               |
| Carbon disulfide                              | 1650 | 464  | 928  | ug/kg dry | 50 | 1860                                              | ND | 89  | 63-132% | --- | --- |               |
| Carbon tetrachloride                          | 2250 | 46.4 | 92.8 | ug/kg dry | 50 | 1860                                              | ND | 121 | 70-135% | --- | --- |               |
| Chlorobenzene                                 | 1860 | 23.2 | 46.4 | ug/kg dry | 50 | 1860                                              | ND | 100 | 79-120% | --- | --- |               |
| Chloroethane                                  | 2380 | 464  | 928  | ug/kg dry | 50 | 1860                                              | ND | 128 | 59-139% | --- | --- | Q-54d         |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result | Detection Limit | Reporting Limit | Units     | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|-----------------|-----------------|-----------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0771 - EPA 5035A</b>              |        |                 |                 |           |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>Matrix Spike (22G0771-MS1)</b>             |        |                 |                 |           |          | Prepared: 07/13/22 12:30 Analyzed: 07/25/22 21:42 |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0382-08)</b> |        |                 |                 |           |          |                                                   |               |       |              |     |           |       |
| Chloroform                                    | 1920   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 103   | 78-123%      | --- | ---       |       |
| Chloromethane                                 | 1470   | 232             | 464             | ug/kg dry | 50       | 1860                                              | ND            | 79    | 50-136%      | --- | ---       |       |
| 2-Chlorotoluene                               | 1910   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 103   | 75-122%      | --- | ---       |       |
| 4-Chlorotoluene                               | 1820   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 98    | 72-124%      | --- | ---       |       |
| Dibromochloromethane                          | 1760   | 92.8            | 186             | ug/kg dry | 50       | 1860                                              | ND            | 95    | 74-126%      | --- | ---       |       |
| 1,2-Dibromo-3-chloropropane                   | 1600   | 232             | 464             | ug/kg dry | 50       | 1860                                              | ND            | 86    | 61-132%      | --- | ---       |       |
| 1,2-Dibromoethane (EDB)                       | 1930   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 104   | 78-122%      | --- | ---       |       |
| Dibromomethane                                | 1860   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 100   | 78-125%      | --- | ---       |       |
| 1,2-Dichlorobenzene                           | 1840   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 99    | 78-121%      | --- | ---       |       |
| 1,3-Dichlorobenzene                           | 1840   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 99    | 77-121%      | --- | ---       |       |
| 1,4-Dichlorobenzene                           | 1810   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 98    | 75-120%      | --- | ---       |       |
| Dichlorodifluoromethane                       | 2130   | 92.8            | 186             | ug/kg dry | 50       | 1860                                              | ND            | 115   | 29-149%      | --- | ---       | Q-54i |
| 1,1-Dichloroethane                            | 1930   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 104   | 76-125%      | --- | ---       |       |
| 1,2-Dichloroethane (EDC)                      | 1790   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 96    | 73-128%      | --- | ---       |       |
| 1,1-Dichloroethene                            | 1980   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 107   | 70-131%      | --- | ---       |       |
| cis-1,2-Dichloroethene                        | 1870   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 101   | 77-123%      | --- | ---       |       |
| trans-1,2-Dichloroethene                      | 1910   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 103   | 74-125%      | --- | ---       |       |
| 1,2-Dichloropropane                           | 1870   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 101   | 76-123%      | --- | ---       |       |
| 1,3-Dichloropropane                           | 1850   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 99    | 77-121%      | --- | ---       |       |
| 2,2-Dichloropropane                           | 1580   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 85    | 67-133%      | --- | ---       |       |
| 1,1-Dichloropropene                           | 2110   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 113   | 76-125%      | --- | ---       |       |
| cis-1,3-Dichloropropene                       | 1800   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 97    | 74-126%      | --- | ---       |       |
| trans-1,3-Dichloropropene                     | 1920   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 104   | 71-130%      | --- | ---       |       |
| Ethylbenzene                                  | 1850   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 100   | 76-122%      | --- | ---       |       |
| Hexachlorobutadiene                           | 1960   | 92.8            | 186             | ug/kg dry | 50       | 1860                                              | ND            | 105   | 61-135%      | --- | ---       |       |
| 2-Hexanone                                    | 2890   | 464             | 928             | ug/kg dry | 50       | 3720                                              | ND            | 78    | 53-145%      | --- | ---       |       |
| Isopropylbenzene                              | 1960   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 106   | 68-134%      | --- | ---       |       |
| 4-Isopropyltoluene                            | 2020   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 108   | 73-127%      | --- | ---       |       |
| Methylene chloride                            | 1780   | 464             | 928             | ug/kg dry | 50       | 1860                                              | ND            | 96    | 70-128%      | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)                   | 3240   | 464             | 928             | ug/kg dry | 50       | 3720                                              | ND            | 87    | 65-135%      | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)                | 1800   | 46.4            | 92.8            | ug/kg dry | 50       | 1860                                              | ND            | 97    | 73-125%      | --- | ---       |       |
| Naphthalene                                   | 2160   | 92.8            | 186             | ug/kg dry | 50       | 1860                                              | ND            | 109   | 62-129%      | --- | ---       |       |
| n-Propylbenzene                               | 1890   | 23.2            | 46.4            | ug/kg dry | 50       | 1860                                              | ND            | 102   | 73-125%      | --- | ---       |       |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|------------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|------------|----------------|-----|-----------|-------|
| <b>Batch 22G0771 - EPA 5035A</b>              |        |                        |                 |                         |          | <b>Soil</b>                                       |               |            |                |     |           |       |
| <b>Matrix Spike (22G0771-MS1)</b>             |        |                        |                 |                         |          | Prepared: 07/13/22 12:30 Analyzed: 07/25/22 21:42 |               |            |                |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0382-08)</b> |        |                        |                 |                         |          |                                                   |               |            |                |     |           |       |
| Styrene                                       | 1930   | 46.4                   | 92.8            | ug/kg dry               | 50       | 1860                                              | ND            | 104        | 76-124%        | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane                     | 2210   | 23.2                   | 46.4            | ug/kg dry               | 50       | 1860                                              | ND            | 119        | 78-125%        | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane                     | 2120   | 46.4                   | 92.8            | ug/kg dry               | 50       | 1860                                              | ND            | 97         | 70-124%        | --- | ---       |       |
| Tetrachloroethene (PCE)                       | 2010   | 23.2                   | 46.4            | ug/kg dry               | 50       | 1860                                              | ND            | 108        | 73-128%        | --- | ---       |       |
| Toluene                                       | 1780   | 46.4                   | 92.8            | ug/kg dry               | 50       | 1860                                              | ND            | 96         | 77-121%        | --- | ---       |       |
| 1,2,3-Trichlorobenzene                        | 1840   | 232                    | 464             | ug/kg dry               | 50       | 1860                                              | ND            | 99         | 66-130%        | --- | ---       |       |
| 1,2,4-Trichlorobenzene                        | 1690   | 232                    | 464             | ug/kg dry               | 50       | 1860                                              | ND            | 91         | 67-129%        | --- | ---       |       |
| 1,1,1-Trichloroethane                         | 2060   | 23.2                   | 46.4            | ug/kg dry               | 50       | 1860                                              | ND            | 111        | 73-130%        | --- | ---       |       |
| 1,1,2-Trichloroethane                         | 1890   | 23.2                   | 46.4            | ug/kg dry               | 50       | 1860                                              | ND            | 102        | 78-121%        | --- | ---       |       |
| Trichloroethene (TCE)                         | 2020   | 23.2                   | 46.4            | ug/kg dry               | 50       | 1860                                              | ND            | 109        | 77-123%        | --- | ---       |       |
| Trichlorofluoromethane                        | 2700   | 92.8                   | 186             | ug/kg dry               | 50       | 1860                                              | ND            | <b>146</b> | <b>62-140%</b> | --- | ---       | Q-54b |
| 1,2,3-Trichloropropane                        | 1900   | 46.4                   | 92.8            | ug/kg dry               | 50       | 1860                                              | ND            | 102        | 73-125%        | --- | ---       |       |
| 1,2,4-Trimethylbenzene                        | 2050   | 46.4                   | 92.8            | ug/kg dry               | 50       | 1860                                              | ND            | 111        | 75-123%        | --- | ---       |       |
| 1,3,5-Trimethylbenzene                        | 1980   | 46.4                   | 92.8            | ug/kg dry               | 50       | 1860                                              | ND            | 107        | 73-124%        | --- | ---       |       |
| Vinyl chloride                                | 1910   | 23.2                   | 46.4            | ug/kg dry               | 50       | 1860                                              | ND            | 103        | 56-135%        | --- | ---       |       |
| m,p-Xylene                                    | 3800   | 46.4                   | 92.8            | ug/kg dry               | 50       | 3720                                              | ND            | 102        | 77-124%        | --- | ---       |       |
| o-Xylene                                      | 1880   | 23.2                   | 46.4            | ug/kg dry               | 50       | 1860                                              | ND            | 101        | 77-123%        | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>       |        | <i>Recovery: 101 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |            |                |     |           |       |
| <i>Toluene-d8 (Surr)</i>                      |        | <i>97 %</i>            |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |            |                |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>            |        | <i>100 %</i>           |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |            |                |     |           |       |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes  |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|--------|
| <b>Batch 22G0857 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |       |              |     |           |        |
| <b>Blank (22G0857-BLK1)</b>      |        |                 | Prepared: 07/26/22 08:38 Analyzed: 07/27/22 00:54 |           |          |              |               |       |              |     |           |        |
| <u>5035A/8260D</u>               |        |                 |                                                   |           |          |              |               |       |              |     |           |        |
| Acetone                          | ND     | 667             | 667                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       | ICV-02 |
| Acrylonitrile                    | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Benzene                          | ND     | 3.33            | 6.67                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromobenzene                     | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromochloromethane               | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromodichloromethane             | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromoform                        | ND     | 66.7            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Bromomethane                     | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 2-Butanone (MEK)                 | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       | ICV-02 |
| n-Butylbenzene                   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| sec-Butylbenzene                 | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| tert-Butylbenzene                | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Carbon disulfide                 | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Carbon tetrachloride             | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chlorobenzene                    | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloroethane                     | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloroform                       | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Chloromethane                    | ND     | 167             | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 2-Chlorotoluene                  | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 4-Chlorotoluene                  | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dibromochloromethane             | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dibromo-3-chloropropane      | ND     | 167             | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dibromoethane (EDB)          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dibromomethane                   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,3-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,4-Dichlorobenzene              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| Dichlorodifluoromethane          | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,1-Dichloroethane               | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,2-Dichloroethane (EDC)         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| 1,1-Dichloroethene               | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| cis-1,2-Dichloroethene           | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |
| trans-1,2-Dichloroethene         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |        |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0857 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |       |              |     |           |       |
| <b>Blank (22G0857-BLK1)</b>      |        |                 | Prepared: 07/26/22 08:38 Analyzed: 07/27/22 00:54 |           |          |              |               |       |              |     |           |       |
| 1,2-Dichloropropane              | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dichloropropane              | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,2-Dichloropropane              | ND     | 33.3            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       | Q-30  |
| 1,1-Dichloropropene              | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| cis-1,3-Dichloropropene          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| trans-1,3-Dichloropropene        | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Ethylbenzene                     | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Hexachlorobutadiene              | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Hexanone                       | ND     | 333             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Isopropylbenzene                 | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Isopropyltoluene               | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Methylene chloride               | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)      | ND     | 167             | 333                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)   | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Naphthalene                      | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| n-Propylbenzene                  | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Styrene                          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane        | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane        | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Tetrachloroethene (PCE)          | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Toluene                          | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichlorobenzene           | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trichlorobenzene           | ND     | 83.3            | 167                                               | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1-Trichloroethane            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2-Trichloroethane            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Trichloroethene (TCE)            | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Trichlorofluoromethane           | ND     | 33.3            | 66.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichloropropane           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trimethylbenzene           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,3,5-Trimethylbenzene           | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Vinyl chloride                   | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| m,p-Xylene                       | ND     | 16.7            | 33.3                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |
| o-Xylene                         | ND     | 8.33            | 16.7                                              | ug/kg wet | 50       | ---          | ---           | ---   | ---          | --- | ---       |       |

Surr: 1,4-Difluorobenzene (Surr)      Recovery: 101 %      Limits: 80-120 %      Dilution: 1x

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Darwin Thomas, Business Development Director





ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                            | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC     | % REC Limits   | RPD | RPD Limit | Notes        |
|------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-----------|----------------|-----|-----------|--------------|
| <b>Batch 22G0857 - EPA 5035A</b>   |        |                       |                 |                         |          | <b>Soil</b>                                       |               |           |                |     |           |              |
| <b>Blank (22G0857-BLK1)</b>        |        |                       |                 |                         |          | Prepared: 07/26/22 08:38 Analyzed: 07/27/22 00:54 |               |           |                |     |           |              |
| <i>Surr: Toluene-d8 (Surr)</i>     |        | <i>Recovery: 97 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |           |                |     |           |              |
| <i>4-Bromofluorobenzene (Surr)</i> |        | <i>97 %</i>           |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |           |                |     |           |              |
| <b>LCS (22G0857-BS1)</b>           |        |                       |                 |                         |          | Prepared: 07/26/22 08:38 Analyzed: 07/27/22 00:00 |               |           |                |     |           |              |
| <b>5035A/8260D</b>                 |        |                       |                 |                         |          |                                                   |               |           |                |     |           |              |
| Acetone                            | 1210   | 1000                  | 1000            | ug/kg wet               | 50       | 2000                                              | ---           | <b>61</b> | <b>80-120%</b> | --- | ---       | Q-55, ICV-02 |
| Acrylonitrile                      | 846    | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 85        | 80-120%        | --- | ---       |              |
| Benzene                            | 977    | 5.00                  | 10.0            | ug/kg wet               | 50       | 1000                                              | ---           | 98        | 80-120%        | --- | ---       |              |
| Bromobenzene                       | 952    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 95        | 80-120%        | --- | ---       |              |
| Bromochloromethane                 | 932    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 93        | 80-120%        | --- | ---       |              |
| Bromodichloromethane               | 996    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100       | 80-120%        | --- | ---       |              |
| Bromoform                          | 784    | 100                   | 100             | ug/kg wet               | 50       | 1000                                              | ---           | <b>78</b> | <b>80-120%</b> | --- | ---       | Q-55         |
| Bromomethane                       | 1200   | 500                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | 120       | 80-120%        | --- | ---       | ICV-01       |
| 2-Butanone (MEK)                   | 1280   | 500                   | 500             | ug/kg wet               | 50       | 2000                                              | ---           | <b>64</b> | <b>80-120%</b> | --- | ---       | ICV-02, Q-55 |
| n-Butylbenzene                     | 994    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 99        | 80-120%        | --- | ---       |              |
| sec-Butylbenzene                   | 1030   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 103       | 80-120%        | --- | ---       |              |
| tert-Butylbenzene                  | 951    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 95        | 80-120%        | --- | ---       |              |
| Carbon disulfide                   | 755    | 250                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | <b>76</b> | <b>80-120%</b> | --- | ---       | Q-55         |
| Carbon tetrachloride               | 1070   | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 107       | 80-120%        | --- | ---       |              |
| Chlorobenzene                      | 964    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 96        | 80-120%        | --- | ---       |              |
| Chloroethane                       | 1020   | 250                   | 500             | ug/kg wet               | 50       | 1000                                              | ---           | 102       | 80-120%        | --- | ---       |              |
| Chloroform                         | 978    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 98        | 80-120%        | --- | ---       |              |
| Chloromethane                      | 788    | 250                   | 250             | ug/kg wet               | 50       | 1000                                              | ---           | <b>79</b> | <b>80-120%</b> | --- | ---       | Q-55         |
| 2-Chlorotoluene                    | 995    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 100       | 80-120%        | --- | ---       |              |
| 4-Chlorotoluene                    | 941    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 94        | 80-120%        | --- | ---       |              |
| Dibromochloromethane               | 852    | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 85        | 80-120%        | --- | ---       |              |
| 1,2-Dibromo-3-chloropropane        | 753    | 250                   | 250             | ug/kg wet               | 50       | 1000                                              | ---           | <b>75</b> | <b>80-120%</b> | --- | ---       | Q-55         |
| 1,2-Dibromoethane (EDB)            | 989    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 99        | 80-120%        | --- | ---       |              |
| Dibromomethane                     | 954    | 25.0                  | 50.0            | ug/kg wet               | 50       | 1000                                              | ---           | 95        | 80-120%        | --- | ---       |              |
| 1,2-Dichlorobenzene                | 972    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 97        | 80-120%        | --- | ---       |              |
| 1,3-Dichlorobenzene                | 958    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 96        | 80-120%        | --- | ---       |              |
| 1,4-Dichlorobenzene                | 949    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 95        | 80-120%        | --- | ---       |              |
| Dichlorodifluoromethane            | 1130   | 50.0                  | 100             | ug/kg wet               | 50       | 1000                                              | ---           | 113       | 80-120%        | --- | ---       |              |
| 1,1-Dichloroethane                 | 932    | 12.5                  | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 93        | 80-120%        | --- | ---       |              |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|------------|----------------|-----|-----------|-------|
| <b>Batch 22G0857 - EPA 5035A</b> |        |                 |                                                   |           |          | <b>Soil</b>  |               |            |                |     |           |       |
| <b>LCS (22G0857-BS1)</b>         |        |                 | Prepared: 07/26/22 08:38 Analyzed: 07/27/22 00:00 |           |          |              |               |            |                |     |           |       |
| 1,2-Dichloroethane (EDC)         | 990    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 99         | 80-120%        | --- | ---       |       |
| 1,1-Dichloroethene               | 986    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 99         | 80-120%        | --- | ---       |       |
| cis-1,2-Dichloroethene           | 950    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 95         | 80-120%        | --- | ---       |       |
| trans-1,2-Dichloroethene         | 980    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| 1,2-Dichloropropane              | 970    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 97         | 80-120%        | --- | ---       |       |
| 1,3-Dichloropropane              | 976    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| 2,2-Dichloropropane              | 690    | 50.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | <b>69</b>  | <b>80-120%</b> | --- | ---       | Q-30  |
| 1,1-Dichloropropene              | 1070   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 107        | 80-120%        | --- | ---       |       |
| cis-1,3-Dichloropropene          | 880    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 88         | 80-120%        | --- | ---       |       |
| trans-1,3-Dichloropropene        | 926    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 93         | 80-120%        | --- | ---       |       |
| Ethylbenzene                     | 958    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 96         | 80-120%        | --- | ---       |       |
| Hexachlorobutadiene              | 938    | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | 94         | 80-120%        | --- | ---       |       |
| 2-Hexanone                       | 1400   | 500             | 500                                               | ug/kg wet | 50       | 2000         | ---           | <b>70</b>  | <b>80-120%</b> | --- | ---       | Q-55  |
| Isopropylbenzene                 | 986    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 99         | 80-120%        | --- | ---       |       |
| 4-Isopropyltoluene               | 1000   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 100        | 80-120%        | --- | ---       |       |
| Methylene chloride               | 971    | 250             | 500                                               | ug/kg wet | 50       | 1000         | ---           | 97         | 80-120%        | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)      | 1590   | 250             | 500                                               | ug/kg wet | 50       | 2000         | ---           | 80         | 80-120%        | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)   | 928    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 93         | 80-120%        | --- | ---       |       |
| Naphthalene                      | 898    | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | 90         | 80-120%        | --- | ---       |       |
| n-Propylbenzene                  | 976    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| Styrene                          | 933    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 93         | 80-120%        | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane        | 1090   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 109        | 80-120%        | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane        | 978    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| Tetrachloroethene (PCE)          | 1040   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 104        | 80-120%        | --- | ---       |       |
| Toluene                          | 923    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 92         | 80-120%        | --- | ---       |       |
| 1,2,3-Trichlorobenzene           | 906    | 125             | 250                                               | ug/kg wet | 50       | 1000         | ---           | 91         | 80-120%        | --- | ---       |       |
| 1,2,4-Trichlorobenzene           | 892    | 125             | 250                                               | ug/kg wet | 50       | 1000         | ---           | 89         | 80-120%        | --- | ---       |       |
| 1,1,1-Trichloroethane            | 1030   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 103        | 80-120%        | --- | ---       |       |
| 1,1,2-Trichloroethane            | 978    | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 98         | 80-120%        | --- | ---       |       |
| Trichloroethene (TCE)            | 1040   | 12.5            | 25.0                                              | ug/kg wet | 50       | 1000         | ---           | 104        | 80-120%        | --- | ---       |       |
| Trichlorofluoromethane           | 1350   | 50.0            | 100                                               | ug/kg wet | 50       | 1000         | ---           | <b>135</b> | <b>80-120%</b> | --- | ---       | Q-29  |
| 1,2,3-Trichloropropane           | 994    | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 99         | 80-120%        | --- | ---       |       |
| 1,2,4-Trimethylbenzene           | 1020   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 102        | 80-120%        | --- | ---       |       |
| 1,3,5-Trimethylbenzene           | 1020   | 25.0            | 50.0                                              | ug/kg wet | 50       | 1000         | ---           | 102        | 80-120%        | --- | ---       |       |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                 | Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------|--------|------------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0857 - EPA 5035A</b>        |        |                        |                 |                         |          | <b>Soil</b>                                       |               |       |              |     |           |       |
| <b>LCS (22G0857-BS1)</b>                |        |                        |                 |                         |          | Prepared: 07/26/22 08:38 Analyzed: 07/27/22 00:00 |               |       |              |     |           |       |
| Vinyl chloride                          | 942    | 12.5                   | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 94    | 80-120%      | --- | ---       |       |
| m,p-Xylene                              | 1910   | 25.0                   | 50.0            | ug/kg wet               | 50       | 2000                                              | ---           | 95    | 80-120%      | --- | ---       |       |
| o-Xylene                                | 930    | 12.5                   | 25.0            | ug/kg wet               | 50       | 1000                                              | ---           | 93    | 80-120%      | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i> |        | <i>Recovery: 102 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                |        | <i>98 %</i>            |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>      |        | <i>96 %</i>            |                 | <i>79-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |

| <b>Duplicate (22G0857-DUP1)</b>               |    |      |      |           |    | Prepared: 07/23/22 14:58 Analyzed: 07/27/22 04:03 |    |     |     |     |     |        |
|-----------------------------------------------|----|------|------|-----------|----|---------------------------------------------------|----|-----|-----|-----|-----|--------|
| <b>QC Source Sample: Non-SDG (A2G0691-02)</b> |    |      |      |           |    |                                                   |    |     |     |     |     |        |
| Acetone                                       | ND | 1060 | 1060 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% | ICV-02 |
| Acrylonitrile                                 | ND | 52.9 | 106  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Benzene                                       | ND | 5.29 | 10.6 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Bromobenzene                                  | ND | 13.2 | 26.5 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Bromochloromethane                            | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Bromodichloromethane                          | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Bromoform                                     | ND | 106  | 106  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Bromomethane                                  | ND | 529  | 529  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| 2-Butanone (MEK)                              | ND | 529  | 529  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% | ICV-02 |
| n-Butylbenzene                                | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| sec-Butylbenzene                              | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| tert-Butylbenzene                             | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Carbon disulfide                              | ND | 265  | 529  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Carbon tetrachloride                          | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Chlorobenzene                                 | ND | 13.2 | 26.5 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Chloroethane                                  | ND | 265  | 529  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Chloroform                                    | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Chloromethane                                 | ND | 265  | 265  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| 2-Chlorotoluene                               | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| 4-Chlorotoluene                               | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Dibromochloromethane                          | ND | 52.9 | 106  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| 1,2-Dibromo-3-chloropropane                   | ND | 265  | 265  | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| 1,2-Dibromoethane (EDB)                       | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| Dibromomethane                                | ND | 26.5 | 52.9 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |
| 1,2-Dichlorobenzene                           | ND | 13.2 | 26.5 | ug/kg dry | 50 | ---                                               | ND | --- | --- | --- | 30% |        |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0857 - EPA 5035A</b>              |        |                 |                                                   |           |          | <b>Soil</b>  |               |       |              |     |           |       |
| <b>Duplicate (22G0857-DUP1)</b>               |        |                 | Prepared: 07/23/22 14:58 Analyzed: 07/27/22 04:03 |           |          |              |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0691-02)</b> |        |                 |                                                   |           |          |              |               |       |              |     |           |       |
| 1,3-Dichlorobenzene                           | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,4-Dichlorobenzene                           | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Dichlorodifluoromethane                       | ND     | 52.9            | 106                                               | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1-Dichloroethane                            | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,2-Dichloroethane (EDC)                      | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1-Dichloroethene                            | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| cis-1,2-Dichloroethene                        | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| trans-1,2-Dichloroethene                      | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,2-Dichloropropane                           | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,3-Dichloropropane                           | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2,2-Dichloropropane                           | ND     | 52.9            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       | Q-30  |
| 1,1-Dichloropropene                           | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| cis-1,3-Dichloropropene                       | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| trans-1,3-Dichloropropene                     | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Ethylbenzene                                  | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Hexachlorobutadiene                           | ND     | 52.9            | 106                                               | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2-Hexanone                                    | ND     | 529             | 529                                               | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Isopropylbenzene                              | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 4-Isopropyltoluene                            | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Methylene chloride                            | ND     | 265             | 529                                               | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 4-Methyl-2-pentanone (MiBK)                   | ND     | 265             | 529                                               | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Methyl tert-butyl ether (MTBE)                | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Naphthalene                                   | ND     | 52.9            | 106                                               | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| n-Propylbenzene                               | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Styrene                                       | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,1,2-Tetrachloroethane                     | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,2,2-Tetrachloroethane                     | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Tetrachloroethene (PCE)                       | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Toluene                                       | ND     | 26.5            | 52.9                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,3-Trichlorobenzene                        | ND     | 132             | 265                                               | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,4-Trichlorobenzene                        | ND     | 132             | 265                                               | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,1-Trichloroethane                         | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,1,2-Trichloroethane                         | ND     | 13.2            | 26.5                                              | ug/kg dry | 50       | ---          | ND            | ---   | ---          | --- | 30%       |       |

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result | Detection Limit        | Reporting Limit                                   | Units                   | Dilution | Spike Amount        | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|------------------------|---------------------------------------------------|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0857 - EPA 5035A</b>              |        |                        |                                                   |                         |          | <b>Soil</b>         |               |       |              |     |           |       |
| <b>Duplicate (22G0857-DUP1)</b>               |        |                        | Prepared: 07/23/22 14:58 Analyzed: 07/27/22 04:03 |                         |          |                     |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0691-02)</b> |        |                        |                                                   |                         |          |                     |               |       |              |     |           |       |
| Trichloroethene (TCE)                         | ND     | 13.2                   | 26.5                                              | ug/kg dry               | 50       | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| Trichlorofluoromethane                        | ND     | 52.9                   | 106                                               | ug/kg dry               | 50       | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,3-Trichloropropane                        | ND     | 26.5                   | 52.9                                              | ug/kg dry               | 50       | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,4-Trimethylbenzene                        | ND     | 26.5                   | 52.9                                              | ug/kg dry               | 50       | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| 1,3,5-Trimethylbenzene                        | ND     | 26.5                   | 52.9                                              | ug/kg dry               | 50       | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| Vinyl chloride                                | ND     | 13.2                   | 26.5                                              | ug/kg dry               | 50       | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| m,p-Xylene                                    | ND     | 26.5                   | 52.9                                              | ug/kg dry               | 50       | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| o-Xylene                                      | ND     | 13.2                   | 26.5                                              | ug/kg dry               | 50       | ---                 | ND            | ---   | ---          | --- | 30%       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>       |        | <i>Recovery: 100 %</i> |                                                   | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i> |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                      |        | <i>97 %</i>            |                                                   | <i>80-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>            |        | <i>97 %</i>            |                                                   | <i>79-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |

|                                               |      |      |      |           |    |                                                   |    |            |                |     |     |               |
|-----------------------------------------------|------|------|------|-----------|----|---------------------------------------------------|----|------------|----------------|-----|-----|---------------|
| <b>Matrix Spike (22G0857-MS1)</b>             |      |      |      |           |    | Prepared: 07/20/22 13:06 Analyzed: 07/27/22 06:18 |    |            |                |     |     |               |
| <b>QC Source Sample: Non-SDG (A2G0561-01)</b> |      |      |      |           |    |                                                   |    |            |                |     |     |               |
| <b>5035A/8260D</b>                            |      |      |      |           |    |                                                   |    |            |                |     |     |               |
| Acetone                                       | 1340 | 1110 | 1110 | ug/kg dry | 50 | 2210                                              | ND | 61         | 36-164%        | --- | --- | ICV-02, Q-54o |
| Acrylonitrile                                 | 880  | 55.3 | 111  | ug/kg dry | 50 | 1110                                              | ND | 80         | 65-134%        | --- | --- |               |
| Benzene                                       | 1090 | 5.53 | 11.1 | ug/kg dry | 50 | 1110                                              | ND | 98         | 77-121%        | --- | --- |               |
| Bromobenzene                                  | 1040 | 13.8 | 27.7 | ug/kg dry | 50 | 1110                                              | ND | 94         | 78-121%        | --- | --- |               |
| Bromochloromethane                            | 977  | 27.7 | 55.3 | ug/kg dry | 50 | 1110                                              | ND | 88         | 78-125%        | --- | --- |               |
| Bromodichloromethane                          | 1070 | 27.7 | 55.3 | ug/kg dry | 50 | 1110                                              | ND | 97         | 75-127%        | --- | --- |               |
| Bromoform                                     | 840  | 111  | 111  | ug/kg dry | 50 | 1110                                              | ND | 76         | 67-132%        | --- | --- | Q-54p         |
| Bromomethane                                  | 1250 | 553  | 553  | ug/kg dry | 50 | 1110                                              | ND | 113        | 53-143%        | --- | --- | ICV-01        |
| 2-Butanone (MEK)                              | 1370 | 553  | 553  | ug/kg dry | 50 | 2210                                              | ND | 62         | 51-148%        | --- | --- | ICV-02, Q-54n |
| n-Butylbenzene                                | 1130 | 27.7 | 55.3 | ug/kg dry | 50 | 1110                                              | ND | 102        | 70-128%        | --- | --- |               |
| sec-Butylbenzene                              | 1180 | 27.7 | 55.3 | ug/kg dry | 50 | 1110                                              | ND | 106        | 73-126%        | --- | --- |               |
| tert-Butylbenzene                             | 1080 | 27.7 | 55.3 | ug/kg dry | 50 | 1110                                              | ND | 97         | 73-125%        | --- | --- |               |
| Carbon disulfide                              | 818  | 277  | 553  | ug/kg dry | 50 | 1110                                              | ND | 74         | 63-132%        | --- | --- | Q-54m         |
| Carbon tetrachloride                          | 1250 | 27.7 | 55.3 | ug/kg dry | 50 | 1110                                              | ND | 113        | 70-135%        | --- | --- |               |
| Chlorobenzene                                 | 1060 | 13.8 | 27.7 | ug/kg dry | 50 | 1110                                              | ND | 96         | 79-120%        | --- | --- |               |
| Chloroethane                                  | 1580 | 277  | 553  | ug/kg dry | 50 | 1110                                              | ND | <b>142</b> | <b>59-139%</b> | --- | --- | Q-01          |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result | Detection Limit | Reporting Limit | Units     | Dilution | Spike Amount                                      | Source Result | % REC     | % REC Limits   | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|-----------------|-----------------|-----------|----------|---------------------------------------------------|---------------|-----------|----------------|-----|-----------|-------|
| <b>Batch 22G0857 - EPA 5035A</b>              |        |                 |                 |           |          | <b>Soil</b>                                       |               |           |                |     |           |       |
| <b>Matrix Spike (22G0857-MS1)</b>             |        |                 |                 |           |          | Prepared: 07/20/22 13:06 Analyzed: 07/27/22 06:18 |               |           |                |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0561-01)</b> |        |                 |                 |           |          |                                                   |               |           |                |     |           |       |
| Chloroform                                    | 1080   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 98        | 78-123%        | --- | ---       |       |
| Chloromethane                                 | 894    | 277             | 277             | ug/kg dry | 50       | 1110                                              | ND            | 81        | 50-136%        | --- | ---       | Q-54j |
| 2-Chlorotoluene                               | 1090   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 99        | 75-122%        | --- | ---       |       |
| 4-Chlorotoluene                               | 1050   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 95        | 72-124%        | --- | ---       |       |
| Dibromochloromethane                          | 921    | 55.3            | 111             | ug/kg dry | 50       | 1110                                              | ND            | 83        | 74-126%        | --- | ---       |       |
| 1,2-Dibromo-3-chloropropane                   | 779    | 277             | 277             | ug/kg dry | 50       | 1110                                              | ND            | 70        | 61-132%        | --- | ---       | Q-54q |
| 1,2-Dibromoethane (EDB)                       | 1040   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 94        | 78-122%        | --- | ---       |       |
| Dibromomethane                                | 1030   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 93        | 78-125%        | --- | ---       |       |
| 1,2-Dichlorobenzene                           | 1060   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 96        | 78-121%        | --- | ---       |       |
| 1,3-Dichlorobenzene                           | 1050   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 95        | 77-121%        | --- | ---       |       |
| 1,4-Dichlorobenzene                           | 1050   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 95        | 75-120%        | --- | ---       |       |
| Dichlorodifluoromethane                       | 1320   | 55.3            | 111             | ug/kg dry | 50       | 1110                                              | ND            | 120       | 29-149%        | --- | ---       |       |
| 1,1-Dichloroethane                            | 1030   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 94        | 76-125%        | --- | ---       |       |
| 1,2-Dichloroethane (EDC)                      | 1050   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 95        | 73-128%        | --- | ---       |       |
| 1,1-Dichloroethene                            | 1130   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 102       | 70-131%        | --- | ---       |       |
| cis-1,2-Dichloroethene                        | 1060   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 96        | 77-123%        | --- | ---       |       |
| trans-1,2-Dichloroethene                      | 1090   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 99        | 74-125%        | --- | ---       |       |
| 1,2-Dichloropropane                           | 1060   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 96        | 76-123%        | --- | ---       |       |
| 1,3-Dichloropropane                           | 1040   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 94        | 77-121%        | --- | ---       |       |
| 2,2-Dichloropropane                           | 703    | 55.3            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | <b>64</b> | <b>67-133%</b> | --- | ---       | Q-30  |
| 1,1-Dichloropropene                           | 1230   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 111       | 76-125%        | --- | ---       |       |
| cis-1,3-Dichloropropene                       | 934    | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 84        | 74-126%        | --- | ---       |       |
| trans-1,3-Dichloropropene                     | 987    | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 89        | 71-130%        | --- | ---       |       |
| Ethylbenzene                                  | 1060   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 96        | 76-122%        | --- | ---       |       |
| Hexachlorobutadiene                           | 1080   | 55.3            | 111             | ug/kg dry | 50       | 1110                                              | ND            | 98        | 61-135%        | --- | ---       |       |
| 2-Hexanone                                    | 1500   | 553             | 553             | ug/kg dry | 50       | 2210                                              | ND            | 68        | 53-145%        | --- | ---       | Q-54k |
| Isopropylbenzene                              | 1130   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 102       | 68-134%        | --- | ---       |       |
| 4-Isopropyltoluene                            | 1140   | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 103       | 73-127%        | --- | ---       |       |
| Methylene chloride                            | 1060   | 277             | 553             | ug/kg dry | 50       | 1110                                              | ND            | 96        | 70-128%        | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)                   | 1690   | 277             | 553             | ug/kg dry | 50       | 2210                                              | ND            | 77        | 65-135%        | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)                | 987    | 27.7            | 55.3            | ug/kg dry | 50       | 1110                                              | ND            | 89        | 73-125%        | --- | ---       |       |
| Naphthalene                                   | 965    | 55.3            | 111             | ug/kg dry | 50       | 1110                                              | ND            | 87        | 62-129%        | --- | ---       |       |
| n-Propylbenzene                               | 1090   | 13.8            | 27.7            | ug/kg dry | 50       | 1110                                              | ND            | 99        | 73-125%        | --- | ---       |       |

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ANALYTICAL REPORT

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503-718-2323  
ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Volatile Organic Compounds by EPA 8260D**

| Analyte                                       | Result | Detection Limit        | Reporting Limit                                   | Units                   | Dilution | Spike Amount        | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|------------------------|---------------------------------------------------|-------------------------|----------|---------------------|---------------|------------|----------------|-----|-----------|-------|
| <b>Batch 22G0857 - EPA 5035A</b>              |        |                        |                                                   |                         |          | <b>Soil</b>         |               |            |                |     |           |       |
| <b>Matrix Spike (22G0857-MS1)</b>             |        |                        | Prepared: 07/20/22 13:06 Analyzed: 07/27/22 06:18 |                         |          |                     |               |            |                |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0561-01)</b> |        |                        |                                                   |                         |          |                     |               |            |                |     |           |       |
| Styrene                                       | 1050   | 27.7                   | 55.3                                              | ug/kg dry               | 50       | 1110                | ND            | 95         | 76-124%        | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane                     | 1190   | 13.8                   | 27.7                                              | ug/kg dry               | 50       | 1110                | ND            | 108        | 78-125%        | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane                     | 1000   | 27.7                   | 55.3                                              | ug/kg dry               | 50       | 1110                | ND            | 90         | 70-124%        | --- | ---       |       |
| Tetrachloroethene (PCE)                       | 1170   | 13.8                   | 27.7                                              | ug/kg dry               | 50       | 1110                | ND            | 106        | 73-128%        | --- | ---       |       |
| Toluene                                       | 1030   | 27.7                   | 55.3                                              | ug/kg dry               | 50       | 1110                | ND            | 93         | 77-121%        | --- | ---       |       |
| 1,2,3-Trichlorobenzene                        | 982    | 138                    | 277                                               | ug/kg dry               | 50       | 1110                | ND            | 89         | 66-130%        | --- | ---       |       |
| 1,2,4-Trichlorobenzene                        | 953    | 138                    | 277                                               | ug/kg dry               | 50       | 1110                | ND            | 86         | 67-129%        | --- | ---       |       |
| 1,1,1-Trichloroethane                         | 1170   | 13.8                   | 27.7                                              | ug/kg dry               | 50       | 1110                | ND            | 106        | 73-130%        | --- | ---       |       |
| 1,1,2-Trichloroethane                         | 1050   | 13.8                   | 27.7                                              | ug/kg dry               | 50       | 1110                | ND            | 95         | 78-121%        | --- | ---       |       |
| Trichloroethene (TCE)                         | 1160   | 13.8                   | 27.7                                              | ug/kg dry               | 50       | 1110                | ND            | 105        | 77-123%        | --- | ---       |       |
| Trichlorofluoromethane                        | 1950   | 55.3                   | 111                                               | ug/kg dry               | 50       | 1110                | ND            | <b>176</b> | <b>62-140%</b> | --- | ---       | Q-29  |
| 1,2,3-Trichloropropane                        | 1030   | 27.7                   | 55.3                                              | ug/kg dry               | 50       | 1110                | ND            | 93         | 73-125%        | --- | ---       |       |
| 1,2,4-Trimethylbenzene                        | 1130   | 27.7                   | 55.3                                              | ug/kg dry               | 50       | 1110                | ND            | 102        | 75-123%        | --- | ---       |       |
| 1,3,5-Trimethylbenzene                        | 1140   | 27.7                   | 55.3                                              | ug/kg dry               | 50       | 1110                | ND            | 103        | 73-124%        | --- | ---       |       |
| Vinyl chloride                                | 1140   | 13.8                   | 27.7                                              | ug/kg dry               | 50       | 1110                | ND            | 103        | 56-135%        | --- | ---       |       |
| m,p-Xylene                                    | 2140   | 27.7                   | 55.3                                              | ug/kg dry               | 50       | 2210                | ND            | 97         | 77-124%        | --- | ---       |       |
| o-Xylene                                      | 1040   | 13.8                   | 27.7                                              | ug/kg dry               | 50       | 1110                | ND            | 94         | 77-123%        | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>       |        | <i>Recovery: 101 %</i> |                                                   | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i> |               |            |                |     |           |       |
| <i>Toluene-d8 (Surr)</i>                      |        | <i>98 %</i>            |                                                   | <i>80-120 %</i>         |          | <i>"</i>            |               |            |                |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>            |        | <i>97 %</i>            |                                                   | <i>79-120 %</i>         |          | <i>"</i>            |               |            |                |     |           |       |

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b> |        |                 |                 |       |          | <b>Water</b>                                      |               |       |              |     |           |       |
| <b>Blank (22G0954-BLK1)</b>                          |        |                 |                 |       |          | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 13:42 |               |       |              |     |           |       |
| <u>1311/8260D</u>                                    |        |                 |                 |       |          |                                                   |               |       |              |     |           |       |
| Acetone                                              | ND     | 0.500           | 1.00            | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Benzene                                              | ND     | 0.00625         | 0.0125          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromobenzene                                         | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromochloromethane                                   | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromodichloromethane                                 | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromoform                                            | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromomethane                                         | ND     | 0.250           | 0.250           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 2-Butanone (MEK)                                     | ND     | 0.250           | 0.500           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| n-Butylbenzene                                       | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| sec-Butylbenzene                                     | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| tert-Butylbenzene                                    | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Carbon tetrachloride                                 | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Chlorobenzene                                        | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Chloroethane                                         | ND     | 0.250           | 0.250           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Chloroform                                           | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Chloromethane                                        | ND     | 0.125           | 0.250           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 2-Chlorotoluene                                      | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 4-Chlorotoluene                                      | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dibromo-3-chloropropane                          | ND     | 0.125           | 0.250           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Dibromochloromethane                                 | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dibromoethane (EDB)                              | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Dibromomethane                                       | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dichlorobenzene                                  | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dichlorobenzene                                  | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,4-Dichlorobenzene                                  | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Dichlorodifluoromethane                              | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,1-Dichloroethane                                   | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,1-Dichloroethene                                   | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dichloroethane (EDC)                             | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| cis-1,2-Dichloroethene                               | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| trans-1,2-Dichloroethene                             | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dichloropropane                                  | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dichloropropane                                  | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |

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ORELAP ID: OR100062

|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit        | Reporting Limit                                   | Units                   | Dilution | Spike Amount        | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|------------------------------------------------------|--------|------------------------|---------------------------------------------------|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b> |        |                        |                                                   |                         |          | <b>Water</b>        |               |       |              |     |           |       |
| <b>Blank (22G0954-BLK1)</b>                          |        |                        | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 13:42 |                         |          |                     |               |       |              |     |           |       |
| 2,2-Dichloropropane                                  | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1-Dichloropropene                                  | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| cis-1,3-Dichloropropene                              | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| trans-1,3-Dichloropropene                            | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Ethylbenzene                                         | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Hexachlorobutadiene                                  | ND     | 0.125                  | 0.250                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 2-Hexanone                                           | ND     | 0.250                  | 0.500                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Isopropylbenzene                                     | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 4-Isopropyltoluene                                   | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)                          | ND     | 0.250                  | 0.500                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)                       | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Methylene chloride                                   | ND     | 0.250                  | 0.500                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| n-Propylbenzene                                      | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Styrene                                              | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane                            | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane                            | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Naphthalene                                          | ND     | 0.125                  | 0.250                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Tetrachloroethene (PCE)                              | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Toluene                                              | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichlorobenzene                               | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trichlorobenzene                               | ND     | 0.0500                 | 0.100                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1-Trichloroethane                                | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2-Trichloroethane                                | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Trichloroethene (TCE)                                | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Trichlorofluoromethane                               | ND     | 0.0500                 | 0.100                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichloropropane                               | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trimethylbenzene                               | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,3,5-Trimethylbenzene                               | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Vinyl chloride                                       | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| m,p-Xylene                                           | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| o-Xylene                                             | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>              |        | <i>Recovery: 105 %</i> |                                                   | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i> |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                             |        | <i>101 %</i>           |                                                   | <i>80-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>                   |        | <i>102 %</i>           |                                                   | <i>80-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
|------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|------------|----------------|-----|-----------|-------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b> |        |                 |                 |       |          | <b>Water</b>                                      |               |            |                |     |           |       |
| <b>LCS (22G0954-BS1)</b>                             |        |                 |                 |       |          | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 12:48 |               |            |                |     |           |       |
| <b>1311/8260D</b>                                    |        |                 |                 |       |          |                                                   |               |            |                |     |           |       |
| Acetone                                              | 1.96   | 0.500           | 1.00            | mg/L  | 50       | 2.00                                              | ---           | 98         | 80-120%        | --- | ---       |       |
| Benzene                                              | 1.13   | 0.00625         | 0.0125          | mg/L  | 50       | 1.00                                              | ---           | 113        | 80-120%        | --- | ---       |       |
| Bromobenzene                                         | 0.986  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 99         | 80-120%        | --- | ---       |       |
| Bromochloromethane                                   | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 105        | 80-120%        | --- | ---       |       |
| Bromodichloromethane                                 | 1.09   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 109        | 80-120%        | --- | ---       |       |
| Bromoform                                            | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 105        | 80-120%        | --- | ---       |       |
| Bromomethane                                         | 1.65   | 0.250           | 0.250           | mg/L  | 50       | 1.00                                              | ---           | <b>165</b> | <b>80-120%</b> | --- | ---       | Q-56  |
| 2-Butanone (MEK)                                     | 2.23   | 0.250           | 0.500           | mg/L  | 50       | 2.00                                              | ---           | 111        | 80-120%        | --- | ---       |       |
| n-Butylbenzene                                       | 1.11   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 111        | 80-120%        | --- | ---       |       |
| sec-Butylbenzene                                     | 1.12   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 112        | 80-120%        | --- | ---       |       |
| tert-Butylbenzene                                    | 1.10   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 110        | 80-120%        | --- | ---       |       |
| Carbon tetrachloride                                 | 1.33   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | <b>133</b> | <b>80-120%</b> | --- | ---       | Q-56  |
| Chlorobenzene                                        | 1.01   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 101        | 80-120%        | --- | ---       |       |
| Chloroethane                                         | 1.05   | 0.250           | 0.250           | mg/L  | 50       | 1.00                                              | ---           | 105        | 80-120%        | --- | ---       |       |
| Chloroform                                           | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 105        | 80-120%        | --- | ---       |       |
| Chloromethane                                        | 0.897  | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ---           | 90         | 80-120%        | --- | ---       |       |
| 2-Chlorotoluene                                      | 1.14   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 114        | 80-120%        | --- | ---       |       |
| 4-Chlorotoluene                                      | 1.17   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 117        | 80-120%        | --- | ---       |       |
| 1,2-Dibromo-3-chloropropane                          | 1.14   | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ---           | 114        | 80-120%        | --- | ---       |       |
| Dibromochloromethane                                 | 1.27   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | <b>127</b> | <b>80-120%</b> | --- | ---       | Q-56  |
| 1,2-Dibromoethane (EDB)                              | 1.22   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | <b>122</b> | <b>80-120%</b> | --- | ---       | Q-56  |
| Dibromomethane                                       | 1.08   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 108        | 80-120%        | --- | ---       |       |
| 1,2-Dichlorobenzene                                  | 1.04   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 104        | 80-120%        | --- | ---       |       |
| 1,3-Dichlorobenzene                                  | 1.08   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 108        | 80-120%        | --- | ---       |       |
| 1,4-Dichlorobenzene                                  | 0.974  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 97         | 80-120%        | --- | ---       |       |
| Dichlorodifluoromethane                              | 1.06   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 106        | 80-120%        | --- | ---       |       |
| 1,1-Dichloroethane                                   | 1.08   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 108        | 80-120%        | --- | ---       |       |
| 1,1-Dichloroethene                                   | 1.11   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 111        | 80-120%        | --- | ---       |       |
| 1,2-Dichloroethane (EDC)                             | 1.00   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 100        | 80-120%        | --- | ---       |       |
| cis-1,2-Dichloroethene                               | 1.10   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 110        | 80-120%        | --- | ---       |       |
| trans-1,2-Dichloroethene                             | 1.06   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 106        | 80-120%        | --- | ---       |       |
| 1,2-Dichloropropane                                  | 1.02   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 102        | 80-120%        | --- | ---       |       |
| 1,3-Dichloropropane                                  | 1.07   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 107        | 80-120%        | --- | ---       |       |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323  
ORELAP ID: OR100062

|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit      | Reporting Limit | Units                  | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|------------------------------------------------------|--------|----------------------|-----------------|------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b> |        |                      |                 |                        |          | <b>Water</b>                                      |               |       |              |     |           |       |
| <b>LCS (22G0954-BS1)</b>                             |        |                      |                 |                        |          | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 12:48 |               |       |              |     |           |       |
| 2,2-Dichloropropane                                  | 1.56   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 156   | 80-120%      | --- | ---       | Q-56  |
| 1,1-Dichloropropene                                  | 1.26   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 126   | 80-120%      | --- | ---       | Q-56  |
| cis-1,3-Dichloropropene                              | 1.11   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 111   | 80-120%      | --- | ---       |       |
| trans-1,3-Dichloropropene                            | 1.16   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 116   | 80-120%      | --- | ---       |       |
| Ethylbenzene                                         | 1.11   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 111   | 80-120%      | --- | ---       |       |
| Hexachlorobutadiene                                  | 1.27   | 0.125                | 0.250           | mg/L                   | 50       | 1.00                                              | ---           | 127   | 80-120%      | --- | ---       | Q-56  |
| 2-Hexanone                                           | 2.08   | 0.250                | 0.500           | mg/L                   | 50       | 2.00                                              | ---           | 104   | 80-120%      | --- | ---       |       |
| Isopropylbenzene                                     | 1.06   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 106   | 80-120%      | --- | ---       |       |
| 4-Isopropyltoluene                                   | 1.09   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 109   | 80-120%      | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)                          | 2.21   | 0.250                | 0.500           | mg/L                   | 50       | 2.00                                              | ---           | 110   | 80-120%      | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)                       | 1.24   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 124   | 80-120%      | --- | ---       | Q-56  |
| Methylene chloride                                   | 1.07   | 0.250                | 0.500           | mg/L                   | 50       | 1.00                                              | ---           | 107   | 80-120%      | --- | ---       |       |
| n-Propylbenzene                                      | 1.17   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 117   | 80-120%      | --- | ---       |       |
| Styrene                                              | 1.03   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 103   | 80-120%      | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane                            | 1.12   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 112   | 80-120%      | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane                            | 0.995  | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 100   | 80-120%      | --- | ---       |       |
| Naphthalene                                          | 0.831  | 0.125                | 0.250           | mg/L                   | 50       | 1.00                                              | ---           | 83    | 80-120%      | --- | ---       |       |
| Tetrachloroethene (PCE)                              | 1.12   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 112   | 80-120%      | --- | ---       |       |
| Toluene                                              | 1.02   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 102   | 80-120%      | --- | ---       |       |
| 1,2,3-Trichlorobenzene                               | 1.02   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 102   | 80-120%      | --- | ---       |       |
| 1,2,4-Trichlorobenzene                               | 0.982  | 0.0500               | 0.100           | mg/L                   | 50       | 1.00                                              | ---           | 98    | 80-120%      | --- | ---       |       |
| 1,1,1-Trichloroethane                                | 1.19   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 119   | 80-120%      | --- | ---       |       |
| 1,1,2-Trichloroethane                                | 1.02   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 102   | 80-120%      | --- | ---       |       |
| Trichloroethene (TCE)                                | 1.03   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 103   | 80-120%      | --- | ---       |       |
| Trichlorofluoromethane                               | 1.16   | 0.0500               | 0.100           | mg/L                   | 50       | 1.00                                              | ---           | 116   | 80-120%      | --- | ---       |       |
| 1,2,3-Trichloropropane                               | 1.06   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 106   | 80-120%      | --- | ---       |       |
| 1,2,4-Trimethylbenzene                               | 1.09   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 109   | 80-120%      | --- | ---       |       |
| 1,3,5-Trimethylbenzene                               | 1.11   | 0.0250               | 0.0500          | mg/L                   | 50       | 1.00                                              | ---           | 111   | 80-120%      | --- | ---       |       |
| Vinyl chloride                                       | 1.06   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 106   | 80-120%      | --- | ---       |       |
| m,p-Xylene                                           | 2.18   | 0.0250               | 0.0500          | mg/L                   | 50       | 2.00                                              | ---           | 109   | 80-120%      | --- | ---       |       |
| o-Xylene                                             | 1.01   | 0.0125               | 0.0250          | mg/L                   | 50       | 1.00                                              | ---           | 101   | 80-120%      | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>              |        | <i>Recovery: 97%</i> |                 | <i>Limits: 80-120%</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                             |        | <i>99%</i>           |                 | <i>80-120%</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>                   |        | <i>96%</i>           |                 | <i>80-120%</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                       | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes       |
|---------------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b>          |        |                 |                 |       |          | <b>Water</b>                                      |               |       |              |     |           |             |
| <b>Duplicate (22G0954-DUP1)</b>                               |        |                 |                 |       |          | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 16:51 |               |       |              |     |           | <b>TCLP</b> |
| <b>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02)</b> |        |                 |                 |       |          |                                                   |               |       |              |     |           |             |
| <b>1311/8260D</b>                                             |        |                 |                 |       |          |                                                   |               |       |              |     |           |             |
| Acetone                                                       | ND     | 5.00            | 10.0            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Benzene                                                       | ND     | 0.0625          | 0.125           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Bromobenzene                                                  | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Bromochloromethane                                            | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Bromodichloromethane                                          | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Bromoform                                                     | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Bromomethane                                                  | ND     | 2.50            | 2.50            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 2-Butanone (MEK)                                              | ND     | 2.50            | 5.00            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| n-Butylbenzene                                                | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| sec-Butylbenzene                                              | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| tert-Butylbenzene                                             | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Carbon tetrachloride                                          | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Chlorobenzene                                                 | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Chloroethane                                                  | ND     | 2.50            | 2.50            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Chloroform                                                    | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Chloromethane                                                 | ND     | 1.25            | 2.50            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 2-Chlorotoluene                                               | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 4-Chlorotoluene                                               | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2-Dibromo-3-chloropropane                                   | ND     | 1.25            | 2.50            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Dibromochloromethane                                          | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2-Dibromoethane (EDB)                                       | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Dibromomethane                                                | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2-Dichlorobenzene                                           | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,3-Dichlorobenzene                                           | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,4-Dichlorobenzene                                           | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Dichlorodifluoromethane                                       | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1-Dichloroethane                                            | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1-Dichloroethene                                            | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2-Dichloroethane (EDC)                                      | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| cis-1,2-Dichloroethene                                        | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| trans-1,2-Dichloroethene                                      | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |

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ANALYTICAL REPORT

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ORELAP ID: OR100062

|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                       | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes       |
|---------------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b>          |        |                 |                 |       |          | <b>Water</b>                                      |               |       |              |     |           |             |
| <b>Duplicate (22G0954-DUP1)</b>                               |        |                 |                 |       |          | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 16:51 |               |       |              |     |           | <b>TCLP</b> |
| <b>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02)</b> |        |                 |                 |       |          |                                                   |               |       |              |     |           |             |
| 1,2-Dichloropropane                                           | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,3-Dichloropropane                                           | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 2,2-Dichloropropane                                           | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1-Dichloropropene                                           | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| cis-1,3-Dichloropropene                                       | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| trans-1,3-Dichloropropene                                     | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Ethylbenzene                                                  | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Hexachlorobutadiene                                           | ND     | 1.25            | 2.50            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 2-Hexanone                                                    | ND     | 2.50            | 5.00            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Isopropylbenzene                                              | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 4-Isopropyltoluene                                            | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 4-Methyl-2-pentanone (MiBK)                                   | ND     | 2.50            | 5.00            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Methyl tert-butyl ether (MTBE)                                | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Methylene chloride                                            | ND     | 2.50            | 5.00            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| n-Propylbenzene                                               | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Styrene                                                       | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1,1,2-Tetrachloroethane                                     | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1,2,2-Tetrachloroethane                                     | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Naphthalene                                                   | ND     | 1.25            | 2.50            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Tetrachloroethene (PCE)                                       | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Toluene                                                       | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2,3-Trichlorobenzene                                        | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2,4-Trichlorobenzene                                        | ND     | 0.500           | 1.00            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1,1-Trichloroethane                                         | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1,2-Trichloroethane                                         | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Trichloroethene (TCE)                                         | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Trichlorofluoromethane                                        | ND     | 0.500           | 1.00            | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2,3-Trichloropropane                                        | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2,4-Trimethylbenzene                                        | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,3,5-Trimethylbenzene                                        | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Vinyl chloride                                                | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| m,p-Xylene                                                    | ND     | 0.250           | 0.500           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| o-Xylene                                                      | ND     | 0.125           | 0.250           | mg/L  | 500      | ---                                               | ND            | ---   | ---          | --- | 30%       |             |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                       | Result | Detection Limit        | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes       |
|---------------------------------------------------------------|--------|------------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b>          |        |                        |                 |                         |          | <b>Water</b>                                      |               |       |              |     |           |             |
| <b>Duplicate (22G0954-DUP1)</b>                               |        |                        |                 |                         |          | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 16:51 |               |       |              |     |           | <b>TCLP</b> |
| <b>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02)</b> |        |                        |                 |                         |          |                                                   |               |       |              |     |           |             |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>                       |        | <i>Recovery: 107 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |             |
| <i>Toluene-d8 (Surr)</i>                                      |        | <i>102 %</i>           |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |             |
| <i>4-Bromofluorobenzene (Surr)</i>                            |        | <i>103 %</i>           |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |             |

|                                   |                                                   |             |
|-----------------------------------|---------------------------------------------------|-------------|
| <b>Matrix Spike (22G0954-MS1)</b> | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 14:36 | <b>TCLP</b> |
|-----------------------------------|---------------------------------------------------|-------------|

| <b>QC Source Sample: Non-SDG (A2G0613-04)</b> |        |                 |                 |       |          |              |               |            |                |     |           |       |
|-----------------------------------------------|--------|-----------------|-----------------|-------|----------|--------------|---------------|------------|----------------|-----|-----------|-------|
| <b>1311/8260D</b>                             |        |                 |                 |       |          |              |               |            |                |     |           |       |
| Analyte                                       | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
| Acetone                                       | 2.63   | 0.500           | 1.00            | mg/L  | 50       | 2.00         | ND            | 96         | 39-160%        | --- | ---       |       |
| Benzene                                       | 1.11   | 0.00625         | 0.0125          | mg/L  | 50       | 1.00         | ND            | 111        | 79-120%        | --- | ---       |       |
| Bromobenzene                                  | 0.972  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00         | ND            | 97         | 80-120%        | --- | ---       |       |
| Bromochloromethane                            | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 105        | 78-123%        | --- | ---       |       |
| Bromodichloromethane                          | 1.09   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 109        | 79-125%        | --- | ---       |       |
| Bromoform                                     | 1.04   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 104        | 66-130%        | --- | ---       |       |
| Bromomethane                                  | 1.68   | 0.250           | 0.250           | mg/L  | 50       | 1.00         | ND            | <b>168</b> | <b>53-141%</b> | --- | ---       | Q-54g |
| 2-Butanone (MEK)                              | 2.34   | 0.250           | 0.500           | mg/L  | 50       | 2.00         | ND            | 117        | 56-143%        | --- | ---       |       |
| n-Butylbenzene                                | 1.09   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 109        | 75-128%        | --- | ---       |       |
| sec-Butylbenzene                              | 1.10   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 110        | 77-126%        | --- | ---       |       |
| tert-Butylbenzene                             | 1.07   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 107        | 78-124%        | --- | ---       |       |
| Carbon tetrachloride                          | 1.32   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 132        | 72-136%        | --- | ---       | Q-54a |
| Chlorobenzene                                 | 1.01   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00         | ND            | 101        | 80-120%        | --- | ---       |       |
| Chloroethane                                  | 1.10   | 0.250           | 0.250           | mg/L  | 50       | 1.00         | ND            | 110        | 60-138%        | --- | ---       |       |
| Chloroform                                    | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 105        | 79-124%        | --- | ---       |       |
| Chloromethane                                 | 0.864  | 0.125           | 0.250           | mg/L  | 50       | 1.00         | ND            | 86         | 50-139%        | --- | ---       |       |
| 2-Chlorotoluene                               | 1.12   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 112        | 79-122%        | --- | ---       |       |
| 4-Chlorotoluene                               | 1.15   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 115        | 78-122%        | --- | ---       |       |
| 1,2-Dibromo-3-chloropropane                   | 1.16   | 0.125           | 0.250           | mg/L  | 50       | 1.00         | ND            | 116        | 62-128%        | --- | ---       |       |
| Dibromochloromethane                          | 1.25   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 125        | 74-126%        | --- | ---       | Q-54i |
| 1,2-Dibromoethane (EDB)                       | 1.23   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00         | ND            | <b>123</b> | <b>77-121%</b> | --- | ---       | Q-54d |
| Dibromomethane                                | 1.09   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 109        | 79-123%        | --- | ---       |       |
| 1,2-Dichlorobenzene                           | 1.03   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00         | ND            | 103        | 80-120%        | --- | ---       |       |
| 1,3-Dichlorobenzene                           | 1.06   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00         | ND            | 106        | 80-120%        | --- | ---       |       |
| 1,4-Dichlorobenzene                           | 0.964  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00         | ND            | 96         | 79-120%        | --- | ---       |       |
| Dichlorodifluoromethane                       | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00         | ND            | 105        | 32-152%        | --- | ---       |       |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes       |
|------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|------------|----------------|-----|-----------|-------------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b> |        |                 |                 |       |          | <b>Water</b>                                      |               |            |                |     |           |             |
| <b>Matrix Spike (22G0954-MS1)</b>                    |        |                 |                 |       |          | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 14:36 |               |            |                |     |           | <b>TCLP</b> |
| <b>QC Source Sample: Non-SDG (A2G0613-04)</b>        |        |                 |                 |       |          |                                                   |               |            |                |     |           |             |
| 1,1-Dichloroethane                                   | 1.06   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 106        | 77-125%        | --- | ---       |             |
| 1,1-Dichloroethene                                   | 1.09   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 109        | 71-131%        | --- | ---       |             |
| 1,2-Dichloroethane (EDC)                             | 0.999  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 100        | 73-128%        | --- | ---       |             |
| cis-1,2-Dichloroethene                               | 1.09   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 109        | 78-123%        | --- | ---       |             |
| trans-1,2-Dichloroethene                             | 1.05   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 105        | 75-124%        | --- | ---       |             |
| 1,2-Dichloropropane                                  | 1.02   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 102        | 78-122%        | --- | ---       |             |
| 1,3-Dichloropropane                                  | 1.06   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 106        | 80-120%        | --- | ---       |             |
| 2,2-Dichloropropane                                  | 1.44   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | <b>144</b> | <b>60-139%</b> | --- | ---       | Q-54e       |
| 1,1-Dichloropropene                                  | 1.26   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | <b>126</b> | <b>79-125%</b> | --- | ---       | Q-54h       |
| cis-1,3-Dichloropropene                              | 1.08   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 108        | 75-124%        | --- | ---       |             |
| trans-1,3-Dichloropropene                            | 1.12   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 112        | 73-127%        | --- | ---       |             |
| Ethylbenzene                                         | 1.11   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 111        | 79-121%        | --- | ---       |             |
| Hexachlorobutadiene                                  | 1.28   | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ND            | 128        | 66-134%        | --- | ---       | Q-54i       |
| 2-Hexanone                                           | 2.11   | 0.250           | 0.500           | mg/L  | 50       | 2.00                                              | ND            | 106        | 57-139%        | --- | ---       |             |
| Isopropylbenzene                                     | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 105        | 72-131%        | --- | ---       |             |
| 4-Isopropyltoluene                                   | 1.07   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 107        | 77-127%        | --- | ---       |             |
| 4-Methyl-2-pentanone (MiBK)                          | 2.22   | 0.250           | 0.500           | mg/L  | 50       | 2.00                                              | ND            | 111        | 67-130%        | --- | ---       |             |
| Methyl tert-butyl ether (MTBE)                       | 1.21   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 121        | 71-124%        | --- | ---       | Q-54f       |
| Methylene chloride                                   | 1.04   | 0.250           | 0.500           | mg/L  | 50       | 1.00                                              | ND            | 104        | 74-124%        | --- | ---       |             |
| n-Propylbenzene                                      | 1.15   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 115        | 76-126%        | --- | ---       |             |
| Styrene                                              | 1.03   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 103        | 78-123%        | --- | ---       |             |
| 1,1,1,2-Tetrachloroethane                            | 1.12   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 112        | 78-124%        | --- | ---       |             |
| 1,1,2,2-Tetrachloroethane                            | 0.987  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 99         | 71-121%        | --- | ---       |             |
| Naphthalene                                          | 0.820  | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ND            | 82         | 61-128%        | --- | ---       |             |
| Tetrachloroethene (PCE)                              | 1.11   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 111        | 74-129%        | --- | ---       |             |
| Toluene                                              | 1.02   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 102        | 80-121%        | --- | ---       |             |
| 1,2,3-Trichlorobenzene                               | 1.01   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 101        | 69-129%        | --- | ---       |             |
| 1,2,4-Trichlorobenzene                               | 0.977  | 0.0500          | 0.100           | mg/L  | 50       | 1.00                                              | ND            | 98         | 69-130%        | --- | ---       |             |
| 1,1,1-Trichloroethane                                | 1.17   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 117        | 74-131%        | --- | ---       |             |
| 1,1,2-Trichloroethane                                | 1.03   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 103        | 80-120%        | --- | ---       |             |
| Trichloroethene (TCE)                                | 1.03   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 103        | 79-123%        | --- | ---       |             |
| Trichlorofluoromethane                               | 1.17   | 0.0500          | 0.100           | mg/L  | 50       | 1.00                                              | ND            | 117        | 65-141%        | --- | ---       |             |
| 1,2,3-Trichloropropane                               | 1.04   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 104        | 73-122%        | --- | ---       |             |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes       |
|------------------------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------------|
| <b>Batch 22G0954 - EPA 1311/5030B TCLP Volatiles</b> |        |                       |                 |                         |          | <b>Water</b>                                      |               |       |              |     |           |             |
| <b>Matrix Spike (22G0954-MS1)</b>                    |        |                       |                 |                         |          | Prepared: 07/28/22 10:26 Analyzed: 07/28/22 14:36 |               |       |              |     |           | <b>TCLP</b> |
| <b>QC Source Sample: Non-SDG (A2G0613-04)</b>        |        |                       |                 |                         |          |                                                   |               |       |              |     |           |             |
| 1,2,4-Trimethylbenzene                               | 1.07   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ND            | 107   | 76-124%      | --- | ---       |             |
| 1,3,5-Trimethylbenzene                               | 1.09   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ND            | 109   | 75-124%      | --- | ---       |             |
| Vinyl chloride                                       | 1.05   | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ND            | 105   | 58-137%      | --- | ---       |             |
| m,p-Xylene                                           | 2.18   | 0.0250                | 0.0500          | mg/L                    | 50       | 2.00                                              | ND            | 109   | 80-121%      | --- | ---       |             |
| o-Xylene                                             | 1.01   | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ND            | 101   | 78-122%      | --- | ---       |             |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>              |        | <i>Recovery: 98 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |             |
| <i>Toluene-d8 (Surr)</i>                             |        | <i>100 %</i>          |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |             |
| <i>4-Bromofluorobenzene (Surr)</i>                   |        | <i>95 %</i>           |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |             |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b> |        |                 |                 |       |          | <b>Water</b>                                      |               |       |              |     |           |       |
| <b>Blank (22G1001-BLK1)</b>                          |        |                 |                 |       |          | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 14:41 |               |       |              |     |           |       |
| <u>1311/8260D</u>                                    |        |                 |                 |       |          |                                                   |               |       |              |     |           |       |
| Acetone                                              | ND     | 0.500           | 1.00            | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Benzene                                              | ND     | 0.00625         | 0.0125          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromobenzene                                         | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromochloromethane                                   | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromodichloromethane                                 | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromoform                                            | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Bromomethane                                         | ND     | 0.250           | 0.250           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 2-Butanone (MEK)                                     | ND     | 0.250           | 0.500           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| n-Butylbenzene                                       | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| sec-Butylbenzene                                     | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| tert-Butylbenzene                                    | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Carbon tetrachloride                                 | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Chlorobenzene                                        | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Chloroethane                                         | ND     | 0.250           | 0.250           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Chloroform                                           | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Chloromethane                                        | ND     | 0.125           | 0.250           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 2-Chlorotoluene                                      | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 4-Chlorotoluene                                      | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dibromo-3-chloropropane                          | ND     | 0.125           | 0.250           | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Dibromochloromethane                                 | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dibromoethane (EDB)                              | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Dibromomethane                                       | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dichlorobenzene                                  | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dichlorobenzene                                  | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,4-Dichlorobenzene                                  | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| Dichlorodifluoromethane                              | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,1-Dichloroethane                                   | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,1-Dichloroethene                                   | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dichloroethane (EDC)                             | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| cis-1,2-Dichloroethene                               | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| trans-1,2-Dichloroethene                             | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dichloropropane                                  | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dichloropropane                                  | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ---           | ---   | ---          | --- | ---       |       |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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ORELAP ID: OR100062

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit        | Reporting Limit                                   | Units                   | Dilution | Spike Amount        | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|------------------------------------------------------|--------|------------------------|---------------------------------------------------|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b> |        |                        |                                                   |                         |          | <b>Water</b>        |               |       |              |     |           |       |
| <b>Blank (22G1001-BLK1)</b>                          |        |                        | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 14:41 |                         |          |                     |               |       |              |     |           |       |
| 2,2-Dichloropropane                                  | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1-Dichloropropene                                  | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| cis-1,3-Dichloropropene                              | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| trans-1,3-Dichloropropene                            | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Ethylbenzene                                         | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Hexachlorobutadiene                                  | ND     | 0.125                  | 0.250                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 2-Hexanone                                           | ND     | 0.250                  | 0.500                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Isopropylbenzene                                     | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 4-Isopropyltoluene                                   | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)                          | ND     | 0.250                  | 0.500                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)                       | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Methylene chloride                                   | ND     | 0.250                  | 0.500                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| n-Propylbenzene                                      | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Styrene                                              | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane                            | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane                            | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Tetrachloroethene (PCE)                              | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Toluene                                              | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichlorobenzene                               | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trichlorobenzene                               | ND     | 0.0500                 | 0.100                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1,1-Trichloroethane                                | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,1,2-Trichloroethane                                | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Trichloroethene (TCE)                                | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Trichlorofluoromethane                               | ND     | 0.0500                 | 0.100                                             | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2,3-Trichloropropane                               | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trimethylbenzene                               | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,3,5-Trimethylbenzene                               | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Vinyl chloride                                       | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| m,p-Xylene                                           | ND     | 0.0250                 | 0.0500                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| o-Xylene                                             | ND     | 0.0125                 | 0.0250                                            | mg/L                    | 50       | ---                 | ---           | ---   | ---          | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>              |        | <i>Recovery: 107 %</i> |                                                   | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i> |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                             |        | <i>102 %</i>           |                                                   | <i>80-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>                   |        | <i>102 %</i>           |                                                   | <i>80-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
|------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|------------|----------------|-----|-----------|-------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b> |        |                 |                 |       |          | <b>Water</b>                                      |               |            |                |     |           |       |
| <b>LCS (22G1001-BS1)</b>                             |        |                 |                 |       |          | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 13:47 |               |            |                |     |           |       |
| <u>1311/8260D</u>                                    |        |                 |                 |       |          |                                                   |               |            |                |     |           |       |
| Acetone                                              | 1.97   | 0.500           | 1.00            | mg/L  | 50       | 2.00                                              | ---           | 98         | 80-120%        | --- | ---       |       |
| Benzene                                              | 1.05   | 0.00625         | 0.0125          | mg/L  | 50       | 1.00                                              | ---           | 105        | 80-120%        | --- | ---       |       |
| Bromobenzene                                         | 0.950  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 95         | 80-120%        | --- | ---       |       |
| Bromochloromethane                                   | 1.02   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 102        | 80-120%        | --- | ---       |       |
| Bromodichloromethane                                 | 1.06   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 106        | 80-120%        | --- | ---       |       |
| Bromoform                                            | 0.986  | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 99         | 80-120%        | --- | ---       |       |
| Bromomethane                                         | 1.56   | 0.250           | 0.250           | mg/L  | 50       | 1.00                                              | ---           | <b>156</b> | <b>80-120%</b> | --- | ---       | Q-56  |
| 2-Butanone (MEK)                                     | 2.21   | 0.250           | 0.500           | mg/L  | 50       | 2.00                                              | ---           | 110        | 80-120%        | --- | ---       |       |
| n-Butylbenzene                                       | 0.989  | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 99         | 80-120%        | --- | ---       |       |
| sec-Butylbenzene                                     | 1.00   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 100        | 80-120%        | --- | ---       |       |
| tert-Butylbenzene                                    | 0.984  | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 98         | 80-120%        | --- | ---       |       |
| Carbon tetrachloride                                 | 1.17   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 117        | 80-120%        | --- | ---       |       |
| Chlorobenzene                                        | 0.956  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 96         | 80-120%        | --- | ---       |       |
| Chloroethane                                         | 0.951  | 0.250           | 0.250           | mg/L  | 50       | 1.00                                              | ---           | 95         | 80-120%        | --- | ---       |       |
| Chloroform                                           | 1.01   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 101        | 80-120%        | --- | ---       |       |
| Chloromethane                                        | 0.828  | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ---           | 83         | 80-120%        | --- | ---       |       |
| 2-Chlorotoluene                                      | 1.06   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 106        | 80-120%        | --- | ---       |       |
| 4-Chlorotoluene                                      | 1.11   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 111        | 80-120%        | --- | ---       |       |
| 1,2-Dibromo-3-chloropropane                          | 1.14   | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ---           | 114        | 80-120%        | --- | ---       |       |
| Dibromochloromethane                                 | 1.20   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 120        | 80-120%        | --- | ---       |       |
| 1,2-Dibromoethane (EDB)                              | 1.20   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 120        | 80-120%        | --- | ---       |       |
| Dibromomethane                                       | 1.07   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 107        | 80-120%        | --- | ---       |       |
| 1,2-Dichlorobenzene                                  | 1.01   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 101        | 80-120%        | --- | ---       |       |
| 1,3-Dichlorobenzene                                  | 1.04   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 104        | 80-120%        | --- | ---       |       |
| 1,4-Dichlorobenzene                                  | 0.950  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 95         | 80-120%        | --- | ---       |       |
| Dichlorodifluoromethane                              | 0.920  | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 92         | 80-120%        | --- | ---       |       |
| 1,1-Dichloroethane                                   | 1.01   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 101        | 80-120%        | --- | ---       |       |
| 1,1-Dichloroethene                                   | 0.940  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 94         | 80-120%        | --- | ---       |       |
| 1,2-Dichloroethane (EDC)                             | 0.989  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 99         | 80-120%        | --- | ---       |       |
| cis-1,2-Dichloroethene                               | 1.02   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 102        | 80-120%        | --- | ---       |       |
| trans-1,2-Dichloroethene                             | 0.942  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 94         | 80-120%        | --- | ---       |       |
| 1,2-Dichloropropane                                  | 0.984  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ---           | 98         | 80-120%        | --- | ---       |       |
| 1,3-Dichloropropane                                  | 1.02   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ---           | 102        | 80-120%        | --- | ---       |       |

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Darwin Thomas, Business Development Director



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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|------------------------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b> |        |                       |                 |                         |          | <b>Water</b>                                      |               |       |              |     |           |       |
| <b>LCS (22G1001-BS1)</b>                             |        |                       |                 |                         |          | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 13:47 |               |       |              |     |           |       |
| 2,2-Dichloropropane                                  | 1.37   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 137   | 80-120%      | --- | ---       | Q-56  |
| 1,1-Dichloropropene                                  | 1.10   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 110   | 80-120%      | --- | ---       |       |
| cis-1,3-Dichloropropene                              | 1.03   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 103   | 80-120%      | --- | ---       |       |
| trans-1,3-Dichloropropene                            | 1.09   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 109   | 80-120%      | --- | ---       |       |
| Ethylbenzene                                         | 1.03   | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 103   | 80-120%      | --- | ---       |       |
| Hexachlorobutadiene                                  | 1.11   | 0.125                 | 0.250           | mg/L                    | 50       | 1.00                                              | ---           | 111   | 80-120%      | --- | ---       |       |
| 2-Hexanone                                           | 2.02   | 0.250                 | 0.500           | mg/L                    | 50       | 2.00                                              | ---           | 101   | 80-120%      | --- | ---       |       |
| Isopropylbenzene                                     | 0.930  | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 93    | 80-120%      | --- | ---       |       |
| 4-Isopropyltoluene                                   | 0.977  | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 98    | 80-120%      | --- | ---       |       |
| 4-Methyl-2-pentanone (MiBK)                          | 2.14   | 0.250                 | 0.500           | mg/L                    | 50       | 2.00                                              | ---           | 107   | 80-120%      | --- | ---       |       |
| Methyl tert-butyl ether (MTBE)                       | 1.16   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 116   | 80-120%      | --- | ---       |       |
| Methylene chloride                                   | 1.05   | 0.250                 | 0.500           | mg/L                    | 50       | 1.00                                              | ---           | 105   | 80-120%      | --- | ---       |       |
| n-Propylbenzene                                      | 1.08   | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 108   | 80-120%      | --- | ---       |       |
| Styrene                                              | 0.973  | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 97    | 80-120%      | --- | ---       |       |
| 1,1,1,2-Tetrachloroethane                            | 1.06   | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 106   | 80-120%      | --- | ---       |       |
| 1,1,2,2-Tetrachloroethane                            | 0.997  | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 100   | 80-120%      | --- | ---       |       |
| Tetrachloroethene (PCE)                              | 1.00   | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 100   | 80-120%      | --- | ---       |       |
| Toluene                                              | 0.942  | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 94    | 80-120%      | --- | ---       |       |
| 1,2,3-Trichlorobenzene                               | 0.959  | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 96    | 80-120%      | --- | ---       |       |
| 1,2,4-Trichlorobenzene                               | 0.912  | 0.0500                | 0.100           | mg/L                    | 50       | 1.00                                              | ---           | 91    | 80-120%      | --- | ---       |       |
| 1,1,1-Trichloroethane                                | 1.06   | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 106   | 80-120%      | --- | ---       |       |
| 1,1,2-Trichloroethane                                | 0.986  | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 99    | 80-120%      | --- | ---       |       |
| Trichloroethene (TCE)                                | 0.934  | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 93    | 80-120%      | --- | ---       |       |
| Trichlorofluoromethane                               | 1.02   | 0.0500                | 0.100           | mg/L                    | 50       | 1.00                                              | ---           | 102   | 80-120%      | --- | ---       |       |
| 1,2,3-Trichloropropane                               | 1.05   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 105   | 80-120%      | --- | ---       |       |
| 1,2,4-Trimethylbenzene                               | 1.02   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 102   | 80-120%      | --- | ---       |       |
| 1,3,5-Trimethylbenzene                               | 1.03   | 0.0250                | 0.0500          | mg/L                    | 50       | 1.00                                              | ---           | 103   | 80-120%      | --- | ---       |       |
| Vinyl chloride                                       | 0.908  | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 91    | 80-120%      | --- | ---       |       |
| m,p-Xylene                                           | 2.00   | 0.0250                | 0.0500          | mg/L                    | 50       | 2.00                                              | ---           | 100   | 80-120%      | --- | ---       |       |
| o-Xylene                                             | 0.919  | 0.0125                | 0.0250          | mg/L                    | 50       | 1.00                                              | ---           | 92    | 80-120%      | --- | ---       |       |
| <i>Surr: 1,4-Difluorobenzene (Surr)</i>              |        | <i>Recovery: 98 %</i> |                 | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |               |       |              |     |           |       |
| <i>Toluene-d8 (Surr)</i>                             |        | <i>99 %</i>           |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |
| <i>4-Bromofluorobenzene (Surr)</i>                   |        | <i>95 %</i>           |                 | <i>80-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |       |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result        | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes       |
|------------------------------------------------------|---------------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b> |               |                 |                 |       |          | <b>Water</b>                                      |               |       |              |     |           |             |
| <b>Duplicate (22G1001-DUP1)</b>                      |               |                 |                 |       |          | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 15:35 |               |       |              |     |           | <b>TCLP</b> |
| <b>QC Source Sample: Non-SDG (A2G0559-01RE1)</b>     |               |                 |                 |       |          |                                                   |               |       |              |     |           |             |
| Acetone                                              | ND            | 0.500           | 1.00            | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Benzene                                              | ND            | 0.00625         | 0.0125          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Bromobenzene                                         | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Bromochloromethane                                   | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Bromodichloromethane                                 | <b>0.0920</b> | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | 0.0895        | ---   | ---          | 3   | 30%       |             |
| Bromoform                                            | <b>0.0495</b> | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | 0.0520        | ---   | ---          | 5   | 30%       | J           |
| Bromomethane                                         | ND            | 0.250           | 0.250           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 2-Butanone (MEK)                                     | ND            | 0.250           | 0.500           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| n-Butylbenzene                                       | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| sec-Butylbenzene                                     | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| tert-Butylbenzene                                    | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Carbon tetrachloride                                 | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Chlorobenzene                                        | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Chloroethane                                         | ND            | 0.250           | 0.250           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Chloroform                                           | <b>0.0710</b> | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | 0.0710        | ---   | ---          | 0   | 30%       |             |
| Chloromethane                                        | ND            | 0.125           | 0.250           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 2-Chlorotoluene                                      | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 4-Chlorotoluene                                      | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2-Dibromo-3-chloropropane                          | ND            | 0.125           | 0.250           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Dibromochloromethane                                 | <b>0.0820</b> | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | 0.0820        | ---   | ---          | 0   | 30%       |             |
| 1,2-Dibromoethane (EDB)                              | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Dibromomethane                                       | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2-Dichlorobenzene                                  | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,3-Dichlorobenzene                                  | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,4-Dichlorobenzene                                  | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Dichlorodifluoromethane                              | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1-Dichloroethane                                   | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1-Dichloroethene                                   | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2-Dichloroethane (EDC)                             | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| cis-1,2-Dichloroethene                               | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| trans-1,2-Dichloroethene                             | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2-Dichloropropane                                  | ND            | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,3-Dichloropropane                                  | ND            | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |

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ANALYTICAL REPORT

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503-718-2323  
ORELAP ID: OR100062

|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                              | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes       |
|------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b> |        |                 |                 |       |          | <b>Water</b>                                      |               |       |              |     |           |             |
| <b>Duplicate (22G1001-DUP1)</b>                      |        |                 |                 |       |          | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 15:35 |               |       |              |     |           | <b>TCLP</b> |
| <b>QC Source Sample: Non-SDG (A2G0559-01RE1)</b>     |        |                 |                 |       |          |                                                   |               |       |              |     |           |             |
| 2,2-Dichloropropane                                  | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1-Dichloropropene                                  | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| cis-1,3-Dichloropropene                              | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| trans-1,3-Dichloropropene                            | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Ethylbenzene                                         | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Hexachlorobutadiene                                  | ND     | 0.125           | 0.250           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 2-Hexanone                                           | ND     | 0.250           | 0.500           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Isopropylbenzene                                     | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 4-Isopropyltoluene                                   | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 4-Methyl-2-pentanone (MiBK)                          | ND     | 0.250           | 0.500           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Methyl tert-butyl ether (MTBE)                       | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Methylene chloride                                   | ND     | 0.250           | 0.500           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| n-Propylbenzene                                      | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Styrene                                              | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1,1,2-Tetrachloroethane                            | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1,2,2-Tetrachloroethane                            | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Tetrachloroethene (PCE)                              | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Toluene                                              | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2,3-Trichlorobenzene                               | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2,4-Trichlorobenzene                               | ND     | 0.0500          | 0.100           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1,1-Trichloroethane                                | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,1,2-Trichloroethane                                | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Trichloroethene (TCE)                                | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Trichlorofluoromethane                               | ND     | 0.0500          | 0.100           | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2,3-Trichloropropane                               | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,2,4-Trimethylbenzene                               | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| 1,3,5-Trimethylbenzene                               | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| Vinyl chloride                                       | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| m,p-Xylene                                           | ND     | 0.0250          | 0.0500          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |
| o-Xylene                                             | ND     | 0.0125          | 0.0250          | mg/L  | 50       | ---                                               | ND            | ---   | ---          | --- | 30%       |             |

|                                  |                 |                  |              |
|----------------------------------|-----------------|------------------|--------------|
| Surr: 1,4-Difluorobenzene (Surr) | Recovery: 109 % | Limits: 80-120 % | Dilution: 1x |
| Toluene-d8 (Surr)                | 102 %           | 80-120 %         | "            |
| 4-Bromofluorobenzene (Surr)      | 101 %           | 80-120 %         | "            |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                          | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes       |
|------------------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|------------|----------------|-----|-----------|-------------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b>             |        |                 |                 |       |          | <b>Water</b>                                      |               |            |                |     |           |             |
| <b>Matrix Spike (22G1001-MS1)</b>                                |        |                 |                 |       |          | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 16:29 |               |            |                |     |           | <b>TCLP</b> |
| <b>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |        |                 |                 |       |          |                                                   |               |            |                |     |           |             |
| <b>1311/8260D</b>                                                |        |                 |                 |       |          |                                                   |               |            |                |     |           |             |
| Acetone                                                          | 2.02   | 0.500           | 1.00            | mg/L  | 50       | 2.00                                              | ND            | 101        | 39-160%        | --- | ---       |             |
| Benzene                                                          | 1.14   | 0.00625         | 0.0125          | mg/L  | 50       | 1.00                                              | ND            | 114        | 79-120%        | --- | ---       |             |
| Bromobenzene                                                     | 0.956  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 96         | 80-120%        | --- | ---       |             |
| Bromochloromethane                                               | 1.06   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 106        | 78-123%        | --- | ---       |             |
| Bromodichloromethane                                             | 1.14   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 114        | 79-125%        | --- | ---       |             |
| Bromoform                                                        | 1.03   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 103        | 66-130%        | --- | ---       |             |
| Bromomethane                                                     | 1.61   | 0.250           | 0.250           | mg/L  | 50       | 1.00                                              | ND            | <b>161</b> | <b>53-141%</b> | --- | ---       | Q-54e       |
| 2-Butanone (MEK)                                                 | 2.26   | 0.250           | 0.500           | mg/L  | 50       | 2.00                                              | ND            | 113        | 56-143%        | --- | ---       |             |
| n-Butylbenzene                                                   | 1.08   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 108        | 75-128%        | --- | ---       |             |
| sec-Butylbenzene                                                 | 1.09   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 109        | 77-126%        | --- | ---       |             |
| tert-Butylbenzene                                                | 1.06   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 106        | 78-124%        | --- | ---       |             |
| Carbon tetrachloride                                             | 1.34   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 134        | 72-136%        | --- | ---       |             |
| Chlorobenzene                                                    | 1.01   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 101        | 80-120%        | --- | ---       |             |
| Chloroethane                                                     | 1.08   | 0.250           | 0.250           | mg/L  | 50       | 1.00                                              | ND            | 108        | 60-138%        | --- | ---       |             |
| Chloroform                                                       | 1.16   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | 0.103         | 106        | 79-124%        | --- | ---       |             |
| Chloromethane                                                    | 0.900  | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ND            | 90         | 50-139%        | --- | ---       |             |
| 2-Chlorotoluene                                                  | 1.10   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 110        | 79-122%        | --- | ---       |             |
| 4-Chlorotoluene                                                  | 1.13   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 113        | 78-122%        | --- | ---       |             |
| 1,2-Dibromo-3-chloropropane                                      | 1.13   | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ND            | 113        | 62-128%        | --- | ---       |             |
| Dibromochloromethane                                             | 1.25   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 125        | 74-126%        | --- | ---       |             |
| 1,2-Dibromoethane (EDB)                                          | 1.21   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 121        | 77-121%        | --- | ---       |             |
| Dibromomethane                                                   | 1.10   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 110        | 79-123%        | --- | ---       |             |
| 1,2-Dichlorobenzene                                              | 1.02   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 102        | 80-120%        | --- | ---       |             |
| 1,3-Dichlorobenzene                                              | 1.05   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 105        | 80-120%        | --- | ---       |             |
| 1,4-Dichlorobenzene                                              | 0.961  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 96         | 79-120%        | --- | ---       |             |
| Dichlorodifluoromethane                                          | 1.07   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 107        | 32-152%        | --- | ---       |             |
| 1,1-Dichloroethane                                               | 1.07   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 107        | 77-125%        | --- | ---       |             |
| 1,1-Dichloroethene                                               | 1.10   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 110        | 71-131%        | --- | ---       |             |
| 1,2-Dichloroethane (EDC)                                         | 1.02   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 102        | 73-128%        | --- | ---       |             |
| cis-1,2-Dichloroethene                                           | 1.07   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 107        | 78-123%        | --- | ---       |             |
| trans-1,2-Dichloroethene                                         | 1.03   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 103        | 75-124%        | --- | ---       |             |

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ANALYTICAL REPORT

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503-718-2323  
ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                          | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes       |
|------------------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|------------|----------------|-----|-----------|-------------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b>             |        |                 |                 |       |          | <b>Water</b>                                      |               |            |                |     |           |             |
| <b>Matrix Spike (22G1001-MS1)</b>                                |        |                 |                 |       |          | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 16:29 |               |            |                |     |           | <b>TCLP</b> |
| <b>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |        |                 |                 |       |          |                                                   |               |            |                |     |           |             |
| 1,2-Dichloropropane                                              | 1.02   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 102        | 78-122%        | --- | ---       |             |
| 1,3-Dichloropropane                                              | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 105        | 80-120%        | --- | ---       |             |
| 2,2-Dichloropropane                                              | 1.40   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | <b>140</b> | <b>60-139%</b> | --- | ---       | Q-54c       |
| 1,1-Dichloropropene                                              | 1.25   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 125        | 79-125%        | --- | ---       |             |
| cis-1,3-Dichloropropene                                          | 1.04   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 104        | 75-124%        | --- | ---       |             |
| trans-1,3-Dichloropropene                                        | 1.11   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 111        | 73-127%        | --- | ---       |             |
| Ethylbenzene                                                     | 1.12   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 112        | 79-121%        | --- | ---       |             |
| Hexachlorobutadiene                                              | 1.25   | 0.125           | 0.250           | mg/L  | 50       | 1.00                                              | ND            | 125        | 66-134%        | --- | ---       |             |
| 2-Hexanone                                                       | 2.03   | 0.250           | 0.500           | mg/L  | 50       | 2.00                                              | ND            | 102        | 57-139%        | --- | ---       |             |
| Isopropylbenzene                                                 | 1.03   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 103        | 72-131%        | --- | ---       |             |
| 4-Isopropyltoluene                                               | 1.05   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 105        | 77-127%        | --- | ---       |             |
| 4-Methyl-2-pentanone (MiBK)                                      | 2.17   | 0.250           | 0.500           | mg/L  | 50       | 2.00                                              | ND            | 109        | 67-130%        | --- | ---       |             |
| Methyl tert-butyl ether (MTBE)                                   | 1.19   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 119        | 71-124%        | --- | ---       |             |
| Methylene chloride                                               | 1.11   | 0.250           | 0.500           | mg/L  | 50       | 1.00                                              | ND            | 111        | 74-124%        | --- | ---       |             |
| n-Propylbenzene                                                  | 1.14   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 114        | 76-126%        | --- | ---       |             |
| Styrene                                                          | 1.03   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 103        | 78-123%        | --- | ---       |             |
| 1,1,1,2-Tetrachloroethane                                        | 1.13   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 113        | 78-124%        | --- | ---       |             |
| 1,1,2,2-Tetrachloroethane                                        | 0.984  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 98         | 71-121%        | --- | ---       |             |
| Tetrachloroethene (PCE)                                          | 1.12   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 112        | 74-129%        | --- | ---       |             |
| Toluene                                                          | 1.01   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 101        | 80-121%        | --- | ---       |             |
| 1,2,3-Trichlorobenzene                                           | 0.979  | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 98         | 69-129%        | --- | ---       |             |
| 1,2,4-Trichlorobenzene                                           | 0.929  | 0.0500          | 0.100           | mg/L  | 50       | 1.00                                              | ND            | 93         | 69-130%        | --- | ---       |             |
| 1,1,1-Trichloroethane                                            | 1.19   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 119        | 74-131%        | --- | ---       |             |
| 1,1,2-Trichloroethane                                            | 1.02   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 102        | 80-120%        | --- | ---       |             |
| Trichloroethene (TCE)                                            | 1.01   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 101        | 79-123%        | --- | ---       |             |
| Trichlorofluoromethane                                           | 1.19   | 0.0500          | 0.100           | mg/L  | 50       | 1.00                                              | ND            | 119        | 65-141%        | --- | ---       |             |
| 1,2,3-Trichloropropane                                           | 1.04   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 104        | 73-122%        | --- | ---       |             |
| 1,2,4-Trimethylbenzene                                           | 1.06   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 106        | 76-124%        | --- | ---       |             |
| 1,3,5-Trimethylbenzene                                           | 1.08   | 0.0250          | 0.0500          | mg/L  | 50       | 1.00                                              | ND            | 108        | 75-124%        | --- | ---       |             |
| Vinyl chloride                                                   | 1.04   | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 104        | 58-137%        | --- | ---       |             |
| m,p-Xylene                                                       | 2.18   | 0.0250          | 0.0500          | mg/L  | 50       | 2.00                                              | ND            | 109        | 80-121%        | --- | ---       |             |
| o-Xylene                                                         | 0.994  | 0.0125          | 0.0250          | mg/L  | 50       | 1.00                                              | ND            | 99         | 78-122%        | --- | ---       |             |

Surr: 1,4-Difluorobenzene (Surr)      Recovery: 98 %      Limits: 80-120 %      Dilution: 1x

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|                                                                                               |                                                                                                       |                                                     |
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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                          | Result | Detection<br>Limit     | Reporting<br>Limit | Units                   | Dilution | Spike<br>Amount                                   | Source<br>Result | % REC | % REC<br>Limits | RPD | RPD<br>Limit | Notes       |
|------------------------------------------------------------------|--------|------------------------|--------------------|-------------------------|----------|---------------------------------------------------|------------------|-------|-----------------|-----|--------------|-------------|
| <b>Batch 22G1001 - EPA 1311/5030B TCLP Volatiles</b>             |        |                        |                    |                         |          | <b>Water</b>                                      |                  |       |                 |     |              |             |
| <b>Matrix Spike (22G1001-MS1)</b>                                |        |                        |                    |                         |          | Prepared: 07/29/22 11:31 Analyzed: 07/29/22 16:29 |                  |       |                 |     |              | <b>TCLP</b> |
| <b>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02RE1)</b> |        |                        |                    |                         |          |                                                   |                  |       |                 |     |              |             |
| <i>Surr: Toluene-d8 (Surr)</i>                                   |        | <i>Recovery: 101 %</i> |                    | <i>Limits: 80-120 %</i> |          | <i>Dilution: 1x</i>                               |                  |       |                 |     |              |             |
| <i>4-Bromofluorobenzene (Surr)</i>                               |        | <i>94 %</i>            |                    | <i>80-120 %</i>         |          | <i>"</i>                                          |                  |       |                 |     |              |             |

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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                         | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22H0028 - EPA 3546</b> |        |                 |                                                   |           |          | <b>Solid</b> |               |       |              |     |           |       |
| <b>Blank (22H0028-BLK1)</b>     |        |                 | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 15:43 |           |          |              |               |       |              |     |           |       |
| <u>EPA 8270E</u>                |        |                 |                                                   |           |          |              |               |       |              |     |           |       |
| Acenaphthene                    | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Acenaphthylene                  | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Anthracene                      | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Benz(a)anthracene               | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Benzo(a)pyrene                  | ND     | 1.87            | 3.75                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Benzo(b)fluoranthene            | ND     | 1.87            | 3.75                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Benzo(k)fluoranthene            | ND     | 1.87            | 3.75                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Benzo(g,h,i)perylene            | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Chrysene                        | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Dibenz(a,h)anthracene           | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Fluoranthene                    | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Fluorene                        | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Indeno(1,2,3-cd)pyrene          | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1-Methylnaphthalene             | ND     | 2.50            | 5.00                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Methylnaphthalene             | ND     | 2.50            | 5.00                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Naphthalene                     | ND     | 2.50            | 5.00                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Phenanthrene                    | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Pyrene                          | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Carbazole                       | ND     | 1.87            | 3.75                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Dibenzofuran                    | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Chlorophenol                  | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Chloro-3-methylphenol         | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,4-Dichlorophenol              | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,4-Dimethylphenol              | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,4-Dinitrophenol               | ND     | 31.2            | 62.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4,6-Dinitro-2-methylphenol      | ND     | 31.2            | 62.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Methylphenol                  | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 3+4-Methylphenol(s)             | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Nitrophenol                   | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Nitrophenol                   | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Pentachlorophenol (PCP)         | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Phenol                          | ND     | 2.50            | 5.00                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,3,4,6-Tetrachlorophenol       | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |

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|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                         | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22H0028 - EPA 3546</b> |        |                 |                                                   |           |          | <b>Solid</b> |               |       |              |     |           |       |
| <b>Blank (22H0028-BLK1)</b>     |        |                 | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 15:43 |           |          |              |               |       |              |     |           |       |
| 2,3,5,6-Tetrachlorophenol       | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,4,5-Trichlorophenol           | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Nitrobenzene                    | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,4,6-Trichlorophenol           | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Bis(2-ethylhexyl)phthalate      | ND     | 18.7            | 37.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Butyl benzyl phthalate          | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Diethylphthalate                | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Dimethylphthalate               | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Di-n-butylphthalate             | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Di-n-octyl phthalate            | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| N-Nitrosodimethylamine          | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| N-Nitroso-di-n-propylamine      | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| N-Nitrosodiphenylamine          | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Bis(2-Chloroethoxy) methane     | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Bis(2-Chloroethyl) ether        | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,2'-Oxybis(1-Chloropropane)    | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Hexachlorobenzene               | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Hexachlorobutadiene             | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Hexachlorocyclopentadiene       | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Hexachloroethane                | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Chloronaphthalene             | ND     | 1.25            | 2.50                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 1,2,4-Trichlorobenzene          | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Bromophenyl phenyl ether      | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Chlorophenyl phenyl ether     | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Aniline                         | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Chloroaniline                 | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2-Nitroaniline                  | ND     | 25.0            | 50.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 3-Nitroaniline                  | ND     | 25.0            | 50.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 4-Nitroaniline                  | ND     | 25.0            | 50.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,4-Dinitrotoluene              | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| 2,6-Dinitrotoluene              | ND     | 12.5            | 25.0                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Benzoic acid                    | ND     | 157             | 312                                               | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Benzyl alcohol                  | ND     | 6.25            | 12.5                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |
| Isophorone                      | ND     | 3.12            | 6.25                                              | ug/kg wet | 1        | ---          | ---           | ---   | ---          | --- | ---       |       |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                             | Result | Detection Limit       | Reporting Limit                                   | Units                   | Dilution | Spike Amount        | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-------------------------------------|--------|-----------------------|---------------------------------------------------|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22H0028 - EPA 3546</b>     |        |                       |                                                   |                         |          | <b>Solid</b>        |               |       |              |     |           |       |
| <b>Blank (22H0028-BLK1)</b>         |        |                       | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 15:43 |                         |          |                     |               |       |              |     |           |       |
| Azobenzene (1,2-DPH)                | ND     | 3.12                  | 6.25                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Bis(2-Ethylhexyl) adipate           | ND     | 31.2                  | 62.5                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 3,3'-Dichlorobenzidine              | ND     | 25.0                  | 50.0                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       | Q-52  |
| 1,2-Dinitrobenzene                  | ND     | 31.2                  | 62.5                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dinitrobenzene                  | ND     | 31.2                  | 62.5                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,4-Dinitrobenzene                  | ND     | 31.2                  | 62.5                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| Pyridine                            | ND     | 6.25                  | 12.5                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,2-Dichlorobenzene                 | ND     | 3.12                  | 6.25                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,3-Dichlorobenzene                 | ND     | 3.12                  | 6.25                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| 1,4-Dichlorobenzene                 | ND     | 3.12                  | 6.25                                              | ug/kg wet               | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |
| <i>Surr: Nitrobenzene-d5 (Surr)</i> |        | <i>Recovery: 88 %</i> |                                                   | <i>Limits: 37-122 %</i> |          | <i>Dilution: 1x</i> |               |       |              |     |           |       |
| <i>2-Fluorobiphenyl (Surr)</i>      |        | <i>78 %</i>           |                                                   | <i>44-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |
| <i>Phenol-d6 (Surr)</i>             |        | <i>71 %</i>           |                                                   | <i>33-122 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |
| <i>p-Terphenyl-d14 (Surr)</i>       |        | <i>83 %</i>           |                                                   | <i>54-127 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |
| <i>2-Fluorophenol (Surr)</i>        |        | <i>73 %</i>           |                                                   | <i>35-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |
| <i>2,4,6-Tribromophenol (Surr)</i>  |        | <i>85 %</i>           |                                                   | <i>39-132 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |

|                          |     |      |                                                   |           |   |     |     |    |         |     |     |  |
|--------------------------|-----|------|---------------------------------------------------|-----------|---|-----|-----|----|---------|-----|-----|--|
| <b>LCS (22H0028-BS1)</b> |     |      | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 16:14 |           |   |     |     |    |         |     |     |  |
| <b>EPA 8270E</b>         |     |      |                                                   |           |   |     |     |    |         |     |     |  |
| Acenaphthene             | 499 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 94 | 40-123% | --- | --- |  |
| Acenaphthylene           | 505 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 95 | 32-132% | --- | --- |  |
| Anthracene               | 502 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 94 | 47-123% | --- | --- |  |
| Benz(a)anthracene        | 489 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 92 | 49-126% | --- | --- |  |
| Benzo(a)pyrene           | 511 | 8.00 | 16.0                                              | ug/kg wet | 4 | 533 | --- | 96 | 45-129% | --- | --- |  |
| Benzo(b)fluoranthene     | 512 | 8.00 | 16.0                                              | ug/kg wet | 4 | 533 | --- | 96 | 45-132% | --- | --- |  |
| Benzo(k)fluoranthene     | 502 | 8.00 | 16.0                                              | ug/kg wet | 4 | 533 | --- | 94 | 47-132% | --- | --- |  |
| Benzo(g,h,i)perylene     | 498 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 93 | 43-134% | --- | --- |  |
| Chrysene                 | 480 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 90 | 50-124% | --- | --- |  |
| Dibenz(a,h)anthracene    | 495 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 93 | 45-134% | --- | --- |  |
| Fluoranthene             | 500 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 94 | 50-127% | --- | --- |  |
| Fluorene                 | 463 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 87 | 43-125% | --- | --- |  |
| Indeno(1,2,3-cd)pyrene   | 495 | 5.32 | 10.7                                              | ug/kg wet | 4 | 533 | --- | 93 | 45-133% | --- | --- |  |
| 1-Methylnaphthalene      | 484 | 10.7 | 21.3                                              | ug/kg wet | 4 | 533 | --- | 91 | 40-120% | --- | --- |  |
| 2-Methylnaphthalene      | 500 | 10.7 | 21.3                                              | ug/kg wet | 4 | 533 | --- | 94 | 38-122% | --- | --- |  |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                         | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22H0028 - EPA 3546</b> |        |                 |                                                   |           |          | <b>Solid</b> |               |       |              |     |           |       |
| <b>LCS (22H0028-BS1)</b>        |        |                 | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 16:14 |           |          |              |               |       |              |     |           |       |
| Naphthalene                     | 485    | 10.7            | 21.3                                              | ug/kg wet | 4        | 533          | ---           | 91    | 35-123%      | --- | ---       |       |
| Phenanthrene                    | 483    | 5.32            | 10.7                                              | ug/kg wet | 4        | 533          | ---           | 91    | 50-121%      | --- | ---       |       |
| Pyrene                          | 492    | 5.32            | 10.7                                              | ug/kg wet | 4        | 533          | ---           | 92    | 47-127%      | --- | ---       |       |
| Carbazole                       | 474    | 8.00            | 16.0                                              | ug/kg wet | 4        | 533          | ---           | 89    | 50-123%      | --- | ---       |       |
| Dibenzofuran                    | 482    | 5.32            | 10.7                                              | ug/kg wet | 4        | 533          | ---           | 90    | 44-120%      | --- | ---       |       |
| 2-Chlorophenol                  | 470    | 26.7            | 53.2                                              | ug/kg wet | 4        | 533          | ---           | 88    | 34-121%      | --- | ---       |       |
| 4-Chloro-3-methylphenol         | 482    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 90    | 45-122%      | --- | ---       |       |
| 2,4-Dichlorophenol              | 464    | 26.7            | 53.2                                              | ug/kg wet | 4        | 533          | ---           | 87    | 40-122%      | --- | ---       |       |
| 2,4-Dimethylphenol              | 514    | 26.7            | 53.2                                              | ug/kg wet | 4        | 533          | ---           | 96    | 30-127%      | --- | ---       |       |
| 2,4-Dinitrophenol               | 354    | 133             | 267                                               | ug/kg wet | 4        | 533          | ---           | 66    | 10-137%      | --- | ---       |       |
| 4,6-Dinitro-2-methylphenol      | 408    | 133             | 267                                               | ug/kg wet | 4        | 533          | ---           | 77    | 29-132%      | --- | ---       |       |
| 2-Methylphenol                  | 481    | 13.3            | 26.7                                              | ug/kg wet | 4        | 533          | ---           | 90    | 32-122%      | --- | ---       |       |
| 3+4-Methylphenol(s)             | 495    | 13.3            | 26.7                                              | ug/kg wet | 4        | 533          | ---           | 93    | 34-120%      | --- | ---       |       |
| 2-Nitrophenol                   | 524    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 98    | 36-123%      | --- | ---       |       |
| 4-Nitrophenol                   | 412    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 77    | 30-132%      | --- | ---       |       |
| Pentachlorophenol (PCP)         | 425    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 80    | 25-133%      | --- | ---       |       |
| Phenol                          | 449    | 10.7            | 21.3                                              | ug/kg wet | 4        | 533          | ---           | 84    | 34-121%      | --- | ---       |       |
| 2,3,4,6-Tetrachlorophenol       | 482    | 26.7            | 53.2                                              | ug/kg wet | 4        | 533          | ---           | 90    | 44-125%      | --- | ---       |       |
| 2,3,5,6-Tetrachlorophenol       | 462    | 26.7            | 53.2                                              | ug/kg wet | 4        | 533          | ---           | 87    | 40-120%      | --- | ---       |       |
| 2,4,5-Trichlorophenol           | 474    | 26.7            | 53.2                                              | ug/kg wet | 4        | 533          | ---           | 89    | 41-124%      | --- | ---       |       |
| Nitrobenzene                    | 456    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 86    | 34-122%      | --- | ---       |       |
| 2,4,6-Trichlorophenol           | 472    | 26.7            | 53.2                                              | ug/kg wet | 4        | 533          | ---           | 89    | 39-126%      | --- | ---       |       |
| Bis(2-ethylhexyl)phthalate      | 476    | 80.0            | 160                                               | ug/kg wet | 4        | 533          | ---           | 89    | 51-133%      | --- | ---       |       |
| Butyl benzyl phthalate          | 478    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 90    | 48-132%      | --- | ---       |       |
| Diethylphthalate                | 460    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 86    | 50-124%      | --- | ---       |       |
| Dimethylphthalate               | 481    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 90    | 48-124%      | --- | ---       |       |
| Di-n-butylphthalate             | 513    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 96    | 51-128%      | --- | ---       |       |
| Di-n-octyl phthalate            | 479    | 53.2            | 107                                               | ug/kg wet | 4        | 533          | ---           | 90    | 45-140%      | --- | ---       |       |
| N-Nitrosodimethylamine          | 427    | 13.3            | 26.7                                              | ug/kg wet | 4        | 533          | ---           | 80    | 23-120%      | --- | ---       |       |
| N-Nitroso-di-n-propylamine      | 483    | 13.3            | 26.7                                              | ug/kg wet | 4        | 533          | ---           | 91    | 36-120%      | --- | ---       |       |
| N-Nitrosodiphenylamine          | 489    | 13.3            | 26.7                                              | ug/kg wet | 4        | 533          | ---           | 92    | 38-127%      | --- | ---       |       |
| Bis(2-Chloroethoxy) methane     | 501    | 13.3            | 26.7                                              | ug/kg wet | 4        | 533          | ---           | 94    | 36-121%      | --- | ---       |       |
| Bis(2-Chloroethyl) ether        | 440    | 13.3            | 26.7                                              | ug/kg wet | 4        | 533          | ---           | 83    | 31-120%      | --- | ---       |       |
| 2,2'-Oxybis(1-Chloropropane)    | 508    | 13.3            | 26.7                                              | ug/kg wet | 4        | 533          | ---           | 95    | 39-120%      | --- | ---       |       |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                             | Result | Detection Limit       | Reporting Limit                                   | Units                   | Dilution | Spike Amount        | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes |
|-------------------------------------|--------|-----------------------|---------------------------------------------------|-------------------------|----------|---------------------|---------------|------------|----------------|-----|-----------|-------|
| <b>Batch 22H0028 - EPA 3546</b>     |        |                       |                                                   |                         |          | <b>Solid</b>        |               |            |                |     |           |       |
| <b>LCS (22H0028-BS1)</b>            |        |                       | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 16:14 |                         |          |                     |               |            |                |     |           |       |
| Hexachlorobenzene                   | 489    | 5.32                  | 10.7                                              | ug/kg wet               | 4        | 533                 | ---           | 92         | 45-122%        | --- | ---       |       |
| Hexachlorobutadiene                 | 463    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 87         | 32-123%        | --- | ---       |       |
| Hexachlorocyclopentadiene           | 456    | 26.7                  | 53.2                                              | ug/kg wet               | 4        | 533                 | ---           | 85         | 10-140%        | --- | ---       |       |
| Hexachloroethane                    | 460    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 86         | 28-120%        | --- | ---       |       |
| 2-Chloronaphthalene                 | 504    | 5.32                  | 10.7                                              | ug/kg wet               | 4        | 533                 | ---           | 94         | 41-120%        | --- | ---       |       |
| 1,2,4-Trichlorobenzene              | 481    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 90         | 34-120%        | --- | ---       |       |
| 4-Bromophenyl phenyl ether          | 485    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 91         | 46-124%        | --- | ---       |       |
| 4-Chlorophenyl phenyl ether         | 466    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 87         | 45-121%        | --- | ---       |       |
| Aniline                             | 352    | 26.7                  | 53.2                                              | ug/kg wet               | 4        | 533                 | ---           | 66         | 10-120%        | --- | ---       |       |
| 4-Chloroaniline                     | 373    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 70         | 17-120%        | --- | ---       |       |
| 2-Nitroaniline                      | 481    | 107                   | 213                                               | ug/kg wet               | 4        | 533                 | ---           | 90         | 44-127%        | --- | ---       |       |
| 3-Nitroaniline                      | 414    | 107                   | 213                                               | ug/kg wet               | 4        | 533                 | ---           | 78         | 33-120%        | --- | ---       |       |
| 4-Nitroaniline                      | 448    | 107                   | 213                                               | ug/kg wet               | 4        | 533                 | ---           | 84         | 51-125%        | --- | ---       |       |
| 2,4-Dinitrotoluene                  | 489    | 53.2                  | 107                                               | ug/kg wet               | 4        | 533                 | ---           | 92         | 48-126%        | --- | ---       |       |
| 2,6-Dinitrotoluene                  | 492    | 53.2                  | 107                                               | ug/kg wet               | 4        | 533                 | ---           | 92         | 46-124%        | --- | ---       |       |
| Benzoic acid                        | 741    | 668                   | 668                                               | ug/kg wet               | 4        | 1070                | ---           | 69         | 10-140%        | --- | ---       |       |
| Benzyl alcohol                      | 402    | 26.7                  | 53.2                                              | ug/kg wet               | 4        | 533                 | ---           | 75         | 29-122%        | --- | ---       |       |
| Isophorone                          | 467    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 88         | 30-122%        | --- | ---       |       |
| Azobenzene (1,2-DPH)                | 528    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 99         | 39-125%        | --- | ---       |       |
| Bis(2-Ethylhexyl) adipate           | 466    | 133                   | 267                                               | ug/kg wet               | 4        | 533                 | ---           | 87         | 61-121%        | --- | ---       |       |
| 3,3'-Dichlorobenzidine              | 2380   | 107                   | 213                                               | ug/kg wet               | 4        | 1070                | ---           | <b>224</b> | <b>22-121%</b> | --- | ---       | Q-29  |
| 1,2-Dinitrobenzene                  | 482    | 133                   | 267                                               | ug/kg wet               | 4        | 533                 | ---           | 90         | 44-120%        | --- | ---       |       |
| 1,3-Dinitrobenzene                  | 467    | 133                   | 267                                               | ug/kg wet               | 4        | 533                 | ---           | 88         | 43-127%        | --- | ---       |       |
| 1,4-Dinitrobenzene                  | 428    | 133                   | 267                                               | ug/kg wet               | 4        | 533                 | ---           | 80         | 37-132%        | --- | ---       |       |
| Pyridine                            | 360    | 26.7                  | 53.2                                              | ug/kg wet               | 4        | 533                 | ---           | 67         | 10-120%        | --- | ---       |       |
| 1,2-Dichlorobenzene                 | 461    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 86         | 33-120%        | --- | ---       |       |
| 1,3-Dichlorobenzene                 | 451    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 85         | 30-120%        | --- | ---       |       |
| 1,4-Dichlorobenzene                 | 451    | 13.3                  | 26.7                                              | ug/kg wet               | 4        | 533                 | ---           | 85         | 31-120%        | --- | ---       |       |
| <i>Surr: Nitrobenzene-d5 (Surr)</i> |        | <i>Recovery: 87 %</i> |                                                   | <i>Limits: 37-122 %</i> |          | <i>Dilution: 4x</i> |               |            |                |     |           |       |
| <i>2-Fluorobiphenyl (Surr)</i>      |        | <i>94 %</i>           |                                                   | <i>44-120 %</i>         |          | <i>"</i>            |               |            |                |     |           |       |
| <i>Phenol-d6 (Surr)</i>             |        | <i>86 %</i>           |                                                   | <i>33-122 %</i>         |          | <i>"</i>            |               |            |                |     |           |       |
| <i>p-Terphenyl-d14 (Surr)</i>       |        | <i>101 %</i>          |                                                   | <i>54-127 %</i>         |          | <i>"</i>            |               |            |                |     |           |       |
| <i>2-Fluorophenol (Surr)</i>        |        | <i>86 %</i>           |                                                   | <i>35-120 %</i>         |          | <i>"</i>            |               |            |                |     |           |       |
| <i>2,4,6-Tribromophenol (Surr)</i>  |        | <i>93 %</i>           |                                                   | <i>39-132 %</i>         |          | <i>"</i>            |               |            |                |     |           |       |

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Darwin Thomas, Business Development Director



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|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                       | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD       | RPD Limit  | Notes |
|-----------------------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----------|------------|-------|
| <b>Batch 22H0028 - EPA 3546</b>               |        |                 |                                                   |           |          |              | <b>Solid</b>  |       |              |           |            |       |
| <b>Duplicate (22H0028-DUP1)</b>               |        |                 | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 19:05 |           |          |              |               |       |              |           |            |       |
| <b>QC Source Sample: Non-SDG (A2G0558-01)</b> |        |                 |                                                   |           |          |              |               |       |              |           |            |       |
| Acenaphthene                                  | 167000 | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 146000        | ---   | ---          | 14        | 30%        |       |
| Acenaphthylene                                | ND     | 14900           | 14900                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        | R-02  |
| Anthracene                                    | 127000 | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 111000        | ---   | ---          | 13        | 30%        |       |
| Benz(a)anthracene                             | 71300  | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 61300         | ---   | ---          | 15        | 30%        |       |
| Benzo(a)pyrene                                | 79500  | 2480            | 4970                                              | ug/kg dry | 200      | ---          | 69400         | ---   | ---          | 13        | 30%        |       |
| Benzo(b)fluoranthene                          | 63700  | 2480            | 4970                                              | ug/kg dry | 200      | ---          | 55300         | ---   | ---          | 14        | 30%        |       |
| Benzo(k)fluoranthene                          | 21700  | 2480            | 4970                                              | ug/kg dry | 200      | ---          | 16800         | ---   | ---          | 25        | 30%        | M-05  |
| Benzo(g,h,i)perylene                          | 50900  | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 44200         | ---   | ---          | 14        | 30%        |       |
| Chrysene                                      | 93000  | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 79100         | ---   | ---          | 16        | 30%        |       |
| Dibenz(a,h)anthracene                         | 5310   | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 4450          | ---   | ---          | 17        | 30%        |       |
| Fluoranthene                                  | 310000 | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 274000        | ---   | ---          | 12        | 30%        |       |
| Fluorene                                      | 107000 | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 93000         | ---   | ---          | 14        | 30%        |       |
| Indeno(1,2,3-cd)pyrene                        | 43200  | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 37900         | ---   | ---          | 13        | 30%        |       |
| 1-Methylnaphthalene                           | 64400  | 3320            | 6620                                              | ug/kg dry | 200      | ---          | 52400         | ---   | ---          | 21        | 30%        |       |
| 2-Methylnaphthalene                           | 75700  | 3320            | 6620                                              | ug/kg dry | 200      | ---          | 59200         | ---   | ---          | 24        | 30%        |       |
| Naphthalene                                   | 10800  | 3320            | 6620                                              | ug/kg dry | 200      | ---          | 7360          | ---   | ---          | <b>38</b> | <b>30%</b> | Q-04  |
| Phenanthrene                                  | 598000 | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 540000        | ---   | ---          | 10        | 30%        |       |
| Pyrene                                        | 368000 | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 326000        | ---   | ---          | 12        | 30%        |       |
| Carbazole                                     | 5100   | 2480            | 4970                                              | ug/kg dry | 200      | ---          | 4340          | ---   | ---          | 16        | 30%        |       |
| Dibenzofuran                                  | 13100  | 1650            | 3320                                              | ug/kg dry | 200      | ---          | 11200         | ---   | ---          | 15        | 30%        |       |
| 2-Chlorophenol                                | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 4-Chloro-3-methylphenol                       | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 2,4-Dichlorophenol                            | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 2,4-Dimethylphenol                            | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 2,4-Dinitrophenol                             | ND     | 41400           | 82800                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 4,6-Dinitro-2-methylphenol                    | ND     | 41400           | 82800                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 2-Methylphenol                                | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 3+4-Methylphenol(s)                           | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 2-Nitrophenol                                 | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| 4-Nitrophenol                                 | ND     | 33200           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| Pentachlorophenol (PCP)                       | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |
| Phenol                                        | ND     | 3320            | 6620                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | ---       | 30%        |       |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                       | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22H0028 - EPA 3546</b>               |        |                 |                                                   |           |          | <b>Solid</b> |               |       |              |     |           |       |
| <b>Duplicate (22H0028-DUP1)</b>               |        |                 | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 19:05 |           |          |              |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0558-01)</b> |        |                 |                                                   |           |          |              |               |       |              |     |           |       |
| 2,3,4,6-Tetrachlorophenol                     | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2,3,5,6-Tetrachlorophenol                     | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2,4,5-Trichlorophenol                         | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Nitrobenzene                                  | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2,4,6-Trichlorophenol                         | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Bis(2-ethylhexyl)phthalate                    | ND     | 24800           | 49700                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Butyl benzyl phthalate                        | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Diethylphthalate                              | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Dimethylphthalate                             | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Di-n-butylphthalate                           | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Di-n-octyl phthalate                          | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| N-Nitrosodimethylamine                        | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| N-Nitroso-di-n-propylamine                    | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| N-Nitrosodiphenylamine                        | ND     | 16100           | 16100                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       | R-02  |
| Bis(2-Chloroethoxy) methane                   | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Bis(2-Chloroethyl) ether                      | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2,2'-Oxybis(1-Chloropropane)                  | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Hexachlorobenzene                             | ND     | 1650            | 3320                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Hexachlorobutadiene                           | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Hexachlorocyclopentadiene                     | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Hexachloroethane                              | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2-Chloronaphthalene                           | ND     | 1650            | 3320                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 1,2,4-Trichlorobenzene                        | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 4-Bromophenyl phenyl ether                    | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 4-Chlorophenyl phenyl ether                   | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Aniline                                       | ND     | 8280            | 16500                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 4-Chloroaniline                               | ND     | 4140            | 8280                                              | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2-Nitroaniline                                | ND     | 33200           | 66200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 3-Nitroaniline                                | ND     | 33200           | 66200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 4-Nitroaniline                                | ND     | 33200           | 66200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2,4-Dinitrotoluene                            | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| 2,6-Dinitrotoluene                            | ND     | 16500           | 33200                                             | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |
| Benzoic acid                                  | ND     | 207000          | 414000                                            | ug/kg dry | 200      | ---          | ND            | ---   | ---          | --- | 30%       |       |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                       | Result | Detection Limit       | Reporting Limit                                   | Units                   | Dilution | Spike Amount          | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |      |
|-----------------------------------------------|--------|-----------------------|---------------------------------------------------|-------------------------|----------|-----------------------|---------------|-------|--------------|-----|-----------|-------|------|
| <b>Batch 22H0028 - EPA 3546</b>               |        |                       |                                                   |                         |          | <b>Solid</b>          |               |       |              |     |           |       |      |
| <b>Duplicate (22H0028-DUP1)</b>               |        |                       | Prepared: 08/01/22 10:26 Analyzed: 08/01/22 19:05 |                         |          |                       |               |       |              |     |           |       |      |
| <b>QC Source Sample: Non-SDG (A2G0558-01)</b> |        |                       |                                                   |                         |          |                       |               |       |              |     |           |       |      |
| Benzyl alcohol                                | ND     | 8280                  | 16500                                             | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| Isophorone                                    | ND     | 4140                  | 8280                                              | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| Azobenzene (1,2-DPH)                          | ND     | 4140                  | 8280                                              | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| Bis(2-Ethylhexyl) adipate                     | ND     | 41400                 | 82800                                             | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| 3,3'-Dichlorobenzidine                        | ND     | 33200                 | 66200                                             | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       | Q-52  |      |
| 1,2-Dinitrobenzene                            | ND     | 41400                 | 82800                                             | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| 1,3-Dinitrobenzene                            | ND     | 41400                 | 82800                                             | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| 1,4-Dinitrobenzene                            | ND     | 41400                 | 82800                                             | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| Pyridine                                      | ND     | 8280                  | 16500                                             | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| 1,2-Dichlorobenzene                           | ND     | 4140                  | 8280                                              | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| 1,3-Dichlorobenzene                           | ND     | 4140                  | 8280                                              | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| 1,4-Dichlorobenzene                           | ND     | 4140                  | 8280                                              | ug/kg dry               | 200      | ---                   | ND            | ---   | ---          | --- | 30%       |       |      |
| <i>Surr: Nitrobenzene-d5 (Surr)</i>           |        | <i>Recovery: 75 %</i> |                                                   | <i>Limits: 37-122 %</i> |          | <i>Dilution: 200x</i> |               |       |              |     |           |       | S-05 |
| <i>2-Fluorobiphenyl (Surr)</i>                |        | <i>98 %</i>           |                                                   | <i>44-120 %</i>         |          | <i>"</i>              |               |       |              |     |           |       | S-05 |
| <i>Phenol-d6 (Surr)</i>                       |        | <i>91 %</i>           |                                                   | <i>33-122 %</i>         |          | <i>"</i>              |               |       |              |     |           |       | S-05 |
| <i>p-Terphenyl-d14 (Surr)</i>                 |        | <i>102 %</i>          |                                                   | <i>54-127 %</i>         |          | <i>"</i>              |               |       |              |     |           |       | S-05 |
| <i>2-Fluorophenol (Surr)</i>                  |        | <i>51 %</i>           |                                                   | <i>35-120 %</i>         |          | <i>"</i>              |               |       |              |     |           |       | S-05 |
| <i>2,4,6-Tribromophenol (Surr)</i>            |        | <i>42 %</i>           |                                                   | <i>39-132 %</i>         |          | <i>"</i>              |               |       |              |     |           |       | S-05 |

|                                                  |     |      |                                                   |           |   |     |    |    |         |     |     |  |
|--------------------------------------------------|-----|------|---------------------------------------------------|-----------|---|-----|----|----|---------|-----|-----|--|
| <b>Matrix Spike (22H0028-MS1)</b>                |     |      | Prepared: 08/01/22 10:26 Analyzed: 08/02/22 12:25 |           |   |     |    |    |         |     |     |  |
| <b>QC Source Sample: Non-SDG (A2G0730-03RE1)</b> |     |      |                                                   |           |   |     |    |    |         |     |     |  |
| <b>EPA 8270E</b>                                 |     |      |                                                   |           |   |     |    |    |         |     |     |  |
| Acenaphthene                                     | 350 | 5.13 | 10.3                                              | ug/kg wet | 4 | 514 | ND | 68 | 40-123% | --- | --- |  |
| Acenaphthylene                                   | 357 | 5.13 | 10.3                                              | ug/kg wet | 4 | 514 | ND | 70 | 32-132% | --- | --- |  |
| Anthracene                                       | 385 | 5.13 | 10.3                                              | ug/kg wet | 4 | 514 | ND | 75 | 47-123% | --- | --- |  |
| Benz(a)anthracene                                | 370 | 5.13 | 10.3                                              | ug/kg wet | 4 | 514 | ND | 72 | 49-126% | --- | --- |  |
| Benzo(a)pyrene                                   | 404 | 7.71 | 15.4                                              | ug/kg wet | 4 | 514 | ND | 79 | 45-129% | --- | --- |  |
| Benzo(b)fluoranthene                             | 397 | 7.71 | 15.4                                              | ug/kg wet | 4 | 514 | ND | 77 | 45-132% | --- | --- |  |
| Benzo(k)fluoranthene                             | 386 | 7.71 | 15.4                                              | ug/kg wet | 4 | 514 | ND | 75 | 47-132% | --- | --- |  |
| Benzo(g,h,i)perylene                             | 381 | 5.13 | 10.3                                              | ug/kg wet | 4 | 514 | ND | 74 | 43-134% | --- | --- |  |
| Chrysene                                         | 367 | 5.13 | 10.3                                              | ug/kg wet | 4 | 514 | ND | 71 | 50-124% | --- | --- |  |
| Dibenz(a,h)anthracene                            | 385 | 5.13 | 10.3                                              | ug/kg wet | 4 | 514 | ND | 75 | 45-134% | --- | --- |  |
| Fluoranthene                                     | 380 | 5.13 | 10.3                                              | ug/kg wet | 4 | 514 | ND | 74 | 50-127% | --- | --- |  |

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Darwin Thomas, Business Development Director



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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                          | Result | Detection Limit | Reporting Limit | Units     | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits   | RPD | RPD Limit | Notes |
|--------------------------------------------------|--------|-----------------|-----------------|-----------|----------|---------------------------------------------------|---------------|-------|----------------|-----|-----------|-------|
| <b>Batch 22H0028 - EPA 3546</b>                  |        |                 |                 |           |          | <b>Solid</b>                                      |               |       |                |     |           |       |
| <b>Matrix Spike (22H0028-MS1)</b>                |        |                 |                 |           |          | Prepared: 08/01/22 10:26 Analyzed: 08/02/22 12:25 |               |       |                |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0730-03RE1)</b> |        |                 |                 |           |          |                                                   |               |       |                |     |           |       |
| Fluorene                                         | 341    | 5.13            | 10.3            | ug/kg wet | 4        | 514                                               | ND            | 66    | 43-125%        | --- | ---       |       |
| Indeno(1,2,3-cd)pyrene                           | 376    | 5.13            | 10.3            | ug/kg wet | 4        | 514                                               | ND            | 73    | 45-133%        | --- | ---       |       |
| 1-Methylnaphthalene                              | 336    | 10.3            | 20.5            | ug/kg wet | 4        | 514                                               | ND            | 65    | 40-120%        | --- | ---       |       |
| 2-Methylnaphthalene                              | 345    | 10.3            | 20.5            | ug/kg wet | 4        | 514                                               | ND            | 67    | 38-122%        | --- | ---       |       |
| Naphthalene                                      | 322    | 10.3            | 20.5            | ug/kg wet | 4        | 514                                               | ND            | 63    | 35-123%        | --- | ---       |       |
| Phenanthrene                                     | 356    | 5.13            | 10.3            | ug/kg wet | 4        | 514                                               | ND            | 69    | 50-121%        | --- | ---       |       |
| Pyrene                                           | 384    | 5.13            | 10.3            | ug/kg wet | 4        | 514                                               | ND            | 75    | 47-127%        | --- | ---       |       |
| Carbazole                                        | 372    | 7.71            | 15.4            | ug/kg wet | 4        | 514                                               | ND            | 72    | 50-123%        | --- | ---       |       |
| Dibenzofuran                                     | 349    | 5.13            | 10.3            | ug/kg wet | 4        | 514                                               | ND            | 68    | 44-120%        | --- | ---       |       |
| 2-Chlorophenol                                   | 334    | 25.7            | 51.3            | ug/kg wet | 4        | 514                                               | ND            | 65    | 34-121%        | --- | ---       |       |
| 4-Chloro-3-methylphenol                          | 382    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 74    | 45-122%        | --- | ---       |       |
| 2,4-Dichlorophenol                               | 352    | 25.7            | 51.3            | ug/kg wet | 4        | 514                                               | ND            | 69    | 40-122%        | --- | ---       |       |
| 2,4-Dimethylphenol                               | 408    | 25.7            | 51.3            | ug/kg wet | 4        | 514                                               | ND            | 79    | 30-127%        | --- | ---       |       |
| 2,4-Dinitrophenol                                | ND     | 128             | 257             | ug/kg wet | 4        | 514                                               | ND            |       | <b>10-137%</b> | --- | ---       | Q-01  |
| 4,6-Dinitro-2-methylphenol                       | ND     | 128             | 257             | ug/kg wet | 4        | 514                                               | ND            |       | <b>29-132%</b> | --- | ---       | Q-01  |
| 2-Methylphenol                                   | 372    | 12.8            | 25.7            | ug/kg wet | 4        | 514                                               | ND            | 72    | 32-122%        | --- | ---       |       |
| 3+4-Methylphenol(s)                              | 631    | 12.8            | 25.7            | ug/kg wet | 4        | 514                                               | 343           | 56    | 34-120%        | --- | ---       |       |
| 2-Nitrophenol                                    | 317    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 62    | 36-123%        | --- | ---       | Q-41  |
| 4-Nitrophenol                                    | 315    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 61    | 30-132%        | --- | ---       |       |
| Pentachlorophenol (PCP)                          | 305    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 59    | 25-133%        | --- | ---       |       |
| Phenol                                           | 338    | 10.3            | 20.5            | ug/kg wet | 4        | 514                                               | 15.5          | 63    | 34-121%        | --- | ---       |       |
| 2,3,4,6-Tetrachlorophenol                        | 348    | 25.7            | 51.3            | ug/kg wet | 4        | 514                                               | ND            | 68    | 44-125%        | --- | ---       |       |
| 2,3,5,6-Tetrachlorophenol                        | 317    | 25.7            | 51.3            | ug/kg wet | 4        | 514                                               | ND            | 62    | 40-120%        | --- | ---       |       |
| 2,4,5-Trichlorophenol                            | 374    | 25.7            | 51.3            | ug/kg wet | 4        | 514                                               | ND            | 73    | 41-124%        | --- | ---       |       |
| Nitrobenzene                                     | 333    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 65    | 34-122%        | --- | ---       |       |
| 2,4,6-Trichlorophenol                            | 347    | 25.7            | 51.3            | ug/kg wet | 4        | 514                                               | ND            | 68    | 39-126%        | --- | ---       |       |
| Bis(2-ethylhexyl)phthalate                       | 427    | 77.1            | 154             | ug/kg wet | 4        | 514                                               | ND            | 83    | 51-133%        | --- | ---       |       |
| Butyl benzyl phthalate                           | 401    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 78    | 48-132%        | --- | ---       |       |
| Diethylphthalate                                 | 340    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 66    | 50-124%        | --- | ---       |       |
| Dimethylphthalate                                | 356    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 69    | 48-124%        | --- | ---       |       |
| Di-n-butylphthalate                              | 424    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 82    | 51-128%        | --- | ---       |       |
| Di-n-octyl phthalate                             | 448    | 51.3            | 103             | ug/kg wet | 4        | 514                                               | ND            | 87    | 45-140%        | --- | ---       |       |
| N-Nitrosodimethylamine                           | 289    | 12.8            | 25.7            | ug/kg wet | 4        | 514                                               | ND            | 56    | 23-120%        | --- | ---       |       |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                          | Result | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC      | % REC Limits   | RPD | RPD Limit | Notes   |
|--------------------------------------------------|--------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|------------|----------------|-----|-----------|---------|
| <b>Batch 22H0028 - EPA 3546</b>                  |        |                 |                                                   |           |          | <b>Solid</b> |               |            |                |     |           |         |
| <b>Matrix Spike (22H0028-MS1)</b>                |        |                 | Prepared: 08/01/22 10:26 Analyzed: 08/02/22 12:25 |           |          |              |               |            |                |     |           |         |
| <b>QC Source Sample: Non-SDG (A2G0730-03RE1)</b> |        |                 |                                                   |           |          |              |               |            |                |     |           |         |
| N-Nitroso-di-n-propylamine                       | 365    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 71         | 36-120%        | --- | ---       |         |
| N-Nitrosodiphenylamine                           | 387    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 75         | 38-127%        | --- | ---       |         |
| Bis(2-Chloroethoxy) methane                      | 352    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 69         | 36-121%        | --- | ---       |         |
| Bis(2-Chloroethyl) ether                         | 322    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 63         | 31-120%        | --- | ---       |         |
| 2,2'-Oxybis(1-Chloropropane)                     | 332    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 65         | 39-120%        | --- | ---       |         |
| Hexachlorobenzene                                | 360    | 5.13            | 10.3                                              | ug/kg wet | 4        | 514          | ND            | 70         | 45-122%        | --- | ---       |         |
| Hexachlorobutadiene                              | 299    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 58         | 32-123%        | --- | ---       |         |
| Hexachlorocyclopentadiene                        | 106    | 25.7            | 51.3                                              | ug/kg wet | 4        | 514          | ND            | 21         | 10-140%        | --- | ---       |         |
| Hexachloroethane                                 | 258    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 50         | 28-120%        | --- | ---       |         |
| 2-Chloronaphthalene                              | 348    | 5.13            | 10.3                                              | ug/kg wet | 4        | 514          | ND            | 68         | 41-120%        | --- | ---       |         |
| 1,2,4-Trichlorobenzene                           | 311    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 61         | 34-120%        | --- | ---       |         |
| 4-Bromophenyl phenyl ether                       | 369    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 72         | 46-124%        | --- | ---       |         |
| 4-Chlorophenyl phenyl ether                      | 356    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 69         | 45-121%        | --- | ---       |         |
| Aniline                                          | 241    | 25.7            | 51.3                                              | ug/kg wet | 4        | 514          | ND            | 47         | 10-120%        | --- | ---       |         |
| 4-Chloroaniline                                  | 282    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 55         | 17-120%        | --- | ---       |         |
| 2-Nitroaniline                                   | 476    | 103             | 205                                               | ug/kg wet | 4        | 514          | ND            | 93         | 44-127%        | --- | ---       |         |
| 3-Nitroaniline                                   | 328    | 103             | 205                                               | ug/kg wet | 4        | 514          | ND            | 64         | 33-120%        | --- | ---       |         |
| 4-Nitroaniline                                   | 510    | 103             | 205                                               | ug/kg wet | 4        | 514          | ND            | 99         | 51-125%        | --- | ---       |         |
| 2,4-Dinitrotoluene                               | 350    | 51.3            | 103                                               | ug/kg wet | 4        | 514          | ND            | 68         | 48-126%        | --- | ---       |         |
| 2,6-Dinitrotoluene                               | 361    | 51.3            | 103                                               | ug/kg wet | 4        | 514          | ND            | 70         | 46-124%        | --- | ---       |         |
| Benzoic acid                                     | ND     | 644             | 1280                                              | ug/kg wet | 4        | 1030         | ND            |            | <b>10-140%</b> | --- | ---       | Q-01    |
| Benzyl alcohol                                   | 316    | 25.7            | 51.3                                              | ug/kg wet | 4        | 514          | ND            | 62         | 29-122%        | --- | ---       |         |
| Isophorone                                       | 342    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 66         | 30-122%        | --- | ---       |         |
| Azobenzene (1,2-DPH)                             | 394    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 77         | 39-125%        | --- | ---       |         |
| Bis(2-Ethylhexyl) adipate                        | 412    | 128             | 257                                               | ug/kg wet | 4        | 514          | ND            | 80         | 61-121%        | --- | ---       |         |
| 3,3'-Dichlorobenzidine                           | 2200   | 103             | 205                                               | ug/kg wet | 4        | 1030         | ND            | <b>214</b> | <b>22-121%</b> | --- | ---       | Q-01    |
| 1,2-Dinitrobenzene                               | 259    | 128             | 257                                               | ug/kg wet | 4        | 514          | ND            | 50         | 44-120%        | --- | ---       |         |
| 1,3-Dinitrobenzene                               | 316    | 128             | 257                                               | ug/kg wet | 4        | 514          | ND            | 61         | 43-127%        | --- | ---       |         |
| 1,4-Dinitrobenzene                               | 187    | 128             | 257                                               | ug/kg wet | 4        | 514          | ND            | <b>36</b>  | <b>37-132%</b> | --- | ---       | J, Q-01 |
| Pyridine                                         | 257    | 25.7            | 51.3                                              | ug/kg wet | 4        | 514          | ND            | 50         | 10-120%        | --- | ---       |         |
| 1,2-Dichlorobenzene                              | 301    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 59         | 33-120%        | --- | ---       |         |
| 1,3-Dichlorobenzene                              | 287    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 56         | 30-120%        | --- | ---       |         |
| 1,4-Dichlorobenzene                              | 300    | 12.8            | 25.7                                              | ug/kg wet | 4        | 514          | ND            | 58         | 31-120%        | --- | ---       |         |

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Darwin Thomas, Business Development Director



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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Semivolatile Organic Compounds by EPA 8270E**

| Analyte                                          | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result           | % REC               | % REC Limits | RPD | RPD Limit | Notes |
|--------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|-------------------------|---------------------|--------------|-----|-----------|-------|
| <b>Batch 22H0028 - EPA 3546</b>                  |        |                 |                 |       |          | <b>Solid</b>                                      |                         |                     |              |     |           |       |
| <b>Matrix Spike (22H0028-MS1)</b>                |        |                 |                 |       |          | Prepared: 08/01/22 10:26 Analyzed: 08/02/22 12:25 |                         |                     |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0730-03RE1)</b> |        |                 |                 |       |          |                                                   |                         |                     |              |     |           |       |
| <i>Surr: Nitrobenzene-d5 (Surr)</i>              |        |                 |                 |       |          | <i>Recovery: 66 %</i>                             | <i>Limits: 37-122 %</i> | <i>Dilution: 4x</i> |              |     |           |       |
| <i>2-Fluorobiphenyl (Surr)</i>                   |        |                 | 46 %            |       |          |                                                   | 44-120 %                | "                   |              |     |           |       |
| <i>Phenol-d6 (Surr)</i>                          |        |                 | 68 %            |       |          |                                                   | 33-122 %                | "                   |              |     |           |       |
| <i>p-Terphenyl-d14 (Surr)</i>                    |        |                 | 52 %            |       |          |                                                   | 54-127 %                | "                   |              |     |           | S-03  |
| <i>2-Fluorophenol (Surr)</i>                     |        |                 | 62 %            |       |          |                                                   | 35-120 %                | "                   |              |     |           |       |
| <i>2,4,6-Tribromophenol (Surr)</i>               |        |                 | 80 %            |       |          |                                                   | 39-132 %                | "                   |              |     |           |       |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                                | Result       | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes        |
|--------------------------------------------------------|--------------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|--------------|
| <b>Batch 22H0025 - EPA 1311/3510C (BNA Extraction)</b> |              |                 |                 |       |          | <b>Soil</b>                                       |               |       |              |     |           |              |
| <b>Blank (22H0025-BLK1)</b>                            |              |                 |                 |       |          | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 09:34 |               |       |              |     |           | <b>TCLPa</b> |
| <u>1311/8270E-LL</u>                                   |              |                 |                 |       |          |                                                   |               |       |              |     |           |              |
| Acenaphthene                                           | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Acenaphthylene                                         | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Anthracene                                             | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Benz(a)anthracene                                      | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Benzo(a)pyrene                                         | ND           | 0.150           | 0.300           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Benzo(b)fluoranthene                                   | ND           | 0.150           | 0.300           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Benzo(k)fluoranthene                                   | ND           | 0.150           | 0.300           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Benzo(g,h,i)perylene                                   | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Chrysene                                               | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Dibenz(a,h)anthracene                                  | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Fluoranthene                                           | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Fluorene                                               | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Indeno(1,2,3-cd)pyrene                                 | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 1-Methylnaphthalene                                    | ND           | 0.200           | 0.400           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2-Methylnaphthalene                                    | ND           | 0.200           | 0.400           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Naphthalene                                            | ND           | 0.200           | 0.400           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Phenanthrene                                           | <b>0.235</b> | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       | B            |
| Pyrene                                                 | <b>0.383</b> | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       | B            |
| Carbazole                                              | ND           | 0.150           | 0.300           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Dibenzofuran                                           | ND           | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2-Chlorophenol                                         | ND           | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 4-Chloro-3-methylphenol                                | ND           | 1.00            | 2.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,4-Dichlorophenol                                     | ND           | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,4-Dimethylphenol                                     | ND           | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,4-Dinitrophenol                                      | ND           | 2.50            | 5.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 4,6-Dinitro-2-methylphenol                             | ND           | 2.50            | 5.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2-Methylphenol                                         | ND           | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 3+4-Methylphenol(s)                                    | ND           | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2-Nitrophenol                                          | ND           | 1.00            | 2.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 4-Nitrophenol                                          | ND           | 1.00            | 2.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Pentachlorophenol (PCP)                                | <b>1.04</b>  | 1.00            | 2.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       | J, B-2       |
| Phenol                                                 | ND           | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,3,4,6-Tetrachlorophenol                              | ND           | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                                | Result      | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes        |
|--------------------------------------------------------|-------------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|--------------|
| <b>Batch 22H0025 - EPA 1311/3510C (BNA Extraction)</b> |             |                 |                 |       |          | <b>Soil</b>                                       |               |       |              |     |           |              |
| <b>Blank (22H0025-BLK1)</b>                            |             |                 |                 |       |          | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 09:34 |               |       |              |     |           | <b>TCLPa</b> |
| 2,3,5,6-Tetrachlorophenol                              | ND          | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,4,5-Trichlorophenol                                  | ND          | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Nitrobenzene                                           | ND          | 1.00            | 2.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,4,6-Trichlorophenol                                  | ND          | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Bis(2-ethylhexyl)phthalate                             | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Butyl benzyl phthalate                                 | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Diethylphthalate                                       | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Dimethylphthalate                                      | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Di-n-butylphthalate                                    | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Di-n-octyl phthalate                                   | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| N-Nitrosodimethylamine                                 | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| N-Nitroso-di-n-propylamine                             | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| N-Nitrosodiphenylamine                                 | <b>1.11</b> | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       | B            |
| Bis(2-Chloroethoxy) methane                            | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Bis(2-Chloroethyl) ether                               | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,2'-Oxybis(1-Chloropropane)                           | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Hexachlorobenzene                                      | ND          | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Hexachlorobutadiene                                    | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Hexachlorocyclopentadiene                              | ND          | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Hexachloroethane                                       | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2-Chloronaphthalene                                    | ND          | 0.100           | 0.200           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 1,2,4-Trichlorobenzene                                 | ND          | 0.0500          | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 4-Bromophenyl phenyl ether                             | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 4-Chlorophenyl phenyl ether                            | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Aniline                                                | ND          | 0.500           | 1.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       | Q-30         |
| 4-Chloroaniline                                        | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2-Nitroaniline                                         | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 3-Nitroaniline                                         | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 4-Nitroaniline                                         | ND          | 2.00            | 4.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,4-Dinitrotoluene                                     | ND          | 1.00            | 2.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| 2,6-Dinitrotoluene                                     | ND          | 1.00            | 2.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Benzoic acid                                           | ND          | 12.5            | 25.0            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Benzyl alcohol                                         | ND          | 1.00            | 2.00            | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |
| Isophorone                                             | ND          | 0.250           | 0.500           | ug/L  | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |              |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                                | Result | Detection Limit       | Reporting Limit                                   | Units                   | Dilution | Spike Amount        | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |  |
|--------------------------------------------------------|--------|-----------------------|---------------------------------------------------|-------------------------|----------|---------------------|---------------|-------|--------------|-----|-----------|-------|--|
| <b>Batch 22H0025 - EPA 1311/3510C (BNA Extraction)</b> |        |                       |                                                   |                         |          | <b>Soil</b>         |               |       |              |     |           |       |  |
| <b>Blank (22H0025-BLK1)</b>                            |        |                       | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 09:34 |                         |          |                     |               |       | <b>TCLPa</b> |     |           |       |  |
| Azobenzene (1,2-DPH)                                   | 0.527  | 0.250                 | 0.500                                             | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       | B     |  |
| Bis(2-Ethylhexyl) adipate                              | ND     | 2.50                  | 5.00                                              | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |  |
| 1,2-Dinitrobenzene                                     | ND     | 2.50                  | 5.00                                              | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |  |
| 1,3-Dinitrobenzene                                     | ND     | 2.50                  | 5.00                                              | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |  |
| 1,4-Dinitrobenzene                                     | ND     | 2.50                  | 5.00                                              | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |  |
| Pyridine                                               | ND     | 1.00                  | 2.00                                              | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |  |
| 1,2-Dichlorobenzene                                    | ND     | 0.250                 | 0.500                                             | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |  |
| 1,3-Dichlorobenzene                                    | ND     | 0.250                 | 0.500                                             | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |  |
| 1,4-Dichlorobenzene                                    | ND     | 0.250                 | 0.500                                             | ug/L                    | 1        | ---                 | ---           | ---   | ---          | --- | ---       |       |  |
| <i>Surr: Nitrobenzene-d5 (Surr)</i>                    |        | <i>Recovery: 86 %</i> |                                                   | <i>Limits: 44-120 %</i> |          | <i>Dilution: 1x</i> |               |       |              |     |           |       |  |
| <i>2-Fluorobiphenyl (Surr)</i>                         |        | <i>76 %</i>           |                                                   | <i>44-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |  |
| <i>Phenol-d6 (Surr)</i>                                |        | <i>23 %</i>           |                                                   | <i>10-133 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |  |
| <i>p-Terphenyl-d14 (Surr)</i>                          |        | <i>72 %</i>           |                                                   | <i>50-134 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |  |
| <i>2-Fluorophenol (Surr)</i>                           |        | <i>37 %</i>           |                                                   | <i>19-120 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |  |
| <i>2,4,6-Tribromophenol (Surr)</i>                     |        | <i>107 %</i>          |                                                   | <i>43-140 %</i>         |          | <i>"</i>            |               |       |              |     |           |       |  |

|                          |      |       |                                                   |      |   |      |     |     |              |     |     |  |  |
|--------------------------|------|-------|---------------------------------------------------|------|---|------|-----|-----|--------------|-----|-----|--|--|
| <b>LCS (22H0025-BS1)</b> |      |       | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 10:08 |      |   |      |     |     | <b>TCLPa</b> |     |     |  |  |
| <b>1311/8270E-LL</b>     |      |       |                                                   |      |   |      |     |     |              |     |     |  |  |
| Acenaphthene             | 36.5 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 91  | 47-122%      | --- | --- |  |  |
| Acenaphthylene           | 37.2 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 93  | 41-130%      | --- | --- |  |  |
| Anthracene               | 40.1 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 100 | 57-123%      | --- | --- |  |  |
| Benz(a)anthracene        | 38.3 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 96  | 58-125%      | --- | --- |  |  |
| Benzo(a)pyrene           | 40.8 | 0.600 | 1.20                                              | ug/L | 4 | 40.0 | --- | 102 | 54-128%      | --- | --- |  |  |
| Benzo(b)fluoranthene     | 41.2 | 0.600 | 1.20                                              | ug/L | 4 | 40.0 | --- | 103 | 53-131%      | --- | --- |  |  |
| Benzo(k)fluoranthene     | 40.3 | 0.600 | 1.20                                              | ug/L | 4 | 40.0 | --- | 101 | 57-129%      | --- | --- |  |  |
| Benzo(g,h,i)perylene     | 37.7 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 94  | 50-134%      | --- | --- |  |  |
| Chrysene                 | 38.9 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 97  | 59-123%      | --- | --- |  |  |
| Dibenz(a,h)anthracene    | 39.0 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 98  | 51-134%      | --- | --- |  |  |
| Fluoranthene             | 39.8 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 99  | 57-128%      | --- | --- |  |  |
| Fluorene                 | 33.9 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 85  | 52-124%      | --- | --- |  |  |
| Indeno(1,2,3-cd)pyrene   | 37.9 | 0.400 | 0.800                                             | ug/L | 4 | 40.0 | --- | 95  | 52-134%      | --- | --- |  |  |
| 1-Methylnaphthalene      | 35.2 | 0.800 | 1.60                                              | ug/L | 4 | 40.0 | --- | 88  | 41-120%      | --- | --- |  |  |
| 2-Methylnaphthalene      | 36.4 | 0.800 | 1.60                                              | ug/L | 4 | 40.0 | --- | 91  | 40-121%      | --- | --- |  |  |
| Naphthalene              | 33.8 | 0.800 | 1.60                                              | ug/L | 4 | 40.0 | --- | 84  | 40-121%      | --- | --- |  |  |

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                                | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes        |
|--------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|--------------|
| <b>Batch 22H0025 - EPA 1311/3510C (BNA Extraction)</b> |        |                 |                 |       |          | <b>Soil</b>                                       |               |       |              |     |           |              |
| <b>LCS (22H0025-BS1)</b>                               |        |                 |                 |       |          | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 10:08 |               |       |              |     |           | <b>TCLPa</b> |
| Phenanthrene                                           | 38.5   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 96    | 59-120%      | --- | ---       | B            |
| Pyrene                                                 | 41.3   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 103   | 57-126%      | --- | ---       | B            |
| Carbazole                                              | 40.6   | 0.600           | 1.20            | ug/L  | 4        | 40.0                                              | ---           | 102   | 60-122%      | --- | ---       |              |
| Dibenzofuran                                           | 36.4   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 91    | 53-120%      | --- | ---       |              |
| 2-Chlorophenol                                         | 31.7   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 79    | 38-120%      | --- | ---       |              |
| 4-Chloro-3-methylphenol                                | 34.0   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 85    | 52-120%      | --- | ---       |              |
| 2,4-Dichlorophenol                                     | 33.0   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 83    | 47-121%      | --- | ---       |              |
| 2,4-Dimethylphenol                                     | 32.7   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 82    | 31-124%      | --- | ---       |              |
| 2,4-Dinitrophenol                                      | 37.2   | 10.0            | 20.0            | ug/L  | 4        | 40.0                                              | ---           | 93    | 23-143%      | --- | ---       |              |
| 4,6-Dinitro-2-methylphenol                             | 34.3   | 10.0            | 20.0            | ug/L  | 4        | 40.0                                              | ---           | 86    | 44-137%      | --- | ---       |              |
| 2-Methylphenol                                         | 30.0   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 75    | 30-120%      | --- | ---       |              |
| 3+4-Methylphenol(s)                                    | 27.4   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 68    | 29-120%      | --- | ---       |              |
| 2-Nitrophenol                                          | 45.3   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 113   | 47-123%      | --- | ---       | Q-41         |
| 4-Nitrophenol                                          | 15.1   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 38    | 10-120%      | --- | ---       |              |
| Pentachlorophenol (PCP)                                | 36.3   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 91    | 35-138%      | --- | ---       | B-02         |
| Phenol                                                 | 11.6   | 8.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 29    | 10-120%      | --- | ---       |              |
| 2,3,4,6-Tetrachlorophenol                              | 37.5   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 94    | 50-128%      | --- | ---       |              |
| 2,3,5,6-Tetrachlorophenol                              | 35.8   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 89    | 50-121%      | --- | ---       |              |
| 2,4,5-Trichlorophenol                                  | 37.9   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 95    | 53-123%      | --- | ---       |              |
| Nitrobenzene                                           | 36.9   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 92    | 45-121%      | --- | ---       |              |
| 2,4,6-Trichlorophenol                                  | 34.9   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 87    | 50-125%      | --- | ---       |              |
| Bis(2-ethylhexyl)phthalate                             | 41.7   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 104   | 55-135%      | --- | ---       |              |
| Butyl benzyl phthalate                                 | 40.4   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 101   | 53-134%      | --- | ---       |              |
| Diethylphthalate                                       | 35.4   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 89    | 56-125%      | --- | ---       |              |
| Dimethylphthalate                                      | 35.9   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 90    | 45-127%      | --- | ---       |              |
| Di-n-butylphthalate                                    | 42.3   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 106   | 59-127%      | --- | ---       |              |
| Di-n-octyl phthalate                                   | 42.8   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 107   | 51-140%      | --- | ---       |              |
| N-Nitrosodimethylamine                                 | 17.3   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 43    | 19-120%      | --- | ---       |              |
| N-Nitroso-di-n-propylamine                             | 39.2   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 98    | 49-120%      | --- | ---       |              |
| N-Nitrosodiphenylamine                                 | 44.9   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 112   | 51-123%      | --- | ---       | B            |
| Bis(2-Chloroethoxy) methane                            | 37.1   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 93    | 48-120%      | --- | ---       |              |
| Bis(2-Chloroethyl) ether                               | 29.2   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 73    | 43-120%      | --- | ---       |              |
| 2,2'-Oxybis(1-Chloropropane)                           | 37.3   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 93    | 41-120%      | --- | ---       |              |
| Hexachlorobenzene                                      | 36.5   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 91    | 53-125%      | --- | ---       |              |

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**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                                | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC    | % REC Limits   | RPD | RPD Limit | Notes        |
|--------------------------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|----------|----------------|-----|-----------|--------------|
| <b>Batch 22H0025 - EPA 1311/3510C (BNA Extraction)</b> |        |                       |                 |                         |          | <b>Soil</b>                                       |               |          |                |     |           |              |
| <b>LCS (22H0025-BS1)</b>                               |        |                       |                 |                         |          | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 10:08 |               |          |                |     |           | <b>TCLPa</b> |
| Hexachlorobutadiene                                    | 30.4   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 76       | 22-124%        | --- | ---       |              |
| Hexachlorocyclopentadiene                              | 36.3   | 2.00                  | 4.00            | ug/L                    | 4        | 40.0                                              | ---           | 91       | 10-127%        | --- | ---       |              |
| Hexachloroethane                                       | 30.8   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 77       | 21-120%        | --- | ---       |              |
| 2-Chloronaphthalene                                    | 36.8   | 0.400                 | 0.800           | ug/L                    | 4        | 40.0                                              | ---           | 92       | 40-120%        | --- | ---       |              |
| 1,2,4-Trichlorobenzene                                 | 32.3   | 0.200                 | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 81       | 29-120%        | --- | ---       |              |
| 4-Bromophenyl phenyl ether                             | 39.1   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 98       | 55-124%        | --- | ---       |              |
| 4-Chlorophenyl phenyl ether                            | 34.6   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 86       | 53-121%        | --- | ---       |              |
| Aniline                                                | 1.64   | 0.400                 | 0.400           | ug/L                    | 4        | 40.0                                              | ---           | <b>4</b> | <b>10-120%</b> | --- | ---       | Q-30         |
| 4-Chloroaniline                                        | 16.1   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 40       | 33-120%        | --- | ---       |              |
| 2-Nitroaniline                                         | 41.1   | 8.00                  | 16.0            | ug/L                    | 4        | 40.0                                              | ---           | 103      | 55-127%        | --- | ---       |              |
| 3-Nitroaniline                                         | 25.1   | 8.00                  | 16.0            | ug/L                    | 4        | 40.0                                              | ---           | 63       | 41-128%        | --- | ---       |              |
| 4-Nitroaniline                                         | 31.1   | 8.00                  | 16.0            | ug/L                    | 4        | 40.0                                              | ---           | 78       | 25-120%        | --- | ---       |              |
| 2,4-Dinitrotoluene                                     | 38.6   | 4.00                  | 8.00            | ug/L                    | 4        | 40.0                                              | ---           | 97       | 57-128%        | --- | ---       |              |
| 2,6-Dinitrotoluene                                     | 37.5   | 4.00                  | 8.00            | ug/L                    | 4        | 40.0                                              | ---           | 94       | 57-124%        | --- | ---       |              |
| Benzoic acid                                           | 52.4   | 50.0                  | 50.0            | ug/L                    | 4        | 80.0                                              | ---           | 66       | 10-120%        | --- | ---       |              |
| Benzyl alcohol                                         | 19.2   | 4.00                  | 8.00            | ug/L                    | 4        | 40.0                                              | ---           | 48       | 31-120%        | --- | ---       |              |
| Isophorone                                             | 35.9   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 90       | 42-124%        | --- | ---       |              |
| Azobenzene (1,2-DPH)                                   | 46.8   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 117      | 61-120%        | --- | ---       | B            |
| Bis(2-Ethylhexyl) adipate                              | 39.8   | 10.0                  | 20.0            | ug/L                    | 4        | 40.0                                              | ---           | 99       | 63-121%        | --- | ---       |              |
| 1,2-Dinitrobenzene                                     | 36.9   | 10.0                  | 20.0            | ug/L                    | 4        | 40.0                                              | ---           | 92       | 59-120%        | --- | ---       |              |
| 1,3-Dinitrobenzene                                     | 37.3   | 10.0                  | 20.0            | ug/L                    | 4        | 40.0                                              | ---           | 93       | 49-128%        | --- | ---       |              |
| 1,4-Dinitrobenzene                                     | 36.7   | 10.0                  | 20.0            | ug/L                    | 4        | 40.0                                              | ---           | 92       | 54-120%        | --- | ---       |              |
| Pyridine                                               | 15.6   | 4.00                  | 8.00            | ug/L                    | 4        | 40.0                                              | ---           | 39       | 10-120%        | --- | ---       |              |
| 1,2-Dichlorobenzene                                    | 31.1   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 78       | 32-120%        | --- | ---       |              |
| 1,3-Dichlorobenzene                                    | 29.4   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 73       | 28-120%        | --- | ---       |              |
| 1,4-Dichlorobenzene                                    | 30.6   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 77       | 29-120%        | --- | ---       |              |
| <i>Surr: Nitrobenzene-d5 (Surr)</i>                    |        | <i>Recovery: 91 %</i> |                 | <i>Limits: 44-120 %</i> |          | <i>Dilution: 4x</i>                               |               |          |                |     |           |              |
| <i>2-Fluorobiphenyl (Surr)</i>                         |        | <i>85 %</i>           |                 | <i>44-120 %</i>         |          | <i>"</i>                                          |               |          |                |     |           |              |
| <i>Phenol-d6 (Surr)</i>                                |        | <i>29 %</i>           |                 | <i>10-133 %</i>         |          | <i>"</i>                                          |               |          |                |     |           |              |
| <i>p-Terphenyl-d14 (Surr)</i>                          |        | <i>94 %</i>           |                 | <i>50-134 %</i>         |          | <i>"</i>                                          |               |          |                |     |           |              |
| <i>2-Fluorophenol (Surr)</i>                           |        | <i>39 %</i>           |                 | <i>19-120 %</i>         |          | <i>"</i>                                          |               |          |                |     |           |              |
| <i>2,4,6-Tribromophenol (Surr)</i>                     |        | <i>110 %</i>          |                 | <i>43-140 %</i>         |          | <i>"</i>                                          |               |          |                |     |           |              |

|                               |                                                   |                    |
|-------------------------------|---------------------------------------------------|--------------------|
| <b>LCS Dup (22H0025-BSD1)</b> | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 10:42 | <b>Q-19, TCLPa</b> |
|-------------------------------|---------------------------------------------------|--------------------|

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                                | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit          | Notes |
|--------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|--------------------|-------|
| <b>Batch 22H0025 - EPA 1311/3510C (BNA Extraction)</b> |        |                 |                 |       |          | <b>Soil</b>                                       |               |       |              |     |                    |       |
| <b>LCS Dup (22H0025-BSD1)</b>                          |        |                 |                 |       |          | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 10:42 |               |       |              |     | <b>Q-19, TCLPa</b> |       |
| <u>1311/8270E-LL</u>                                   |        |                 |                 |       |          |                                                   |               |       |              |     |                    |       |
| Acenaphthene                                           | 38.0   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 95    | 47-122%      | 4   | 30%                |       |
| Acenaphthylene                                         | 38.7   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 97    | 41-130%      | 4   | 30%                |       |
| Anthracene                                             | 42.4   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 106   | 57-123%      | 5   | 30%                |       |
| Benz(a)anthracene                                      | 40.1   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 100   | 58-125%      | 5   | 30%                |       |
| Benzo(a)pyrene                                         | 42.5   | 0.600           | 1.20            | ug/L  | 4        | 40.0                                              | ---           | 106   | 54-128%      | 4   | 30%                |       |
| Benzo(b)fluoranthene                                   | 42.9   | 0.600           | 1.20            | ug/L  | 4        | 40.0                                              | ---           | 107   | 53-131%      | 4   | 30%                |       |
| Benzo(k)fluoranthene                                   | 42.3   | 0.600           | 1.20            | ug/L  | 4        | 40.0                                              | ---           | 106   | 57-129%      | 5   | 30%                |       |
| Benzo(g,h,i)perylene                                   | 40.2   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 100   | 50-134%      | 6   | 30%                |       |
| Chrysene                                               | 40.2   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 101   | 59-123%      | 3   | 30%                |       |
| Dibenz(a,h)anthracene                                  | 40.1   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 100   | 51-134%      | 3   | 30%                |       |
| Fluoranthene                                           | 40.9   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 102   | 57-128%      | 3   | 30%                |       |
| Fluorene                                               | 36.0   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 90    | 52-124%      | 6   | 30%                |       |
| Indeno(1,2,3-cd)pyrene                                 | 39.9   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 100   | 52-134%      | 5   | 30%                |       |
| 1-Methylnaphthalene                                    | 36.4   | 0.800           | 1.60            | ug/L  | 4        | 40.0                                              | ---           | 91    | 41-120%      | 3   | 30%                |       |
| 2-Methylnaphthalene                                    | 37.8   | 0.800           | 1.60            | ug/L  | 4        | 40.0                                              | ---           | 94    | 40-121%      | 4   | 30%                |       |
| Naphthalene                                            | 35.1   | 0.800           | 1.60            | ug/L  | 4        | 40.0                                              | ---           | 88    | 40-121%      | 4   | 30%                |       |
| Phenanthrene                                           | 39.6   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 99    | 59-120%      | 3   | 30%                | B     |
| Pyrene                                                 | 42.8   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 107   | 57-126%      | 3   | 30%                | B     |
| Carbazole                                              | 41.9   | 0.600           | 1.20            | ug/L  | 4        | 40.0                                              | ---           | 105   | 60-122%      | 3   | 30%                |       |
| Dibenzofuran                                           | 38.1   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 95    | 53-120%      | 5   | 30%                |       |
| 2-Chlorophenol                                         | 33.6   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 84    | 38-120%      | 6   | 30%                |       |
| 4-Chloro-3-methylphenol                                | 36.4   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 91    | 52-120%      | 7   | 30%                |       |
| 2,4-Dichlorophenol                                     | 36.0   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 90    | 47-121%      | 9   | 30%                |       |
| 2,4-Dimethylphenol                                     | 35.8   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 89    | 31-124%      | 9   | 30%                |       |
| 2,4-Dinitrophenol                                      | 39.4   | 10.0            | 20.0            | ug/L  | 4        | 40.0                                              | ---           | 99    | 23-143%      | 6   | 30%                |       |
| 4,6-Dinitro-2-methylphenol                             | 37.0   | 10.0            | 20.0            | ug/L  | 4        | 40.0                                              | ---           | 92    | 44-137%      | 7   | 30%                |       |
| 2-Methylphenol                                         | 30.5   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 76    | 30-120%      | 2   | 30%                |       |
| 3+4-Methylphenol(s)                                    | 29.5   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 74    | 29-120%      | 7   | 30%                |       |
| 2-Nitrophenol                                          | 49.1   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 123   | 47-123%      | 8   | 30%                | Q-41  |
| 4-Nitrophenol                                          | 15.7   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 39    | 10-120%      | 4   | 30%                |       |
| Pentachlorophenol (PCP)                                | 38.8   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 97    | 35-138%      | 7   | 30%                | B-02  |
| Phenol                                                 | 11.8   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 29    | 10-120%      | 1   | 30%                | J     |
| 2,3,4,6-Tetrachlorophenol                              | 39.6   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 99    | 50-128%      | 5   | 30%                |       |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                              |                                   |                                |
|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                                | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits   | RPD       | RPD Limit  | Notes              |
|--------------------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|----------------|-----------|------------|--------------------|
| <b>Batch 22H0025 - EPA 1311/3510C (BNA Extraction)</b> |        |                 |                 |       |          | <b>Soil</b>                                       |               |       |                |           |            |                    |
| <b>LCS Dup (22H0025-BSD1)</b>                          |        |                 |                 |       |          | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 10:42 |               |       |                |           |            | <b>Q-19, TCLPa</b> |
| 2,3,5,6-Tetrachlorophenol                              | 38.9   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 97    | 50-121%        | 9         | 30%        |                    |
| 2,4,5-Trichlorophenol                                  | 39.8   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 99    | 53-123%        | 5         | 30%        |                    |
| Nitrobenzene                                           | 37.6   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 94    | 45-121%        | 2         | 30%        |                    |
| 2,4,6-Trichlorophenol                                  | 37.9   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 95    | 50-125%        | 8         | 30%        |                    |
| Bis(2-ethylhexyl)phthalate                             | 43.5   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 109   | 55-135%        | 4         | 30%        |                    |
| Butyl benzyl phthalate                                 | 42.5   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 106   | 53-134%        | 5         | 30%        |                    |
| Diethylphthalate                                       | 38.1   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 95    | 56-125%        | 7         | 30%        |                    |
| Dimethylphthalate                                      | 38.7   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 97    | 45-127%        | 8         | 30%        |                    |
| Di-n-butylphthalate                                    | 45.4   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 113   | 59-127%        | 7         | 30%        |                    |
| Di-n-octyl phthalate                                   | 44.6   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 111   | 51-140%        | 4         | 30%        |                    |
| N-Nitrosodimethylamine                                 | 21.8   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 54    | 19-120%        | 23        | 30%        |                    |
| N-Nitroso-di-n-propylamine                             | 40.9   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 102   | 49-120%        | 4         | 30%        |                    |
| N-Nitrosodiphenylamine                                 | 45.6   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 114   | 51-123%        | 1         | 30%        | B                  |
| Bis(2-Chloroethoxy) methane                            | 39.3   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 98    | 48-120%        | 6         | 30%        |                    |
| Bis(2-Chloroethyl) ether                               | 32.3   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 81    | 43-120%        | 10        | 30%        |                    |
| 2,2'-Oxybis(1-Chloropropane)                           | 38.4   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 96    | 41-120%        | 3         | 30%        |                    |
| Hexachlorobenzene                                      | 37.8   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 94    | 53-125%        | 3         | 30%        |                    |
| Hexachlorobutadiene                                    | 32.4   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 81    | 22-124%        | 7         | 30%        |                    |
| Hexachlorocyclopentadiene                              | 37.1   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 93    | 10-127%        | 2         | 30%        |                    |
| Hexachloroethane                                       | 32.8   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 82    | 21-120%        | 6         | 30%        |                    |
| 2-Chloronaphthalene                                    | 38.2   | 0.400           | 0.800           | ug/L  | 4        | 40.0                                              | ---           | 95    | 40-120%        | 4         | 30%        |                    |
| 1,2,4-Trichlorobenzene                                 | 33.4   | 0.200           | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 83    | 29-120%        | 3         | 30%        |                    |
| 4-Bromophenyl phenyl ether                             | 40.2   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 101   | 55-124%        | 3         | 30%        |                    |
| 4-Chlorophenyl phenyl ether                            | 36.7   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 92    | 53-121%        | 6         | 30%        |                    |
| Aniline                                                | 2.81   | 2.00            | 4.00            | ug/L  | 4        | 40.0                                              | ---           | 7     | <b>10-120%</b> | <b>52</b> | <b>30%</b> | J, Q-01, Q-30      |
| 4-Chloroaniline                                        | 19.0   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 48    | 33-120%        | 17        | 30%        |                    |
| 2-Nitroaniline                                         | 43.4   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 108   | 55-127%        | 6         | 30%        |                    |
| 3-Nitroaniline                                         | 32.5   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 81    | 41-128%        | 26        | 30%        |                    |
| 4-Nitroaniline                                         | 36.1   | 8.00            | 16.0            | ug/L  | 4        | 40.0                                              | ---           | 90    | 25-120%        | 15        | 30%        |                    |
| 2,4-Dinitrotoluene                                     | 41.4   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 103   | 57-128%        | 7         | 30%        |                    |
| 2,6-Dinitrotoluene                                     | 39.8   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 99    | 57-124%        | 6         | 30%        |                    |
| Benzoic acid                                           | 55.8   | 50.0            | 100             | ug/L  | 4        | 80.0                                              | ---           | 70    | 10-120%        | 6         | 30%        | J                  |
| Benzyl alcohol                                         | 17.7   | 4.00            | 8.00            | ug/L  | 4        | 40.0                                              | ---           | 44    | 31-120%        | 8         | 30%        |                    |
| Isophorone                                             | 37.7   | 1.00            | 2.00            | ug/L  | 4        | 40.0                                              | ---           | 94    | 42-124%        | 5         | 30%        |                    |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**TCLP Semivolatile Organic Compounds by EPA 1311/8270E**

| Analyte                                                | Result | Detection Limit       | Reporting Limit | Units                   | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes              |
|--------------------------------------------------------|--------|-----------------------|-----------------|-------------------------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|--------------------|
| <b>Batch 22H0025 - EPA 1311/3510C (BNA Extraction)</b> |        |                       |                 |                         |          | <b>Soil</b>                                       |               |       |              |     |           |                    |
| <b>LCS Dup (22H0025-BSD1)</b>                          |        |                       |                 |                         |          | Prepared: 08/01/22 10:10 Analyzed: 08/02/22 10:42 |               |       |              |     |           | <b>Q-19, TCLPa</b> |
| Azobenzene (1,2-DPH)                                   | 47.7   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 119   | 61-120%      | 2   | 30%       | B                  |
| Bis(2-Ethylhexyl) adipate                              | 42.3   | 10.0                  | 20.0            | ug/L                    | 4        | 40.0                                              | ---           | 106   | 63-121%      | 6   | 30%       |                    |
| 1,2-Dinitrobenzene                                     | 41.2   | 10.0                  | 20.0            | ug/L                    | 4        | 40.0                                              | ---           | 103   | 59-120%      | 11  | 30%       |                    |
| 1,3-Dinitrobenzene                                     | 40.2   | 10.0                  | 20.0            | ug/L                    | 4        | 40.0                                              | ---           | 101   | 49-128%      | 7   | 30%       |                    |
| 1,4-Dinitrobenzene                                     | 39.7   | 10.0                  | 20.0            | ug/L                    | 4        | 40.0                                              | ---           | 99    | 54-120%      | 8   | 30%       |                    |
| Pyridine                                               | 13.0   | 4.00                  | 8.00            | ug/L                    | 4        | 40.0                                              | ---           | 33    | 10-120%      | 18  | 30%       |                    |
| 1,2-Dichlorobenzene                                    | 32.4   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 81    | 32-120%      | 4   | 30%       |                    |
| 1,3-Dichlorobenzene                                    | 30.8   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 77    | 28-120%      | 5   | 30%       |                    |
| 1,4-Dichlorobenzene                                    | 31.9   | 1.00                  | 2.00            | ug/L                    | 4        | 40.0                                              | ---           | 80    | 29-120%      | 4   | 30%       |                    |
| <i>Surr: Nitrobenzene-d5 (Surr)</i>                    |        | <i>Recovery: 93 %</i> |                 | <i>Limits: 44-120 %</i> |          | <i>Dilution: 4x</i>                               |               |       |              |     |           |                    |
| <i>2-Fluorobiphenyl (Surr)</i>                         |        | <i>90 %</i>           |                 | <i>44-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |                    |
| <i>Phenol-d6 (Surr)</i>                                |        | <i>29 %</i>           |                 | <i>10-133 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |                    |
| <i>p-Terphenyl-d14 (Surr)</i>                          |        | <i>100 %</i>          |                 | <i>50-134 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |                    |
| <i>2-Fluorophenol (Surr)</i>                           |        | <i>42 %</i>           |                 | <i>19-120 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |                    |
| <i>2,4,6-Tribromophenol (Surr)</i>                     |        | <i>114 %</i>          |                 | <i>43-140 %</i>         |          | <i>"</i>                                          |               |       |              |     |           |                    |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                       | Result       | Detection Limit | Reporting Limit                                   | Units     | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------------|-----------------|---------------------------------------------------|-----------|----------|--------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0896 - EPA 3051A</b>              |              |                 |                                                   |           |          | <b>Solid</b> |               |       |              |     |           |       |
| <b>Blank (22G0896-BLK1)</b>                   |              |                 | Prepared: 07/27/22 09:33 Analyzed: 07/27/22 15:16 |           |          |              |               |       |              |     |           |       |
| <u>EPA 6020B</u>                              |              |                 |                                                   |           |          |              |               |       |              |     |           |       |
| Arsenic                                       | ND           | 481             | 962                                               | ug/kg wet | 10       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Barium                                        | ND           | 481             | 962                                               | ug/kg wet | 10       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Cadmium                                       | ND           | 96.2            | 192                                               | ug/kg wet | 10       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Chromium                                      | ND           | 481             | 962                                               | ug/kg wet | 10       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Lead                                          | ND           | 96.2            | 192                                               | ug/kg wet | 10       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Mercury                                       | ND           | 38.5            | 76.9                                              | ug/kg wet | 10       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Selenium                                      | ND           | 481             | 962                                               | ug/kg wet | 10       | ---          | ---           | ---   | ---          | --- | ---       |       |
| Silver                                        | ND           | 96.2            | 192                                               | ug/kg wet | 10       | ---          | ---           | ---   | ---          | --- | ---       |       |
| <hr/>                                         |              |                 |                                                   |           |          |              |               |       |              |     |           |       |
| <b>LCS (22G0896-BS1)</b>                      |              |                 | Prepared: 07/27/22 09:33 Analyzed: 07/27/22 15:20 |           |          |              |               |       |              |     |           |       |
| <u>EPA 6020B</u>                              |              |                 |                                                   |           |          |              |               |       |              |     |           |       |
| Arsenic                                       | 47000        | 500             | 1000                                              | ug/kg wet | 10       | 50000        | ---           | 94    | 80-120%      | --- | ---       |       |
| Barium                                        | 48100        | 500             | 1000                                              | ug/kg wet | 10       | 50000        | ---           | 96    | 80-120%      | --- | ---       |       |
| Cadmium                                       | 48500        | 100             | 200                                               | ug/kg wet | 10       | 50000        | ---           | 97    | 80-120%      | --- | ---       |       |
| Chromium                                      | 47600        | 500             | 1000                                              | ug/kg wet | 10       | 50000        | ---           | 95    | 80-120%      | --- | ---       |       |
| Lead                                          | 49400        | 100             | 200                                               | ug/kg wet | 10       | 50000        | ---           | 99    | 80-120%      | --- | ---       |       |
| Mercury                                       | 947          | 40.0            | 80.0                                              | ug/kg wet | 10       | 1000         | ---           | 95    | 80-120%      | --- | ---       |       |
| Selenium                                      | 23300        | 500             | 1000                                              | ug/kg wet | 10       | 25000        | ---           | 93    | 80-120%      | --- | ---       |       |
| Silver                                        | 24400        | 100             | 200                                               | ug/kg wet | 10       | 25000        | ---           | 98    | 80-120%      | --- | ---       |       |
| <hr/>                                         |              |                 |                                                   |           |          |              |               |       |              |     |           |       |
| <b>Duplicate (22G0896-DUP1)</b>               |              |                 | Prepared: 07/27/22 09:33 Analyzed: 07/27/22 16:18 |           |          |              |               |       |              |     |           |       |
| <u>QC Source Sample: Non-SDG (A2G0730-01)</u> |              |                 |                                                   |           |          |              |               |       |              |     |           |       |
| Arsenic                                       | <b>1620</b>  | 549             | 1100                                              | ug/kg wet | 10       | ---          | 1490          | ---   | ---          | 8   | 20%       |       |
| Barium                                        | <b>75600</b> | 549             | 1100                                              | ug/kg wet | 10       | ---          | 75000         | ---   | ---          | 0.8 | 20%       |       |
| Cadmium                                       | <b>1020</b>  | 110             | 220                                               | ug/kg wet | 10       | ---          | 1060          | ---   | ---          | 3   | 20%       |       |
| Chromium                                      | <b>33100</b> | 549             | 1100                                              | ug/kg wet | 10       | ---          | 30300         | ---   | ---          | 9   | 20%       |       |
| Lead                                          | <b>16500</b> | 110             | 220                                               | ug/kg wet | 10       | ---          | 17500         | ---   | ---          | 6   | 20%       |       |
| Mercury                                       | <b>73.4</b>  | 44.0            | 87.9                                              | ug/kg wet | 10       | ---          | 80.1          | ---   | ---          | 9   | 20%       |       |
| Selenium                                      | ND           | 549             | 1100                                              | ug/kg wet | 10       | ---          | ND            | ---   | ---          | --- | 20%       |       |
| Silver                                        | <b>318</b>   | 110             | 220                                               | ug/kg wet | 10       | ---          | 332           | ---   | ---          | 4   | 20%       |       |
| <hr/>                                         |              |                 |                                                   |           |          |              |               |       |              |     |           |       |
| <b>Matrix Spike (22G0896-MS1)</b>             |              |                 | Prepared: 07/27/22 09:33 Analyzed: 07/27/22 16:23 |           |          |              |               |       |              |     |           |       |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                       | Result | Detection Limit | Reporting Limit | Units     | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------------------|--------|-----------------|-----------------|-----------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|-------|
| <b>Batch 22G0896 - EPA 3051A</b>              |        |                 |                 |           |          | <b>Solid</b>                                      |               |       |              |     |           |       |
| <b>Matrix Spike (22G0896-MS1)</b>             |        |                 |                 |           |          | Prepared: 07/27/22 09:33 Analyzed: 07/27/22 16:23 |               |       |              |     |           |       |
| <b>QC Source Sample: Non-SDG (A2G0730-01)</b> |        |                 |                 |           |          |                                                   |               |       |              |     |           |       |
| <b>EPA 6020B</b>                              |        |                 |                 |           |          |                                                   |               |       |              |     |           |       |
| Arsenic                                       | 47900  | 512             | 1020            | ug/kg wet | 10       | 51200                                             | 1490          | 91    | 75-125%      | --- | ---       |       |
| Barium                                        | 132000 | 512             | 1020            | ug/kg wet | 10       | 51200                                             | 75000         | 111   | 75-125%      | --- | ---       |       |
| Cadmium                                       | 50800  | 102             | 205             | ug/kg wet | 10       | 51200                                             | 1060          | 97    | 75-125%      | --- | ---       |       |
| Chromium                                      | 85500  | 512             | 1020            | ug/kg wet | 10       | 51200                                             | 30300         | 108   | 75-125%      | --- | ---       |       |
| Lead                                          | 65200  | 102             | 205             | ug/kg wet | 10       | 51200                                             | 17500         | 93    | 75-125%      | --- | ---       |       |
| Mercury                                       | 1000   | 41.0            | 82.0            | ug/kg wet | 10       | 1020                                              | 80.1          | 90    | 75-125%      | --- | ---       |       |
| Selenium                                      | 23400  | 512             | 1020            | ug/kg wet | 10       | 25600                                             | ND            | 91    | 75-125%      | --- | ---       |       |
| Silver                                        | 25300  | 102             | 205             | ug/kg wet | 10       | 25600                                             | 332           | 97    | 75-125%      | --- | ---       |       |

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|----------------------------------------------|-----------------------------------|--------------------------------|
| <b>Sevenson Environmental Services, Inc.</b> | Project: <b>Gasco -- Carbon</b>   |                                |
| 2749 Lockport Road                           | Project Number: <b>111323</b>     | <b>Report ID:</b>              |
| Niagara Falls, NY 14305                      | Project Manager: <b>Chip Byrd</b> | <b>A2G0563 - 08 25 22 0928</b> |

**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                       | Result     | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes    |
|---------------------------------------------------------------|------------|-----------------|-----------------|-------|----------|--------------|---------------|-------|--------------|-----|-----------|----------|
| <b>Batch 22G1028 - EPA 1311/3015A</b>                         |            |                 |                 |       |          |              |               |       |              |     |           |          |
| <b>Soil</b>                                                   |            |                 |                 |       |          |              |               |       |              |     |           |          |
| <b>Blank (22G1028-BLK1)</b>                                   |            |                 |                 |       |          |              |               |       |              |     |           |          |
| Prepared: 07/29/22 15:40 Analyzed: 07/29/22 19:50             |            |                 |                 |       |          |              |               |       |              |     |           |          |
| <b>1311/6020B</b>                                             |            |                 |                 |       |          |              |               |       |              |     |           |          |
| 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                                                          | <b>149</b> | 25.0            | 50.0            | ug/L  | 10       | ---          | ---           | ---   | ---          | --- | ---       | B, 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    |
| <b>LCS (22G1028-BS1)</b>                                      |            |                 |                 |       |          |              |               |       |              |     |           |          |
| Prepared: 07/29/22 15:40 Analyzed: 07/29/22 19:55             |            |                 |                 |       |          |              |               |       |              |     |           |          |
| <b>1311/6020B</b>                                             |            |                 |                 |       |          |              |               |       |              |     |           |          |
| Arsenic                                                       | 5010       | 50.0            | 100             | ug/L  | 10       | 5000         | ---           | 100   | 80-120%      | --- | ---       | TCLPa    |
| Barium                                                        | 10600      | 2500            | 5000            | ug/L  | 10       | 10000        | ---           | 106   | 80-120%      | --- | ---       | TCLPa    |
| Cadmium                                                       | 1030       | 50.0            | 100             | ug/L  | 10       | 1000         | ---           | 103   | 80-120%      | --- | ---       | TCLPa    |
| Chromium                                                      | 5010       | 50.0            | 100             | ug/L  | 10       | 5000         | ---           | 100   | 80-120%      | --- | ---       | TCLPa    |
| Lead                                                          | 5470       | 25.0            | 50.0            | ug/L  | 10       | 5000         | ---           | 109   | 80-120%      | --- | ---       | B, TCLPa |
| Mercury                                                       | 101        | 3.75            | 7.00            | ug/L  | 10       | 100          | ---           | 101   | 80-120%      | --- | ---       | TCLPa    |
| Selenium                                                      | 990        | 50.0            | 100             | ug/L  | 10       | 1000         | ---           | 99    | 80-120%      | --- | ---       | TCLPa    |
| Silver                                                        | 1010       | 50.0            | 100             | ug/L  | 10       | 1000         | ---           | 101   | 80-120%      | --- | ---       | TCLPa    |
| <b>Matrix Spike (22G1028-MS1)</b>                             |            |                 |                 |       |          |              |               |       |              |     |           |          |
| Prepared: 07/29/22 15:40 Analyzed: 07/29/22 20:05             |            |                 |                 |       |          |              |               |       |              |     |           |          |
| <b>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02)</b> |            |                 |                 |       |          |              |               |       |              |     |           |          |
| <b>1311/6020B</b>                                             |            |                 |                 |       |          |              |               |       |              |     |           |          |
| Arsenic                                                       | 4990       | 50.0            | 100             | ug/L  | 10       | 5000         | ND            | 100   | 50-150%      | --- | ---       |          |
| Barium                                                        | 10500      | 2500            | 5000            | ug/L  | 10       | 10000        | ND            | 105   | 50-150%      | --- | ---       |          |
| Cadmium                                                       | 1030       | 50.0            | 100             | ug/L  | 10       | 1000         | ND            | 103   | 50-150%      | --- | ---       |          |
| Chromium                                                      | 5000       | 50.0            | 100             | ug/L  | 10       | 5000         | ND            | 100   | 50-150%      | --- | ---       |          |
| Lead                                                          | 5270       | 25.0            | 50.0            | ug/L  | 10       | 5000         | ND            | 105   | 50-150%      | --- | ---       | B        |
| Mercury                                                       | 101        | 3.75            | 7.00            | ug/L  | 10       | 100          | ND            | 101   | 50-150%      | --- | ---       |          |
| Selenium                                                      | 1000       | 50.0            | 100             | ug/L  | 10       | 1000         | ND            | 100   | 50-150%      | --- | ---       |          |
| Silver                                                        | 990        | 50.0            | 100             | ug/L  | 10       | 1000         | ND            | 99    | 50-150%      | --- | ---       |          |
| <b>Matrix Spike (22G1028-MS2)</b>                             |            |                 |                 |       |          |              |               |       |              |     |           |          |
| Prepared: 07/29/22 15:40 Analyzed: 07/29/22 20:14             |            |                 |                 |       |          |              |               |       |              |     |           |          |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                       | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes  |
|-----------------------------------------------|--------|-----------------|-----------------|-------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|--------|
| <b>Batch 22G1028 - EPA 1311/3015A</b>         |        |                 |                 |       |          | <b>Soil</b>                                       |               |       |              |     |           |        |
| <b>Matrix Spike (22G1028-MS2)</b>             |        |                 |                 |       |          | Prepared: 07/29/22 15:40 Analyzed: 07/29/22 20:14 |               |       |              |     |           |        |
| <b>QC Source Sample: Non-SDG (A2G0801-03)</b> |        |                 |                 |       |          |                                                   |               |       |              |     |           |        |
| <b>1311/6020B</b>                             |        |                 |                 |       |          |                                                   |               |       |              |     |           |        |
| Arsenic                                       | 5170   | 50.0            | 100             | ug/L  | 10       | 5000                                              | ND            | 103   | 50-150%      | --- | ---       | COMP   |
| Barium                                        | 11300  | 2500            | 5000            | ug/L  | 10       | 10000                                             | ND            | 113   | 50-150%      | --- | ---       | COMP   |
| Cadmium                                       | 1060   | 50.0            | 100             | ug/L  | 10       | 1000                                              | ND            | 106   | 50-150%      | --- | ---       | COMP   |
| Chromium                                      | 5170   | 50.0            | 100             | ug/L  | 10       | 5000                                              | ND            | 103   | 50-150%      | --- | ---       | COMP   |
| Lead                                          | 5300   | 25.0            | 50.0            | ug/L  | 10       | 5000                                              | 80.0          | 104   | 50-150%      | --- | ---       | COMP,B |
| Mercury                                       | 101    | 3.75            | 7.00            | ug/L  | 10       | 100                                               | ND            | 101   | 50-150%      | --- | ---       | COMP   |
| Selenium                                      | 992    | 50.0            | 100             | ug/L  | 10       | 1000                                              | ND            | 99    | 50-150%      | --- | ---       | COMP   |
| Silver                                        | 999    | 50.0            | 100             | ug/L  | 10       | 1000                                              | ND            | 100   | 50-150%      | --- | ---       | COMP   |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**QUALITY CONTROL (QC) SAMPLE RESULTS**

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

| Analyte                                                          | Result | Detection Limit | Reporting Limit | Units     | Dilution | Spike Amount                                      | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes      |
|------------------------------------------------------------------|--------|-----------------|-----------------|-----------|----------|---------------------------------------------------|---------------|-------|--------------|-----|-----------|------------|
| <b>Batch 22G0718 - ASTM D7511-12mod (S)</b>                      |        |                 |                 |           |          | <b>Soil</b>                                       |               |       |              |     |           |            |
| <b>Blank (22G0718-BLK1)</b>                                      |        |                 |                 |           |          | Prepared: 07/22/22 08:34 Analyzed: 07/22/22 12:15 |               |       |              |     |           |            |
| <u>D7511-12</u>                                                  |        |                 |                 |           |          |                                                   |               |       |              |     |           |            |
| Total Cyanide                                                    | ND     | 50.0            | 100             | ug/kg wet | 1        | ---                                               | ---           | ---   | ---          | --- | ---       |            |
| <b>LCS (22G0718-BS1)</b>                                         |        |                 |                 |           |          | Prepared: 07/22/22 08:34 Analyzed: 07/22/22 12:17 |               |       |              |     |           |            |
| <u>D7511-12</u>                                                  |        |                 |                 |           |          |                                                   |               |       |              |     |           |            |
| Total Cyanide                                                    | 419    | 50.0            | 100             | ug/kg wet | 1        | 400                                               | ---           | 105   | 84-116%      | --- | ---       |            |
| <b>Matrix Spike (22G0718-MS3)</b>                                |        |                 |                 |           |          | Prepared: 07/22/22 08:34 Analyzed: 07/22/22 13:56 |               |       |              |     |           |            |
| <u>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02RE2)</u> |        |                 |                 |           |          |                                                   |               |       |              |     |           |            |
| <u>D7511-12</u>                                                  |        |                 |                 |           |          |                                                   |               |       |              |     |           |            |
| Total Cyanide                                                    | 9280   | 836             | 1670            | ug/kg dry | 10       | 334                                               | 10700         | -424  | 64-136%      | --- | ---       | Q-03, Q-16 |
| <b>Matrix Spike Dup (22G0718-MSD3)</b>                           |        |                 |                 |           |          | Prepared: 07/22/22 08:34 Analyzed: 07/22/22 13:58 |               |       |              |     |           |            |
| <u>QC Source Sample: T-541 Carbon 07202022 B (A2G0563-02RE2)</u> |        |                 |                 |           |          |                                                   |               |       |              |     |           |            |
| <u>D7511-12</u>                                                  |        |                 |                 |           |          |                                                   |               |       |              |     |           |            |
| Total Cyanide                                                    | 10200  | 838             | 1680            | ug/kg dry | 10       | 335                                               | 10700         | -146  | 64-136%      | 10  | 47%       | Q-03, Q-16 |

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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|                                                                                               |                                                                                                       |                                                     |
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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Percent Dry Weight**

| Analyte                                          | Result | Detection Limit | Reporting Limit                                   | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD   | RPD Limit | Notes |
|--------------------------------------------------|--------|-----------------|---------------------------------------------------|-------|----------|--------------|---------------|-------|--------------|-------|-----------|-------|
| <b>Batch 22G0677 - Total Solids (Dry Weight)</b> |        |                 |                                                   |       |          | <b>Soil</b>  |               |       |              |       |           |       |
| <b>Duplicate (22G0677-DUP1)</b>                  |        |                 | Prepared: 07/21/22 13:23 Analyzed: 07/22/22 07:21 |       |          |              |               |       |              |       |           |       |
| <u>QC Source Sample: Non-SDG (A2G0438-03)</u>    |        |                 |                                                   |       |          |              |               |       |              |       |           |       |
| % Solids                                         | 75.3   | ---             | 1.00                                              | %     | 1        | ---          | 75.9          | ---   | ---          | 0.8   | 10%       |       |
| <b>Duplicate (22G0677-DUP2)</b>                  |        |                 | Prepared: 07/21/22 13:23 Analyzed: 07/22/22 07:21 |       |          |              |               |       |              |       |           |       |
| <u>QC Source Sample: Non-SDG (A2G0438-06)</u>    |        |                 |                                                   |       |          |              |               |       |              |       |           |       |
| % Solids                                         | 73.6   | ---             | 1.00                                              | %     | 1        | ---          | 74.2          | ---   | ---          | 0.8   | 10%       |       |
| <b>Duplicate (22G0677-DUP3)</b>                  |        |                 | Prepared: 07/21/22 13:23 Analyzed: 07/22/22 07:21 |       |          |              |               |       |              |       |           |       |
| <u>QC Source Sample: Non-SDG (A2G0438-14)</u>    |        |                 |                                                   |       |          |              |               |       |              |       |           |       |
| % Solids                                         | 74.8   | ---             | 1.00                                              | %     | 1        | ---          | 74.6          | ---   | ---          | 0.3   | 10%       |       |
| <b>Duplicate (22G0677-DUP4)</b>                  |        |                 | Prepared: 07/21/22 13:23 Analyzed: 07/22/22 07:21 |       |          |              |               |       |              |       |           |       |
| <u>QC Source Sample: Non-SDG (A2G0438-17)</u>    |        |                 |                                                   |       |          |              |               |       |              |       |           |       |
| % Solids                                         | 69.7   | ---             | 1.00                                              | %     | 1        | ---          | 70.2          | ---   | ---          | 0.7   | 10%       |       |
| <b>Duplicate (22G0677-DUP5)</b>                  |        |                 | Prepared: 07/21/22 19:34 Analyzed: 07/22/22 07:21 |       |          |              |               |       |              |       |           |       |
| <u>QC Source Sample: Non-SDG (A2G0612-01)</u>    |        |                 |                                                   |       |          |              |               |       |              |       |           |       |
| % Solids                                         | 96.3   | ---             | 1.00                                              | %     | 1        | ---          | 96.4          | ---   | ---          | 0.006 | 10%       |       |
| <b>Duplicate (22G0677-DUP6)</b>                  |        |                 | Prepared: 07/21/22 19:34 Analyzed: 07/22/22 07:21 |       |          |              |               |       |              |       |           |       |
| <u>QC Source Sample: Non-SDG (A2G0612-02)</u>    |        |                 |                                                   |       |          |              |               |       |              |       |           |       |
| % Solids                                         | 96.3   | ---             | 1.00                                              | %     | 1        | ---          | 96.1          | ---   | ---          | 0.2   | 10%       |       |

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

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ANALYTICAL REPORT

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|                                                                                               |                                                                                                       |                                                     |
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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Percent Dry Weight**

| Analyte                                          | Result | Detection Limit | Reporting Limit                                   | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD  | RPD Limit | Notes |  |
|--------------------------------------------------|--------|-----------------|---------------------------------------------------|-------|----------|--------------|---------------|-------|--------------|------|-----------|-------|--|
| <b>Batch 22G0746 - Total Solids (Dry Weight)</b> |        |                 |                                                   |       |          | <b>Soil</b>  |               |       |              |      |           |       |  |
| <b>Duplicate (22G0746-DUP1)</b>                  |        |                 | Prepared: 07/22/22 13:12 Analyzed: 07/25/22 05:44 |       |          |              |               |       | <b>PRO</b>   |      |           |       |  |
| <u>QC Source Sample: Non-SDG (A2G0513-02)</u>    |        |                 |                                                   |       |          |              |               |       |              |      |           |       |  |
| % Solids                                         | 96.8   | ---             | 1.00                                              | %     | 1        | ---          | 96.8          | ---   | ---          | 0.02 | 10%       |       |  |
| <b>Duplicate (22G0746-DUP2)</b>                  |        |                 | Prepared: 07/22/22 13:12 Analyzed: 07/25/22 05:44 |       |          |              |               |       | <b>PRO</b>   |      |           |       |  |
| <u>QC Source Sample: Non-SDG (A2G0513-04)</u>    |        |                 |                                                   |       |          |              |               |       |              |      |           |       |  |
| % Solids                                         | 96.5   | ---             | 1.00                                              | %     | 1        | ---          | 96.5          | ---   | ---          | 0.03 | 10%       |       |  |
| <b>Duplicate (22G0746-DUP3)</b>                  |        |                 | Prepared: 07/22/22 18:38 Analyzed: 07/25/22 05:44 |       |          |              |               |       | <b>PRO</b>   |      |           |       |  |
| <u>QC Source Sample: Non-SDG (A2G0650-01)</u>    |        |                 |                                                   |       |          |              |               |       |              |      |           |       |  |
| % Solids                                         | 83.4   | ---             | 1.00                                              | %     | 1        | ---          | 90.3          | ---   | ---          | 8    | 10%       |       |  |
| <b>Duplicate (22G0746-DUP4)</b>                  |        |                 | Prepared: 07/22/22 18:38 Analyzed: 07/25/22 05:44 |       |          |              |               |       | <b>PRO</b>   |      |           |       |  |
| <u>QC Source Sample: Non-SDG (A2G0651-01)</u>    |        |                 |                                                   |       |          |              |               |       |              |      |           |       |  |
| % Solids                                         | 79.0   | ---             | 1.00                                              | %     | 1        | ---          | 82.2          | ---   | ---          | 4    | 10%       |       |  |
| <b>Duplicate (22G0746-DUP5)</b>                  |        |                 | Prepared: 07/22/22 18:38 Analyzed: 07/25/22 05:44 |       |          |              |               |       | <b>PRO</b>   |      |           |       |  |
| <u>QC Source Sample: Non-SDG (A2G0652-01)</u>    |        |                 |                                                   |       |          |              |               |       |              |      |           |       |  |
| % Solids                                         | 79.9   | ---             | 1.00                                              | %     | 1        | ---          | 80.9          | ---   | ---          | 1    | 10%       |       |  |

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

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
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**SAMPLE PREPARATION INFORMATION**

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

| Prep: EPA 3546 (Fuels) |        |          |                |                | Sample        | Default       | RL Prep |
|------------------------|--------|----------|----------------|----------------|---------------|---------------|---------|
| Lab Number             | Matrix | Method   | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| <u>Batch: 22G0856</u>  |        |          |                |                |               |               |         |
| A2G0563-02             | Solid  | NWTPH-Dx | 07/20/22 09:00 | 07/26/22 13:10 | 10.11g/5mL    | 10g/5mL       | 0.99    |

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

| Prep: EPA 5035A       |        |               |                |                | Sample        | Default       | RL Prep |
|-----------------------|--------|---------------|----------------|----------------|---------------|---------------|---------|
| Lab Number            | Matrix | Method        | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| <u>Batch: 22G0771</u> |        |               |                |                |               |               |         |
| A2G0563-02RE1         | Solid  | NWTPH-Gx (MS) | 07/20/22 09:00 | 07/20/22 16:06 | 5.34g/5mL     | 5g/5mL        | 0.94    |

**Volatile Organic Compounds by EPA 8260D**

| Prep: EPA 5035A       |        |             |                |                | Sample        | Default       | RL Prep |
|-----------------------|--------|-------------|----------------|----------------|---------------|---------------|---------|
| Lab Number            | Matrix | Method      | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| <u>Batch: 22G0771</u> |        |             |                |                |               |               |         |
| A2G0563-02RE1         | Solid  | 5035A/8260D | 07/20/22 09:00 | 07/20/22 16:06 | 5.34g/5mL     | 5g/5mL        | 0.94    |
| <u>Batch: 22G0857</u> |        |             |                |                |               |               |         |
| A2G0563-02RE2         | Solid  | 5035A/8260D | 07/20/22 09:00 | 07/20/22 16:06 | 5.34g/5mL     | 5g/5mL        | 0.94    |

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

| Prep: EPA 1311/5030B TCLP Volatiles |        |            |                |                | Sample        | Default       | RL Prep |
|-------------------------------------|--------|------------|----------------|----------------|---------------|---------------|---------|
| Lab Number                          | Matrix | Method     | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| <u>Batch: 22G0954</u>               |        |            |                |                |               |               |         |
| A2G0563-02                          | Solid  | 1311/8260D | 07/20/22 09:00 | 07/28/22 10:26 | 5mL/5mL       | 5mL/5mL       | 1.00    |
| <u>Batch: 22G1001</u>               |        |            |                |                |               |               |         |
| A2G0563-02RE1                       | Solid  | 1311/8260D | 07/20/22 09:00 | 07/28/22 10:26 | 5mL/5mL       | 5mL/5mL       | 1.00    |

**Semivolatile Organic Compounds by EPA 8270E**

| Prep: EPA 3546        |        |           |                |                | Sample        | Default       | RL Prep |
|-----------------------|--------|-----------|----------------|----------------|---------------|---------------|---------|
| Lab Number            | Matrix | Method    | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| <u>Batch: 22H0028</u> |        |           |                |                |               |               |         |
| A2G0563-02            | Solid  | EPA 8270E | 07/20/22 09:00 | 08/01/22 10:26 | 15.55g/2mL    | 15g/2mL       | 0.97    |
| A2G0563-02RE1         | Solid  | EPA 8270E | 07/20/22 09:00 | 08/01/22 10:26 | 15.55g/2mL    | 15g/2mL       | 0.97    |

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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**SAMPLE PREPARATION INFORMATION**

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

| Prep: EPA 1311/3510C (BNA Extraction) |        |               |                |                | Sample        | Default       | RL Prep |
|---------------------------------------|--------|---------------|----------------|----------------|---------------|---------------|---------|
| Lab Number                            | Matrix | Method        | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| Batch: 22H0025                        |        |               |                |                |               |               |         |
| A2G0563-02                            | Solid  | 1311/8270E-LL | 07/20/22 09:00 | 08/01/22 10:10 | 200mL/2mL     | 200mL/2mL     | 1.00    |

Total Metals by EPA 6020B (ICPMS)

| Prep: EPA 3051A |        |           |                |                | Sample        | Default       | RL Prep |
|-----------------|--------|-----------|----------------|----------------|---------------|---------------|---------|
| Lab Number      | Matrix | Method    | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| Batch: 22G0896  |        |           |                |                |               |               |         |
| A2G0563-02      | Solid  | EPA 6020B | 07/20/22 09:00 | 07/27/22 09:33 | 0.462g/50mL   | 0.5g/50mL     | 1.08    |

TCLP Metals by EPA 6020B (ICPMS)

| Prep: EPA 1311/3015A |        |            |                |                | Sample        | Default       | RL Prep |
|----------------------|--------|------------|----------------|----------------|---------------|---------------|---------|
| Lab Number           | Matrix | Method     | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| Batch: 22G1028       |        |            |                |                |               |               |         |
| A2G0563-02           | Solid  | 1311/6020B | 07/20/22 09:00 | 07/29/22 15:40 | 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: 22G0718             |        |          |                |                |               |               |         |
| A2G0563-02RE2              | Solid  | D7511-12 | 07/20/22 09:00 | 07/22/22 08:34 | 2.5784g/50mL  | 2.5g/50mL     | 0.97    |

Percent Dry Weight

| Prep: Total Solids (Dry Weight) |        |           |                |                | Sample        | Default       | RL Prep |
|---------------------------------|--------|-----------|----------------|----------------|---------------|---------------|---------|
| Lab Number                      | Matrix | Method    | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| Batch: 22G0677                  |        |           |                |                |               |               |         |
| A2G0563-03                      | Solid  | EPA 8000D | 07/20/22 09:00 | 07/21/22 13:23 |               |               | NA      |
| Batch: 22G0746                  |        |           |                |                |               |               |         |
| A2G0563-02                      | Solid  | EPA 8000D | 07/20/22 09:00 | 07/22/22 13:12 |               |               | 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  |

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| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**SAMPLE PREPARATION INFORMATION**

**TCLP Extraction by EPA 1311**

| <u>Prep: EPA 1311 (TCLP)</u> |        |          |                |                | Sample        | Default       | RL Prep |
|------------------------------|--------|----------|----------------|----------------|---------------|---------------|---------|
| Lab Number                   | Matrix | Method   | Sampled        | Prepared       | Initial/Final | Initial/Final | Factor  |
| <u>Batch: 22G0978</u>        |        |          |                |                |               |               |         |
| A2G0563-02                   | Solid  | EPA 1311 | 07/20/22 09:00 | 07/28/22 17:58 | 99.9g/1987.5g | 100g/2000g    | NA      |

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

Project: **Gasco -- Carbon**  
Project Number: **111323**  
Project Manager: **Chip Byrd**

**Report ID:**  
**A2G0563 - 08 25 22 0928**

**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.)
- 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** Sample is a composite of discrete samples. See prep information for details.
- F-13** The chromatographic pattern does not resemble the fuel standard used for quantitation
- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- ICV-02** Estimated Result. Initial Calibration Verification (ICV) failed low.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- PRO** Sample has undergone sample processing prior to extraction and analysis.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-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-16** Reanalysis of an original Batch QC sample.
- Q-17** RPD between original and duplicate sample is outside of established control limits.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- 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-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 +10%. 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 +15%. The results are reported as Estimated Values.

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**Sevenson Environmental Services, Inc.**

2749 Lockport Road  
Niagara Falls, NY 14305

Project: **Gasco -- Carbon**

Project Number: **111323**

Project Manager: **Chip Byrd**

**Report ID:**

**A2G0563 - 08 25 22 0928**

- Q-54c** 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.
- 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.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +36%. The results are reported as Estimated Values.
- Q-54f** 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-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +45%. The results are reported as Estimated Values.
- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
- Q-54i** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +7%. The results are reported as Estimated Values.
- Q-54j** 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-54k** 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-54l** 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-54m** 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-54n** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -16%. The results are reported as Estimated Values.
- Q-54o** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -19%. The results are reported as Estimated Values.
- Q-54p** 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-54q** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -5%. 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.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

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Darwin Thomas, Business Development Director





**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

- TCLP** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22G0836.
- TCLPa** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22G0978.
- V-15** Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.
- V-16** Sample aliquot was subsampled from the sample container in the laboratory. The subsampled aliquot was not preserved within 48 hours of sampling.

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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|                                                                                               |                                                                                                       |                                                     |
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|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**REPORTING NOTES AND CONVENTIONS:**

**Abbreviations:**

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

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

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

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

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

**Reporting Conventions:**

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

**QC Source:**

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

**Miscellaneous Notes:**

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

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 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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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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 -- Carbon  
Project Number: 111323  
Project Manager: Chip Byrd

Report ID:  
A2G0563 - 08 25 22 0928

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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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Sevenson Environmental Services, Inc.), Project (Gasco -- Carbon), and Report ID (A2G0563 - 08 25 22 0928).

LABORATORY ACCREDITATION INFORMATION

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

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

Apex Laboratories

Table header with columns: 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 provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Handwritten signature of Darwin Thomas

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**APEX LABS**  
6700 SW Sandburg St, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: Sevenson Environmental Services, Inc. Project Mgr: Chip Byrd  
Address: 2749 Lockport Road, Niagara Falls, NY 14305  
Sampled by: *Dele Snyder*

**CHAIN OF CUSTODY**

Lab # A260563 of \_\_\_\_\_  
COC \_\_\_\_\_

Gasco -- Carbon Project # 111323  
Phone: (716) 583-2754 Fax: *byrd@sevenson.com*  
Email: \_\_\_\_\_

**ANALYSIS REQUEST**

| SAMPLE ID             | LAB ID # | DATE      | TIME | MATRIX | # OF CONTAINERS | 1311/8270 TCLP - Full List - SVOCs | BTU D-240 (Subcontract) | 1311/8260 TCLP ZHE - Full List - VOCs | 9260D VOCs | 8270D LL Full List | Dry Weight | Metals, RCRA 8 | 1311/6020 TCLP RCRA 8 Metals | Total Cyanide, D7511, CIA | NW TPH Dx | NW TPH Gx |
|-----------------------|----------|-----------|------|--------|-----------------|------------------------------------|-------------------------|---------------------------------------|------------|--------------------|------------|----------------|------------------------------|---------------------------|-----------|-----------|
| T-541 Carbon 07202022 |          | 7/20/2022 | 9:00 | S      | 2               | X                                  | X                       | X                                     | X          | X                  | X          | X              | X                            | X                         | X         | X         |

Normal Turn Around Time (TAT) = 7-10 Business Days

SPECIAL INSTRUCTIONS:

**TAT Requested (circle):** 1 DAY 2 DAY 3 DAY 4 DAY 5 DAY Other: **STD**

**Please Composite samples for one lab result**

**RELINQUISHED BY:** Signature: *Dele Snyder* Date: 7-20-22  
Printed Name: Dele Snyder Time: 12:10  
Company: SFS

**RECEIVED BY:** Signature: *Andy* Date: 7/20/22  
Printed Name: Andy Morrison Time: 12:10  
Company: Apex

Apex Laboratories

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*Darwin Thomas*

Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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ORELAP ID: OR100062

|                                                                                               |                                                                                                       |                                                     |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Sevenson Environmental Services, Inc.</b><br>2749 Lockport Road<br>Niagara Falls, NY 14305 | Project: <b>Gasco -- Carbon</b><br>Project Number: <b>111323</b><br>Project Manager: <b>Chip Byrd</b> | <b>Report ID:</b><br><b>A2G0563 - 08 25 22 0928</b> |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|

**APEX LABS COOLER RECEIPT FORM**

**Client:** Sevenson Environmental Services Inc Element WO#: A2 60563

**Project/Project #:** Carbon / 111323

**Delivery Info:**  
 Date/time received: 7/20/22 @ 1210 By: AM  
 Delivered by: Apex  Client  ESS  FedEx  UPS  Swift  Senvoy  SDS  Other

**Cooler Inspection** Date/time inspected: 7/20/22 @ 1300 By: AM

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

Signed/dated by client? Yes  No

Signed/dated by Apex? Yes  No

|                            | Cooler #1   | Cooler #2   | Cooler #3   | Cooler #4   | Cooler #5   | Cooler #6 | Cooler #7 |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|
| Temperature (°C)           | <u>3.9</u>  | <u>5.8</u>  | <u>4.2</u>  | <u>3.9</u>  | <u>5.2</u>  |           |           |
| Received on ice? (Y/N)     | <u>Y</u>    | <u>Y</u>    | <u>Y</u>    | <u>Y</u>    | <u>Y</u>    |           |           |
| Temp. blanks? (Y/N)        | <u>Y</u>    | <u>Y</u>    | <u>Y</u>    | <u>Y</u>    | <u>Y</u>    |           |           |
| Ice type: (Gel/Real/Other) | <u>gel</u>  | <u>gel</u>  | <u>gel</u>  | <u>gel</u>  | <u>gel</u>  |           |           |
| Condition:                 | <u>Good</u> | <u>Good</u> | <u>Good</u> | <u>Good</u> | <u>Good</u> |           |           |

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

Green dots applied to out of temperature samples? Yes  No

Out of temperature samples form initiated? Yes  No

**Sample Inspection:** Date/time inspected: 7-20-22 @ 1447 By: DSS

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

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

COC/container discrepancies form initiated? Yes  No

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

Do VOA vials have visible headspace? Yes  No  NA

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

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

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

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

Labeled by: DSS                      Witness: KAM                      Cooler Inspected by: DSS

Apex Laboratories

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Darwin Thomas, Business Development Director



**Sevenson Environmental - ORL**

Sample Delivery Group: L1569422  
Samples Received: 12/20/2022  
Project Number: 1113  
Description:  
Site: NW NATURAL-GASCO  
Report To: William Byrd

Entire Report Reviewed By:





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](http://www.pacenational.com)

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# SAMPLE SUMMARY

T-541-12192022 L1569422-01 Solids and Chemical Materials

Collected by: Emily  
 Collected date/time: 12/19/22 00:00  
 Received date/time: 12/20/22 09:30

| Method                                     | Batch     | Dilution | Preparation date/time | Analysis date/time | Analyst | Location       |
|--------------------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Radiochemistry by Method DOE Ga-01-R/901.1 | WG1982482 | 1        | 12/27/22 10:18        | 01/05/23 09:19     | ZRG     | Mt. Juliet, TN |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

# 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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Radiochemistry by Method DOE Ga-01-R/901.1

| Analyte               | Result<br>pCi/g | Qualifier | Uncertainty<br>+ / - | MDA<br>pCi/g | Analysis Date<br>date / time | Batch                     |
|-----------------------|-----------------|-----------|----------------------|--------------|------------------------------|---------------------------|
| Potassium-40          | 0.645           | U         | 0.441                | 0.823        | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Thallium-208          | 0.00413         | U         | 0.0332               | 0.0686       | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Lead-210              | 0.548           | U         | 0.474                | 0.779        | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Lead-212              | 0.0985          | U         | 0.0482               | 0.0832       | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Lead-214              | 0.118           | U         | 0.0661               | 0.133        | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Bismuth-212           | 0.222           | U         | 0.393                | 0.779        | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Bismuth-214 (Ra-226)  | 0.126           | U         | 0.0742               | 0.125        | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Radium-226 (186 KeV)  | 0.366           | U         | 0.237                | 0.390        | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Actinium-228 (Ra-228) | 0.0413          | U         | 0.0828               | 0.203        | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Thorium-234 (U-238)   | 0.314           | U         | 0.209                | 0.491        | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Protactinium-234m     | -2.51           | U         | 4.06                 | 28.0         | 01/05/2023 09:19             | <a href="#">WG1982482</a> |
| Uranium-235           | 0.0344          | U         | 0.0237               | 0.0377       | 01/05/2023 09:19             | <a href="#">WG1982482</a> |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R3878212-3 01/04/23 11:02

| Analyte               | MB Result<br>pCi/g | MB Qualifier | MB Uncertainty<br>+ / - | MB MDA<br>pCi/g |
|-----------------------|--------------------|--------------|-------------------------|-----------------|
| Actinium-228 (Ra-228) | 0.0302             | IC           | 0.0953                  | 0.241           |
| Americium-241         | -0.0805            | IC           | 0.129                   | 0.234           |
| Bismuth-212           | -0.0862            | IC           | 0.375                   | 0.934           |
| Bismuth-214 (Ra-226)  | 0.0188             | IC           | 0.0586                  | 0.131           |
| Cesium-137            | -0.0451            | IC           | 0.0386                  | 0.0977          |
| Cobalt-60             | -0.00192           | IC           | 0.0228                  | 0.0861          |
| Lead-210              | -0.606             | IC           | 3.18                    | 5.56            |
| Lead-212              | -0.0401            | IC           | 0.0539                  | 0.121           |
| Lead-214              | 0.0306             | IC           | 0.0640                  | 0.133           |
| Potassium-40          | 0.0995             | IC           | 0.418                   | 0.958           |
| Protactinium-234m     | 3.45               | IC           | 5.00                    | 30.6            |
| Radium-226 (186 KeV)  | 0.657              | IC           | 0.455                   | 0.770           |
| Thallium-208          | -0.0118            | IC           | 0.0359                  | 0.0817          |
| Thorium-234 (U-238)   | 0.915              | IC           | 0.576                   | 1.11            |
| Uranium-235           | 0.0629             | IC           | 0.0457                  | 0.0793          |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1564188-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1564188-06 01/04/23 10:15 • (DUP) R3878212-4 01/04/23 12:03

| Analyte               | Original Result<br>pCi/g | Original Uncertainty<br>+ / - | Original MDA<br>pCi/g | DUP Result<br>pCi/g | DUP Uncertainty<br>+ / - | DUP MDA<br>pCi/g | Dilution | DUP RPD<br>% | DUP RER | DUP Qualifier | DUP RPD Limits<br>% | DUP RER Limit |
|-----------------------|--------------------------|-------------------------------|-----------------------|---------------------|--------------------------|------------------|----------|--------------|---------|---------------|---------------------|---------------|
| Actinium-228 (Ra-228) | 0.283                    | 0.0925                        | 0.131                 | 0.310               | 0.129                    | 0.131            | 1        | 9.07         | 0.169   |               | 20                  | 3             |
| Bismuth-212           | 0.688                    | 0.479                         | 0.650                 | 0.940               | 0.479                    | 0.650            | 1        | 31.0         | 0.433   |               | 20                  | 3             |
| Bismuth-214 (Ra-226)  | 0.199                    | 0.0676                        | 0.0992                | 0.155               | 0.0831                   | 0.0992           | 1        | 24.9         | 0.411   |               | 20                  | 3             |
| Lead-210              | -0.948                   | 1.73                          | 3.10                  | 0.0570              | 0.589                    | 3.10             | 1        | 200          | 0.550   | IC            | 20                  | 3             |
| Lead-212              | 0.429                    | 0.0860                        | 0.0991                | 0.460               | 0.0860                   | 0.0991           | 1        | 6.82         | 0.270   |               | 20                  | 3             |
| Lead-214              | 0.233                    | 0.0702                        | 0.123                 | 0.212               | 0.0702                   | 0.123            | 1        | 9.52         | 0.228   |               | 20                  | 3             |
| Potassium-40          | 0.170                    | 0.298                         | 0.823                 | 0.135               | 0.298                    | 0.823            | 1        | 23.0         | 0.0878  | IC            | 20                  | 3             |
| Radium-226 (186 KeV)  | -0.0289                  | 0.347                         | 0.569                 | 0.588               | 0.347                    | 0.569            | 1        | 200          | 1.32    |               | 20                  | 3             |
| Thallium-208          | 0.141                    | 0.0497                        | 0.0686                | 0.126               | 0.0497                   | 0.0686           | 1        | 11.2         | 0.239   |               | 20                  | 3             |
| Thorium-234 (U-238)   | 0.271                    | 0.237                         | 0.711                 | -0.118              | 0.237                    | 0.711            | 1        | 200          | 0.936   | IC            | 20                  | 3             |
| Uranium-235           | -0.00343                 | 0.0331                        | 0.0574                | 0.0470              | 0.0331                   | 0.0574           | 1        | 200          | 1.10    | IC            | 20                  | 3             |
| Protactinium-234m     | 0.171                    | 4.73                          | 28.0                  | 3.67                | 4.73                     | 28.0             | 1        | 182          | 0.679   | IC            | 20                  | 3             |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3878212-1 01/04/23 09:57 • (LCSD) R3878212-2 01/04/23 10:38

| Analyte       | Spike Amount<br>pCi/g | LCS Result<br>pCi/g | LCSD Result<br>pCi/g | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | <u>LCS Qualifier</u> | <u>LCSD Qualifier</u> | RPD<br>% | RPD Limits<br>% |
|---------------|-----------------------|---------------------|----------------------|---------------|----------------|------------------|----------------------|-----------------------|----------|-----------------|
| Americium-241 | 47.3                  | 52.8                | 49.1                 | 112           | 104            | 60.0-140         |                      |                       | 7.29     | 20              |
| Cesium-137    | 72.4                  | 81.2                | 81.3                 | 112           | 112            | 80.0-120         |                      |                       | 0.111    | 20              |
| Cobalt-60     | 86.9                  | 89.0                | 91.0                 | 102           | 105            | 80.0-120         |                      |                       | 2.23     | 20              |

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

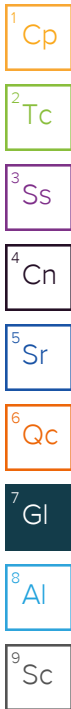
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.                                                                                                                                                                                                                                                                                                                                                                                                 |
| Dilution                     | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.                                                                                    |
| 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.               |



# ACCREDITATIONS & LOCATIONS

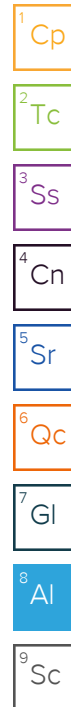
## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

|                               |             |                             |                  |
|-------------------------------|-------------|-----------------------------|------------------|
| 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 <sup>1</sup>     | TN00003          |
| Colorado                      | TN00003     | New York                    | 11742            |
| Connecticut                   | PH-0197     | North Carolina              | Env375           |
| Florida                       | E87487      | North Carolina <sup>1</sup> | DW21704          |
| Georgia                       | NELAP       | North Carolina <sup>3</sup> | 41               |
| Georgia <sup>1</sup>          | 923         | North Dakota                | R-140            |
| Idaho                         | TN00003     | Ohio-VAP                    | CL0069           |
| Illinois                      | 200008      | Oklahoma                    | 9915             |
| Indiana                       | C-TN-01     | Oregon                      | TN200002         |
| Iowa                          | 364         | Pennsylvania                | 68-02979         |
| Kansas                        | E-10277     | Rhode Island                | LA000356         |
| Kentucky <sup>1,6</sup>       | KY90010     | South Carolina              | 84004002         |
| Kentucky <sup>2</sup>         | 16          | South Dakota                | n/a              |
| Louisiana                     | AI30792     | Tennessee <sup>1,4</sup>    | 2006             |
| Louisiana                     | LA018       | Texas                       | T104704245-20-18 |
| Maine                         | TN00003     | Texas <sup>5</sup>          | 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 <sup>5</sup> | 1461.02     | DOD                         | 1461.01          |
| Canada                        | 1461.01     | USDA                        | P330-15-00234    |
| EPA-Crypto                    | TN00003     |                             |                  |

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.



**Sevenson Environmental**

Billing Information:

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_

Report to:  
**William Byrd**

Email To:  
**wbyrd@sevenson.com**

Project Description:

City/State Collected:

Phone: **5035831785**  
Fax:

Client Project #  
**1113**

Lab Project #

Collected by (print):  
*Emily*

Site/Facility ID #  
**NW Natural - GASCO**

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)  
**X**

Quote #

Immediately Packed on Ice **N X Y**

Date Results Needed

No. of Cntrs

Sample ID

Comp/Grab

Matrix \*

Depth

Date

Time

**GSPEC-FULL - 16 oz or gal zip bag 1/2 full**



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# *4509422*  
**C189**

Acctnum: **SEVENENVORL**

Template:

Prelogin:

TSR: **Donna Eidson**

PB:

Shipped Via:

**T-541- 12192022**

**Comp**

**SS**

**1**

**X**

Remarks: **WM LIST** Sample # (lab only) *cal*

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other **scm**

Remarks:  
**No ice**

Samples returned via:  
\_ UPS \_ FedEx \_ Courier \_\_\_\_\_

Tracking # **7708 2509 9588**

Sample Receipt Checklist  
COC Seal Present/Intact:  NP  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N

Relinquished by: (Signature)  
*William G. Byrd*

Date: **12/14/2022**

Time: **1130 PST**

Received by: (Signature)

Trip Blank Received: Yes  No   
HCL / MeOH  
TBR

**<500 cpm**

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
*[Signature]*

Temp: **4MB** °C  
Bottles Received: **1**

If preservation required by Login: Date/Time  
Hold: Condition: **NCF / OK**

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **12.20.22** Time: **0930**

Hold: Condition: **NCF / OK**