



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Friday, May 19, 2023

John Renda
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A3D1155 - Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon. - 000029-02.84 T-01.001E

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 A3D1155, which was received by the laboratory on 4/13/2023 at 8:22:00AM.

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

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

Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler 2.3 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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.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

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Darwin Thomas, Business Development Director



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6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

Report ID:

A3D1155 - 05 19 23 1249

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GS-041223-65	A3D1155-01	WG	04/12/23 09:40	04/13/23 08:22
GS-041223-66	A3D1155-02	WG	04/12/23 10:55	04/13/23 08:22
GS-041223-67	A3D1155-03	WG	04/12/23 12:00	04/13/23 08:22
GS-041223-68	A3D1155-04	WG	04/12/23 14:30	04/13/23 08:22
TB-041223	A3D1155-05	W	04/12/23 15:10	04/13/23 08:22

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Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****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
GS-041223-65 (A3D1155-01)		Matrix: WG			Batch: 23D0933			
Diesel	421	96.2	192	ug/L	1	04/24/23 22:26	NWTPH-Dx	F-11
Oil	ND	192	385	ug/L	1	04/24/23 22:26	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>04/24/23 22:26</i>	<i>NWTPH-Dx</i>	
GS-041223-68 (A3D1155-04)		Matrix: WG			Batch: 23D0933			
Diesel	628	96.2	192	ug/L	1	04/24/23 22:47	NWTPH-Dx	F-13
Oil	ND	192	385	ug/L	1	04/24/23 22:47	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 90 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>04/24/23 22:47</i>	<i>NWTPH-Dx</i>	

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Project Manager: **John Renda**

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ANALYTICAL SAMPLE RESULTS

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

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01RE1)		Matrix: WG			Batch: 23D0783			
Gasoline Range Organics	ND	50.0	100	ug/L	1	04/20/23 00:48	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 94 %	Limits: 50-150 %	1	04/20/23 00:48	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		109 %	50-150 %	1	04/20/23 00:48	NWTPH-Gx (MS)		
GS-041223-68 (A3D1155-04RE1)		Matrix: WG			Batch: 23D0783			
Gasoline Range Organics	ND	50.0	100	ug/L	1	04/20/23 01:54	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 91 %	Limits: 50-150 %	1	04/20/23 01:54	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	04/20/23 01:54	NWTPH-Gx (MS)		

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01RE1)				Matrix: WG		Batch: 23D0783		
Acetone	ND	20.0	20.0	ug/L	1	04/20/23 00:48	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Benzene	3.96	0.100	0.200	ug/L	1	04/20/23 00:48	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/20/23 00:48	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/20/23 00:48	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/20/23 00:48	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/20/23 00:48	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01RE1)				Matrix: WG		Batch: 23D0783		
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/20/23 00:48	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/20/23 00:48	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/20/23 00:48	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	04/20/23 00:48	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/20/23 00:48	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/20/23 00:48	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/20/23 00:48	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/20/23 00:48	EPA 8260D	

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01RE1)		Matrix: WG			Batch: 23D0783			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 106 %	Limits: 80-120 %	1	04/20/23 00:48	EPA 8260D		
Toluene-d8 (Surr)		107 %	80-120 %	1	04/20/23 00:48	EPA 8260D		
4-Bromofluorobenzene (Surr)		100 %	80-120 %	1	04/20/23 00:48	EPA 8260D		
GS-041223-66 (A3D1155-02RE1)		Matrix: WG			Batch: 23D0783			
Acetone	ND	10.0	20.0	ug/L	1	04/20/23 01:10	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	04/20/23 01:10	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/20/23 01:10	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/20/23 01:10	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/20/23 01:10	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/20/23 01:10	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	

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Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-66 (A3D1155-02RE1)		Matrix: WG			Batch: 23D0783			
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/20/23 01:10	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/20/23 01:10	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/20/23 01:10	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	04/20/23 01:10	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/20/23 01:10	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	

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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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-66 (A3D1155-02RE1)		Matrix: WG			Batch: 23D0783			
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/20/23 01:10	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/20/23 01:10	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/20/23 01:10	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/20/23 01:10</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>106 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/20/23 01:10</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/20/23 01:10</i>	<i>EPA 8260D</i>	
GS-041223-67 (A3D1155-03RE1)		Matrix: WG			Batch: 23D0783			
Acetone	ND	10.0	20.0	ug/L	1	04/20/23 01:32	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	04/20/23 01:32	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/20/23 01:32	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/20/23 01:32	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/20/23 01:32	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/20/23 01:32	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	

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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**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-67 (A3D1155-03RE1)				Matrix: WG		Batch: 23D0783		
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/20/23 01:32	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/20/23 01:32	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/20/23 01:32	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/20/23 01:32	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/20/23 01:32	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	

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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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-67 (A3D1155-03RE1)		Matrix: WG			Batch: 23D0783			
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/20/23 01:32	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/20/23 01:32	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/20/23 01:32	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/20/23 01:32</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>106 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/20/23 01:32</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/20/23 01:32</i>	<i>EPA 8260D</i>	
GS-041223-68 (A3D1155-04RE1)		Matrix: WG			Batch: 23D0783			
Acetone	ND	10.0	20.0	ug/L	1	04/20/23 01:54	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Benzene	0.230	0.100	0.200	ug/L	1	04/20/23 01:54	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/20/23 01:54	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/20/23 01:54	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/20/23 01:54	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/20/23 01:54	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	

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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**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-68 (A3D1155-04RE1)				Matrix: WG		Batch: 23D0783		
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/20/23 01:54	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/20/23 01:54	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/20/23 01:54	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/20/23 01:54	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/20/23 01:54	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	

Apex Laboratories

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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**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-68 (A3D1155-04RE1)		Matrix: WG			Batch: 23D0783			
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/20/23 01:54	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/20/23 01:54	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/20/23 01:54	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/20/23 01:54</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>107 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/20/23 01:54</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/20/23 01:54</i>	<i>EPA 8260D</i>	
TB-041223 (A3D1155-05)		Matrix: W			Batch: 23D0690			
Acetone	27.7	10.0	20.0	ug/L	1	04/18/23 14:01	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	04/18/23 14:01	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/18/23 14:01	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/18/23 14:01	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/18/23 14:01	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	

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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**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB-041223 (A3D1155-05)		Matrix: W			Batch: 23D0690			
Chloromethane	ND	2.50	5.00	ug/L	1	04/18/23 14:01	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
Hexachlorobutadiene	ND	5.00	5.00	ug/L	1	04/18/23 14:01	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/18/23 14:01	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/18/23 14:01	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/18/23 14:01	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Naphthalene	ND	2.00	2.00	ug/L	1	04/18/23 14:01	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	

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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**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB-041223 (A3D1155-05)		Matrix: W			Batch: 23D0690			
1,1,1,2-Tetrachloroethane	ND	0.400	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2,3-Trichlorobenzene	ND	2.00	2.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2,4-Trichlorobenzene	ND	2.00	2.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/18/23 14:01	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/18/23 14:01	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/18/23 14:01	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/18/23 14:01</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>107 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/18/23 14:01</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/18/23 14:01</i>	<i>EPA 8260D</i>	

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01)		Matrix: WG			Batch: 23D0567			
Acenaphthene	0.102	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Acenaphthylene	1.41	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Anthracene	1.94	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Benz(a)anthracene	0.0654	0.00890	0.0178	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Benzo(a)pyrene	0.0196	0.00890	0.0178	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Benzo(b)fluoranthene	0.0365	0.00890	0.0178	ug/L	1	04/14/23 16:40	EPA 8270E LVI	M-05
Benzo(k)fluoranthene	0.0472	0.00890	0.0178	ug/L	1	04/14/23 16:40	EPA 8270E LVI	M-05
Benzo(g,h,i)perylene	0.0654	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Chrysene	0.0142	0.00890	0.0178	ug/L	1	04/14/23 16:40	EPA 8270E LVI	J
Dibenz(a,h)anthracene	ND	0.00890	0.0178	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Fluoranthene	0.0489	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Fluorene	0.128	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	0.0494	0.00890	0.0178	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
1-Methylnaphthalene	0.0783	0.0356	0.0712	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0356	0.0712	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Naphthalene	0.172	0.0356	0.0712	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Phenanthrene	0.174	0.0356	0.0712	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Pyrene	0.0529	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Carbazole	0.112	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	
Dibenzofuran	0.0338	0.0178	0.0356	ug/L	1	04/14/23 16:40	EPA 8270E LVI	J
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 122 %		Limits: 78-134 %	1	04/14/23 16:40	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		127 %		80-132 %	1	04/14/23 16:40	EPA 8270E LVI	

GS-041223-66 (A3D1155-02)

Matrix: WG

Batch: 23D0567

Acenaphthene	ND	0.0343	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI
Acenaphthylene	0.109	0.0172	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI
Anthracene	0.158	0.0172	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI
Benz(a)anthracene	ND	0.00858	0.0172	ug/L	1	04/14/23 17:13	EPA 8270E LVI
Benzo(a)pyrene	ND	0.00858	0.0172	ug/L	1	04/14/23 17:13	EPA 8270E LVI
Benzo(b)fluoranthene	ND	0.00858	0.0172	ug/L	1	04/14/23 17:13	EPA 8270E LVI
Benzo(k)fluoranthene	ND	0.00858	0.0172	ug/L	1	04/14/23 17:13	EPA 8270E LVI
Benzo(g,h,i)perylene	ND	0.0172	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI
Chrysene	ND	0.00858	0.0172	ug/L	1	04/14/23 17:13	EPA 8270E LVI

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
GS-041223-66 (A3D1155-02)		Matrix: WG			Batch: 23D0567				
Dibenz(a,h)anthracene	ND	0.00858	0.0172	ug/L	1	04/14/23 17:13	EPA 8270E LVI	J	
Fluoranthene	ND	0.0172	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
Fluorene	ND	0.0343	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
Indeno(1,2,3-cd)pyrene	ND	0.00858	0.0172	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
1-Methylnaphthalene	ND	0.0343	0.0686	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
2-Methylnaphthalene	ND	0.0343	0.0686	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
Naphthalene	0.0386	0.0343	0.0686	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
Phenanthrene	ND	0.0343	0.0686	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
Pyrene	ND	0.0172	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
Carbazole	ND	0.0172	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
Dibenzofuran	ND	0.0172	0.0343	ug/L	1	04/14/23 17:13	EPA 8270E LVI		
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:		121 %	Limits:	78-134 %	1	04/14/23 17:13	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)				126 %		80-132 %	1	04/14/23 17:13	EPA 8270E LVI
GS-041223-67 (A3D1155-03)		Matrix: WG			Batch: 23D0567				
Acenaphthene	0.681	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI	M-05	
Acenaphthylene	0.0920	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Anthracene	0.0789	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Benz(a)anthracene	ND	0.00876	0.0175	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Benzo(a)pyrene	0.0210	0.00876	0.0175	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Benzo(b)fluoranthene	0.0206	0.00876	0.0175	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Benzo(k)fluoranthene	ND	0.00876	0.0175	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Benzo(g,h,i)perylene	0.0377	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Chrysene	ND	0.00876	0.0175	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Dibenz(a,h)anthracene	ND	0.00876	0.0175	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Fluoranthene	0.0705	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI	J	
Fluorene	0.0258	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Indeno(1,2,3-cd)pyrene	0.0293	0.00876	0.0175	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
1-Methylnaphthalene	ND	0.0350	0.0701	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
2-Methylnaphthalene	ND	0.0350	0.0701	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Naphthalene	0.0355	0.0350	0.0701	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Phenanthrene	ND	0.0350	0.0701	ug/L	1	04/14/23 17:46	EPA 8270E LVI		
Pyrene	0.0530	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI		

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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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-67 (A3D1155-03)		Matrix: WG			Batch: 23D0567			
Carbazole	ND	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI	
Dibenzofuran	ND	0.0175	0.0350	ug/L	1	04/14/23 17:46	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 121 %	Limits: 78-134 %	1	04/14/23 17:46	EPA 8270E LVI		
Benzo(a)pyrene-d12 (Surr)		127 %	80-132 %	1	04/14/23 17:46	EPA 8270E LVI		
GS-041223-68 (A3D1155-04)		Matrix: WG			Batch: 23D0567			
Acenaphthene	26.5	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Acenaphthylene	2.08	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Anthracene	0.900	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Benz(a)anthracene	0.129	0.0923	0.185	ug/L	10	04/14/23 16:07	EPA 8270E LVI	J
Benzo(a)pyrene	ND	0.0923	0.185	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0923	0.185	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0923	0.185	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Chrysene	ND	0.0923	0.185	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0923	0.185	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Fluoranthene	2.78	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Fluorene	7.01	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0923	0.185	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.369	0.738	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.369	0.738	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Naphthalene	ND	0.369	0.738	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Phenanthrene	ND	0.369	0.738	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Pyrene	2.73	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Carbazole	ND	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Dibenzofuran	ND	0.185	0.369	ug/L	10	04/14/23 16:07	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 97 %	Limits: 78-134 %	10	04/14/23 16:07	EPA 8270E LVI		S-05
Benzo(a)pyrene-d12 (Surr)		86 %	80-132 %	10	04/14/23 16:07	EPA 8270E LVI		S-05

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01) Matrix: WG								
Batch: 23D0894								
Aluminum	29.9	25.0	50.0	ug/L	1	04/22/23 03:38	EPA 6020B	J
Antimony	ND	0.500	1.00	ug/L	1	04/22/23 03:38	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	04/22/23 03:38	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/22/23 03:38	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/22/23 03:38	EPA 6020B	
Copper	1.01	1.00	2.00	ug/L	1	04/22/23 03:38	EPA 6020B	J
Iron	1010	25.0	50.0	ug/L	1	04/22/23 03:38	EPA 6020B	B
Lead	0.186	0.110	0.200	ug/L	1	04/22/23 03:38	EPA 6020B	J
Manganese	1730	0.500	1.00	ug/L	1	04/22/23 03:38	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/22/23 03:38	EPA 6020B	
Nickel	410	1.00	2.00	ug/L	1	04/22/23 03:38	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/22/23 03:38	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/22/23 03:38	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/22/23 03:38	EPA 6020B	
Vanadium	76.9	1.00	2.00	ug/L	1	04/22/23 03:38	EPA 6020B	
GS-041223-65 (A3D1155-01RE1) Matrix: WG								
Batch: 23D0894								
Barium	51.0	1.00	2.00	ug/L	1	04/25/23 22:47	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/25/23 22:47	EPA 6020B	
Zinc	4.84	2.00	4.00	ug/L	1	04/25/23 22:47	EPA 6020B	
GS-041223-66 (A3D1155-02) Matrix: WG								
Batch: 23D0894								
Aluminum	ND	25.0	50.0	ug/L	1	04/22/23 03:42	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/22/23 03:42	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	04/22/23 03:42	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/22/23 03:42	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/22/23 03:42	EPA 6020B	
Copper	1.02	1.00	2.00	ug/L	1	04/22/23 03:42	EPA 6020B	J
Iron	673	25.0	50.0	ug/L	1	04/22/23 03:42	EPA 6020B	B
Lead	ND	0.110	0.200	ug/L	1	04/22/23 03:42	EPA 6020B	
Manganese	41.6	0.500	1.00	ug/L	1	04/22/23 03:42	EPA 6020B	

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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-66 (A3D1155-02)		Matrix: WG						
Mercury	ND	0.0400	0.0800	ug/L	1	04/22/23 03:42	EPA 6020B	
Nickel	17.4	1.00	2.00	ug/L	1	04/22/23 03:42	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/22/23 03:42	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/22/23 03:42	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/22/23 03:42	EPA 6020B	
Vanadium	11.7	1.00	2.00	ug/L	1	04/22/23 03:42	EPA 6020B	
GS-041223-66 (A3D1155-02RE1)		Matrix: WG						
Batch: 23D0894								
Barium	21.4	1.00	2.00	ug/L	1	04/25/23 22:51	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/25/23 22:51	EPA 6020B	
Zinc	3.08	2.00	4.00	ug/L	1	04/25/23 22:51	EPA 6020B	J
GS-041223-67 (A3D1155-03)		Matrix: WG						
Batch: 23D0894								
Aluminum	108	25.0	50.0	ug/L	1	04/22/23 03:47	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/22/23 03:47	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	04/22/23 03:47	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/22/23 03:47	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/22/23 03:47	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/22/23 03:47	EPA 6020B	
Manganese	91.9	0.500	1.00	ug/L	1	04/22/23 03:47	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/22/23 03:47	EPA 6020B	
Nickel	11.4	1.00	2.00	ug/L	1	04/22/23 03:47	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/22/23 03:47	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/22/23 03:47	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/22/23 03:47	EPA 6020B	
Vanadium	97.7	1.00	2.00	ug/L	1	04/22/23 03:47	EPA 6020B	
GS-041223-67 (A3D1155-03RE1)		Matrix: WG						
Batch: 23D0894								
Barium	15.9	1.00	2.00	ug/L	1	04/25/23 22:56	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/25/23 22:56	EPA 6020B	
Zinc	3.17	2.00	4.00	ug/L	1	04/25/23 22:56	EPA 6020B	J
Batch: 23D1086								

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-67 (A3D1155-03RE1) Matrix: WG								
Iron	509	25.0	50.0	ug/L	1	05/01/23 20:06	EPA 6020B	
Lead	0.257	0.110	0.200	ug/L	1	05/01/23 20:06	EPA 6020B	
GS-041223-68 (A3D1155-04) Matrix: WG								
Batch: 23D0894								
Aluminum	ND	25.0	50.0	ug/L	1	04/22/23 03:52	EPA 6020B	
Arsenic	1.94	0.500	1.00	ug/L	1	04/22/23 03:52	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/22/23 03:52	EPA 6020B	
Chromium	1.83	1.00	2.00	ug/L	1	04/22/23 03:52	EPA 6020B	J
Copper	ND	1.00	2.00	ug/L	1	04/22/23 03:52	EPA 6020B	
Iron	23300	25.0	50.0	ug/L	1	04/22/23 03:52	EPA 6020B	B
Lead	ND	0.110	0.200	ug/L	1	04/22/23 03:52	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/22/23 03:52	EPA 6020B	
Nickel	1.14	1.00	2.00	ug/L	1	04/22/23 03:52	EPA 6020B	J
Selenium	ND	0.500	1.00	ug/L	1	04/22/23 03:52	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/22/23 03:52	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/22/23 03:52	EPA 6020B	
GS-041223-68 (A3D1155-04RE1) Matrix: WG								
Batch: 23D0894								
Antimony	ND	0.500	1.00	ug/L	1	04/25/23 23:01	EPA 6020B	
Barium	117	1.00	2.00	ug/L	1	04/25/23 23:01	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/25/23 23:01	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/25/23 23:01	EPA 6020B	
Zinc	2.71	2.00	4.00	ug/L	1	04/25/23 23:01	EPA 6020B	J
GS-041223-68 (A3D1155-04RE2) Matrix: WG								
Batch: 23D0894								
Manganese	6740	25.0	50.0	ug/L	50	04/27/23 18:21	EPA 6020B	

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ORELAP ID: OR100062

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6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

ANALYTICAL SAMPLE RESULTS

Total Cyanide by Flow Analysis (Aqueous)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01RE1)				Matrix: WG		Batch: 23D0915		
Total Cyanide	0.369	0.00500	0.00500	mg/L	1	04/25/23 10:58	EPA 335.4	
GS-041223-66 (A3D1155-02RE1)				Matrix: WG		Batch: 23D0915		
Total Cyanide	0.0519	0.00500	0.00500	mg/L	1	04/25/23 11:00	EPA 335.4	
GS-041223-67 (A3D1155-03RE1)				Matrix: WG		Batch: 23D0915		
Total Cyanide	0.0119	0.00500	0.00500	mg/L	1	04/25/23 11:02	EPA 335.4	
GS-041223-68 (A3D1155-04RE1)				Matrix: WG		Batch: 23D0915		
Total Cyanide	0.152	0.00500	0.00500	mg/L	1	04/25/23 11:04	EPA 335.4	

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Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

Report ID:

A3D1155 - 05 19 23 1249

ANALYTICAL SAMPLE RESULTS

Available Cyanide by FIA, Ligand Exchange and Amperometric Detection

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01)				Matrix: WG		Batch: 23D0531		
Available Cyanide	0.00234	0.00100	0.00200	mg/L	1	04/13/23 14:39	D6888-09	
GS-041223-66 (A3D1155-02)				Matrix: WG		Batch: 23D0531		
Available Cyanide	0.00138	0.00100	0.00200	mg/L	1	04/13/23 14:47	D6888-09	J
GS-041223-67 (A3D1155-03)				Matrix: WG		Batch: 23D0531		
Available Cyanide	0.00146	0.00100	0.00200	mg/L	1	04/13/23 14:48	D6888-09	J
GS-041223-68 (A3D1155-04)				Matrix: WG		Batch: 23D0531		
Available Cyanide	0.00259	0.00100	0.00200	mg/L	1	04/13/23 14:50	D6888-09	

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****ANALYTICAL SAMPLE RESULTS****Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01)				Matrix: WG		Batch: 23D0580		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/14/23 16:48	D4282-02	
GS-041223-66 (A3D1155-02)				Matrix: WG		Batch: 23D0580		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/14/23 16:53	D4282-02	
GS-041223-67 (A3D1155-03)				Matrix: WG		Batch: 23D0580		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/14/23 16:54	D4282-02	
GS-041223-68 (A3D1155-04)				Matrix: WG		Batch: 23D0580		PRES
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/14/23 16:58	D4282-02	

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****Analytical Resources, LLC****ANALYTICAL SAMPLE RESULTS (Subcontracted)****Washington Department of Ecology Methods**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01)				Matrix: WG		Batch: BLD0530		
Batch: BLD0530								
C5-C6 Aliphatics	ND	---	50	ug/L	1	04/19/23 17:34	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	04/19/23 17:34	WA VPH	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	04/19/23 17:34	WA VPH	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	04/19/23 17:34	WA VPH	U
C8-C10 Aromatics	ND	---	50	ug/L	1	04/19/23 17:34	WA VPH	U
>C10-C12 Aromatics	ND	---	50	ug/L	1	04/19/23 17:34	WA VPH	U
>C12-C13 Aromatics	ND	---	50	ug/L	1	04/19/23 17:34	WA VPH	U
Methyl tert-butyl Ether	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
Benzene	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
Toluene	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	04/19/23 17:34	WA VPH	U
Naphthalene	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
1-Methylnaphthalene	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
o-Xylene	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
n-Octane	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
n-Decane	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
n-Dodecane	ND	---	5	ug/L	1	04/19/23 17:34	WA VPH	U
Batch: BLD0588								
C8-C10 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:30	WA EPH	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:30	WA EPH	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:30	WA EPH	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:30	WA EPH	U
>C21-C34 Aliphatics	62	---	40	ug/L	1	05/04/23 17:30	WA EPH	
C8-C10 Aromatics	ND	---	40	ug/L	1	05/04/23 19:59	WA EPH	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	05/04/23 19:59	WA EPH	U
>C12-C16 Aromatics	ND	---	40	ug/L	1	05/04/23 19:59	WA EPH	U
>C16-C21 Aromatics	ND	---	40	ug/L	1	05/04/23 19:59	WA EPH	U

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ANALYTICAL REPORT

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

Analytical Resources, LLC

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Washington Department of Ecology Methods

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-65 (A3D1155-01)		Matrix: WG			Batch: BLD0588			
>C21-C34 Aromatics Batch: BLD0530	ND	---	40	ug/L	1	05/04/23 19:59	WA EPH	U
Surrogate: PID: 2,5-Dibromotoluene		Recovery: 78.0 %	Limits: 60-140 %	1	04/19/23 17:34	WA VPH		
FID: 2,5-Dibromotoluene		83.3 %	60-140 %	1	04/19/23 17:34	WA VPH		
Batch: BLD0588								
o-Terphenyl		90.1 %	41-120 %	1	05/04/23 19:59	WA EPH		
1-Chloro-octadecane		62.4 %	36-120 %	1	05/04/23 17:30	WA EPH		
GS-041223-68 (A3D1155-04)		Matrix: WG			Batch: BLD0530			
Batch: BLD0530								
C5-C6 Aliphatics	ND	---	50	ug/L	1	04/19/23 18:04	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	04/19/23 18:04	WA VPH	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	04/19/23 18:04	WA VPH	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	04/19/23 18:04	WA VPH	U
C8-C10 Aromatics	ND	---	50	ug/L	1	04/19/23 18:04	WA VPH	U
>C10-C12 Aromatics	ND	---	50	ug/L	1	04/19/23 18:04	WA VPH	U
>C12-C13 Aromatics	ND	---	50	ug/L	1	04/19/23 18:04	WA VPH	U
Methyl tert-butyl Ether	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
Benzene	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
Toluene	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	04/19/23 18:04	WA VPH	U
Naphthalene	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
1-Methylnaphthalene	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
o-Xylene	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
n-Octane	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
n-Decane	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
n-Dodecane	ND	---	5	ug/L	1	04/19/23 18:04	WA VPH	U
Batch: BLD0588								

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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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

Analytical Resources, LLC

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Washington Department of Ecology Methods

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041223-68 (A3D1155-04)		Matrix: WG			Batch: BLD0588			
C8-C10 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:55	WA EPH	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:55	WA EPH	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:55	WA EPH	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:55	WA EPH	U
>C21-C34 Aliphatics	57	---	40	ug/L	1	05/04/23 17:55	WA EPH	
C8-C10 Aromatics	ND	---	40	ug/L	1	05/04/23 20:24	WA EPH	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	05/04/23 20:24	WA EPH	U
>C12-C16 Aromatics	40	---	40	ug/L	1	05/04/23 20:24	WA EPH	
>C16-C21 Aromatics	49	---	40	ug/L	1	05/04/23 20:24	WA EPH	
>C21-C34 Aromatics	ND	---	40	ug/L	1	05/04/23 20:24	WA EPH	U
Batch: BLD0530								
Surrogate: PID: 2,5-Dibromotoluene		Recovery:	80.7 %	Limits:	60-140 %	1	04/19/23 18:04	WA VPH
FID: 2,5-Dibromotoluene			87.0 %		60-140 %	1	04/19/23 18:04	WA VPH
Batch: BLD0588								
o-Terphenyl			85.1 %		41-120 %	1	05/04/23 20:24	WA EPH
1-Chloro-octadecane			65.5 %		36-120 %	1	05/04/23 17:55	WA EPH

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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	
Batch 23D0933 - EPA 3510C (Fuels/Acid Ext.)						Water							
Blank (23D0933-BLK1)			Prepared: 04/24/23 10:32			Analyzed: 04/24/23 20:43							
NWTPH-Dx													
Diesel	ND	100	200	ug/L	1	---	---	---	---	---	---		
Oil	ND	200	400	ug/L	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 84 %		Limits: 50-150 %		Dilution: 1x							
LCS (23D0933-BS1)			Prepared: 04/24/23 10:32			Analyzed: 04/24/23 21:03							
NWTPH-Dx													
Diesel	627	100	200	ug/L	1	1250	---	50	36-132%	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x							
LCS Dup (23D0933-BSD1)			Prepared: 04/24/23 10:32			Analyzed: 04/24/23 21:24							Q-19
NWTPH-Dx													
Diesel	637	100	200	ug/L	1	1250	---	51	36-132%	2	30%		
Surr: o-Terphenyl (Surr)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x							

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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

QUALITY CONTROL (QC) SAMPLE RESULTS

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

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
Blank (23D0690-BLK1)			Prepared: 04/18/23 11:00 Analyzed: 04/18/23 13:38									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						
LCS (23D0690-BS2)			Prepared: 04/18/23 11:00 Analyzed: 04/18/23 13:16									
NWTPH-Gx (MS)												
Gasoline Range Organics	538	50.0	100	ug/L	1	500	---	108	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 99 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						
Duplicate (23D0690-DUP1)			Prepared: 04/18/23 14:00 Analyzed: 04/18/23 21:26									
QC Source Sample: GS-041223-65 (A3D1155-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/L	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		109 %		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
Batch 23D0783 - EPA 5030C						Water						
Blank (23D0783-BLK1)			Prepared: 04/19/23 10:00 Analyzed: 04/20/23 00:03									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		109 %		50-150 %		"						
LCS (23D0783-BS2)			Prepared: 04/19/23 10:00 Analyzed: 04/19/23 23:41									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	1130	50.0	100	ug/L	1	1000	---	113	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 99 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		110 %		50-150 %		"						
Duplicate (23D0783-DUP1)			Prepared: 04/19/23 12:00 Analyzed: 04/20/23 05:14									
<u>QC Source Sample: Non-SDG (A3D1153-01)</u>												
Gasoline Range Organics	ND	2500	5000	ug/L	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		112 %		50-150 %		"						

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
Blank (23D0690-BLK1)			Prepared: 04/18/23 11:00		Analyzed: 04/18/23 13:38							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	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	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
Blank (23D0690-BLK1)						Prepared: 04/18/23 11:00 Analyzed: 04/18/23 13:38						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	2.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.400	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	2.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	2.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 104 % Limits: 80-120 % Dilution: 1x												

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A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
Blank (23D0690-BLK1)			Prepared: 04/18/23 11:00		Analyzed: 04/18/23 13:38							
Surr: Toluene-d8 (Surr)		Recovery: 108 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
LCS (23D0690-BS1)			Prepared: 04/18/23 11:00		Analyzed: 04/18/23 12:31							
EPA 8260D												
Acetone	39.1	10.0	20.0	ug/L	1	40.0	---	98	80-120%	---	---	
Acrylonitrile	19.5	1.00	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
Benzene	17.3	0.100	0.200	ug/L	1	20.0	---	86	80-120%	---	---	
Bromobenzene	16.4	0.250	0.500	ug/L	1	20.0	---	82	80-120%	---	---	
Bromochloromethane	22.9	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Bromodichloromethane	16.7	0.500	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
Bromoform	16.2	0.500	1.00	ug/L	1	20.0	---	81	80-120%	---	---	
Bromomethane	22.8	5.00	5.00	ug/L	1	20.0	---	114	80-120%	---	---	
2-Butanone (MEK)	39.9	5.00	10.0	ug/L	1	40.0	---	100	80-120%	---	---	
n-Butylbenzene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
sec-Butylbenzene	18.2	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
tert-Butylbenzene	16.1	0.500	1.00	ug/L	1	20.0	---	80	80-120%	---	---	
Carbon disulfide	19.2	5.00	10.0	ug/L	1	20.0	---	96	80-120%	---	---	
Carbon tetrachloride	17.3	0.500	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Chlorobenzene	17.3	0.250	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Chloroethane	21.9	5.00	5.00	ug/L	1	20.0	---	109	80-120%	---	---	
Chloroform	17.2	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
Chloromethane	17.8	2.50	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
2-Chlorotoluene	16.1	0.500	1.00	ug/L	1	20.0	---	81	80-120%	---	---	
4-Chlorotoluene	16.9	0.500	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
Dibromochloromethane	17.2	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,2-Dibromo-3-chloropropane	14.8	5.00	5.00	ug/L	1	20.0	---	74	80-120%	---	---	Q-55
1,2-Dibromoethane (EDB)	17.5	0.250	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
Dibromomethane	18.0	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,2-Dichlorobenzene	17.0	0.250	0.500	ug/L	1	20.0	---	85	80-120%	---	---	
1,3-Dichlorobenzene	17.3	0.250	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
1,4-Dichlorobenzene	16.7	0.250	0.500	ug/L	1	20.0	---	84	80-120%	---	---	
Dichlorodifluoromethane	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1-Dichloroethane	19.1	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	

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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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
LCS (23D0690-BS1)			Prepared: 04/18/23 11:00		Analyzed: 04/18/23 12:31							
1,2-Dichloroethane (EDC)	17.8	0.200	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
1,1-Dichloroethene	19.8	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,2-Dichloroethene	18.6	0.200	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,2-Dichloroethene	18.8	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloropropane	19.6	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,3-Dichloropropane	18.4	0.500	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
2,2-Dichloropropane	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1-Dichloropropene	18.2	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
cis-1,3-Dichloropropene	17.9	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
trans-1,3-Dichloropropene	18.3	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Ethylbenzene	17.4	0.250	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
Hexachlorobutadiene	14.7	5.00	5.00	ug/L	1	20.0	---	73	80-120%	---	---	Q-55
2-Hexanone	36.4	5.00	10.0	ug/L	1	40.0	---	91	80-120%	---	---	
Isopropylbenzene	17.1	0.500	1.00	ug/L	1	20.0	---	85	80-120%	---	---	
4-Isopropyltoluene	17.4	0.500	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Methylene chloride	18.6	5.00	10.0	ug/L	1	20.0	---	93	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	37.8	5.00	10.0	ug/L	1	40.0	---	94	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	17.3	0.500	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Naphthalene	15.8	2.00	2.00	ug/L	1	20.0	---	79	80-120%	---	---	Q-55
n-Propylbenzene	17.6	0.250	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
Styrene	17.0	0.500	1.00	ug/L	1	20.0	---	85	80-120%	---	---	
1,1,1,2-Tetrachloroethane	15.7	0.400	0.400	ug/L	1	20.0	---	79	80-120%	---	---	Q-55
1,1,2,2-Tetrachloroethane	18.1	0.250	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Tetrachloroethene (PCE)	16.4	0.200	0.400	ug/L	1	20.0	---	82	80-120%	---	---	
Toluene	17.3	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,2,3-Trichlorobenzene	15.8	2.00	2.00	ug/L	1	20.0	---	79	80-120%	---	---	Q-55
1,2,4-Trichlorobenzene	15.6	2.00	2.00	ug/L	1	20.0	---	78	80-120%	---	---	Q-55
1,1,1-Trichloroethane	17.1	0.200	0.400	ug/L	1	20.0	---	85	80-120%	---	---	
1,1,2-Trichloroethane	17.0	0.250	0.500	ug/L	1	20.0	---	85	80-120%	---	---	
Trichloroethene (TCE)	17.7	0.200	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
Trichlorofluoromethane	18.4	1.00	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,3-Trichloropropane	16.7	0.500	1.00	ug/L	1	20.0	---	83	80-120%	---	---	
1,2,4-Trimethylbenzene	16.5	0.500	1.00	ug/L	1	20.0	---	82	80-120%	---	---	
1,3,5-Trimethylbenzene	17.2	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	

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Darwin Thomas, Business Development Director

Page 34 of 76



ANALYTICAL REPORT

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6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
LCS (23D0690-BS1)			Prepared: 04/18/23 11:00		Analyzed: 04/18/23 12:31							
Vinyl chloride	19.3	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
m,p-Xylene	34.4	0.500	1.00	ug/L	1	40.0	---	86	80-120%	---	---	
o-Xylene	16.5	0.250	0.500	ug/L	1	20.0	---	82	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		105 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						

Duplicate (23D0690-DUP1)

Prepared: 04/18/23 14:00 Analyzed: 04/18/23 21:26

QC Source Sample: GS-041223-65 (A3D1155-01)**EPA 8260D**

Acetone	ND	500	1000	ug/L	50	---	ND	---	---	---	30%
Acrylonitrile	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%
Benzene	ND	5.00	10.0	ug/L	50	---	ND	---	---	---	30%
Bromobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%
Bromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Bromodichloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Bromoform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Bromomethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%
n-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Carbon disulfide	ND	250	500	ug/L	50	---	ND	---	---	---	30%
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%
Chloroethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%
Chloroform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Chloromethane	ND	125	250	ug/L	50	---	ND	---	---	---	30%
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Dibromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	250	250	ug/L	50	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%
Dibromomethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
Duplicate (23D0690-DUP1)			Prepared: 04/18/23 14:00		Analyzed: 04/18/23 21:26							
QC Source Sample: GS-041223-65 (A3D1155-01)												
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	250	250	ug/L	50	---	ND	---	---	---	30%	
2-Hexanone	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Naphthalene	ND	100	100	ug/L	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Styrene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	20.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
Toluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	100	100	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	100	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
Duplicate (23D0690-DUP1)			Prepared: 04/18/23 14:00 Analyzed: 04/18/23 21:26									
QC Source Sample: GS-041223-65 (A3D1155-01)												
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
o-Xylene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 106 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		107 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						

Matrix Spike (23D0690-MS1)

Prepared: 04/18/23 14:00 Analyzed: 04/18/23 18:28

QC Source Sample: Non-SDG (A3D1139-01)

EPA 8260D

Acetone	72.7	10.0	20.0	ug/L	1	40.0	ND	182	39-160%	---	---	Q-01
Acrylonitrile	29.2	1.00	2.00	ug/L	1	20.0	ND	146	63-135%	---	---	Q-01
Benzene	34.8	0.100	0.200	ug/L	1	20.0	8.59	131	79-120%	---	---	Q-01
Bromobenzene	23.4	0.250	0.500	ug/L	1	20.0	ND	117	80-120%	---	---	
Bromochloromethane	36.0	0.500	1.00	ug/L	1	20.0	ND	180	78-123%	---	---	Q-01
Bromodichloromethane	25.4	0.500	1.00	ug/L	1	20.0	ND	127	79-125%	---	---	Q-01
Bromoform	23.7	0.500	1.00	ug/L	1	20.0	ND	119	66-130%	---	---	
Bromomethane	23.9	5.00	5.00	ug/L	1	20.0	ND	120	53-141%	---	---	
2-Butanone (MEK)	61.4	5.00	10.0	ug/L	1	40.0	ND	154	56-143%	---	---	Q-01
n-Butylbenzene	28.0	0.500	1.00	ug/L	1	20.0	ND	140	75-128%	---	---	Q-01
sec-Butylbenzene	27.2	0.500	1.00	ug/L	1	20.0	ND	136	77-126%	---	---	Q-01
tert-Butylbenzene	23.9	0.500	1.00	ug/L	1	20.0	ND	120	78-124%	---	---	
Carbon disulfide	33.2	5.00	10.0	ug/L	1	20.0	ND	166	64-133%	---	---	Q-01
Carbon tetrachloride	26.0	0.500	1.00	ug/L	1	20.0	ND	130	72-136%	---	---	
Chlorobenzene	25.3	0.250	0.500	ug/L	1	20.0	ND	126	80-120%	---	---	Q-01
Chloroethane	34.6	5.00	5.00	ug/L	1	20.0	ND	173	60-138%	---	---	Q-01
Chloroform	25.6	0.500	1.00	ug/L	1	20.0	ND	128	79-124%	---	---	Q-01

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Project Manager: John Renda

Report ID:

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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
Batch 23D0690 - EPA 5030C						Water						
Matrix Spike (23D0690-MS1)			Prepared: 04/18/23 14:00		Analyzed: 04/18/23 18:28							
QC Source Sample: Non-SDG (A3D1139-01)												
Chloromethane	25.9	2.50	5.00	ug/L	1	20.0	ND	130	50-139%	---	---	
2-Chlorotoluene	24.4	0.500	1.00	ug/L	1	20.0	ND	122	79-122%	---	---	
4-Chlorotoluene	24.9	0.500	1.00	ug/L	1	20.0	ND	125	78-122%	---	---	Q-01
Dibromochloromethane	24.8	0.500	1.00	ug/L	1	20.0	ND	124	74-126%	---	---	
1,2-Dibromo-3-chloropropane	21.7	5.00	5.00	ug/L	1	20.0	ND	109	62-128%	---	---	Q-54k
1,2-Dibromoethane (EDB)	25.1	0.250	0.500	ug/L	1	20.0	ND	126	77-121%	---	---	Q-01
Dibromomethane	26.4	0.500	1.00	ug/L	1	20.0	ND	132	79-123%	---	---	Q-01
1,2-Dichlorobenzene	24.8	0.250	0.500	ug/L	1	20.0	ND	124	80-120%	---	---	Q-01
1,3-Dichlorobenzene	25.0	0.250	0.500	ug/L	1	20.0	ND	125	80-120%	---	---	Q-01
1,4-Dichlorobenzene	25.1	0.250	0.500	ug/L	1	20.0	ND	126	79-120%	---	---	Q-01
Dichlorodifluoromethane	44.5	0.500	1.00	ug/L	1	20.0	19.7	124	32-152%	---	---	
1,1-Dichloroethane	29.2	0.200	0.400	ug/L	1	20.0	ND	146	77-125%	---	---	Q-01
1,2-Dichloroethane (EDC)	26.6	0.200	0.400	ug/L	1	20.0	0.510	130	73-128%	---	---	Q-01
1,1-Dichloroethene	31.0	0.200	0.400	ug/L	1	20.0	ND	155	71-131%	---	---	Q-01
cis-1,2-Dichloroethene	28.3	0.200	0.400	ug/L	1	20.0	ND	142	78-123%	---	---	Q-01
trans-1,2-Dichloroethene	29.7	0.200	0.400	ug/L	1	20.0	ND	149	75-124%	---	---	Q-01
1,2-Dichloropropane	30.1	0.250	0.500	ug/L	1	20.0	ND	150	78-122%	---	---	Q-01
1,3-Dichloropropane	26.6	0.500	1.00	ug/L	1	20.0	ND	133	80-120%	---	---	Q-01
2,2-Dichloropropane	26.1	0.500	1.00	ug/L	1	20.0	ND	131	60-139%	---	---	
1,1-Dichloropropene	28.6	0.500	1.00	ug/L	1	20.0	ND	143	79-125%	---	---	Q-01
cis-1,3-Dichloropropene	25.3	0.500	1.00	ug/L	1	20.0	ND	127	75-124%	---	---	Q-01
trans-1,3-Dichloropropene	26.9	0.500	1.00	ug/L	1	20.0	ND	135	73-127%	---	---	Q-01
Ethylbenzene	32.8	0.250	0.500	ug/L	1	20.0	6.05	134	79-121%	---	---	Q-01
Hexachlorobutadiene	22.2	5.00	5.00	ug/L	1	20.0	ND	111	66-134%	---	---	Q-54l
2-Hexanone	56.0	5.00	10.0	ug/L	1	40.0	ND	140	57-139%	---	---	Q-01
Isopropylbenzene	26.3	0.500	1.00	ug/L	1	20.0	ND	132	72-131%	---	---	Q-01
4-Isopropyltoluene	26.3	0.500	1.00	ug/L	1	20.0	ND	131	77-127%	---	---	Q-01
Methylene chloride	27.3	5.00	10.0	ug/L	1	20.0	ND	136	74-124%	---	---	Q-01
4-Methyl-2-pentanone (MiBK)	56.2	5.00	10.0	ug/L	1	40.0	ND	141	67-130%	---	---	Q-01
Methyl tert-butyl ether (MTBE)	26.4	0.500	1.00	ug/L	1	20.0	ND	132	71-124%	---	---	Q-01
Naphthalene	28.3	2.00	2.00	ug/L	1	20.0	4.08	121	61-128%	---	---	Q-54i
n-Propylbenzene	26.4	0.250	0.500	ug/L	1	20.0	ND	132	76-126%	---	---	Q-01
Styrene	26.5	0.500	1.00	ug/L	1	20.0	0.520	130	78-123%	---	---	Q-01

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Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0690 - EPA 5030C						Water						
Matrix Spike (23D0690-MS1)			Prepared: 04/18/23 14:00		Analyzed: 04/18/23 18:28							
QC Source Sample: Non-SDG (A3D1139-01)												
1,1,1,2-Tetrachloroethane	22.6	0.400	0.400	ug/L	1	20.0	ND	113	78-124%	---	---	Q-54i
1,1,2,2-Tetrachloroethane	27.0	0.250	0.500	ug/L	1	20.0	ND	135	71-121%	---	---	Q-01
Tetrachloroethene (PCE)	24.6	0.200	0.400	ug/L	1	20.0	ND	123	74-129%	---	---	
Toluene	28.9	0.500	1.00	ug/L	1	20.0	3.21	129	80-121%	---	---	Q-01
1,2,3-Trichlorobenzene	23.1	2.00	2.00	ug/L	1	20.0	ND	115	69-129%	---	---	Q-54i
1,2,4-Trichlorobenzene	23.4	2.00	2.00	ug/L	1	20.0	ND	117	69-130%	---	---	Q-54j
1,1,1-Trichloroethane	25.8	0.200	0.400	ug/L	1	20.0	ND	129	74-131%	---	---	
1,1,2-Trichloroethane	25.1	0.250	0.500	ug/L	1	20.0	ND	126	80-120%	---	---	Q-01
Trichloroethene (TCE)	25.9	0.200	0.400	ug/L	1	20.0	0.270	128	79-123%	---	---	Q-01
Trichlorofluoromethane	28.5	1.00	2.00	ug/L	1	20.0	ND	143	65-141%	---	---	Q-01
1,2,3-Trichloropropane	23.9	0.500	1.00	ug/L	1	20.0	ND	120	73-122%	---	---	
1,2,4-Trimethylbenzene	25.2	0.500	1.00	ug/L	1	20.0	ND	126	76-124%	---	---	Q-01
1,3,5-Trimethylbenzene	25.5	0.500	1.00	ug/L	1	20.0	ND	128	75-124%	---	---	Q-01
Vinyl chloride	31.0	0.200	0.400	ug/L	1	20.0	ND	155	58-137%	---	---	Q-01
m,p-Xylene	51.9	0.500	1.00	ug/L	1	40.0	ND	130	80-121%	---	---	Q-01
o-Xylene	25.0	0.250	0.500	ug/L	1	20.0	0.360	123	78-122%	---	---	Q-01
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		105 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		91 %		80-120 %		"						

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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**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0783 - EPA 5030C						Water						
Blank (23D0783-BLK1)			Prepared: 04/19/23 10:00		Analyzed: 04/20/23 00:03							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	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	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0783 - EPA 5030C						Water						
Blank (23D0783-BLK1)						Prepared: 04/19/23 10:00 Analyzed: 04/20/23 00:03						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 105 % 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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0783 - EPA 5030C						Water						
Blank (23D0783-BLK1)			Prepared: 04/19/23 10:00		Analyzed: 04/20/23 00:03							
Surr: Toluene-d8 (Surr)		Recovery: 108 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						
LCS (23D0783-BS1)			Prepared: 04/19/23 10:00		Analyzed: 04/19/23 23:19							
EPA 8260D												
Acetone	50.5	10.0	20.0	ug/L	1	40.0	---	126	80-120%	---	---	Q-56
Acrylonitrile	25.3	1.00	2.00	ug/L	1	20.0	---	127	80-120%	---	---	Q-56
Benzene	21.8	0.100	0.200	ug/L	1	20.0	---	109	80-120%	---	---	
Bromobenzene	18.9	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Bromochloromethane	30.8	0.500	1.00	ug/L	1	20.0	---	154	80-120%	---	---	Q-56
Bromodichloromethane	20.7	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromoform	17.7	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Bromomethane	26.8	5.00	5.00	ug/L	1	20.0	---	134	80-120%	---	---	Q-56
2-Butanone (MEK)	50.5	5.00	10.0	ug/L	1	40.0	---	126	80-120%	---	---	Q-56
n-Butylbenzene	21.3	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
sec-Butylbenzene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
tert-Butylbenzene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Carbon disulfide	24.7	5.00	10.0	ug/L	1	20.0	---	124	80-120%	---	---	Q-56
Carbon tetrachloride	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	28.7	5.00	5.00	ug/L	1	20.0	---	144	80-120%	---	---	Q-56
Chloroform	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Chloromethane	22.8	2.50	5.00	ug/L	1	20.0	---	114	80-120%	---	---	
2-Chlorotoluene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Chlorotoluene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromochloromethane	19.1	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.7	2.50	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.7	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromomethane	22.5	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2-Dichlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,4-Dichlorobenzene	19.5	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dichlorodifluoromethane	22.7	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,1-Dichloroethane	24.3	0.200	0.400	ug/L	1	20.0	---	122	80-120%	---	---	Q-56

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ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0783 - EPA 5030C						Water						
LCS (23D0783-BS1)			Prepared: 04/19/23 10:00		Analyzed: 04/19/23 23:19							
1,2-Dichloroethane (EDC)	22.3	0.200	0.400	ug/L	1	20.0	---	112	80-120%	---	---	Q-56
1,1-Dichloroethene	24.6	0.200	0.400	ug/L	1	20.0	---	123	80-120%	---	---	
cis-1,2-Dichloroethene	23.8	0.200	0.400	ug/L	1	20.0	---	119	80-120%	---	---	
trans-1,2-Dichloroethene	23.7	0.200	0.400	ug/L	1	20.0	---	118	80-120%	---	---	
1,2-Dichloropropane	25.5	0.250	0.500	ug/L	1	20.0	---	128	80-120%	---	---	Q-56
1,3-Dichloropropane	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
2,2-Dichloropropane	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloropropene	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	20.7	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	Q-56
trans-1,3-Dichloropropene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Ethylbenzene	20.3	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Hexachlorobutadiene	16.7	2.50	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
2-Hexanone	43.0	5.00	10.0	ug/L	1	40.0	---	107	80-120%	---	---	Q-56
Isopropylbenzene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
4-Isopropyltoluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Methylene chloride	22.3	5.00	10.0	ug/L	1	20.0	---	112	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	45.1	5.00	10.0	ug/L	1	40.0	---	113	80-120%	---	---	Q-56
Methyl tert-butyl ether (MTBE)	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Naphthalene	17.9	1.00	2.00	ug/L	1	20.0	---	90	80-120%	---	---	
n-Propylbenzene	20.9	0.250	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Styrene	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	Q-56
1,1,1,2-Tetrachloroethane	17.8	0.200	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.6	0.250	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Tetrachloroethene (PCE)	18.8	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
Toluene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	Q-56
1,2,3-Trichlorobenzene	17.2	1.00	2.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,2,4-Trichlorobenzene	17.6	1.00	2.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,1,1-Trichloroethane	20.5	0.200	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2-Trichloroethane	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	Q-56
Trichloroethene (TCE)	21.6	0.200	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
Trichlorofluoromethane	21.7	1.00	2.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2,3-Trichloropropane	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,4-Trimethylbenzene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	Q-56
1,3,5-Trimethylbenzene	20.1	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	

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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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0783 - EPA 5030C							Water					
LCS (23D0783-BS1)			Prepared: 04/19/23 10:00		Analyzed: 04/19/23 23:19							
Vinyl chloride	25.2	0.200	0.400	ug/L	1	20.0	---	126	80-120%	---	---	Q-56
m,p-Xylene	40.3	0.500	1.00	ug/L	1	40.0	---	101	80-120%	---	---	
o-Xylene	18.9	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 108 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		105 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		91 %		80-120 %		"						

Duplicate (23D0783-DUP1)

Prepared: 04/19/23 12:00 Analyzed: 04/20/23 05:14

QC Source Sample: Non-SDG (A3D1153-01)

Acetone	ND	500	1000	ug/L	50	---	ND	---	---	---	30%
Acrylonitrile	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%
Benzene	ND	5.00	10.0	ug/L	50	---	ND	---	---	---	30%
Bromobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%
Bromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Bromodichloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Bromoform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Bromomethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%
n-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Carbon disulfide	ND	250	500	ug/L	50	---	ND	---	---	---	30%
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%
Chloroethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%
Chloroform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Chloromethane	ND	125	250	ug/L	50	---	ND	---	---	---	30%
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
Dibromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%
Dibromomethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%

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Darwin Thomas, Business Development Director



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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0783 - EPA 5030C						Water						
Duplicate (23D0783-DUP1)			Prepared: 04/19/23 12:00 Analyzed: 04/20/23 05:14									
QC Source Sample: Non-SDG (A3D1153-01)												
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
2-Hexanone	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Naphthalene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Styrene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
Toluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

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6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 23D0783 - EPA 5030C						Water						
Duplicate (23D0783-DUP1)			Prepared: 04/19/23 12:00 Analyzed: 04/20/23 05:14									
QC Source Sample: Non-SDG (A3D1153-01)												
Trichloroethene (TCE)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
o-Xylene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		108 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						
Matrix Spike (23D0783-MS1)						Prepared: 04/19/23 12:00 Analyzed: 04/20/23 07:50						
QC Source Sample: Non-SDG (A3D1154-06)												
EPA 8260D												
Acetone	2850	500	1000	ug/L	50	2000	ND	143	39-160%	---	---	Q-54f
Acrylonitrile	1280	50.0	100	ug/L	50	1000	ND	128	63-135%	---	---	Q-54g
Benzene	1160	5.00	10.0	ug/L	50	1000	ND	116	79-120%	---	---	
Bromobenzene	1020	12.5	25.0	ug/L	50	1000	ND	102	80-120%	---	---	
Bromochloromethane	1620	25.0	50.0	ug/L	50	1000	ND	162	78-123%	---	---	Q-54d
Bromodichloromethane	1100	25.0	50.0	ug/L	50	1000	ND	110	79-125%	---	---	
Bromoform	969	25.0	50.0	ug/L	50	1000	ND	97	66-130%	---	---	
Bromomethane	1480	250	250	ug/L	50	1000	ND	148	53-141%	---	---	Q-54e
2-Butanone (MEK)	2790	250	500	ug/L	50	2000	ND	140	56-143%	---	---	Q-54f
n-Butylbenzene	1190	25.0	50.0	ug/L	50	1000	ND	119	75-128%	---	---	
sec-Butylbenzene	1160	25.0	50.0	ug/L	50	1000	ND	116	77-126%	---	---	
tert-Butylbenzene	1030	25.0	50.0	ug/L	50	1000	ND	103	78-124%	---	---	
Carbon disulfide	1360	250	500	ug/L	50	1000	ND	136	64-133%	---	---	Q-54e
Carbon tetrachloride	1120	25.0	50.0	ug/L	50	1000	ND	112	72-136%	---	---	
Chlorobenzene	1100	12.5	25.0	ug/L	50	1000	ND	110	80-120%	---	---	
Chloroethane	1670	250	250	ug/L	50	1000	ND	167	60-138%	---	---	Q-54b
Chloroform	1130	25.0	50.0	ug/L	50	1000	ND	113	79-124%	---	---	
Chloromethane	1250	125	250	ug/L	50	1000	ND	125	50-139%	---	---	

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6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0783 - EPA 5030C						Water						
Matrix Spike (23D0783-MS1)			Prepared: 04/19/23 12:00			Analyzed: 04/20/23 07:50						
QC Source Sample: Non-SDG (A3D1154-06)												
2-Chlorotoluene	1050	25.0	50.0	ug/L	50	1000	ND	105	79-122%	---	---	
4-Chlorotoluene	1070	25.0	50.0	ug/L	50	1000	ND	107	78-122%	---	---	
Dibromochloromethane	1060	25.0	50.0	ug/L	50	1000	ND	106	74-126%	---	---	
1,2-Dibromo-3-chloropropane	888	125	250	ug/L	50	1000	ND	89	62-128%	---	---	
1,2-Dibromoethane (EDB)	1080	12.5	25.0	ug/L	50	1000	ND	108	77-121%	---	---	
Dibromomethane	1160	25.0	50.0	ug/L	50	1000	ND	116	79-123%	---	---	
1,2-Dichlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	80-120%	---	---	
1,3-Dichlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	80-120%	---	---	
1,4-Dichlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	79-120%	---	---	
Dichlorodifluoromethane	1270	25.0	50.0	ug/L	50	1000	ND	127	32-152%	---	---	
1,1-Dichloroethane	1320	10.0	20.0	ug/L	50	1000	ND	132	77-125%	---	---	Q-54a
1,2-Dichloroethane (EDC)	1150	10.0	20.0	ug/L	50	1000	ND	115	73-128%	---	---	
1,1-Dichloroethene	1370	10.0	20.0	ug/L	50	1000	ND	137	71-131%	---	---	Q-54c
cis-1,2-Dichloroethene	1250	10.0	20.0	ug/L	50	1000	19.0	124	78-123%	---	---	Q-01
trans-1,2-Dichloroethene	1280	10.0	20.0	ug/L	50	1000	ND	128	75-124%	---	---	Q-01
1,2-Dichloropropane	1310	12.5	25.0	ug/L	50	1000	ND	131	78-122%	---	---	Q-54h
1,3-Dichloropropane	1160	25.0	50.0	ug/L	50	1000	ND	116	80-120%	---	---	
2,2-Dichloropropane	884	25.0	50.0	ug/L	50	1000	ND	88	60-139%	---	---	
1,1-Dichloropropene	1250	25.0	50.0	ug/L	50	1000	ND	125	79-125%	---	---	
cis-1,3-Dichloropropene	1040	25.0	50.0	ug/L	50	1000	ND	104	75-124%	---	---	
trans-1,3-Dichloropropene	1120	25.0	50.0	ug/L	50	1000	ND	112	73-127%	---	---	
Ethylbenzene	1130	12.5	25.0	ug/L	50	1000	ND	113	79-121%	---	---	
Hexachlorobutadiene	885	125	250	ug/L	50	1000	ND	88	66-134%	---	---	
2-Hexanone	2360	250	500	ug/L	50	2000	ND	118	57-139%	---	---	
Isopropylbenzene	1100	25.0	50.0	ug/L	50	1000	ND	110	72-131%	---	---	
4-Isopropyltoluene	1100	25.0	50.0	ug/L	50	1000	ND	110	77-127%	---	---	
Methylene chloride	1190	250	500	ug/L	50	1000	ND	119	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	2460	250	500	ug/L	50	2000	ND	123	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	1140	25.0	50.0	ug/L	50	1000	ND	114	71-124%	---	---	
Naphthalene	967	50.0	100	ug/L	50	1000	ND	97	61-128%	---	---	
n-Propylbenzene	1150	12.5	25.0	ug/L	50	1000	ND	115	76-126%	---	---	
Styrene	1090	25.0	50.0	ug/L	50	1000	ND	109	78-123%	---	---	
1,1,1,2-Tetrachloroethane	982	10.0	20.0	ug/L	50	1000	ND	98	78-124%	---	---	

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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
Batch 23D0783 - EPA 5030C						Water						
Matrix Spike (23D0783-MS1)			Prepared: 04/19/23 12:00		Analyzed: 04/20/23 07:50							
QC Source Sample: Non-SDG (A3D1154-06)												
1,1,2,2-Tetrachloroethane	1150	12.5	25.0	ug/L	50	1000	ND	115	71-121%	---	---	
Tetrachloroethene (PCE)	1050	10.0	20.0	ug/L	50	1000	ND	105	74-129%	---	---	
Toluene	1130	25.0	50.0	ug/L	50	1000	ND	113	80-121%	---	---	
1,2,3-Trichlorobenzene	952	50.0	100	ug/L	50	1000	ND	95	69-129%	---	---	
1,2,4-Trichlorobenzene	925	50.0	100	ug/L	50	1000	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	1100	10.0	20.0	ug/L	50	1000	ND	110	74-131%	---	---	
1,1,2-Trichloroethane	1070	12.5	25.0	ug/L	50	1000	ND	107	80-120%	---	---	
Trichloroethene (TCE)	1150	10.0	20.0	ug/L	50	1000	ND	115	79-123%	---	---	
Trichlorofluoromethane	1210	50.0	100	ug/L	50	1000	ND	121	65-141%	---	---	
1,2,3-Trichloropropane	1090	25.0	50.0	ug/L	50	1000	ND	109	73-122%	---	---	
1,2,4-Trimethylbenzene	1080	25.0	50.0	ug/L	50	1000	ND	108	76-124%	---	---	
1,3,5-Trimethylbenzene	1100	25.0	50.0	ug/L	50	1000	ND	110	75-124%	---	---	
Vinyl chloride	1390	10.0	20.0	ug/L	50	1000	22.0	137	58-137%	---	---	Q-54f
m,p-Xylene	2180	25.0	50.0	ug/L	50	2000	ND	109	80-121%	---	---	
o-Xylene	1030	12.5	25.0	ug/L	50	1000	ND	103	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		106 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

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Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0567 - EPA 3511 (Bottle Extraction)						Water						
Blank (23D0567-BLK1)			Prepared: 04/14/23 06:05		Analyzed: 04/14/23 12:47							
EPA 8270E LVI												
Acenaphthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 122 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		122 %		80-132 %		"						

LCS (23D0567-BS1)

Prepared: 04/14/23 06:05 Analyzed: 04/14/23 13:20

EPA 8270E LV1												
Acenaphthene	1.55	0.0160	0.0320	ug/L	1	1.60	---	97	80-120%	---	---	
Acenaphthylene	1.77	0.0160	0.0320	ug/L	1	1.60	---	110	80-124%	---	---	
Anthracene	1.67	0.0160	0.0320	ug/L	1	1.60	---	105	80-123%	---	---	
Benz(a)anthracene	1.77	0.00800	0.0160	ug/L	1	1.60	---	111	80-122%	---	---	
Benzo(a)pyrene	1.94	0.00800	0.0160	ug/L	1	1.60	---	121	80-129%	---	---	
Benzo(b)fluoranthene	1.84	0.00800	0.0160	ug/L	1	1.60	---	115	80-124%	---	---	
Benzo(k)fluoranthene	1.82	0.00800	0.0160	ug/L	1	1.60	---	113	80-125%	---	---	
Benzo(g,h,i)perylene	1.52	0.0160	0.0320	ug/L	1	1.60	---	95	80-120%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

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Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0567 - EPA 3511 (Bottle Extraction)						Water						
LCS (23D0567-BS1)			Prepared: 04/14/23 06:05		Analyzed: 04/14/23 13:20							
Chrysene	1.62	0.00800	0.0160	ug/L	1	1.60	---	101	80-120%	---	---	
Dibenz(a,h)anthracene	1.55	0.00800	0.0160	ug/L	1	1.60	---	97	80-120%	---	---	
Fluoranthene	1.65	0.0160	0.0320	ug/L	1	1.60	---	103	80-126%	---	---	
Fluorene	1.65	0.0160	0.0320	ug/L	1	1.60	---	103	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.46	0.00800	0.0160	ug/L	1	1.60	---	91	80-121%	---	---	
1-Methylnaphthalene	1.50	0.0320	0.0640	ug/L	1	1.60	---	94	53-148%	---	---	
2-Methylnaphthalene	1.49	0.0320	0.0640	ug/L	1	1.60	---	93	48-150%	---	---	
Naphthalene	1.62	0.0320	0.0640	ug/L	1	1.60	---	101	78-120%	---	---	
Phenanthrene	1.51	0.0320	0.0640	ug/L	1	1.60	---	95	80-120%	---	---	
Pyrene	1.63	0.0160	0.0320	ug/L	1	1.60	---	102	80-125%	---	---	
Carbazole	1.96	0.0160	0.0320	ug/L	1	1.60	---	123	65-141%	---	---	
Dibenzofuran	1.70	0.0160	0.0320	ug/L	1	1.60	---	106	76-121%	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 124 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		124 %		80-132 %		"						

LCS Dup (23D0567-BSD1)			Prepared: 04/14/23 06:05					Analyzed: 04/14/23 13:54			Q-19	
EPA 8270E LVI												
Acenaphthene	1.57	0.0160	0.0320	ug/L	1	1.60	---	98	80-120%	2	30%	
Acenaphthylene	1.82	0.0160	0.0320	ug/L	1	1.60	---	114	80-124%	3	30%	
Anthracene	1.68	0.0160	0.0320	ug/L	1	1.60	---	105	80-123%	0.5	30%	
Benz(a)anthracene	1.77	0.00800	0.0160	ug/L	1	1.60	---	110	80-122%	0.3	30%	
Benzo(a)pyrene	1.98	0.00800	0.0160	ug/L	1	1.60	---	124	80-129%	2	30%	
Benzo(b)fluoranthene	1.85	0.00800	0.0160	ug/L	1	1.60	---	116	80-124%	0.8	30%	
Benzo(k)fluoranthene	1.86	0.00800	0.0160	ug/L	1	1.60	---	116	80-125%	2	30%	
Benzo(g,h,i)perylene	1.53	0.0160	0.0320	ug/L	1	1.60	---	96	80-120%	0.9	30%	
Chrysene	1.64	0.00800	0.0160	ug/L	1	1.60	---	102	80-120%	0.9	30%	
Dibenz(a,h)anthracene	1.57	0.00800	0.0160	ug/L	1	1.60	---	98	80-120%	1	30%	
Fluoranthene	1.64	0.0160	0.0320	ug/L	1	1.60	---	103	80-126%	0.2	30%	
Fluorene	1.67	0.0160	0.0320	ug/L	1	1.60	---	104	77-127%	1	30%	
Indeno(1,2,3-cd)pyrene	1.47	0.00800	0.0160	ug/L	1	1.60	---	92	80-121%	0.5	30%	
1-Methylnaphthalene	1.62	0.0320	0.0640	ug/L	1	1.60	---	101	53-148%	8	30%	
2-Methylnaphthalene	1.57	0.0320	0.0640	ug/L	1	1.60	---	98	48-150%	5	30%	
Naphthalene	1.63	0.0320	0.0640	ug/L	1	1.60	---	102	78-120%	0.5	30%	
Phenanthrene	1.50	0.0320	0.0640	ug/L	1	1.60	---	93	80-120%	1	30%	

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Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0567 - EPA 3511 (Bottle Extraction)						Water						
LCS Dup (23D0567-BSD1)			Prepared: 04/14/23 06:05 Analyzed: 04/14/23 13:54								Q-19	
Pyrene	1.65	0.0160	0.0320	ug/L	1	1.60	---	103	80-125%	1	30%	
Carbazole	1.95	0.0160	0.0320	ug/L	1	1.60	---	122	65-141%	0.4	30%	
Dibenzofuran	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	76-121%	1	30%	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 124 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		126 %		80-132 %		"						

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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
Batch 23D0894 - EPA 3015A						Water						
Blank (23D0894-BLK1)			Prepared: 04/21/23 15:50 Analyzed: 04/22/23 02:48									
EPA 6020B												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	B B-02, J
Antimony	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Iron	50.5	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Lead	0.135	0.110	0.200	ug/L	1	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Silver	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Blank (23D0894-BLK2)			Prepared: 04/21/23 15:50 Analyzed: 04/25/23 21:57									
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	Q-16
LCS (23D0894-BS1)			Prepared: 04/21/23 15:50 Analyzed: 04/22/23 02:53									
EPA 6020B												
Aluminum	2860	25.0	50.0	ug/L	1	2780	---	103	80-120%	---	---	B B-02
Antimony	28.0	0.500	1.00	ug/L	1	27.8	---	101	80-120%	---	---	
Arsenic	55.5	0.500	1.00	ug/L	1	55.6	---	100	80-120%	---	---	
Cadmium	54.7	0.100	0.200	ug/L	1	55.6	---	98	80-120%	---	---	
Chromium	57.2	1.00	2.00	ug/L	1	55.6	---	103	80-120%	---	---	
Copper	57.1	1.00	2.00	ug/L	1	55.6	---	103	80-120%	---	---	
Iron	3150	25.0	50.0	ug/L	1	2780	---	113	80-120%	---	---	
Lead	57.9	0.110	0.200	ug/L	1	55.6	---	104	80-120%	---	---	
Manganese	58.0	0.500	1.00	ug/L	1	55.6	---	104	80-120%	---	---	

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Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0894 - EPA 3015A						Water						
LCS (23D0894-BS1)			Prepared: 04/21/23 15:50		Analyzed: 04/22/23 02:53							
Mercury	1.06	0.0400	0.0800	ug/L	1	1.11	---	95	80-120%	---	---	
Nickel	58.4	1.00	2.00	ug/L	1	55.6	---	105	80-120%	---	---	
Selenium	27.0	0.500	1.00	ug/L	1	27.8	---	97	80-120%	---	---	
Silver	22.6	0.100	0.200	ug/L	1	27.8	---	82	80-120%	---	---	
Thallium	26.4	0.100	0.200	ug/L	1	27.8	---	95	80-120%	---	---	
Vanadium	58.6	1.00	2.00	ug/L	1	55.6	---	105	80-120%	---	---	
LCS (23D0894-BS2)			Prepared: 04/21/23 15:50		Analyzed: 04/25/23 22:02							
EPA 6020B												
Barium	56.5	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	Q-16
Beryllium	26.6	0.100	0.200	ug/L	1	27.8	---	96	80-120%	---	---	Q-16
Zinc	56.7	2.00	4.00	ug/L	1	55.6	---	102	80-120%	---	---	Q-16
Duplicate (23D0894-DUP1)			Prepared: 04/21/23 15:50		Analyzed: 04/22/23 03:03							
QC Source Sample: Non-SDG (A3D1107-01)												
Aluminum	ND	25.0	50.0	ug/L	1	---	ND	---	---	---	20%	
Antimony	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Arsenic	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Copper	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Iron	26800	25.0	50.0	ug/L	1	---	27000	---	---	0.7	20%	B
Lead	ND	0.110	0.200	ug/L	1	---	ND	---	---	---	20%	
Mercury	ND	0.0400	0.0800	ug/L	1	---	ND	---	---	---	20%	
Nickel	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Silver	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Duplicate (23D0894-DUP2)			Prepared: 04/21/23 15:50		Analyzed: 04/25/23 22:12							
QC Source Sample: Non-SDG (A3D1107-01RE1)												
Barium	41.3	1.00	2.00	ug/L	1	---	40.7	---	---	1	20%	Q-16

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Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0894 - EPA 3015A						Water						
Duplicate (23D0894-DUP2)			Prepared: 04/21/23 15:50 Analyzed: 04/25/23 22:12									
QC Source Sample: Non-SDG (A3D1107-01RE1)												
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	Q-16
Zinc	ND	2.00	4.00	ug/L	1	---	ND	---	---	---	20%	Q-16
Duplicate (23D0894-DUP3)			Prepared: 04/21/23 15:50 Analyzed: 04/27/23 18:09									
QC Source Sample: Non-SDG (A3D1107-01RE2)												
Manganese	3350	5.00	10.0	ug/L	10	---	3240	---	---	3	20%	Q-16
Matrix Spike (23D0894-MS1)			Prepared: 04/21/23 15:50 Analyzed: 04/22/23 03:08									
QC Source Sample: Non-SDG (A3D1107-01)												
EPA 6020B												
Aluminum	2810	25.0	50.0	ug/L	1	2780	ND	101	75-125%	---	---	
Antimony	27.5	0.500	1.00	ug/L	1	27.8	ND	99	75-125%	---	---	
Arsenic	54.7	0.500	1.00	ug/L	1	55.6	ND	99	75-125%	---	---	
Cadmium	54.7	0.100	0.200	ug/L	1	55.6	ND	99	75-125%	---	---	
Chromium	54.8	1.00	2.00	ug/L	1	55.6	ND	99	75-125%	---	---	
Copper	53.6	1.00	2.00	ug/L	1	55.6	ND	97	75-125%	---	---	
Iron	28800	25.0	50.0	ug/L	1	2780	27000	64	75-125%	---	---	B, Q-65
Lead	54.5	0.110	0.200	ug/L	1	55.6	ND	98	75-125%	---	---	B-02
Manganese	3390	0.500	1.00	ug/L	1	55.6	3470	-144	75-125%	---	---	E, Q-65
Mercury	0.992	0.0400	0.0800	ug/L	1	1.11	ND	89	75-125%	---	---	
Nickel	54.9	1.00	2.00	ug/L	1	55.6	ND	99	75-125%	---	---	
Selenium	26.4	0.500	1.00	ug/L	1	27.8	ND	95	75-125%	---	---	
Silver	21.6	0.100	0.200	ug/L	1	27.8	ND	78	75-125%	---	---	
Thallium	25.1	0.100	0.200	ug/L	1	27.8	ND	90	75-125%	---	---	
Vanadium	57.8	1.00	2.00	ug/L	1	55.6	ND	104	75-125%	---	---	
Matrix Spike (23D0894-MS2)			Prepared: 04/21/23 15:50 Analyzed: 04/25/23 22:27									
QC Source Sample: Non-SDG (A3D1107-01RE1)												
EPA 6020B												
Barium	99.9	1.00	2.00	ug/L	1	55.6	40.7	107	75-125%	---	---	Q-16
Beryllium	26.4	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	---	---	Q-16
Zinc	55.6	2.00	4.00	ug/L	1	55.6	ND	100	75-125%	---	---	Q-16

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503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0894 - EPA 3015A							Water					
Matrix Spike Dup (23D0894-MSD2)			Prepared: 04/21/23 15:50 Analyzed: 04/25/23 23:26									
<u>QC Source Sample: Non-SDG (A3D1107-01RE1)</u>												
Barium	98.8	5.00	10.0	ug/L	5	55.6	40.7	105	75-125%	1	20%	Q-16, Q-58
Beryllium	27.2	0.500	1.00	ug/L	5	27.8	ND	98	75-125%	3	20%	Q-16, Q-58
Manganese	3060	2.50	5.00	ug/L	5	55.6	3000	108	75-125%	0.7	20%	Q-16, Q-58
Zinc	57.9	10.0	20.0	ug/L	5	55.6	ND	104	75-125%	4	20%	Q-16, Q-58

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D1086 - EPA 3015A						Water						
Blank (23D1086-BLK1)			Prepared: 04/27/23 08:13 Analyzed: 05/01/23 19:50									
EPA 6020B												
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.110	0.200	ug/L	1	---	---	---	---	---	---	
LCS (23D1086-BS1)			Prepared: 04/27/23 08:13 Analyzed: 05/01/23 19:55									
EPA 6020B												
Iron	2610	25.0	50.0	ug/L	1	2780	---	94	80-120%	---	---	
Lead	56.8	0.110	0.200	ug/L	1	55.6	---	102	80-120%	---	---	
Duplicate (23D1086-DUP1)			Prepared: 04/27/23 08:13 Analyzed: 05/01/23 20:29									
QC Source Sample: Non-SDG (A3D1353-01)												
Iron	30100	25.0	50.0	ug/L	1	---	30600	---	---	2	20%	
Lead	ND	0.110	0.200	ug/L	1	---	ND	---	---	---	20%	
Matrix Spike (23D1086-MS1)			Prepared: 04/27/23 08:13 Analyzed: 05/01/23 20:34									
QC Source Sample: Non-SDG (A3D1353-01)												
EPA 6020B												
Iron	33400	25.0	50.0	ug/L	1	2780	30600	98	75-125%	---	---	
Lead	57.7	0.110	0.200	ug/L	1	55.6	ND	104	75-125%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Cyanide by Flow Analysis (Aqueous)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0575 - Lachat Micro Dist - aqueous						Water						
Blank (23D0575-BLK1)			Prepared: 04/14/23 08:15 Analyzed: 04/14/23 15:07									
EPA 335.4												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0575-BS1)			Prepared: 04/14/23 08:15 Analyzed: 04/14/23 15:09									
EPA 335.4												
Total Cyanide	0.227	0.00500	0.00500	mg/L	1	0.250	---	91	90-110%	---	---	
Duplicate (23D0575-DUP1)			Prepared: 04/14/23 08:15 Analyzed: 04/14/23 15:15									
QC Source Sample: Non-SDG (A3D1096-01)												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	ND	---	---	---	10%	
Duplicate (23D0575-DUP2)			Prepared: 04/14/23 08:15 Analyzed: 04/14/23 16:05									
QC Source Sample: Non-SDG (A3D1107-01)												
Total Cyanide	0.145	0.00500	0.00500	mg/L	1	---	0.148	---	---	2	10%	
Matrix Spike (23D0575-MS1)			Prepared: 04/14/23 08:15 Analyzed: 04/14/23 15:17									
QC Source Sample: Non-SDG (A3D1096-01)												
EPA 335.4												
Total Cyanide	0.213	0.00500	0.00500	mg/L	1	0.250	ND	85	90-110%	---	---	Q-01
Matrix Spike (23D0575-MS2)			Prepared: 04/14/23 08:15 Analyzed: 04/14/23 16:07									
QC Source Sample: Non-SDG (A3D1107-01)												
EPA 335.4												
Total Cyanide	0.376	0.00500	0.00500	mg/L	1	0.250	0.148	91	90-110%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Cyanide by Flow Analysis (Aqueous)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0915 - Lachat Micro Dist - aqueous						Water						
Blank (23D0915-BLK1)			Prepared: 04/24/23 08:16 Analyzed: 04/25/23 10:24									
EPA 335.4												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0915-BS1)			Prepared: 04/24/23 08:16 Analyzed: 04/25/23 10:26									
EPA 335.4												
Total Cyanide	0.250	0.00500	0.00500	mg/L	1	0.250	---	100	90-110%	---	---	
Matrix Spike (23D0915-MS1)			Prepared: 04/24/23 08:16 Analyzed: 04/25/23 10:30									
QC Source Sample: Non-SDG (A3D1208-05)												
EPA 335.4												
Total Cyanide	0.488	0.00500	0.00500	mg/L	1	0.250	0.260	91	90-110%	---	---	
Matrix Spike (23D0915-MS2)			Prepared: 04/24/23 08:16 Analyzed: 04/25/23 10:38									
QC Source Sample: Non-SDG (A3D1354-03)												
EPA 335.4												
Total Cyanide	0.303	0.00500	0.00500	mg/L	1	0.250	0.0623	96	90-110%	---	---	
Matrix Spike Dup (23D0915-MSD1)			Prepared: 04/24/23 08:16 Analyzed: 04/25/23 10:32									
QC Source Sample: Non-SDG (A3D1208-05)												
Total Cyanide	0.481	0.00500	0.00500	mg/L	1	0.250	0.260	88	90-110%	1	10%	Q-01
Matrix Spike Dup (23D0915-MSD2)			Prepared: 04/24/23 08:16 Analyzed: 04/25/23 10:48									
QC Source Sample: Non-SDG (A3D1354-03)												
Total Cyanide	0.275	0.00500	0.00500	mg/L	1	0.250	0.0623	85	90-110%	10	10%	Q-01

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

QUALITY CONTROL (QC) SAMPLE RESULTS

Available Cyanide by FIA, Ligand Exchange and Amperometric Detection

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0531 - Method Prep: Aq						Water						
Blank (23D0531-BLK1)			Prepared: 04/13/23 12:03		Analyzed: 04/13/23 14:23							
<u>D6888-09</u>												
Available Cyanide	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
LCS (23D0531-BS1)			Prepared: 04/13/23 12:03		Analyzed: 04/13/23 14:24							
<u>D6888-09</u>												
Available Cyanide	0.0253	0.00100	0.00200	mg/L	1	0.0250	---	101	90-117%	---	---	
Matrix Spike (23D0531-MS1)			Prepared: 04/13/23 12:03		Analyzed: 04/13/23 14:35							
<u>QC Source Sample: Non-SDG (A3D1107-03)</u>												
<u>D6888-09</u>												
Available Cyanide	0.0286	0.00101	0.00201	mg/L	1	0.0251	0.00154	108	82-130%	---	---	
Matrix Spike Dup (23D0531-MSD1)			Prepared: 04/13/23 12:03		Analyzed: 04/13/23 14:36							
<u>QC Source Sample: Non-SDG (A3D1107-03)</u>												
Available Cyanide	0.0290	0.00101	0.00201	mg/L	1	0.0251	0.00154	109	82-130%	1	11%	

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****QUALITY CONTROL (QC) SAMPLE RESULTS****Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0580 - Microdiffusion						Water						
Blank (23D0580-BLK1)			Prepared: 04/14/23 09:20 Analyzed: 04/14/23 16:37									
<u>D4282-02</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0580-BS1)			Prepared: 04/14/23 09:20 Analyzed: 04/14/23 16:37									
<u>D4282-02</u>												
Free Cyanide	0.0614	0.00250	0.00500	mg/L	1	0.0667	---	92	74-120%	---	---	
LCS Dup (23D0580-BSD1)			Prepared: 04/14/23 09:20 Analyzed: 04/14/23 16:42									
<u>D4282-02</u>												
Free Cyanide	0.0642	0.00250	0.00500	mg/L	1	0.0667	---	96	74-120%	5	20%	
Duplicate (23D0580-DUP1)			Prepared: 04/14/23 09:20 Analyzed: 04/14/23 16:43									
<u>QC Source Sample: Non-SDG (A3D1107-01)</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	ND	---	---	---	20%	
Matrix Spike (23D0580-MS1)			Prepared: 04/14/23 09:20 Analyzed: 04/14/23 16:43									
<u>QC Source Sample: Non-SDG (A3D1107-01)</u>												
<u>D4282-02</u>												
Free Cyanide	0.0640	0.00250	0.00500	mg/L	1	0.0667	ND	96	74-120%	---	---	

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****Analytical Resources, LLC****QUALITY CONTROL (QC) SAMPLE RESULTS****Washington Department of Ecology Methods**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLD0530 - EPA 5030C (Purge and Trap)						Water						
Blank (BLD0530-BLK1)			Prepared: 04/19/23 15:30 Analyzed: 04/19/23 16:33									
WAVPH												
C5-C6 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
C8-C10 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
Methyl tert-butyl Ether	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Benzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Toluene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Ethylbenzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
m,p-Xylene	ND	---	10	ug/L	1	---	---	---	---	---	---	U
Naphthalene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
1-Methylnaphthalene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
o-Xylene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Pentane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Hexane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Octane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Decane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Dodecane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Surr: PID: 2,5-Dibromotoluene		Recovery: 67.7 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		74.4 %		60-140 %		"						

LCS (BLD0530-BS1)

Prepared: 04/19/23 15:30 Analyzed: 04/19/23 15:32

WAVPH												
C5-C6 Aliphatics	94.9	---	50	ug/L	1	---	---	---	---	---	---	
>C6-C8 Aliphatics	50.4	---	50	ug/L	1	---	---	---	---	---	---	
>C8-C10 Aliphatics	51.3	---	50	ug/L	1	---	---	---	---	---	---	
>C10-C12 Aliphatics	88.5	---	50	ug/L	1	---	---	---	---	---	---	
C8-C10 Aromatics	309	---	50	ug/L	1	---	---	---	---	---	---	

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Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLD0530 - EPA 5030C (Purge and Trap)						Water						
LCS (BLD0530-BS1)			Prepared: 04/19/23 15:30		Analyzed: 04/19/23 15:32							
>C10-C12 Aromatics	54.9	---	50	ug/L	1		---			---	---	U
>C12-C13 Aromatics	ND	---	50	ug/L	1		---			---	---	
Methyl tert-butyl Ether	53.1	---	5	ug/L	1	50.000	---	106	80-131%	---	---	
Benzene	57.3	---	5	ug/L	1	50.000	---	115	68-136%	---	---	
Toluene	53.2	---	5	ug/L	1	50.000	---	106	70-145%	---	---	
Ethylbenzene	46.9	---	5	ug/L	1	50.000	---	93.8	70-130%	---	---	
1,2,3-Trimethylbenzene	46.6	---	5	ug/L	1	50.000	---	93.2	70-130%	---	---	
m,p-Xylene	93.9	---	10	ug/L	1	100.00	---	93.9	70-133%	---	---	
Naphthalene	44.9	---	5	ug/L	1	50.000	---	89.8	70-130%	---	---	
1-Methylnaphthalene	41.0	---	5	ug/L	1	50.000	---	82.0	70-130%	---	---	
o-Xylene	50.6	---	5	ug/L	1	50.000	---	101	70-130%	---	---	
n-Pentane	46.6	---	5	ug/L	1	50.000	---	93.2	70-130%	---	---	
n-Hexane	47.6	---	5	ug/L	1	50.000	---	95.2	70-130%	---	---	
n-Octane	35.6	---	5	ug/L	1	50.000	---	71.2	56-120%	---	---	
n-Decane	37.9	---	5	ug/L	1	50.000	---	75.8	61-120%	---	---	
n-Dodecane	47.2	---	5	ug/L	1	50.000	---	94.4	70-130%	---	---	
Surr: PID: 2,5-Dibromotoluene		Recovery: 78.6 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		84.2 %		60-140 %		"						

LCS Dup (BLD0530-BSD1)

Prepared: 04/19/23 15:30 Analyzed: 04/19/23 16:02

WAVPH												
C5-C6 Aliphatics	86.2	---	50	ug/L	1	---	---	---	---	9.61	30%	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	11.8	30%	
>C8-C10 Aliphatics	52.2	---	50	ug/L	1	---	---	---	---	1.74	30%	
>C10-C12 Aliphatics	99.8	---	50	ug/L	1	---	---	---	---	12.0	30%	
C8-C10 Aromatics	305	---	50	ug/L	1	---	---	---	---	1.34	30%	
>C10-C12 Aromatics	56.7	---	50	ug/L	1	---	---	---	---	3.23	30%	
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	5.23	30%	U
Methyl tert-butyl Ether	54.0	---	5	ug/L	1	50.000	---	108	80-131%	1.68	30%	
Benzene	56.6	---	5	ug/L	1	50.000	---	113	68-136%	1.23	30%	
Toluene	52.2	---	5	ug/L	1	50.000	---	104	70-145%	1.90	30%	
Ethylbenzene	46.2	---	5	ug/L	1	50.000	---	92.4	70-130%	1.50	30%	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

Report ID:

A3D1155 - 05 19 23 1249

Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLD0530 - EPA 5030C (Purge and Trap)						Water						
LCS Dup (BLD0530-BSD1)			Prepared: 04/19/23 15:30		Analyzed: 04/19/23 16:02							
1,2,3-Trimethylbenzene	45.9	---	5	ug/L	1	50.000	---	91.8	70-130%	1.51	30%	
m,p-Xylene	92.9	---	10	ug/L	1	100.00	---	92.9	70-133%	1.07	30%	
Naphthalene	46.5	---	5	ug/L	1	50.000	---	93.0	70-130%	3.50	30%	
1-Methylnaphthalene	43.2	---	5	ug/L	1	50.000	---	86.4	70-130%	5.23	30%	
o-Xylene	50.0	---	5	ug/L	1	50.000	---	100	70-130%	1.19	30%	
n-Pentane	46.4	---	5	ug/L	1	50.000	---	92.8	70-130%	0.430	30%	
n-Hexane	43.6	---	5	ug/L	1	50.000	---	87.2	70-130%	8.77	30%	
n-Octane	33.0	---	5	ug/L	1	50.000	---	66.0	56-120%	7.58	30%	
n-Decane	36.9	---	5	ug/L	1	50.000	---	73.8	61-120%	2.67	30%	
n-Dodecane	51.3	---	5	ug/L	1	50.000	---	103	70-130%	8.32	30%	
Surr: PID: 2,5-Dibromotoluene		Recovery: 76.4 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		84.0 %		60-140 %		"						

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****Analytical Resources, LLC****QUALITY CONTROL (QC) SAMPLE RESULTS****Washington Department of Ecology Methods**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLD0588 - EPA 3510C SepF						Water						
Blank (BLD0588-BLK1)			Prepared: 04/24/23 18:45		Analyzed: 05/04/23 15:49							
WAEPH												
C8-C10 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C21-C34 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
Surr: 1-Chloro-octadecane		Recovery: 68.6 %		Limits: 36-120 %		Dilution: 1x						

Blank (BLD0588-BLK2)					Prepared: 04/24/23 18:45 Analyzed: 05/04/23 18:20							
WAEPH												
C8-C10 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C12-C16 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C16-C21 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C21-C34 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
Surr: o-Terphenyl		Recovery: 87.8 %		Limits: 41-120 %		Dilution: 1x						

LCS (BLD0588-BS1)				Prepared: 04/24/23 18:45 Analyzed: 05/04/23 16:14							
WAEPH											
C8-C10 Aliphatics	103	---	40	ug/L	1	300.00	---	34.3	12-130%	---	---
>C10-C12 Aliphatics	208	---	40	ug/L	1	300.00	---	69.3	10-130%	---	---
>C12-C16 Aliphatics	200	---	40	ug/L	1	300.00	---	66.7	35-130%	---	---
>C16-C21 Aliphatics	260	---	40	ug/L	1	300.00	---	86.8	45-130%	---	---
>C21-C34 Aliphatics	292	---	40	ug/L	1	300.00	---	97.4	19-130%	---	---
Surr: 1-Chloro-octadecane		Recovery: 64.9 %		Limits: 36-120 %		Dilution: 1x					

LCS (BLD0588-BS2)				Prepared: 04/24/23 18:45 Analyzed: 05/04/23 18:45							
<u>WA EPH</u>											
>C10-C12 Aromatics	76.6	---	40	ug/L	1	300.00	---	25.5	12-130%	---	---
>C12-C16 Aromatics	156	---	40	ug/L	1	300.00	---	51.9	31-130%	---	---
>C16-C21 Aromatics	551	---	40	ug/L	1	600.00	---	91.8	48-130%	---	---

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1155 - 05 19 23 1249

Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLD0588 - EPA 3510C SepF						Water						
LCS (BLD0588-BS2)			Prepared: 04/24/23 18:45		Analyzed: 05/04/23 18:45							
>C21-C34 Aromatics	250	---	40	ug/L	1	300.00	---	83.3	33-130%	---	---	
Surr: o-Terphenyl		Recovery: 87.4 %		Limits: 41-120 %		Dilution: 1x						
LCS Dup (BLD0588-BSD1)			Prepared: 04/24/23 18:45		Analyzed: 05/04/23 16:39							
WAEPH												
C8-C10 Aliphatics	121	---	40	ug/L	1	300.00	---	40.5	12-130%	16.6	30%	
>C10-C12 Aliphatics	181	---	40	ug/L	1	300.00	---	60.4	10-130%	13.8	30%	
>C12-C16 Aliphatics	201	---	40	ug/L	1	300.00	---	67.1	35-130%	0.498	30%	
>C16-C21 Aliphatics	259	---	40	ug/L	1	300.00	---	86.2	45-130%	0.694	30%	
>C21-C34 Aliphatics	295	---	40	ug/L	1	300.00	---	98.3	19-130%	0.954	30%	
Surr: 1-Chloro-octadecane		Recovery: 65.1 %		Limits: 36-120 %		Dilution: 1x						
LCS Dup (BLD0588-BSD2)			Prepared: 04/24/23 18:45		Analyzed: 05/04/23 19:10							
WAEPH												
>C10-C12 Aromatics	132	---	40	ug/L	1	300.00	---	44.1	12-130%	53.4	30%	
>C12-C16 Aromatics	174	---	40	ug/L	1	300.00	---	58.1	31-130%	11.3	30%	
>C16-C21 Aromatics	558	---	40	ug/L	1	600.00	---	93.0	48-130%	1.30	30%	
>C21-C34 Aromatics	255	---	40	ug/L	1	300.00	---	84.9	33-130%	1.98	30%	
Surr: o-Terphenyl		Recovery: 91.3 %		Limits: 41-120 %		Dilution: 1x						

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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****SAMPLE PREPARATION INFORMATION****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0933							
A3D1155-01	WG	NWTPH-Dx	04/12/23 09:40	04/24/23 10:32	1040mL/5mL	1000mL/5mL	0.96
A3D1155-04	WG	NWTPH-Dx	04/12/23 14:30	04/24/23 10:32	1040mL/5mL	1000mL/5mL	0.96

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

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0783							
A3D1155-01RE1	WG	NWTPH-Gx (MS)	04/12/23 09:40	04/19/23 12:00	5mL/5mL	5mL/5mL	1.00
A3D1155-04RE1	WG	NWTPH-Gx (MS)	04/12/23 14:30	04/19/23 12:00	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0690							
A3D1155-05	W	EPA 8260D	04/12/23 15:10	04/18/23 14:00	5mL/5mL	5mL/5mL	1.00
Batch: 23D0783							
A3D1155-01RE1	WG	EPA 8260D	04/12/23 09:40	04/19/23 12:00	5mL/5mL	5mL/5mL	1.00
A3D1155-02RE1	WG	EPA 8260D	04/12/23 10:55	04/19/23 12:00	5mL/5mL	5mL/5mL	1.00
A3D1155-03RE1	WG	EPA 8260D	04/12/23 12:00	04/19/23 12:00	5mL/5mL	5mL/5mL	1.00
A3D1155-04RE1	WG	EPA 8260D	04/12/23 14:30	04/19/23 12:00	5mL/5mL	5mL/5mL	1.00

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Prep: EPA 3511 (Bottle Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0567							
A3D1155-01	WG	EPA 8270E LVI	04/12/23 09:40	04/14/23 06:05	112.38mL/5mL	125mL/5mL	1.11
A3D1155-02	WG	EPA 8270E LVI	04/12/23 10:55	04/14/23 06:05	116.56mL/5mL	125mL/5mL	1.07
A3D1155-03	WG	EPA 8270E LVI	04/12/23 12:00	04/14/23 06:05	114.14mL/5mL	125mL/5mL	1.10
A3D1155-04	WG	EPA 8270E LVI	04/12/23 14:30	04/14/23 06:05	108.38mL/5mL	125mL/5mL	1.15

Total Metals by EPA 6020B (ICPMS)

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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1155 - 05 19 23 1249****SAMPLE PREPARATION INFORMATION****Total Metals by EPA 6020B (ICPMS)****Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0894							
A3D1155-01	WG	EPA 6020B	04/12/23 09:40	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1155-01RE1	WG	EPA 6020B	04/12/23 09:40	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1155-02	WG	EPA 6020B	04/12/23 10:55	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1155-02RE1	WG	EPA 6020B	04/12/23 10:55	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1155-03	WG	EPA 6020B	04/12/23 12:00	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1155-03RE1	WG	EPA 6020B	04/12/23 12:00	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1155-04	WG	EPA 6020B	04/12/23 14:30	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1155-04RE1	WG	EPA 6020B	04/12/23 14:30	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1155-04RE2	WG	EPA 6020B	04/12/23 14:30	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
Batch: 23D1086							
A3D1155-03RE1	WG	EPA 6020B	04/12/23 12:00	04/27/23 08:13	45mL/50mL	45mL/50mL	1.00

Total Cyanide by Flow Analysis (Aqueous)**Prep: Lachat Micro Dist - aqueous**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0915							
A3D1155-01RE1	WG	EPA 335.4	04/12/23 09:40	04/24/23 08:16	6mL/6mL	6mL/6mL	1.00
A3D1155-02RE1	WG	EPA 335.4	04/12/23 10:55	04/24/23 08:16	6mL/6mL	6mL/6mL	1.00
A3D1155-03RE1	WG	EPA 335.4	04/12/23 12:00	04/24/23 08:16	6mL/6mL	6mL/6mL	1.00
A3D1155-04RE1	WG	EPA 335.4	04/12/23 14:30	04/24/23 08:16	6mL/6mL	6mL/6mL	1.00

Available Cyanide by FIA, Ligand Exchange and Amperometric Detection**Prep: Method Prep: Aq**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0531							
A3D1155-01	WG	D6888-09	04/12/23 09:40	04/13/23 12:03	5mL/5mL	5mL/5mL	1.00
A3D1155-02	WG	D6888-09	04/12/23 10:55	04/13/23 12:03	5mL/5mL	5mL/5mL	1.00
A3D1155-03	WG	D6888-09	04/12/23 12:00	04/13/23 12:03	5mL/5mL	5mL/5mL	1.00
A3D1155-04	WG	D6888-09	04/12/23 14:30	04/13/23 12:03	5mL/5mL	5mL/5mL	1.00

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry**Prep: Microdiffusion**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
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Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

Report ID:

A3D1155 - 05 19 23 1249

SAMPLE PREPARATION INFORMATION

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Prep: Microdiffusion

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23D0580</u>							
A3D1155-01	WG	D4282-02	04/12/23 09:40	04/14/23 09:20	3mL/3mL	3mL/3mL	1.00
A3D1155-02	WG	D4282-02	04/12/23 10:55	04/14/23 09:20	3mL/3mL	3mL/3mL	1.00
A3D1155-03	WG	D4282-02	04/12/23 12:00	04/14/23 09:20	3mL/3mL	3mL/3mL	1.00
A3D1155-04	WG	D4282-02	04/12/23 14:30	04/14/23 09:20	3mL/3mL	3mL/3mL	1.00

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Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: BLD0588							
A3D1155-01	WG	WA EPH	04/12/23 09:40	04/24/23 18:45	500mL/1mL	500mL/1mL	1.00
A3D1155-04	WG	WA EPH	04/12/23 14:30	04/24/23 18:45	500mL/1mL	500mL/1mL	1.00

Prep: EPA 5030C (Purge and Trap)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: BLD0530							
A3D1155-01	WG	WA VPH	04/12/23 09:40	04/19/23 15:30	10mL/10ml	10mL/10ml	1.00
A3D1155-04	WG	WA VPH	04/12/23 14:30	04/19/23 15:30	10mL/10ml	10mL/10ml	1.00

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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.)
- E** Estimated Value. The result is above the calibration range of the instrument.
- F-11** The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- F-13** The chromatographic pattern does not resemble the fuel standard used for quantitation
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- PRES** Incomplete field preservation. Additional preservative was added to adjust the pH within the appropriate range for this analysis.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. 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 +24%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. 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 +34%. 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 +4%. 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 +6%. The results are reported as Estimated Values.
- Q-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +7%. The results are reported as Estimated Values.
- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. 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 -1%. The results are reported as Estimated Values.

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Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001E**

Project Manager: **John Renda**

Report ID:

A3D1155 - 05 19 23 1249

- Q-54j** 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-54k** 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-54l** 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-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
- Q-58** Matrix Spike Duplicate QC Sample is actually a Serial Dilution of the Matrix Spike. Reported as MSD for calculation purposes only.
- Q-65** Spike recovery is estimated due to the high analyte concentration of the source sample.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

Analytical Resources, LLC

- * Flagged value is not within established control limits.
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).

Apex Laboratories

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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

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

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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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

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

Soil and Sediment Samples:

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

Sampling and Preservation Notes:

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

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

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

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

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LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

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

Apex Laboratories

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

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APEXLABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A3 D1155Project/Project #: Gasco-MGP only Mon. Wells 1Q 2023 Perf. Mon.

Delivery Info:

Date/time received: 4/13/23 @ 822 By: JSDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Radio ☐ Morgan ☐ SDS ☐ Evergreen ☐ Other ☐Cooler Inspection Date/time inspected: 4/13/23 @ 8915 By: JSChain of Custody included? Yes ☒ No ☐Signed/dated by client? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>2.3</u>						
Custody seals? (Y/N)	<u>N</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition (In/Out):	<u>In</u>						

Cooler out of temp? (Y/N) Possible reason why: NGreen dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 4/13/23 @ 1051 By: JSAll 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: pH 9 on 65-68 125 ml NaOH brown poly.Additional information: TB# 3278Labeled by: JSWitness: JSCooler Inspected by: JS

Form Y-003 R-00

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