



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: A3D1399 - Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon - 000029-02.84 T-01.001G

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 A3D1399, which was received by the laboratory on 4/20/2023 at 8:18:00AM.

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

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

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Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler      3.3      degC

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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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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-Prod. Wells 1Q 2023 Perf. Mon**

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

**Report ID:**

A3D1399 - 05 19 23 1327

### ANALYTICAL REPORT FOR SAMPLES

#### SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GS-041923-87	A3D1399-01	WR	04/19/23 09:20	04/20/23 08:18
GS-041923-88	A3D1399-02	WG	04/19/23 10:15	04/20/23 08:18
GS-041923-89	A3D1399-03	WG	04/19/23 10:30	04/20/23 08:18
GS-041923-90	A3D1399-04	WG	04/19/23 11:30	04/20/23 08:18
GS-041923-91	A3D1399-05	WG	04/19/23 13:35	04/20/23 08:18
GS-041923-92	A3D1399-06	WG	04/19/23 14:15	04/20/23 08:18
TB-041923	A3D1399-07	W	04/19/23 14:40	04/20/23 08:18

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-88 (A3D1399-02RE1)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0923</b>		
Acetone	ND	10.0	20.0	ug/L	1	04/24/23 14:16	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/24/23 14:16	EPA 8260D	
<b>Benzene</b>	<b>0.620</b>	0.100	0.200	ug/L	1	04/24/23 14:16	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/24/23 14:16	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/24/23 14:16	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/24/23 14:16	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/24/23 14:16	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-88 (A3D1399-02RE1)		Matrix: WG			Batch: 23D0923			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Ethylbenzene	1.28	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/24/23 14:16	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/24/23 14:16	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/24/23 14:16	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	04/24/23 14:16	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Naphthalene	55.3	1.00	2.00	ug/L	1	04/24/23 14:16	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/24/23 14:16	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
1,2,4-Trimethylbenzene	0.930	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	J
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/24/23 14:16	EPA 8260D	
m,p-Xylene	1.02	0.500	1.00	ug/L	1	04/24/23 14:16	EPA 8260D	
o-Xylene	0.690	0.250	0.500	ug/L	1	04/24/23 14:16	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-041923-88 (A3D1399-02RE1)		Matrix: WG			Batch: 23D0923			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 109 %	Limits: 80-120 %	1		04/24/23 14:16	EPA 8260D	
Toluene-d8 (Surr)		106 %	80-120 %	1		04/24/23 14:16	EPA 8260D	
4-Bromofluorobenzene (Surr)		96 %	80-120 %	1		04/24/23 14:16	EPA 8260D	
GS-041923-89 (A3D1399-03RE1)		Matrix: WG			Batch: 23D0923			
Acetone	ND	10.0	20.0	ug/L	1	04/24/23 13:54	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/24/23 13:54	EPA 8260D	
<b>Benzene</b>	<b>0.600</b>	0.100	0.200	ug/L	1	04/24/23 13:54	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/24/23 13:54	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/24/23 13:54	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/24/23 13:54	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/24/23 13:54	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/24/23 13:54	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
<b>GS-041923-89 (A3D1399-03RE1)</b>		<b>Matrix: WG</b>		<b>Batch: 23D0923</b>				
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
<b>Ethylbenzene</b>	<b>1.27</b>	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/24/23 13:54	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/24/23 13:54	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/24/23 13:54	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	04/24/23 13:54	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
<b>Naphthalene</b>	<b>52.6</b>	1.00	2.00	ug/L	1	04/24/23 13:54	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/24/23 13:54	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
<b>1,2,4-Trimethylbenzene</b>	<b>0.820</b>	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	<b>J</b>

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## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-89 (A3D1399-03RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0923</b>			
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/24/23 13:54	EPA 8260D	
<b>m,p-Xylene</b>	<b>1.01</b>	0.500	1.00	ug/L	1	04/24/23 13:54	EPA 8260D	
<b>o-Xylene</b>	<b>0.600</b>	0.250	0.500	ug/L	1	04/24/23 13:54	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>107 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/24/23 13:54</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>108 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/24/23 13:54</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/24/23 13:54</i>	<i>EPA 8260D</i>
<b>GS-041923-90 (A3D1399-04)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0859</b>			
Acetone	ND	500	1000	ug/L	50	04/21/23 20:02	EPA 8260D	
Acrylonitrile	ND	50.0	100	ug/L	50	04/21/23 20:02	EPA 8260D	
<b>Benzene</b>	<b>256</b>	5.00	10.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Bromobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Bromochloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Bromoform	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Bromomethane	ND	250	250	ug/L	50	04/21/23 20:02	EPA 8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	04/21/23 20:02	EPA 8260D	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Carbon disulfide	ND	250	500	ug/L	50	04/21/23 20:02	EPA 8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Chloroethane	ND	250	250	ug/L	50	04/21/23 20:02	EPA 8260D	
Chloroform	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Chloromethane	ND	125	250	ug/L	50	04/21/23 20:02	EPA 8260D	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	250	250	ug/L	50	04/21/23 20:02	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Dibromomethane	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:02	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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-90 (A3D1399-04)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0859</b>			
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,1-Dichloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	10.0	20.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
<b>Ethylbenzene</b>	<b>90.0</b>	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Hexachlorobutadiene	ND	125	250	ug/L	50	04/21/23 20:02	EPA 8260D	
2-Hexanone	ND	250	500	ug/L	50	04/21/23 20:02	EPA 8260D	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Methylene chloride	ND	250	500	ug/L	50	04/21/23 20:02	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	04/21/23 20:02	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
<b>Naphthalene</b>	<b>3530</b>	50.0	100	ug/L	50	04/21/23 20:02	EPA 8260D	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Styrene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Tetrachloroethene (PCE)	ND	10.0	20.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Toluene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,2,3-Trichlorobenzene	ND	50.0	100	ug/L	50	04/21/23 20:02	EPA 8260D	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	04/21/23 20:02	EPA 8260D	
1,1,1-Trichloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:02	EPA 8260D	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	04/21/23 20:02	EPA 8260D	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
<b>1,2,4-Trimethylbenzene</b>	<b>50.0</b>	25.0	50.0	ug/L	50	04/21/23 20:02	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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-90 (A3D1399-04)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0859</b>			
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
<b>m,p-Xylene</b>	<b>73.0</b>	25.0	50.0	ug/L	50	04/21/23 20:02	EPA 8260D	
<b>o-Xylene</b>	<b>40.5</b>	12.5	25.0	ug/L	50	04/21/23 20:02	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/21/23 20:02</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>109 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/21/23 20:02</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/21/23 20:02</i>	<i>EPA 8260D</i>	
<b>GS-041923-91 (A3D1399-05)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0859</b>			
Acetone	ND	500	1000	ug/L	50	04/21/23 20:24	EPA 8260D	
Acrylonitrile	ND	50.0	100	ug/L	50	04/21/23 20:24	EPA 8260D	
<b>Benzene</b>	<b>4080</b>	5.00	10.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Bromobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Bromochloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Bromoform	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Bromomethane	ND	250	250	ug/L	50	04/21/23 20:24	EPA 8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	04/21/23 20:24	EPA 8260D	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Carbon disulfide	ND	250	500	ug/L	50	04/21/23 20:24	EPA 8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Chloroethane	ND	250	250	ug/L	50	04/21/23 20:24	EPA 8260D	
Chloroform	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Chloromethane	ND	125	250	ug/L	50	04/21/23 20:24	EPA 8260D	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	250	250	ug/L	50	04/21/23 20:24	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Dibromomethane	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:24	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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-91 (A3D1399-05)</b>		<b>Matrix: WG</b>		<b>Batch: 23D0859</b>				
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,1-Dichloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	10.0	20.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
<b>Ethylbenzene</b>	<b>688</b>	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Hexachlorobutadiene	ND	125	250	ug/L	50	04/21/23 20:24	EPA 8260D	
2-Hexanone	ND	250	500	ug/L	50	04/21/23 20:24	EPA 8260D	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Methylene chloride	ND	250	500	ug/L	50	04/21/23 20:24	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	250	500	ug/L	50	04/21/23 20:24	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
<b>Naphthalene</b>	<b>8600</b>	50.0	100	ug/L	50	04/21/23 20:24	EPA 8260D	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Styrene	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Tetrachloroethene (PCE)	ND	10.0	20.0	ug/L	50	04/21/23 20:24	EPA 8260D	
<b>Toluene</b>	<b>67.5</b>	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,2,3-Trichlorobenzene	ND	50.0	100	ug/L	50	04/21/23 20:24	EPA 8260D	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	04/21/23 20:24	EPA 8260D	
1,1,1-Trichloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:24	EPA 8260D	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	04/21/23 20:24	EPA 8260D	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
<b>1,2,4-Trimethylbenzene</b>	<b>102</b>	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
<b>1,3,5-Trimethylbenzene</b>	<b>38.0</b>	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	<b>J</b>

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

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Anchor QEA, LLC

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

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-91 (A3D1399-05)		Matrix: WG			Batch: 23D0859			
m,p-Xylene	245	25.0	50.0	ug/L	50	04/21/23 20:24	EPA 8260D	
o-Xylene	136	12.5	25.0	ug/L	50	04/21/23 20:24	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %	1	04/21/23 20:24	EPA 8260D	
Toluene-d8 (Surr)		106 %		80-120 %	1	04/21/23 20:24	EPA 8260D	
4-Bromofluorobenzene (Surr)		96 %		80-120 %	1	04/21/23 20:24	EPA 8260D	
GS-041923-92 (A3D1399-06)		Matrix: WG			Batch: 23D0859			
Acetone	ND	500	1000	ug/L	50	04/21/23 20:47	EPA 8260D	
Acrylonitrile	ND	50.0	100	ug/L	50	04/21/23 20:47	EPA 8260D	
Benzene	4400	5.00	10.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Bromobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Bromochloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Bromoform	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Bromomethane	ND	250	250	ug/L	50	04/21/23 20:47	EPA 8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	04/21/23 20:47	EPA 8260D	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Carbon disulfide	ND	250	500	ug/L	50	04/21/23 20:47	EPA 8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Chloroethane	ND	250	250	ug/L	50	04/21/23 20:47	EPA 8260D	
Chloroform	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Chloromethane	ND	125	250	ug/L	50	04/21/23 20:47	EPA 8260D	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	250	250	ug/L	50	04/21/23 20:47	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Dibromomethane	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:47	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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-92 (A3D1399-06)</b>		<b>Matrix: WG</b>		<b>Batch: 23D0859</b>				
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,1-Dichloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	10.0	20.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
<b>Ethylbenzene</b>	<b>164</b>	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Hexachlorobutadiene	ND	125	250	ug/L	50	04/21/23 20:47	EPA 8260D	
2-Hexanone	ND	250	500	ug/L	50	04/21/23 20:47	EPA 8260D	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Methylene chloride	ND	250	500	ug/L	50	04/21/23 20:47	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	250	500	ug/L	50	04/21/23 20:47	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
<b>Naphthalene</b>	<b>2700</b>	50.0	100	ug/L	50	04/21/23 20:47	EPA 8260D	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Styrene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Tetrachloroethene (PCE)	ND	10.0	20.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Toluene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,2,3-Trichlorobenzene	ND	50.0	100	ug/L	50	04/21/23 20:47	EPA 8260D	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	04/21/23 20:47	EPA 8260D	
1,1,1-Trichloroethane	ND	10.0	20.0	ug/L	50	04/21/23 20:47	EPA 8260D	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	04/21/23 20:47	EPA 8260D	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
<b>1,2,4-Trimethylbenzene</b>	<b>45.0</b>	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	<b>J</b>
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	
<b>m,p-Xylene</b>	<b>57.0</b>	25.0	50.0	ug/L	50	04/21/23 20:47	EPA 8260D	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

## Report ID:

A3D1399 - 05 19 23 1327

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-92 (A3D1399-06)		Matrix: WG			Batch: 23D0859			
o-Xylene	44.5	12.5	25.0	ug/L	50	04/21/23 20:47	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 106 %		Limits: 80-120 %	1	04/21/23 20:47	EPA 8260D	
Toluene-d8 (Surr)		108 %		80-120 %	1	04/21/23 20:47	EPA 8260D	
4-Bromofluorobenzene (Surr)		92 %		80-120 %	1	04/21/23 20:47	EPA 8260D	
TB-041923 (A3D1399-07)		Matrix: W			Batch: 23D0859			
Acetone	ND	20.0	20.0	ug/L	1	04/21/23 17:48	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	04/21/23 17:48	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/21/23 17:48	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/21/23 17:48	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/21/23 17:48	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/21/23 17:48	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/21/23 17:48	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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>TB-041923 (A3D1399-07)</b>		<b>Matrix: W</b>			<b>Batch: 23D0859</b>			
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/21/23 17:48	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/21/23 17:48	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/21/23 17:48	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/21/23 17:48	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/21/23 17:48	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	

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Darwin Thomas, Business Development Director



# ANALYTICAL REPORT

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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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB-041923 (A3D1399-07)		Matrix: W			Batch: 23D0859			
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/21/23 17:48	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/21/23 17:48	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/21/23 17:48	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	110 %	Limits:	80-120 %	1	04/21/23 17:48	EPA 8260D
Toluene-d8 (Surr)			103 %		80-120 %	1	04/21/23 17:48	EPA 8260D
4-Bromofluorobenzene (Surr)			100 %		80-120 %	1	04/21/23 17:48	EPA 8260D

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## ANALYTICAL REPORT

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Portland, OR 97219

Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-90 (A3D1399-04)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0991</b>			
1,1-Dichloroethene	ND	0.250	0.500	ug/L	25	04/25/23 22:05	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	04/25/23 22:05	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	04/25/23 22:05	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.250	0.500	ug/L	25	04/25/23 22:05	EPA 8260D SIM	
Vinyl chloride	ND	0.250	0.500	ug/L	25	04/25/23 22:05	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>103 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:05</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:05</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>94 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:05</i>	<i>EPA 8260D SIM</i>
<b>GS-041923-91 (A3D1399-05)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0991</b>			
1,1-Dichloroethene	ND	0.250	0.500	ug/L	25	04/25/23 22:31	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	04/25/23 22:31	EPA 8260D SIM	
<b>trans-1,2-Dichloroethene</b>	<b>0.398</b>	0.250	0.500	ug/L	25	04/25/23 22:31	EPA 8260D SIM	<b>J</b>
Trichloroethene (TCE)	ND	0.250	0.500	ug/L	25	04/25/23 22:31	EPA 8260D SIM	
<b>Vinyl chloride</b>	<b>0.723</b>	0.250	0.500	ug/L	25	04/25/23 22:31	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>101 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:31</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:31</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>94 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:31</i>	<i>EPA 8260D SIM</i>
<b>GS-041923-92 (A3D1399-06)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0991</b>			
1,1-Dichloroethene	ND	0.250	0.500	ug/L	25	04/25/23 22:58	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	04/25/23 22:58	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	04/25/23 22:58	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.250	0.500	ug/L	25	04/25/23 22:58	EPA 8260D SIM	
Vinyl chloride	ND	0.250	0.500	ug/L	25	04/25/23 22:58	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>102 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:58</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:58</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>93 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/25/23 22:58</i>	<i>EPA 8260D SIM</i>

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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-041923-88 (A3D1399-02)		Matrix: WG			Batch: 23D0846			
Acenaphthene	4.49	0.0199	0.0397	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Acenaphthylene	ND	0.497	0.497	ug/L	1	04/24/23 22:40	EPA 8270E LVI	R-02
Anthracene	0.924	0.0199	0.0397	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Benz(a)anthracene	0.0646	0.00994	0.0199	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Benzo(a)pyrene	0.0149	0.00994	0.0199	ug/L	1	04/24/23 22:40	EPA 8270E LVI	J
Benzo(b)fluoranthene	0.0209	0.00994	0.0199	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00994	0.0199	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0199	0.0397	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Chrysene	0.0656	0.00994	0.0199	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00994	0.0199	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Fluoranthene	0.784	0.0199	0.0397	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Fluorene	2.80	0.0199	0.0397	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00994	0.0199	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
1-Methylnaphthalene	11.6	0.0397	0.0795	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
2-Methylnaphthalene	17.1	0.0397	0.0795	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Phenanthrene	5.81	0.0397	0.0795	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Pyrene	0.970	0.0199	0.0397	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Carbazole	1.33	0.0199	0.0397	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Dibenzofuran	0.566	0.0199	0.0397	ug/L	1	04/24/23 22:40	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 121 %		Limits: 78-134 %	1	04/24/23 22:40	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		128 %		80-132 %	1	04/24/23 22:40	EPA 8270E LVI	
GS-041923-88 (A3D1399-02RE1)		Matrix: WG			Batch: 23D0846			
Naphthalene	44.4	0.397	0.795	ug/L	10	04/25/23 14:28	EPA 8270E LVI	
GS-041923-89 (A3D1399-03)		Matrix: WG			Batch: 23D0846			
Acenaphthene	4.57	0.0199	0.0397	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Acenaphthylene	ND	0.497	0.497	ug/L	1	04/25/23 12:15	EPA 8270E LVI	R-02
Anthracene	0.986	0.0199	0.0397	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Benz(a)anthracene	0.0611	0.00994	0.0199	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Benzo(a)pyrene	0.0139	0.00994	0.0199	ug/L	1	04/25/23 12:15	EPA 8270E LVI	J
Benzo(b)fluoranthene	0.0238	0.00994	0.0199	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00994	0.0199	ug/L	1	04/25/23 12:15	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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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-041923-89 (A3D1399-03)		Matrix: WG			Batch: 23D0846			
Benzo(g,h,i)perylene	ND	0.0199	0.0397	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Chrysene	0.0681	0.00994	0.0199	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00994	0.0199	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Fluoranthene	0.817	0.0199	0.0397	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Fluorene	2.70	0.0199	0.0397	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00994	0.0199	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
1-Methylnaphthalene	13.4	0.0397	0.0795	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
2-Methylnaphthalene	19.1	0.0397	0.0795	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Phenanthrene	6.13	0.0397	0.0795	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Pyrene	0.954	0.0199	0.0397	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Carbazole	1.29	0.0199	0.0397	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Dibenzofuran	0.549	0.0199	0.0397	ug/L	1	04/25/23 12:15	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 119 %		Limits: 78-134 %	1	04/25/23 12:15	EPA 8270E LVI	Q-41
Benzo(a)pyrene-d12 (Surr)		124 %		80-132 %	1	04/25/23 12:15	EPA 8270E LVI	
GS-041923-89 (A3D1399-03RE1)		Matrix: WG			Batch: 23D0846			
Naphthalene	42.5	0.397	0.795	ug/L	10	04/25/23 15:01	EPA 8270E LVI	
GS-041923-90 (A3D1399-04)		Matrix: WG			Batch: 23D0846			
Acenaphthene	120	18.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Acenaphthylene	ND	37.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Anthracene	ND	18.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Benz(a)anthracene	ND	9.47	18.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Benzo(a)pyrene	ND	9.47	18.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	9.47	18.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	9.47	18.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	18.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Chrysene	ND	9.47	18.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	9.47	18.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Fluoranthene	ND	18.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Fluorene	54.0	18.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	9.47	18.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
1-Methylnaphthalene	288	37.9	75.8	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	
2-Methylnaphthalene	438	37.9	75.8	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	

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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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

## Report ID:

A3D1399 - 05 19 23 1327

## 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-041923-90 (A3D1399-04)		Matrix: WG			Batch: 23D0846				
Naphthalene	3100	37.9	75.8	ug/L	1000	04/21/23 18:59	EPA 8270E LVI	J	
Phenanthrene	133	37.9	75.8	ug/L	1000	04/21/23 18:59	EPA 8270E LVI		
Pyrene	22.7	18.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI		
Carbazole	49.2	18.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI		
Dibenzofuran	ND	18.9	37.9	ug/L	1000	04/21/23 18:59	EPA 8270E LVI		
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	11800 %	Limits:	78-134 %	1000	04/21/23 18:59	EPA 8270E LVI	S-05
Benzo(a)pyrene-d12 (Surr)			%		80-132 %	1000	04/21/23 18:59	EPA 8270E LVI	S-01
GS-041923-91 (A3D1399-05)		Matrix: WG			Batch: 23D0846				
Acenaphthene	184	20.0	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI	J	
Acenaphthylene	ND	40.1	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Anthracene	ND	20.0	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Benz(a)anthracene	ND	10.0	20.0	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Benzo(a)pyrene	ND	10.0	20.0	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Benzo(b)fluoranthene	ND	10.0	20.0	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Benzo(k)fluoranthene	ND	10.0	20.0	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Benzo(g,h,i)perylene	ND	20.0	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Chrysene	ND	10.0	20.0	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Dibenz(a,h)anthracene	ND	10.0	20.0	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Fluoranthene	ND	20.0	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Fluorene	33.6	20.0	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Indeno(1,2,3-cd)pyrene	ND	10.0	20.0	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
1-Methylnaphthalene	274	40.1	80.2	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
2-Methylnaphthalene	371	40.1	80.2	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Naphthalene	7390	40.1	80.2	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Phenanthrene	66.1	40.1	80.2	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Pyrene	ND	20.0	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Carbazole	58.1	20.0	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Dibenzofuran	ND	20.0	40.1	ug/L	1000	04/21/23 19:32	EPA 8270E LVI		
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	13300 %	Limits:	78-134 %	1000	04/21/23 19:32	EPA 8270E LVI	S-05
Benzo(a)pyrene-d12 (Surr)			%		80-132 %	1000	04/21/23 19:32	EPA 8270E LVI	S-01
GS-041923-92 (A3D1399-06)		Matrix: WG			Batch: 23D0846				

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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 97219Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## 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-041923-92 (A3D1399-06)		Matrix: WG			Batch: 23D0846				
Acenaphthene	86.6	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Acenaphthylene	ND	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Anthracene	ND	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Benz(a)anthracene	ND	9.57	19.1	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Benzo(a)pyrene	ND	9.57	19.1	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Benzo(b)fluoranthene	ND	9.57	19.1	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Benzo(k)fluoranthene	ND	9.57	19.1	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Benzo(g,h,i)perylene	ND	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Chrysene	ND	9.57	19.1	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Dibenz(a,h)anthracene	ND	9.57	19.1	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Fluoranthene	ND	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Fluorene	28.2	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI	J	
Indeno(1,2,3-cd)pyrene	ND	9.57	19.1	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
1-Methylnaphthalene	167	38.3	76.6	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
2-Methylnaphthalene	171	38.3	76.6	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Naphthalene	174	38.3	76.6	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Phenanthrene	82.8	38.3	76.6	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Pyrene	ND	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Carbazole	22.0	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI	J	
Dibenzofuran	ND	19.1	38.3	ug/L	1000	04/21/23 20:05	EPA 8270E LVI		
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	15400 %	Limits:	78-134 %	1000	04/21/23 20:05	EPA 8270E LVI	S-05
Benzo(a)pyrene-d12 (Surr)			40 %		80-132 %	1000	04/21/23 20:05	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 97219

Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-87 (A3D1399-01)		Matrix: WR						
Batch: 23D1156								
Aluminum	425	25.0	50.0	ug/L	1	04/29/23 00:51	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/29/23 00:51	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	04/29/23 00:51	EPA 6020B	
Barium	10.7	1.00	2.00	ug/L	1	04/29/23 00:51	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/29/23 00:51	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/29/23 00:51	EPA 6020B	
Calcium	7070	300	600	ug/L	1	04/29/23 00:51	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/29/23 00:51	EPA 6020B	
Copper	1.38	1.00	2.00	ug/L	1	04/29/23 00:51	EPA 6020B	J
Iron	540	25.0	50.0	ug/L	1	04/29/23 00:51	EPA 6020B	
Lead	0.184	0.110	0.200	ug/L	1	04/29/23 00:51	EPA 6020B	J
Magnesium	2520	75.0	150	ug/L	1	04/29/23 00:51	EPA 6020B	
Manganese	23.8	0.500	1.00	ug/L	1	04/29/23 00:51	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/29/23 00:51	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/29/23 00:51	EPA 6020B	
Potassium	726	50.0	100	ug/L	1	04/29/23 00:51	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/29/23 00:51	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/29/23 00:51	EPA 6020B	
Sodium	4760	50.0	100	ug/L	1	04/29/23 00:51	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/29/23 00:51	EPA 6020B	
Vanadium	2.53	1.00	2.00	ug/L	1	04/29/23 00:51	EPA 6020B	
Zinc	3.38	2.00	4.00	ug/L	1	04/29/23 00:51	EPA 6020B	J

**GS-041923-88 (A3D1399-02)****Matrix: WG**

Batch: 23D1156								
Aluminum	ND	25.0	50.0	ug/L	1	04/29/23 00:56	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/29/23 00:56	EPA 6020B	
<b>Arsenic</b>	<b>7.10</b>	0.500	1.00	ug/L	1	04/29/23 00:56	EPA 6020B	
<b>Barium</b>	<b>163</b>	1.00	2.00	ug/L	1	04/29/23 00:56	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/29/23 00:56	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/29/23 00:56	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/29/23 00:56	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/29/23 00:56	EPA 6020B	

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## ANALYTICAL REPORT

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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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-88 (A3D1399-02)		Matrix: WG						
Lead	ND	0.110	0.200	ug/L	1	04/29/23 00:56	EPA 6020B	
Magnesium	48200	75.0	150	ug/L	1	04/29/23 00:56	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/29/23 00:56	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/29/23 00:56	EPA 6020B	
Potassium	7090	50.0	100	ug/L	1	04/29/23 00:56	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/29/23 00:56	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/29/23 00:56	EPA 6020B	
Sodium	31600	50.0	100	ug/L	1	04/29/23 00:56	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/29/23 00:56	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/29/23 00:56	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/29/23 00:56	EPA 6020B	
GS-041923-88 (A3D1399-02RE1)		Matrix: WG						
Batch: 23D1156								
Calcium	138000	7500	15000	ug/L	25	05/02/23 18:51	EPA 6020B	
Iron	58700	625	1250	ug/L	25	05/02/23 18:51	EPA 6020B	
Manganese	5050	12.5	25.0	ug/L	25	05/02/23 18:51	EPA 6020B	
GS-041923-89 (A3D1399-03)		Matrix: WG						
Batch: 23D1156								
Aluminum	ND	25.0	50.0	ug/L	1	04/29/23 01:00	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/29/23 01:00	EPA 6020B	
Arsenic	7.11	0.500	1.00	ug/L	1	04/29/23 01:00	EPA 6020B	
Barium	162	1.00	2.00	ug/L	1	04/29/23 01:00	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/29/23 01:00	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/29/23 01:00	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/29/23 01:00	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/29/23 01:00	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/29/23 01:00	EPA 6020B	
Magnesium	47900	75.0	150	ug/L	1	04/29/23 01:00	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/29/23 01:00	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/29/23 01:00	EPA 6020B	
Potassium	7040	50.0	100	ug/L	1	04/29/23 01:00	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/29/23 01:00	EPA 6020B	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-89 (A3D1399-03)		Matrix: WG						
Silver	ND	0.100	0.200	ug/L	1	04/29/23 01:00	EPA 6020B	
Sodium	31600	50.0	100	ug/L	1	04/29/23 01:00	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/29/23 01:00	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/29/23 01:00	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/29/23 01:00	EPA 6020B	
GS-041923-89 (A3D1399-03RE2)		Matrix: WG						
Batch: 23D1156								
Calcium	149000	6000	12000	ug/L	20	05/03/23 23:12	EPA 6020B	
Iron	63800	500	1000	ug/L	20	05/03/23 23:12	EPA 6020B	
Manganese	5480	10.0	20.0	ug/L	20	05/03/23 23:12	EPA 6020B	
GS-041923-90 (A3D1399-04)		Matrix: WG						
Batch: 23D1156								
Aluminum	ND	25.0	50.0	ug/L	1	04/29/23 01:05	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Arsenic	3.13	0.500	1.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Barium	36.3	1.00	2.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/29/23 01:05	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/29/23 01:05	EPA 6020B	
Calcium	41100	300	600	ug/L	1	04/29/23 01:05	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Iron	19600	25.0	50.0	ug/L	1	04/29/23 01:05	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/29/23 01:05	EPA 6020B	
Magnesium	34900	75.0	150	ug/L	1	04/29/23 01:05	EPA 6020B	
Manganese	1050	0.500	1.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/29/23 01:05	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Potassium	2280	50.0	100	ug/L	1	04/29/23 01:05	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/29/23 01:05	EPA 6020B	
Sodium	17400	50.0	100	ug/L	1	04/29/23 01:05	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/29/23 01:05	EPA 6020B	

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Portland, OR 97219Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-90 (A3D1399-04)		Matrix: WG						
Vanadium	ND	1.00	2.00	ug/L	1	04/29/23 01:05	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/29/23 01:05	EPA 6020B	
GS-041923-91 (A3D1399-05)		Matrix: WG						
Batch: 23D1156								
Aluminum	ND	25.0	50.0	ug/L	1	04/29/23 01:10	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Arsenic	3.15	0.500	1.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Barium	49.3	1.00	2.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/29/23 01:10	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/29/23 01:10	EPA 6020B	
Calcium	55500	300	600	ug/L	1	04/29/23 01:10	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Iron	29700	25.0	50.0	ug/L	1	04/29/23 01:10	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/29/23 01:10	EPA 6020B	
Magnesium	30400	75.0	150	ug/L	1	04/29/23 01:10	EPA 6020B	
Manganese	2310	0.500	1.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/29/23 01:10	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Potassium	2840	50.0	100	ug/L	1	04/29/23 01:10	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/29/23 01:10	EPA 6020B	
Sodium	18500	50.0	100	ug/L	1	04/29/23 01:10	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/29/23 01:10	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/29/23 01:10	EPA 6020B	
Zinc	3.15	2.00	4.00	ug/L	1	04/29/23 01:10	EPA 6020B	J
GS-041923-92 (A3D1399-06)		Matrix: WG						
Batch: 23D1156								
Aluminum	ND	25.0	50.0	ug/L	1	04/29/23 01:15	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/29/23 01:15	EPA 6020B	
Arsenic	4.67	0.500	1.00	ug/L	1	04/29/23 01:15	EPA 6020B	
Barium	51.2	1.00	2.00	ug/L	1	04/29/23 01:15	EPA 6020B	

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Portland, OR 97219Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-92 (A3D1399-06)</b>		<b>Matrix: WG</b>						
Beryllium	ND	0.100	0.200	ug/L	1	04/29/23 01:15	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/29/23 01:15	EPA 6020B	
<b>Calcium</b>	<b>48100</b>	300	600	ug/L	1	04/29/23 01:15	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/29/23 01:15	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/29/23 01:15	EPA 6020B	
<b>Iron</b>	<b>25600</b>	25.0	50.0	ug/L	1	04/29/23 01:15	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/29/23 01:15	EPA 6020B	
<b>Magnesium</b>	<b>32100</b>	75.0	150	ug/L	1	04/29/23 01:15	EPA 6020B	
<b>Manganese</b>	<b>1430</b>	0.500	1.00	ug/L	1	04/29/23 01:15	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/29/23 01:15	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/29/23 01:15	EPA 6020B	
<b>Potassium</b>	<b>2800</b>	50.0	100	ug/L	1	04/29/23 01:15	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/29/23 01:15	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/29/23 01:15	EPA 6020B	
<b>Sodium</b>	<b>25900</b>	50.0	100	ug/L	1	04/29/23 01:15	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/29/23 01:15	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/29/23 01:15	EPA 6020B	
<b>Zinc</b>	<b>12.8</b>	2.00	4.00	ug/L	1	04/29/23 01:15	EPA 6020B	

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## ANALYTICAL REPORT

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Portland, OR 97219Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-87 (A3D1399-01)</b>		<b>Matrix: WR</b>						
Batch: 23E0028								
<b>Iron</b>	<b>71.3</b>	25.0	50.0	ug/L	1	05/02/23 03:28	EPA 6020B (Diss)	
<b>Magnesium</b>	<b>2210</b>	75.0	150	ug/L	1	05/02/23 03:28	EPA 6020B (Diss)	
<b>GS-041923-88 (A3D1399-02)</b>		<b>Matrix: WG</b>						
Batch: 23E0028								
<b>Iron</b>	<b>52500</b>	25.0	50.0	ug/L	1	05/02/23 03:34	EPA 6020B (Diss)	
<b>Magnesium</b>	<b>47300</b>	75.0	150	ug/L	1	05/02/23 03:34	EPA 6020B (Diss)	
<b>GS-041923-89 (A3D1399-03)</b>		<b>Matrix: WG</b>						
Batch: 23E0028								
<b>Iron</b>	<b>52500</b>	25.0	50.0	ug/L	1	05/02/23 03:50	EPA 6020B (Diss)	
<b>Magnesium</b>	<b>47900</b>	75.0	150	ug/L	1	05/02/23 03:50	EPA 6020B (Diss)	
<b>GS-041923-90 (A3D1399-04)</b>		<b>Matrix: WG</b>						
Batch: 23E0028								
<b>Iron</b>	<b>18200</b>	25.0	50.0	ug/L	1	05/02/23 03:56	EPA 6020B (Diss)	
<b>Magnesium</b>	<b>35400</b>	75.0	150	ug/L	1	05/02/23 03:56	EPA 6020B (Diss)	
<b>GS-041923-91 (A3D1399-05)</b>		<b>Matrix: WG</b>						
Batch: 23E0028								
<b>Iron</b>	<b>27100</b>	25.0	50.0	ug/L	1	05/02/23 04:02	EPA 6020B (Diss)	
<b>Magnesium</b>	<b>30400</b>	75.0	150	ug/L	1	05/02/23 04:02	EPA 6020B (Diss)	
<b>GS-041923-92 (A3D1399-06)</b>		<b>Matrix: WG</b>						
Batch: 23E0028								
<b>Iron</b>	<b>21000</b>	25.0	50.0	ug/L	1	05/02/23 04:07	EPA 6020B (Diss)	
<b>Magnesium</b>	<b>32900</b>	75.0	150	ug/L	1	05/02/23 04:07	EPA 6020B (Diss)	

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## ANALYTICAL REPORT

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## ANALYTICAL SAMPLE RESULTS

## Anions by Ion Chromatography

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-87 (A3D1399-01)				Matrix: WR				
Batch: 23D0835								
Chloride	3.97	0.500	1.00	mg/L	1	04/20/23 19:45	EPA 300.0	
Nitrate-Nitrogen	0.984	0.125	0.250	mg/L	1	04/20/23 19:45	EPA 300.0	
Sulfate	3.69	0.500	1.00	mg/L	1	04/20/23 19:45	EPA 300.0	
GS-041923-88 (A3D1399-02)				Matrix: WG				
Batch: 23D0835								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	04/20/23 20:06	EPA 300.0	
GS-041923-88 (A3D1399-02RE1)				Matrix: WG				
Batch: 23D0835								
Chloride	308	5.00	10.0	mg/L	10	04/21/23 22:03	EPA 300.0	
Sulfate	138	5.00	10.0	mg/L	10	04/21/23 22:03	EPA 300.0	
GS-041923-89 (A3D1399-03)				Matrix: WG				
Batch: 23D0835								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	04/20/23 20:28	EPA 300.0	
GS-041923-89 (A3D1399-03RE1)				Matrix: WG				
Batch: 23D0835								
Chloride	302	5.00	10.0	mg/L	10	04/21/23 22:25	EPA 300.0	
Sulfate	135	5.00	10.0	mg/L	10	04/21/23 22:25	EPA 300.0	
GS-041923-90 (A3D1399-04)				Matrix: WG				
Batch: 23D0835								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	04/20/23 21:33	EPA 300.0	
GS-041923-90 (A3D1399-04RE1)				Matrix: WG				
Batch: 23D0835								
Chloride	7.22	0.500	1.00	mg/L	1	04/21/23 23:30	EPA 300.0	
Sulfate	4.58	0.500	1.00	mg/L	1	04/21/23 23:30	EPA 300.0	
GS-041923-91 (A3D1399-05)				Matrix: WG				
Batch: 23D0835								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	04/20/23 21:54	EPA 300.0	
Sulfate	21.0	0.500	1.00	mg/L	1	04/20/23 21:54	EPA 300.0	

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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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****ANALYTICAL SAMPLE RESULTS****Anions by Ion Chromatography**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-91 (A3D1399-05RE1)				Matrix: WG				
Batch: 23D0835								
Chloride	67.4	2.50	5.00	mg/L	5	04/21/23 23:51	EPA 300.0	
GS-041923-92 (A3D1399-06)				Matrix: WG				
Batch: 23D0835								
Chloride	21.6	0.500	1.00	mg/L	1	04/20/23 22:16	EPA 300.0	
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	04/20/23 22:16	EPA 300.0	
Sulfate	4.10	0.500	1.00	mg/L	1	04/20/23 22:16	EPA 300.0	

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# ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## ANALYTICAL SAMPLE RESULTS

### Total Cyanide by Flow Analysis (Aqueous)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-88 (A3D1399-02)				Matrix: WG		Batch: 23E0036		
Total Cyanide	0.0415	0.00500	0.00500	mg/L	1	05/01/23 18:05	EPA 335.4	Q-42
GS-041923-89 (A3D1399-03)				Matrix: WG		Batch: 23E0036		
Total Cyanide	0.0368	0.00500	0.00500	mg/L	1	05/01/23 18:13	EPA 335.4	
GS-041923-90 (A3D1399-04)				Matrix: WG		Batch: 23E0036		
Total Cyanide	0.100	0.00500	0.00500	mg/L	1	05/01/23 18:19	EPA 335.4	
GS-041923-91 (A3D1399-05)				Matrix: WG		Batch: 23E0036		
Total Cyanide	0.232	0.00500	0.00500	mg/L	1	05/01/23 18:21	EPA 335.4	
GS-041923-92 (A3D1399-06)				Matrix: WG		Batch: 23E0036		
Total Cyanide	0.240	0.00500	0.00500	mg/L	1	05/01/23 18:31	EPA 335.4	

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

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A3D1399 - 05 19 23 1327

## 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-041923-88 (A3D1399-02)				Matrix: WG		Batch: 23D1057		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	04/26/23 14:35	D6888-09	
GS-041923-89 (A3D1399-03)				Matrix: WG		Batch: 23D1057		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	04/26/23 14:36	D6888-09	
GS-041923-90 (A3D1399-04)				Matrix: WG		Batch: 23D1057		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	04/26/23 14:38	D6888-09	
GS-041923-91 (A3D1399-05)				Matrix: WG		Batch: 23D1057		
Available Cyanide	0.00111	0.00100	0.00200	mg/L	1	04/26/23 14:41	D6888-09	J
GS-041923-92 (A3D1399-06)				Matrix: WG		Batch: 23D1057		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	04/26/23 14:45	D6888-09	

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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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## ANALYTICAL SAMPLE RESULTS

## Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-88 (A3D1399-02)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0922</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/24/23 15:47	D4282-02	
<b>GS-041923-89 (A3D1399-03)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0922</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/24/23 15:47	D4282-02	PRES
<b>GS-041923-90 (A3D1399-04)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0922</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/24/23 15:47	D4282-02	
<b>GS-041923-91 (A3D1399-05)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0922</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/24/23 15:47	D4282-02	
<b>GS-041923-92 (A3D1399-06)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0922</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/24/23 15:53	D4282-02	

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Page 31 of 90

**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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****ANALYTICAL SAMPLE RESULTS****Conventional Chemistry Parameters**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041923-87 (A3D1399-01) Matrix: WR</b>								
Batch: 23D1098								
<b>Total Alkalinity</b>	<b>29.1</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 15:23	SM 2320 B	
<b>Bicarbonate Alkalinity</b>	<b>29.1</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 15:23	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 15:23	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 15:23	SM 2320 B	
<b>GS-041923-88 (A3D1399-02) Matrix: WG</b>								
Batch: 23D1098								
<b>Total Alkalinity</b>	<b>109</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 15:49	SM 2320 B	
<b>Bicarbonate Alkalinity</b>	<b>109</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 15:49	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 15:49	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 15:49	SM 2320 B	
<b>GS-041923-89 (A3D1399-03) Matrix: WG</b>								
Batch: 23D1098								
<b>Total Alkalinity</b>	<b>106</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 16:21	SM 2320 B	
<b>Bicarbonate Alkalinity</b>	<b>106</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 16:21	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 16:21	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 16:21	SM 2320 B	
<b>GS-041923-90 (A3D1399-04) Matrix: WG</b>								
Batch: 23D1098								
<b>Total Alkalinity</b>	<b>274</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 17:04	SM 2320 B	
<b>Bicarbonate Alkalinity</b>	<b>274</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 17:04	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 17:04	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 17:04	SM 2320 B	
<b>GS-041923-91 (A3D1399-05) Matrix: WG</b>								
Batch: 23D1098								
<b>Total Alkalinity</b>	<b>206</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 17:41	SM 2320 B	
<b>Bicarbonate Alkalinity</b>	<b>206</b>	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 17:41	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 17:41	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO <sub>3</sub> /L	1	04/27/23 17:41	SM 2320 B	
<b>GS-041923-92 (A3D1399-06) Matrix: WG</b>								

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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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041923-92 (A3D1399-06)				Matrix: WG				
Batch: 23E0142								
Total Alkalinity	284	20.0	20.0	mg CaCO3/L	1	05/03/23 11:22	SM 2320 B	
Bicarbonate Alkalinity	284	20.0	20.0	mg CaCO3/L	1	05/03/23 11:22	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	05/03/23 11:22	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	05/03/23 11:22	SM 2320 B	

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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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****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 23D0859 - EPA 5030C						Water						
Blank (23D0859-BLK1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 10:46							
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

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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0859 - EPA 5030C						Water						
Blank (23D0859-BLK1)						Prepared: 04/21/23 09:00 Analyzed: 04/21/23 10:46						
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: 109 % Limits: 80-120 % Dilution: 1x												

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6720 SW Macadam Ave. Suite 125

Portland, OR 97219

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

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0859 - EPA 5030C						Water						
Blank (23D0859-BLK1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 10:46							
Surr: Toluene-d8 (Surr)		Recovery: 110 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						
LCS (23D0859-BS1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 09:51							
EPA 8260D												
Acetone	47.1	10.0	20.0	ug/L	1	40.0	---	118	80-120%	---	---	
Acrylonitrile	23.7	1.00	2.00	ug/L	1	20.0	---	119	80-120%	---	---	
Benzene	21.4	0.100	0.200	ug/L	1	20.0	---	107	80-120%	---	---	
Bromobenzene	18.1	0.250	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Bromochloromethane	30.8	0.500	1.00	ug/L	1	20.0	---	154	80-120%	---	---	Q-56
Bromodichloromethane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromoform	17.7	0.500	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Bromomethane	29.3	5.00	5.00	ug/L	1	20.0	---	147	80-120%	---	---	Q-56
2-Butanone (MEK)	51.3	5.00	10.0	ug/L	1	40.0	---	128	80-120%	---	---	Q-56
n-Butylbenzene	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
sec-Butylbenzene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
tert-Butylbenzene	17.4	0.500	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Carbon disulfide	24.3	5.00	10.0	ug/L	1	20.0	---	122	80-120%	---	---	Q-56
Carbon tetrachloride	19.1	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chlorobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Chloroethane	27.1	5.00	5.00	ug/L	1	20.0	---	135	80-120%	---	---	Q-56
Chloroform	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloromethane	23.9	2.50	5.00	ug/L	1	20.0	---	120	80-120%	---	---	
2-Chlorotoluene	18.4	0.500	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
4-Chlorotoluene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.6	5.00	5.00	ug/L	1	20.0	---	78	80-120%	---	---	Q-55
1,2-Dibromoethane (EDB)	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromomethane	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichlorobenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,3-Dichlorobenzene	19.1	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,4-Dichlorobenzene	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Dichlorodifluoromethane	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethane	23.8	0.200	0.400	ug/L	1	20.0	---	119	80-120%	---	---	

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0859 - EPA 5030C						Water						
LCS (23D0859-BS1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 09:51							
1,2-Dichloroethane (EDC)	21.1	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	Q-56
1,1-Dichloroethene	24.5	0.200	0.400	ug/L	1	20.0	---	122	80-120%	---	---	
cis-1,2-Dichloroethene	22.0	0.200	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
trans-1,2-Dichloroethene	23.3	0.200	0.400	ug/L	1	20.0	---	116	80-120%	---	---	Q-56
1,2-Dichloropropane	24.3	0.250	0.500	ug/L	1	20.0	---	121	80-120%	---	---	
1,3-Dichloropropane	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
2,2-Dichloropropane	21.3	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	Q-56
1,1-Dichloropropene	21.7	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,3-Dichloropropene	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,3-Dichloropropene	20.7	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	Q-56
Ethylbenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Hexachlorobutadiene	17.2	2.50	5.00	ug/L	1	20.0	---	86	80-120%	---	---	
2-Hexanone	43.5	5.00	10.0	ug/L	1	40.0	---	109	80-120%	---	---	Q-56
Isopropylbenzene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Isopropyltoluene	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Methylene chloride	22.6	5.00	10.0	ug/L	1	20.0	---	113	80-120%	---	---	Q-56
4-Methyl-2-pentanone (MiBK)	46.2	5.00	10.0	ug/L	1	40.0	---	116	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	20.7	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Naphthalene	17.2	1.00	2.00	ug/L	1	20.0	---	86	80-120%	---	---	Q-56
n-Propylbenzene	20.5	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Styrene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	17.6	0.200	0.400	ug/L	1	20.0	---	88	80-120%	---	---	Q-56
1,1,2,2-Tetrachloroethane	21.3	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Tetrachloroethene (PCE)	17.4	0.200	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
Toluene	19.9	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	Q-56
1,2,3-Trichlorobenzene	16.9	1.00	2.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,2,4-Trichlorobenzene	17.0	1.00	2.00	ug/L	1	20.0	---	85	80-120%	---	---	
1,1,1-Trichloroethane	19.3	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	Q-56
1,1,2-Trichloroethane	18.9	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Trichloroethene (TCE)	20.2	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
Trichlorofluoromethane	20.1	1.00	2.00	ug/L	1	20.0	---	101	80-120%	---	---	Q-56
1,2,3-Trichloropropane	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,4-Trimethylbenzene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,3,5-Trimethylbenzene	19.7	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	Q-56

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Darwin Thomas, Business Development Director

Page 37 of 90



## 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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0859 - EPA 5030C												
Water												
LCS (23D0859-BS1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 09:51							
Vinyl chloride	25.9	0.200	0.400	ug/L	1	20.0	---	130	80-120%	---	---	Q-56
m,p-Xylene	39.2	0.500	1.00	ug/L	1	40.0	---	98	80-120%	---	---	
o-Xylene	18.1	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 109 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		106 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		89 %		80-120 %		"						
Duplicate (23D0859-DUP1)												
Prepared: 04/21/23 09:00 Analyzed: 04/21/23 14:06												
QC Source Sample: Non-SDG (A3D1358-01)												
Acetone	ND	20.0	20.0	ug/L	1	---	ND	---	---	---	30%	J
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	0.870	0.500	1.00	ug/L	1	---	0.830	---	---	5	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

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

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0859 - EPA 5030C						Water						
Duplicate (23D0859-DUP1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 14:06							
QC Source Sample: Non-SDG (A3D1358-01)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

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

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0859 - EPA 5030C							Water					
Duplicate (23D0859-DUP1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 14:06							
QC Source Sample: Non-SDG (A3D1358-01)												
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 108 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		106 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		99 %		80-120 %		"						

## Matrix Spike (23D0859-MS1)

Prepared: 04/21/23 09:00 Analyzed: 04/21/23 14:51

QC Source Sample: Non-SDG (A3D1437-02)

## EPA 8260D

Acetone	56.4	10.0	20.0	ug/L	1	40.0	ND	141	39-160%	---	---	
Acrylonitrile	25.2	1.00	2.00	ug/L	1	20.0	ND	126	63-135%	---	---	
Benzene	25.5	0.100	0.200	ug/L	1	20.0	ND	128	79-120%	---	---	Q-01
Bromobenzene	20.8	0.250	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
Bromochloromethane	33.0	0.500	1.00	ug/L	1	20.0	ND	165	78-123%	---	---	Q-54i
Bromodichloromethane	23.2	0.500	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
Bromoform	18.7	0.500	1.00	ug/L	1	20.0	ND	93	66-130%	---	---	
Bromomethane	33.5	5.00	5.00	ug/L	1	20.0	ND	167	53-141%	---	---	Q-54h
2-Butanone (MEK)	54.8	5.00	10.0	ug/L	1	40.0	ND	137	56-143%	---	---	Q-54k
n-Butylbenzene	24.5	0.500	1.00	ug/L	1	20.0	ND	123	75-128%	---	---	
sec-Butylbenzene	24.0	0.500	1.00	ug/L	1	20.0	ND	120	77-126%	---	---	
tert-Butylbenzene	20.7	0.500	1.00	ug/L	1	20.0	ND	103	78-124%	---	---	
Carbon disulfide	28.3	5.00	10.0	ug/L	1	20.0	ND	142	64-133%	---	---	Q-54e
Carbon tetrachloride	22.9	0.500	1.00	ug/L	1	20.0	ND	114	72-136%	---	---	
Chlorobenzene	21.8	0.250	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Chloroethane	32.8	5.00	5.00	ug/L	1	20.0	ND	164	60-138%	---	---	Q-54d
Chloroform	23.8	0.500	1.00	ug/L	1	20.0	ND	119	79-124%	---	---	
Chloromethane	27.4	2.50	5.00	ug/L	1	20.0	ND	137	50-139%	---	---	

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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 23D0859 - EPA 5030C						Water						
Matrix Spike (23D0859-MS1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 14:51							
QC Source Sample: Non-SDG (A3D1437-02)												
2-Chlorotoluene	21.8	0.500	1.00	ug/L	1	20.0	ND	109	79-122%	---	---	
4-Chlorotoluene	22.0	0.500	1.00	ug/L	1	20.0	ND	110	78-122%	---	---	
Dibromochloromethane	20.7	0.500	1.00	ug/L	1	20.0	ND	103	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.8	5.00	5.00	ug/L	1	20.0	ND	89	62-128%	---	---	Q-54m
1,2-Dibromoethane (EDB)	21.7	0.250	0.500	ug/L	1	20.0	ND	108	77-121%	---	---	
Dibromomethane	24.5	0.500	1.00	ug/L	1	20.0	ND	123	79-123%	---	---	
1,2-Dichlorobenzene	22.0	0.250	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,3-Dichlorobenzene	22.0	0.250	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,4-Dichlorobenzene	22.0	0.250	0.500	ug/L	1	20.0	ND	110	79-120%	---	---	
Dichlorodifluoromethane	26.0	0.500	1.00	ug/L	1	20.0	ND	130	32-152%	---	---	
1,1-Dichloroethane	27.4	0.200	0.400	ug/L	1	20.0	ND	137	77-125%	---	---	Q-01
1,2-Dichloroethane (EDC)	22.8	0.200	0.400	ug/L	1	20.0	ND	114	73-128%	---	---	
1,1-Dichloroethene	28.4	0.200	0.400	ug/L	1	20.0	ND	142	71-131%	---	---	Q-54e
cis-1,2-Dichloroethene	26.5	0.200	0.400	ug/L	1	20.0	ND	133	78-123%	---	---	Q-01
trans-1,2-Dichloroethene	27.1	0.200	0.400	ug/L	1	20.0	ND	136	75-124%	---	---	Q-01
1,2-Dichloropropane	28.3	0.250	0.500	ug/L	1	20.0	ND	141	78-122%	---	---	Q-54
1,3-Dichloropropane	23.5	0.500	1.00	ug/L	1	20.0	ND	117	80-120%	---	---	
2,2-Dichloropropane	24.1	0.500	1.00	ug/L	1	20.0	ND	120	60-139%	---	---	
1,1-Dichloropropene	26.5	0.500	1.00	ug/L	1	20.0	ND	133	79-125%	---	---	Q-01
cis-1,3-Dichloropropene	22.8	0.500	1.00	ug/L	1	20.0	ND	114	75-124%	---	---	
trans-1,3-Dichloropropene	22.9	0.500	1.00	ug/L	1	20.0	ND	114	73-127%	---	---	
Ethylbenzene	22.6	0.250	0.500	ug/L	1	20.0	ND	113	79-121%	---	---	
Hexachlorobutadiene	19.1	2.50	5.00	ug/L	1	20.0	ND	95	66-134%	---	---	
2-Hexanone	46.6	5.00	10.0	ug/L	1	40.0	ND	116	57-139%	---	---	
Isopropylbenzene	22.7	0.500	1.00	ug/L	1	20.0	ND	114	72-131%	---	---	
4-Isopropyltoluene	22.6	0.500	1.00	ug/L	1	20.0	ND	113	77-127%	---	---	
Methylene chloride	24.6	5.00	10.0	ug/L	1	20.0	ND	123	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	48.2	5.00	10.0	ug/L	1	40.0	ND	121	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	23.1	0.500	1.00	ug/L	1	20.0	ND	115	71-124%	---	---	
Naphthalene	19.8	1.00	2.00	ug/L	1	20.0	ND	99	61-128%	---	---	
n-Propylbenzene	23.8	0.250	0.500	ug/L	1	20.0	ND	119	76-126%	---	---	
Styrene	21.8	0.500	1.00	ug/L	1	20.0	ND	109	78-123%	---	---	
1,1,1,2-Tetrachloroethane	18.6	0.200	0.400	ug/L	1	20.0	ND	93	78-124%	---	---	

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Darwin Thomas, Business Development Director

Page 41 of 90



## 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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0859 - EPA 5030C						Water						
Matrix Spike (23D0859-MS1)			Prepared: 04/21/23 09:00		Analyzed: 04/21/23 14:51							
QC Source Sample: Non-SDG (A3D1437-02)												
1,1,2,2-Tetrachloroethane	23.0	0.250	0.500	ug/L	1	20.0	ND	115	71-121%	---	---	Q-01
Tetrachloroethene (PCE)	21.5	0.200	0.400	ug/L	1	20.0	ND	107	74-129%	---	---	
Toluene	23.0	0.500	1.00	ug/L	1	20.0	ND	115	80-121%	---	---	
1,2,3-Trichlorobenzene	19.7	1.00	2.00	ug/L	1	20.0	ND	99	69-129%	---	---	
1,2,4-Trichlorobenzene	19.6	1.00	2.00	ug/L	1	20.0	ND	98	69-130%	---	---	
1,1,1-Trichloroethane	23.2	0.200	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
1,1,2-Trichloroethane	21.2	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Trichloroethene (TCE)	25.1	0.200	0.400	ug/L	1	20.0	ND	125	79-123%	---	---	
Trichlorofluoromethane	24.0	1.00	2.00	ug/L	1	20.0	ND	120	65-141%	---	---	
1,2,3-Trichloropropane	20.7	0.500	1.00	ug/L	1	20.0	ND	103	73-122%	---	---	
1,2,4-Trimethylbenzene	22.2	0.500	1.00	ug/L	1	20.0	ND	111	76-124%	---	---	Q-54a
1,3,5-Trimethylbenzene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	75-124%	---	---	
Vinyl chloride	32.1	0.200	0.400	ug/L	1	20.0	ND	160	58-137%	---	---	
m,p-Xylene	44.7	0.500	1.00	ug/L	1	40.0	ND	112	80-121%	---	---	
o-Xylene	20.9	0.250	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 109 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

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Page 42 of 90

**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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****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 23D0923 - EPA 5030C						Water						
Blank (23D0923-BLK1)			Prepared: 04/24/23 10:00		Analyzed: 04/24/23 13:09							
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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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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0923 - EPA 5030C						Water						
Blank (23D0923-BLK1)			Prepared: 04/24/23 10:00		Analyzed: 04/24/23 13:09							
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	---	---	---	---	---	---	
trans-1,4-Dichloro-2-butene	ND	10.0	10.0	ug/L	1	---	---	---	---	---	---	ICV-02

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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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## 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 23D0923 - EPA 5030C						Water						
Blank (23D0923-BLK1)			Prepared: 04/24/23 10:00		Analyzed: 04/24/23 13:09							
n-Hexane	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		109 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						
LCS (23D0923-BS1)												
EPA 8260D			Prepared: 04/24/23 10:00		Analyzed: 04/24/23 12:24							
Acetone	44.8	10.0	20.0	ug/L	1	40.0	---	112	80-120%	---	---	
Acrylonitrile	24.4	1.00	2.00	ug/L	1	20.0	---	122	80-120%	---	---	Q-56
Benzene	20.6	0.100	0.200	ug/L	1	20.0	---	103	80-120%	---	---	
Bromobenzene	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Bromochloromethane	28.7	0.500	1.00	ug/L	1	20.0	---	143	80-120%	---	---	Q-56
Bromodichloromethane	20.1	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromoform	17.1	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
Bromomethane	26.3	5.00	5.00	ug/L	1	20.0	---	132	80-120%	---	---	Q-56
2-Butanone (MEK)	48.6	5.00	10.0	ug/L	1	40.0	---	122	80-120%	---	---	Q-56
n-Butylbenzene	21.9	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
sec-Butylbenzene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
tert-Butylbenzene	18.1	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Carbon disulfide	23.5	5.00	10.0	ug/L	1	20.0	---	118	80-120%	---	---	
Carbon tetrachloride	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Chlorobenzene	18.9	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Chloroethane	26.8	5.00	5.00	ug/L	1	20.0	---	134	80-120%	---	---	Q-56
Chloroform	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	23.3	2.50	5.00	ug/L	1	20.0	---	117	80-120%	---	---	
2-Chlorotoluene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
4-Chlorotoluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromochloromethane	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.2	2.50	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,2-Dibromoethane (EDB)	18.2	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Dibromomethane	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dichlorobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	

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# ANALYTICAL REPORT

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

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0923 - EPA 5030C						Water						
LCS (23D0923-BS1)						Prepared: 04/24/23 10:00 Analyzed: 04/24/23 12:24						
1,3-Dichlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,4-Dichlorobenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dichlorodifluoromethane	19.9	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloroethane	22.6	0.200	0.400	ug/L	1	20.0	---	113	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.1	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloroethene	23.2	0.200	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
cis-1,2-Dichloroethene	22.5	0.200	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
trans-1,2-Dichloroethene	22.0	0.200	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dichloropropane	24.4	0.250	0.500	ug/L	1	20.0	---	122	80-120%	---	---	Q-56
1,3-Dichloropropane	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	20.7	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloropropene	21.8	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,3-Dichloropropene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
trans-1,3-Dichloropropene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Ethylbenzene	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Hexachlorobutadiene	16.6	2.50	5.00	ug/L	1	20.0	---	83	80-120%	---	---	
2-Hexanone	41.5	5.00	10.0	ug/L	1	40.0	---	104	80-120%	---	---	
Isopropylbenzene	18.5	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Isopropyltoluene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Methylene chloride	22.0	5.00	10.0	ug/L	1	20.0	---	110	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	43.0	5.00	10.0	ug/L	1	40.0	---	108	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Naphthalene	17.3	1.00	2.00	ug/L	1	20.0	---	87	80-120%	---	---	
n-Propylbenzene	20.7	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Styrene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	16.6	0.200	0.400	ug/L	1	20.0	---	83	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.3	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Tetrachloroethene (PCE)	17.6	0.200	0.400	ug/L	1	20.0	---	88	80-120%	---	---	
Toluene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,3-Trichlorobenzene	16.7	1.00	2.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,2,4-Trichlorobenzene	17.1	1.00	2.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,1,1-Trichloroethane	19.3	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,2-Trichloroethane	18.7	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Trichloroethene (TCE)	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	

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

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

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0923 - EPA 5030C						Water						
LCS (23D0923-BS1)						Prepared: 04/24/23 10:00 Analyzed: 04/24/23 12:24						
Trichlorofluoromethane	19.9	1.00	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,3-Trichloropropane	19.3	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,4-Trimethylbenzene	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,3,5-Trimethylbenzene	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Vinyl chloride	25.2	0.200	0.400	ug/L	1	20.0	---	126	80-120%	---	---	Q-56
m,p-Xylene	37.5	0.500	1.00	ug/L	1	40.0	---	94	80-120%	---	---	
o-Xylene	17.8	0.250	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
trans-1,4-Dichloro-2-butene	18.1	10.0	10.0	ug/L	1	20.0	---	90	80-120%	---	---	ICV-02
n-Hexane	23.7	5.00	10.0	ug/L	1	20.0	---	118	80-120%	---	---	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	23.2	1.00	2.00	ug/L	1	20.0	---	116	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 109 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 106 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 95 % 80-120 % "</i>												

## Duplicate (23D0923-DUP1)

Prepared: 04/24/23 10:00 Analyzed: 04/24/23 15:46

## QC Source Sample: Non-SDG (A3D1407-02)

Acetone	ND	100	200	ug/L	10	---	ND	---	---	---	30%
Acrylonitrile	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%
Benzene	ND	1.00	2.00	ug/L	10	---	ND	---	---	---	30%
Bromobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%
Bromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Bromodichloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Bromoform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Bromomethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%
n-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
sec-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
tert-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Carbon disulfide	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%
Carbon tetrachloride	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Chlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%
Chloroethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%
Chloroform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%

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Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0923 - EPA 5030C						Water						
Duplicate (23D0923-DUP1)			Prepared: 04/24/23 10:00		Analyzed: 04/24/23 15:46							
QC Source Sample: Non-SDG (A3D1407-02)												
Chloromethane	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	3.80	2.00	4.00	ug/L	10	---	3.10	---	---	20	30%	
trans-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Ethylbenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Hexanone	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Isopropylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Naphthalene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
n-Propylbenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Styrene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0923 - EPA 5030C						Water						
Duplicate (23D0923-DUP1)			Prepared: 04/24/23 10:00		Analyzed: 04/24/23 15:46							
QC Source Sample: Non-SDG (A3D1407-02)												
1,1,1,2-Tetrachloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	13.9	2.00	4.00	ug/L	10	---	13.6	---	---	2	30%	
Toluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
m,p-Xylene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
o-Xylene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,4-Dichloro-2-butene	ND	100	100	ug/L	10	---	ND	---	---	---	30%	ICV-02
n-Hexane	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	10.8	10.0	20.0	ug/L	10	---	10.5	---	---	3	30%	J
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 109 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		108 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

## Matrix Spike (23D0923-MS1)

Prepared: 04/24/23 10:00 Analyzed: 04/24/23 22:06

## QC Source Sample: Non-SDG (A3D1467-12)

## EPA 8260D

Acetone	1340	250	500	ug/L	25	1000	ND	134	39-160%	---	---	
Acrylonitrile	705	25.0	50.0	ug/L	25	500	ND	141	63-135%	---	---	Q-54e
Benzene	643	2.50	5.00	ug/L	25	500	ND	129	79-120%	---	---	Q-01
Bromobenzene	505	6.25	12.5	ug/L	25	500	ND	101	80-120%	---	---	
Bromochloromethane	909	12.5	25.0	ug/L	25	500	ND	182	78-123%	---	---	Q-54f
Bromodichloromethane	620	12.5	25.0	ug/L	25	500	ND	124	79-125%	---	---	

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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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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0923 - EPA 5030C						Water						
Matrix Spike (23D0923-MS1)			Prepared: 04/24/23 10:00		Analyzed: 04/24/23 22:06							
QC Source Sample: Non-SDG (A3D1467-12)												
Bromoform	509	12.5	25.0	ug/L	25	500	ND	102	66-130%	---	---	
Bromomethane	894	125	125	ug/L	25	500	ND	179	53-141%	---	---	Q-54b
2-Butanone (MEK)	1460	125	250	ug/L	25	1000	ND	146	56-143%	---	---	Q-54c
n-Butylbenzene	638	12.5	25.0	ug/L	25	500	ND	128	75-128%	---	---	
sec-Butylbenzene	611	12.5	25.0	ug/L	25	500	ND	122	77-126%	---	---	
tert-Butylbenzene	536	12.5	25.0	ug/L	25	500	ND	107	78-124%	---	---	
Carbon disulfide	752	125	250	ug/L	25	500	ND	150	64-133%	---	---	Q-01
Carbon tetrachloride	606	12.5	25.0	ug/L	25	500	ND	121	72-136%	---	---	
Chlorobenzene	576	6.25	12.5	ug/L	25	500	ND	115	80-120%	---	---	
Chloroethane	888	125	125	ug/L	25	500	ND	178	60-138%	---	---	Q-54c
Chloroform	613	12.5	25.0	ug/L	25	500	ND	123	79-124%	---	---	
Chloromethane	729	62.5	125	ug/L	25	500	ND	146	50-139%	---	---	Q-01
2-Chlorotoluene	539	12.5	25.0	ug/L	25	500	ND	108	79-122%	---	---	
4-Chlorotoluene	557	12.5	25.0	ug/L	25	500	ND	111	78-122%	---	---	
Dibromochloromethane	548	12.5	25.0	ug/L	25	500	ND	110	74-126%	---	---	
1,2-Dibromo-3-chloropropane	450	62.5	125	ug/L	25	500	ND	90	62-128%	---	---	
1,2-Dibromoethane (EDB)	544	6.25	12.5	ug/L	25	500	ND	109	77-121%	---	---	
Dibromomethane	610	12.5	25.0	ug/L	25	500	ND	122	79-123%	---	---	
1,2-Dichlorobenzene	557	6.25	12.5	ug/L	25	500	ND	111	80-120%	---	---	
1,3-Dichlorobenzene	576	6.25	12.5	ug/L	25	500	ND	115	80-120%	---	---	
1,4-Dichlorobenzene	554	6.25	12.5	ug/L	25	500	ND	111	79-120%	---	---	
Dichlorodifluoromethane	635	12.5	25.0	ug/L	25	500	ND	127	32-152%	---	---	
1,1-Dichloroethane	732	5.00	10.0	ug/L	25	500	ND	146	77-125%	---	---	Q-01
1,2-Dichloroethane (EDC)	622	5.00	10.0	ug/L	25	500	ND	124	73-128%	---	---	
1,1-Dichloroethene	770	5.00	10.0	ug/L	25	500	18.8	150	71-131%	---	---	Q-01
cis-1,2-Dichloroethene	1240	5.00	10.0	ug/L	25	500	510	145	78-123%	---	---	Q-01
trans-1,2-Dichloroethene	706	5.00	10.0	ug/L	25	500	ND	141	75-124%	---	---	Q-01
1,2-Dichloropropane	735	6.25	12.5	ug/L	25	500	ND	147	78-122%	---	---	Q-54c
1,3-Dichloropropane	615	12.5	25.0	ug/L	25	500	ND	123	80-120%	---	---	Q-01
2,2-Dichloropropane	575	12.5	25.0	ug/L	25	500	ND	115	60-139%	---	---	
1,1-Dichloropropene	666	12.5	25.0	ug/L	25	500	ND	133	79-125%	---	---	Q-01
cis-1,3-Dichloropropene	554	12.5	25.0	ug/L	25	500	ND	111	75-124%	---	---	
trans-1,3-Dichloropropene	600	12.5	25.0	ug/L	25	500	ND	120	73-127%	---	---	

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*Darwin Thomas*

Darwin Thomas, Business Development Director



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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 23D0923 - EPA 5030C						Water						
Matrix Spike (23D0923-MS1)			Prepared: 04/24/23 10:00		Analyzed: 04/24/23 22:06							
QC Source Sample: Non-SDG (A3D1467-12)												
Ethylbenzene	602	6.25	12.5	ug/L	25	500	ND	120	79-121%	---	---	Q-01
Hexachlorobutadiene	477	62.5	125	ug/L	25	500	ND	95	66-134%	---	---	
2-Hexanone	1250	125	250	ug/L	25	1000	ND	125	57-139%	---	---	
Isopropylbenzene	575	12.5	25.0	ug/L	25	500	ND	115	72-131%	---	---	
4-Isopropyltoluene	574	12.5	25.0	ug/L	25	500	ND	115	77-127%	---	---	
Methylene chloride	667	125	250	ug/L	25	500	ND	133	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	1290	125	250	ug/L	25	1000	ND	129	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	592	12.5	25.0	ug/L	25	500	ND	118	71-124%	---	---	
Naphthalene	480	25.0	50.0	ug/L	25	500	ND	96	61-128%	---	---	
n-Propylbenzene	608	6.25	12.5	ug/L	25	500	ND	122	76-126%	---	---	
Styrene	585	12.5	25.0	ug/L	25	500	ND	117	78-123%	---	---	Q-03
1,1,1,2-Tetrachloroethane	502	5.00	10.0	ug/L	25	500	ND	100	78-124%	---	---	
1,1,2,2-Tetrachloroethane	599	6.25	12.5	ug/L	25	500	ND	120	71-121%	---	---	
Tetrachloroethene (PCE)	577	5.00	10.0	ug/L	25	500	37.0	108	74-129%	---	---	
Toluene	600	12.5	25.0	ug/L	25	500	ND	120	80-121%	---	---	
1,2,3-Trichlorobenzene	488	25.0	50.0	ug/L	25	500	ND	98	69-129%	---	---	
1,2,4-Trichlorobenzene	473	25.0	50.0	ug/L	25	500	ND	95	69-130%	---	---	
1,1,1-Trichloroethane	603	5.00	10.0	ug/L	25	500	ND	121	74-131%	---	---	
1,1,2-Trichloroethane	563	6.25	12.5	ug/L	25	500	ND	113	80-120%	---	---	
Trichloroethene (TCE)	4300	5.00	10.0	ug/L	25	500	3460	169	79-123%	---	---	
Trichlorofluoromethane	629	25.0	50.0	ug/L	25	500	ND	126	65-141%	---	---	Q-54j
1,2,3-Trichloropropane	560	12.5	25.0	ug/L	25	500	ND	112	73-122%	---	---	
1,2,4-Trimethylbenzene	570	12.5	25.0	ug/L	25	500	ND	114	76-124%	---	---	
1,3,5-Trimethylbenzene	579	12.5	25.0	ug/L	25	500	ND	116	75-124%	---	---	
Vinyl chloride	804	5.00	10.0	ug/L	25	500	16.5	158	58-137%	---	---	
m,p-Xylene	1150	12.5	25.0	ug/L	25	1000	ND	115	80-121%	---	---	
o-Xylene	539	6.25	12.5	ug/L	25	500	ND	108	78-122%	---	---	
trans-1,4-Dichloro-2-butene	464	250	250	ug/L	25	500	ND	93	43-140%	---	---	
n-Hexane	682	125	250	ug/L	25	500	ND	136	48-143%	---	---	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	719	25.0	50.0	ug/L	25	500	ND	144	70-136%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 108 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		105 %		80-120 %		"						

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Darwin Thomas, Business Development Director

Page 51 of 90



# 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-Prod. Wells 1Q 2023 Perf. Mon**

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

Project Manager: **John Renda**

**Report ID:**

**A3D1399 - 05 19 23 1327**

## 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 23D0923 - EPA 5030C							Water					
Matrix Spike (23D0923-MS1)			Prepared: 04/24/23 10:00    Analyzed: 04/24/23 22:06									
QC Source Sample: Non-SDG (A3D1467-12)												
Surr: 4-Bromofluorobenzene (Surr)				Recovery: 87 %		Limits: 80-120 %		Dilution: 1x				

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## ANALYTICAL REPORT

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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 23D0973 - EPA 5030C						Water						
Blank (23D0973-BLK1)			Prepared: 04/26/23 11:47   Analyzed: 04/26/23 14:28									
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	10.0	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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Darwin Thomas, Business Development Director



# ANALYTICAL REPORT

Apex Laboratories, LLC

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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-Prod. Wells 1Q 2023 Perf. Mon**

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

Project Manager: **John Renda**

**Report ID:**

**A3D1399 - 05 19 23 1327**

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 23D0973 - EPA 5030C</b>						<b>Water</b>						
<b>Blank (23D0973-BLK1)</b>						Prepared: 04/26/23 11:47 Analyzed: 04/26/23 14:28						
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	---	---	---	---	---	---	
trans-1,4-Dichloro-2-butene	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	

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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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0973 - EPA 5030C						Water						
Blank (23D0973-BLK1)			Prepared: 04/26/23 11:47		Analyzed: 04/26/23 14:28							
n-Hexane	ND	10.0	10.0	ug/L	1	---	---	---	---	---	---	Q-541
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 94 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		105 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		104 %		80-120 %		"						
LCS (23D0973-BS1)						Prepared: 04/26/23 11:47		Analyzed: 04/26/23 13:29				
EPA 8260D												
Acetone	40.8	10.0	20.0	ug/L	1	40.0	---	102	80-120%	---	---	Q-55
Acrylonitrile	18.8	1.00	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
Benzene	17.7	0.100	0.200	ug/L	1	20.0	---	88	80-120%	---	---	
Bromobenzene	16.9	0.250	0.500	ug/L	1	20.0	---	85	80-120%	---	---	ICV-01, Q-56
Bromochloromethane	19.3	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Bromodichloromethane	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromoform	18.9	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	ICV-01, Q-56
Bromomethane	19.3	5.00	5.00	ug/L	1	20.0	---	97	80-120%	---	---	
2-Butanone (MEK)	41.5	5.00	10.0	ug/L	1	40.0	---	104	80-120%	---	---	
n-Butylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	ICV-01, Q-56
sec-Butylbenzene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
tert-Butylbenzene	17.8	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Carbon disulfide	14.8	10.0	10.0	ug/L	1	20.0	---	74	80-120%	---	---	ICV-01, Q-56
Carbon tetrachloride	21.7	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Chlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Chloroethane	29.0	5.00	5.00	ug/L	1	20.0	---	145	80-120%	---	---	ICV-01, Q-56
Chloroform	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Chloromethane	16.3	2.50	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
2-Chlorotoluene	16.8	0.500	1.00	ug/L	1	20.0	---	84	80-120%	---	---	ICV-01, Q-56
4-Chlorotoluene	18.9	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromochloromethane	21.1	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.8	2.50	5.00	ug/L	1	20.0	---	94	80-120%	---	---	ICV-01, Q-56
1,2-Dibromoethane (EDB)	19.5	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromomethane	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichlorobenzene	19.5	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	

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Darwin Thomas, Business Development Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**

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Portland, OR 97219

Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 23D0973 - EPA 5030C</b>						<b>Water</b>						
<b>LCS (23D0973-BS1)</b>						Prepared: 04/26/23 11:47 Analyzed: 04/26/23 13:29						
1,3-Dichlorobenzene	18.9	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,4-Dichlorobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dichlorodifluoromethane	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloroethane	19.0	0.200	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloroethane (EDC)	23.2	0.200	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloroethene	19.8	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,2-Dichloroethene	19.0	0.200	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.1	0.200	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
1,2-Dichloropropane	18.3	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
1,3-Dichloropropane	20.3	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	17.3	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,1-Dichloropropene	18.5	0.500	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
cis-1,3-Dichloropropene	18.7	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,3-Dichloropropene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Ethylbenzene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	21.0	2.50	5.00	ug/L	1	20.0	---	105	80-120%	---	---	
2-Hexanone	43.4	5.00	10.0	ug/L	1	40.0	---	108	80-120%	---	---	
Isopropylbenzene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Isopropyltoluene	19.1	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Methylene chloride	17.5	5.00	10.0	ug/L	1	20.0	---	88	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	43.5	5.00	10.0	ug/L	1	40.0	---	109	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	16.6	0.500	1.00	ug/L	1	20.0	---	83	80-120%	---	---	
Naphthalene	16.2	1.00	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
n-Propylbenzene	18.0	0.250	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Styrene	20.1	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.6	0.200	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	18.7	0.200	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
Toluene	18.4	0.500	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,3-Trichlorobenzene	19.4	1.00	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,4-Trichlorobenzene	18.9	1.00	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1-Trichloroethane	20.0	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2-Trichloroethane	19.5	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Trichloroethene (TCE)	16.7	0.200	0.400	ug/L	1	20.0	---	83	80-120%	---	---	

Apex Laboratories

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Darwin Thomas, Business Development Director





## ANALYTICAL REPORT

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Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## 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 23D0973 - EPA 5030C						Water						
LCS (23D0973-BS1)				Prepared: 04/26/23 11:47		Analyzed: 04/26/23 13:29						
Trichlorofluoromethane	27.0	1.00	2.00	ug/L	1	20.0	---	135	80-120%	---	---	Q-56
1,2,3-Trichloropropane	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,4-Trimethylbenzene	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,3,5-Trimethylbenzene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Vinyl chloride	16.7	0.200	0.400	ug/L	1	20.0	---	83	80-120%	---	---	
m,p-Xylene	40.6	0.500	1.00	ug/L	1	40.0	---	101	80-120%	---	---	
o-Xylene	19.1	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,4-Dichloro-2-butene	19.7	5.00	10.0	ug/L	1	20.0	---	98	80-120%	---	---	
n-Hexane	13.6	10.0	10.0	ug/L	1	20.0	---	68	80-120%	---	---	Q-541
1,1,2-Trichloro-1,2,2-trifluoroet hane (Freon-113)	20.2	1.00	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 92 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		87 %		80-120 %		"						

**Duplicate (23D0973-DUP1)** Prepared: 04/26/23 11:47 Analyzed: 04/27/23 01:46 **T-02****QC Source Sample: Non-SDG (A3D1587-01)**

Acetone	ND	100	200	ug/L	10	---	ND	---	---	---	30%
Acrylonitrile	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%
Benzene	ND	1.00	2.00	ug/L	10	---	ND	---	---	---	30%
Bromobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%
Bromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Bromodichloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Bromoform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Bromomethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%
n-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
sec-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
tert-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Carbon disulfide	ND	100	100	ug/L	10	---	ND	---	---	---	30%
Carbon tetrachloride	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%
Chlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%
Chloroethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%
Chloroform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0973 - EPA 5030C						Water						
Duplicate (23D0973-DUP1)			Prepared: 04/26/23 11:47   Analyzed: 04/27/23 01:46						T-02			
QC Source Sample: Non-SDG (A3D1587-01)												
Chloromethane	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Ethylbenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Hexanone	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Isopropylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Naphthalene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
n-Propylbenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Styrene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## 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 23D0973 - EPA 5030C						Water						
Duplicate (23D0973-DUP1)			Prepared: 04/26/23 11:47    Analyzed: 04/27/23 01:46					T-02				
QC Source Sample: Non-SDG (A3D1587-01)												
1,1,1,2-Tetrachloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	Q-541
1,1,2,2-Tetrachloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
Toluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
m,p-Xylene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
o-Xylene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,4-Dichloro-2-butene	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
n-Hexane	ND	100	100	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 94 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		103 %		80-120 %		"						

**Matrix Spike (23D0973-MS1)**

Prepared: 04/26/23 11:47 Analyzed: 04/27/23 02:13

**T-02****QC Source Sample: Non-SDG (A3D1528-03)****EPA 8260D**

Acetone	53.6	10.0	20.0	ug/L	1	40.0	ND	97	39-160%	---	---
Acrylonitrile	44.4	1.00	2.00	ug/L	1	20.0	ND	109	63-135%	---	---
Benzene	19.0	0.100	0.200	ug/L	1	20.0	ND	95	79-120%	---	---
Bromobenzene	17.6	0.250	0.500	ug/L	1	20.0	ND	88	80-120%	---	---
Bromochloromethane	21.0	0.500	1.00	ug/L	1	20.0	ND	105	78-123%	---	---
Bromodichloromethane	21.2	0.500	1.00	ug/L	1	20.0	ND	106	79-125%	---	---

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0973 - EPA 5030C						Water						
Matrix Spike (23D0973-MS1)				Prepared: 04/26/23 11:47				Analyzed: 04/27/23 02:13				T-02
QC Source Sample: Non-SDG (A3D1528-03)												
Bromoform	18.1	0.500	1.00	ug/L	1	20.0	ND	91	66-130%	---	---	
Bromomethane	20.4	5.00	5.00	ug/L	1	20.0	ND	102	53-141%	---	---	
2-Butanone (MEK)	62.7	5.00	10.0	ug/L	1	40.0	ND	112	56-143%	---	---	
n-Butylbenzene	25.7	0.500	1.00	ug/L	1	20.0	2.15	118	75-128%	---	---	
sec-Butylbenzene	22.0	0.500	1.00	ug/L	1	20.0	0.980	105	77-126%	---	---	
tert-Butylbenzene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	78-124%	---	---	
Carbon disulfide	15.9	10.0	10.0	ug/L	1	20.0	ND	79	64-133%	---	---	Q-54n
Carbon tetrachloride	23.3	0.500	1.00	ug/L	1	20.0	ND	117	72-136%	---	---	
Chlorobenzene	20.5	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Chloroethane	29.2	5.00	5.00	ug/L	1	20.0	ND	146	60-138%	---	---	ICV-01, Q-54g
Chloroform	20.4	0.500	1.00	ug/L	1	20.0	ND	102	79-124%	---	---	
Chloromethane	18.6	2.50	5.00	ug/L	1	20.0	ND	93	50-139%	---	---	
2-Chlorotoluene	18.1	0.500	1.00	ug/L	1	20.0	ND	91	79-122%	---	---	
4-Chlorotoluene	19.5	0.500	1.00	ug/L	1	20.0	ND	98	78-122%	---	---	
Dibromochloromethane	20.6	0.500	1.00	ug/L	1	20.0	ND	103	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.3	2.50	5.00	ug/L	1	20.0	ND	97	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.1	0.250	0.500	ug/L	1	20.0	ND	100	77-121%	---	---	
Dibromomethane	20.4	0.500	1.00	ug/L	1	20.0	ND	102	79-123%	---	---	
1,2-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
1,3-Dichlorobenzene	19.2	0.250	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
1,4-Dichlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	23.1	0.500	1.00	ug/L	1	20.0	ND	116	32-152%	---	---	
1,1-Dichloroethane	19.8	0.200	0.400	ug/L	1	20.0	ND	99	77-125%	---	---	
1,2-Dichloroethane (EDC)	23.2	0.200	0.400	ug/L	1	20.0	ND	116	73-128%	---	---	
1,1-Dichloroethene	21.3	0.200	0.400	ug/L	1	20.0	ND	106	71-131%	---	---	
cis-1,2-Dichloroethene	19.8	0.200	0.400	ug/L	1	20.0	ND	99	78-123%	---	---	
trans-1,2-Dichloroethene	19.2	0.200	0.400	ug/L	1	20.0	ND	96	75-124%	---	---	
1,2-Dichloropropane	19.3	0.250	0.500	ug/L	1	20.0	ND	96	78-122%	---	---	
1,3-Dichloropropane	20.8	0.500	1.00	ug/L	1	20.0	ND	104	80-120%	---	---	
2,2-Dichloropropane	15.3	0.500	1.00	ug/L	1	20.0	ND	76	60-139%	---	---	
1,1-Dichloropropene	21.1	0.500	1.00	ug/L	1	20.0	ND	105	79-125%	---	---	
cis-1,3-Dichloropropene	18.2	0.500	1.00	ug/L	1	20.0	ND	91	75-124%	---	---	
trans-1,3-Dichloropropene	20.5	0.500	1.00	ug/L	1	20.0	ND	103	73-127%	---	---	

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Page 60 of 90



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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 23D0973 - EPA 5030C						Water						
Matrix Spike (23D0973-MS1)			Prepared: 04/26/23 11:47			Analyzed: 04/27/23 02:13					T-02	
QC Source Sample: Non-SDG (A3D1528-03)												
Ethylbenzene	34.4	0.250	0.500	ug/L	1	20.0	9.33	125	79-121%	---	---	Q-01
Hexachlorobutadiene	19.0	2.50	5.00	ug/L	1	20.0	ND	95	66-134%	---	---	
2-Hexanone	46.5	5.00	10.0	ug/L	1	40.0	ND	116	57-139%	---	---	
Isopropylbenzene	27.8	0.500	1.00	ug/L	1	20.0	3.65	121	72-131%	---	---	
4-Isopropyltoluene	20.7	0.500	1.00	ug/L	1	20.0	ND	103	77-127%	---	---	
Methylene chloride	18.9	5.00	10.0	ug/L	1	20.0	ND	94	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	46.5	5.00	10.0	ug/L	1	40.0	ND	116	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	16.8	0.500	1.00	ug/L	1	20.0	ND	84	71-124%	---	---	
Naphthalene	26.4	1.00	2.00	ug/L	1	20.0	3.84	113	61-128%	---	---	
n-Propylbenzene	34.9	0.250	0.500	ug/L	1	20.0	10.9	120	76-126%	---	---	
Styrene	18.9	0.500	1.00	ug/L	1	20.0	ND	94	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.8	0.200	0.400	ug/L	1	20.0	ND	109	78-124%	---	---	
1,1,2,2-Tetrachloroethane	19.7	0.250	0.500	ug/L	1	20.0	ND	99	71-121%	---	---	
Tetrachloroethene (PCE)	20.3	0.200	0.400	ug/L	1	20.0	ND	102	74-129%	---	---	
Toluene	19.1	0.500	1.00	ug/L	1	20.0	ND	96	80-121%	---	---	
1,2,3-Trichlorobenzene	21.9	1.00	2.00	ug/L	1	20.0	ND	110	69-129%	---	---	
1,2,4-Trichlorobenzene	23.1	1.00	2.00	ug/L	1	20.0	ND	115	69-130%	---	---	
1,1,1-Trichloroethane	21.4	0.200	0.400	ug/L	1	20.0	ND	107	74-131%	---	---	
1,1,2-Trichloroethane	20.6	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Trichloroethene (TCE)	19.2	0.200	0.400	ug/L	1	20.0	ND	96	79-123%	---	---	
Trichlorofluoromethane	30.5	1.00	2.00	ug/L	1	20.0	ND	152	65-141%	---	---	Q-54d
1,2,3-Trichloropropane	20.4	0.500	1.00	ug/L	1	20.0	ND	102	73-122%	---	---	
1,2,4-Trimethylbenzene	21.2	0.500	1.00	ug/L	1	20.0	ND	106	76-124%	---	---	
1,3,5-Trimethylbenzene	20.5	0.500	1.00	ug/L	1	20.0	ND	103	75-124%	---	---	
Vinyl chloride	18.8	0.200	0.400	ug/L	1	20.0	ND	94	58-137%	---	---	
m,p-Xylene	49.7	0.500	1.00	ug/L	1	40.0	5.49	111	80-121%	---	---	
o-Xylene	20.1	0.250	0.500	ug/L	1	20.0	ND	100	78-122%	---	---	
trans-1,4-Dichloro-2-butene	20.1	5.00	10.0	ug/L	1	20.0	ND	101	43-140%	---	---	
n-Hexane	54.2	10.0	10.0	ug/L	1	20.0	29.3	124	48-143%	---	---	Q-54l
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	22.1	1.00	2.00	ug/L	1	20.0	ND	111	70-136%	---	---	
Surr: 1,4-Difluorobenzene (Surr)												
Toluene-d8 (Surr)												
Recovery: 94 %			Limits: 80-120 %			Dilution: 1x						
98 %			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  
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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

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 23D0973 - EPA 5030C						Water						
Matrix Spike (23D0973-MS1)			Prepared: 04/26/23 11:47   Analyzed: 04/27/23 02:13									T-02
<u>QC Source Sample: Non-SDG (A3D1528-03)</u>												
Surr: 4-Bromofluorobenzene (Surr)				Recovery: 89 %		Limits: 80-120 %		Dilution: 1x				

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A3D1399 - 05 19 23 1327

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0991 - EPA 5030C												Water
Blank (23D0991-BLK1)												Prepared: 04/25/23 11:00 Analyzed: 04/25/23 14:00
EPA 8260D SIM												
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)												Recovery: 106 % Limits: 80-120 % Dilution: 1x
Toluene-d8 (Surr)												103 % 80-120 % "
4-Bromofluorobenzene (Surr)												101 % 80-120 % "
LCS (23D0991-BS1)												Prepared: 04/25/23 11:00 Analyzed: 04/25/23 13:03
EPA 8260D SIM												
1,1-Dichloroethene	0.204	0.0100	0.0200	ug/L	1	0.200	---	102	80-120%	---	---	
cis-1,2-Dichloroethene	0.222	0.0100	0.0200	ug/L	1	0.200	---	111	80-120%	---	---	
trans-1,2-Dichloroethene	0.205	0.0100	0.0200	ug/L	1	0.200	---	102	80-120%	---	---	
Trichloroethene (TCE)	0.191	0.0100	0.0200	ug/L	1	0.200	---	96	80-120%	---	---	
Vinyl chloride	0.197	0.0100	0.0200	ug/L	1	0.200	---	98	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)												Recovery: 106 % Limits: 80-120 % Dilution: 1x
Toluene-d8 (Surr)												102 % 80-120 % "
4-Bromofluorobenzene (Surr)												98 % 80-120 % "
Duplicate (23D0991-DUP1)												Prepared: 04/25/23 11:00 Analyzed: 04/25/23 18:56
QC Source Sample: Non-SDG (A3D1208-01)												
1,1-Dichloroethene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.500	0.500	ug/L	25	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	1.00	1.00	ug/L	25	---	ND	---	---	---	30%	R-06
Vinyl chloride	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)												Recovery: 103 % Limits: 80-120 % Dilution: 1x
Toluene-d8 (Surr)												101 % 80-120 % "
4-Bromofluorobenzene (Surr)												96 % 80-120 % "
Matrix Spike (23D0991-MS1)												Prepared: 04/25/23 11:00 Analyzed: 04/26/23 01:13 T-02

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0991 - EPA 5030C						Water						
Matrix Spike (23D0991-MS1)			Prepared: 04/25/23 11:00			Analyzed: 04/26/23 01:13			T-02			
QC Source Sample: Non-SDG (A3D1354-03)												
EPA 8260D SIM												
1,1-Dichloroethene	5.64	0.250	0.500	ug/L	25	5.00	ND	113	71-131%	---	---	
cis-1,2-Dichloroethene	5.78	0.250	0.500	ug/L	25	5.00	ND	116	78-123%	---	---	
trans-1,2-Dichloroethene	5.49	0.250	0.500	ug/L	25	5.00	ND	110	75-124%	---	---	
Trichloroethene (TCE)	5.81	0.250	0.500	ug/L	25	5.00	ND	116	79-123%	---	---	
Vinyl chloride	5.54	0.250	0.500	ug/L	25	5.00	ND	111	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						
Matrix Spike Dup (23D0991-MSD1)			Prepared: 04/25/23 11:00			Analyzed: 04/26/23 01:40			T-02			
QC Source Sample: Non-SDG (A3D1354-03)												
1,1-Dichloroethene	5.54	0.250	0.500	ug/L	25	5.00	ND	111	71-131%	2	30%	
cis-1,2-Dichloroethene	5.48	0.250	0.500	ug/L	25	5.00	ND	110	78-123%	5	30%	
trans-1,2-Dichloroethene	5.39	0.250	0.500	ug/L	25	5.00	ND	108	75-124%	2	30%	
Trichloroethene (TCE)	5.57	0.250	0.500	ug/L	25	5.00	ND	111	79-123%	4	30%	
Vinyl chloride	5.48	0.250	0.500	ug/L	25	5.00	ND	110	58-137%	1	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0846 - EPA 3511 (Bottle Extraction)						Water						
Blank (23D0846-BLK1)			Prepared: 04/21/23 06:01		Analyzed: 04/21/23 15:02							
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: 127 %		Limits: 78-134 %		Dilution: 1x		Q-41				
Benzo(a)pyrene-d12 (Surr)		126 %		80-132 %		"						

LCS (23D0846-BS1)

Prepared: 04/21/23 06:01 Analyzed: 04/21/23 15:35

EPA 8270E LV1												
Acenaphthene	1.56	0.0160	0.0320	ug/L	1	1.60	---	98	80-120%	---	---	
Acenaphthylene	1.79	0.0160	0.0320	ug/L	1	1.60	---	112	80-124%	---	---	
Anthracene	1.61	0.0160	0.0320	ug/L	1	1.60	---	100	80-123%	---	---	
Benz(a)anthracene	1.81	0.00800	0.0160	ug/L	1	1.60	---	113	80-122%	---	---	
Benzo(a)pyrene	1.97	0.00800	0.0160	ug/L	1	1.60	---	123	80-129%	---	---	
Benzo(b)fluoranthene	1.94	0.00800	0.0160	ug/L	1	1.60	---	121	80-124%	---	---	
Benzo(k)fluoranthene	1.79	0.00800	0.0160	ug/L	1	1.60	---	112	80-125%	---	---	
Benzo(g,h,i)perylene	1.63	0.0160	0.0320	ug/L	1	1.60	---	102	80-120%	---	---	

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0846 - EPA 3511 (Bottle Extraction)						Water						
LCS (23D0846-BS1)				Prepared: 04/21/23 06:01		Analyzed: 04/21/23 15:35						
Chrysene	1.65	0.00800	0.0160	ug/L	1	1.60	---	103	80-120%	---	---	
Dibenz(a,h)anthracene	1.63	0.00800	0.0160	ug/L	1	1.60	---	102	80-120%	---	---	
Fluoranthene	1.59	0.0160	0.0320	ug/L	1	1.60	---	100	80-126%	---	---	
Fluorene	1.56	0.0160	0.0320	ug/L	1	1.60	---	97	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.61	0.00800	0.0160	ug/L	1	1.60	---	100	80-121%	---	---	
1-Methylnaphthalene	1.33	0.0320	0.0640	ug/L	1	1.60	---	83	53-148%	---	---	
2-Methylnaphthalene	1.31	0.0320	0.0640	ug/L	1	1.60	---	82	48-150%	---	---	
Naphthalene	1.55	0.0320	0.0640	ug/L	1	1.60	---	97	78-120%	---	---	
Phenanthrene	1.55	0.0320	0.0640	ug/L	1	1.60	---	97	80-120%	---	---	
Pyrene	1.60	0.0160	0.0320	ug/L	1	1.60	---	100	80-125%	---	---	
Carbazole	1.87	0.0160	0.0320	ug/L	1	1.60	---	117	65-141%	---	---	
Dibenzofuran	1.66	0.0160	0.0320	ug/L	1	1.60	---	104	76-121%	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 123 %		Limits: 78-134 %		Dilution: 1x		Q-41				
Benzo(a)pyrene-d12 (Surr)		124 %		80-132 %		"						

## Matrix Spike (23D0846-MS1)

Prepared: 04/21/23 06:02 Analyzed: 04/21/23 16:47

## QC Source Sample: Non-SDG (A3D1354-03)

## EPA 8270E LV1

Acenaphthene	59.1	1.08	2.16	ug/L	50	2.16	58.2	41	80-120%	---	---	Q-03
Acenaphthylene	7.54	6.08	6.08	ug/L	50	2.16	ND	349	80-124%	---	---	Q-02
Anthracene	3.13	2.16	2.16	ug/L	50	2.16	ND	145	80-123%	---	---	Q-02
Benz(a)anthracene	2.38	0.540	1.08	ug/L	50	2.16	ND	110	80-122%	---	---	
Benzo(a)pyrene	1.86	0.540	1.08	ug/L	50	2.16	ND	86	80-129%	---	---	
Benzo(b)fluoranthene	1.86	0.540	1.08	ug/L	50	2.16	ND	86	80-124%	---	---	
Benzo(k)fluoranthene	1.70	0.540	1.08	ug/L	50	2.16	ND	79	80-125%	---	---	Q-01
Benzo(g,h,i)perylene	1.70	1.08	2.16	ug/L	50	2.16	ND	79	80-120%	---	---	Q-01, J
Chrysene	2.22	0.540	1.08	ug/L	50	2.16	ND	102	80-120%	---	---	
Dibenz(a,h)anthracene	2.19	0.540	1.08	ug/L	50	2.16	ND	101	80-120%	---	---	
Fluoranthene	2.51	1.08	2.16	ug/L	50	2.16	ND	116	80-126%	---	---	
Fluorene	16.5	1.08	2.16	ug/L	50	2.16	14.3	101	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	2.38	0.540	1.08	ug/L	50	2.16	ND	110	80-121%	---	---	
1-Methylnaphthalene	40.6	2.16	4.32	ug/L	50	2.16	38.5	97	53-148%	---	---	Q-03
2-Methylnaphthalene	39.9	2.16	4.32	ug/L	50	2.16	39.4	24	48-150%	---	---	Q-03
Naphthalene	106	2.16	4.32	ug/L	50	2.16	110	-187	78-120%	---	---	Q-03

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## 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 23D0846 - EPA 3511 (Bottle Extraction)						Water							
Matrix Spike (23D0846-MS1)			Prepared: 04/21/23 06:02    Analyzed: 04/21/23 16:47										
QC Source Sample: Non-SDG (A3D1354-03)													
Phenanthrene	12.9	2.16	4.32	ug/L	50	2.16	11.8	51	80-120%	---	---	Q-03	
Pyrene	2.57	1.08	2.16	ug/L	50	2.16	ND	119	80-125%	---	---		
Carbazole	12.2	1.08	2.16	ug/L	50	2.16	10.2	93	65-141%	---	---		
Dibenzofuran	16.2	1.08	2.16	ug/L	50	2.16	14.7	68	76-121%	---	---	Q-03	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 457 %		Limits: 78-134 %		Dilution: 50x							S-05
Benzo(a)pyrene-d12 (Surr)		87 %		80-132 %		"							S-05

Matrix Spike Dup (23D0846-MSD1) Prepared: 04/21/23 06:02 Analyzed: 04/21/23 17:20

QC Source Sample: Non-SDG (A3D1354-03)												
Acenaphthene	67.9	1.07	2.14	ug/L	50	2.14	58.2	451	80-120%	14	30%	Q-03
Acenaphthylene	7.85	6.03	6.03	ug/L	50	2.14	ND	366	80-124%	4	30%	Q-02
Anthracene	3.32	2.14	2.14	ug/L	50	2.14	ND	155	80-123%	6	30%	Q-02
Benz(a)anthracene	2.44	0.536	1.07	ug/L	50	2.14	ND	114	80-122%	3	30%	
Benzo(a)pyrene	2.06	0.536	1.07	ug/L	50	2.14	ND	96	80-129%	10	30%	
Benzo(b)fluoranthene	2.20	0.536	1.07	ug/L	50	2.14	ND	102	80-124%	16	30%	
Benzo(k)fluoranthene	2.12	0.536	1.07	ug/L	50	2.14	ND	99	80-125%	22	30%	
Benzo(g,h,i)perylene	2.04	1.07	2.14	ug/L	50	2.14	ND	95	80-120%	18	30%	J
Chrysene	2.33	0.536	1.07	ug/L	50	2.14	ND	109	80-120%	5	30%	
Dibenz(a,h)anthracene	2.44	0.536	1.07	ug/L	50	2.14	ND	114	80-120%	11	30%	
Fluoranthene	2.81	1.07	2.14	ug/L	50	2.14	ND	131	80-126%	11	30%	Q-01
Fluorene	17.7	1.07	2.14	ug/L	50	2.14	14.3	157	77-127%	7	30%	Q-03
Indeno(1,2,3-cd)pyrene	2.97	0.536	1.07	ug/L	50	2.14	ND	139	80-121%	22	30%	Q-01
1-Methylnaphthalene	42.0	2.14	4.29	ug/L	50	2.14	38.5	161	53-148%	3	30%	Q-03
2-Methylnaphthalene	41.1	2.14	4.29	ug/L	50	2.14	39.4	80	48-150%	3	30%	
Naphthalene	117	2.14	4.29	ug/L	50	2.14	110	307	78-120%	10	30%	Q-03
Phenanthrene	14.5	2.14	4.29	ug/L	50	2.14	11.8	124	80-120%	11	30%	Q-03
Pyrene	2.63	1.07	2.14	ug/L	50	2.14	ND	122	80-125%	2	30%	
Carbazole	13.4	1.07	2.14	ug/L	50	2.14	10.2	148	65-141%	9	30%	Q-03
Dibenzofuran	17.3	1.07	2.14	ug/L	50	2.14	14.7	120	76-121%	7	30%	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 436 %		Limits: 78-134 %		Dilution: 50x		S-05				
Benzo(a)pyrene-d12 (Surr)		91 %		80-132 %		"		S-05				

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6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****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 23D1156 - EPA 3015A						Water						
Blank (23D1156-BLK1)			Prepared: 04/28/23 10:20		Analyzed: 04/28/23 22:19							
EPA 6020B												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
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	---	---	---	---	---	---	
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Calcium	ND	300	600	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.110	0.200	ug/L	1	---	---	---	---	---	---	
Magnesium	ND	75.0	150	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	---	---	---	---	---	---	
Potassium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Silver	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Sodium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	

**LCS (23D1156-BS1)**

Prepared: 04/28/23 10:20 Analyzed: 04/28/23 22:24

<b>EPA 6020B</b>												
Aluminum	2900	25.0	50.0	ug/L	1	2780	---	104	80-120%	---	---	
Antimony	28.7	0.500	1.00	ug/L	1	27.8	---	103	80-120%	---	---	
Arsenic	55.3	0.500	1.00	ug/L	1	55.6	---	99	80-120%	---	---	
Barium	57.4	1.00	2.00	ug/L	1	55.6	---	103	80-120%	---	---	
Beryllium	27.2	0.100	0.200	ug/L	1	27.8	---	98	80-120%	---	---	
Cadmium	54.7	0.100	0.200	ug/L	1	55.6	---	98	80-120%	---	---	
Calcium	2880	300	600	ug/L	1	2780	---	104	80-120%	---	---	
Chromium	56.0	1.00	2.00	ug/L	1	55.6	---	101	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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D1156 - EPA 3015A						Water						
LCS (23D1156-BS1)						Prepared: 04/28/23 10:20 Analyzed: 04/28/23 22:24						
Copper	58.6	1.00	2.00	ug/L	1	55.6	---	105	80-120%	---	---	
Iron	2900	25.0	50.0	ug/L	1	2780	---	104	80-120%	---	---	
Lead	59.8	0.110	0.200	ug/L	1	55.6	---	108	80-120%	---	---	
Magnesium	2970	75.0	150	ug/L	1	2780	---	107	80-120%	---	---	
Manganese	57.7	0.500	1.00	ug/L	1	55.6	---	104	80-120%	---	---	
Mercury	1.08	0.0400	0.0800	ug/L	1	1.11	---	97	80-120%	---	---	
Nickel	57.8	1.00	2.00	ug/L	1	55.6	---	104	80-120%	---	---	
Potassium	2900	50.0	100	ug/L	1	2780	---	104	80-120%	---	---	
Selenium	27.1	0.500	1.00	ug/L	1	27.8	---	98	80-120%	---	---	
Silver	26.7	0.100	0.200	ug/L	1	27.8	---	96	80-120%	---	---	
Sodium	2920	50.0	100	ug/L	1	2780	---	105	80-120%	---	---	
Thallium	27.1	0.100	0.200	ug/L	1	27.8	---	97	80-120%	---	---	
Vanadium	56.0	1.00	2.00	ug/L	1	55.6	---	101	80-120%	---	---	
Zinc	55.4	2.00	4.00	ug/L	1	55.6	---	100	80-120%	---	---	

## Duplicate (23D1156-DUP1)

Prepared: 04/28/23 10:20 Analyzed: 04/28/23 23:18

## QC Source Sample: Non-SDG (A3D1354-03)

Aluminum	ND	25.0	50.0	ug/L	1	---	ND	---	---	---	20%
Antimony	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%
Arsenic	9.32	0.500	1.00	ug/L	1	---	9.06	---	---	3	20%
Barium	60.0	1.00	2.00	ug/L	1	---	59.2	---	---	1	20%
Beryllium	ND	0.100	0.200	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	---	1.46	---	---	***	20%
Iron	21100	25.0	50.0	ug/L	1	---	21000	---	---	0.4	20%
Lead	ND	0.110	0.200	ug/L	1	---	ND	---	---	---	20%
Magnesium	47500	75.0	150	ug/L	1	---	47100	---	---	0.8	20%
Mercury	ND	0.0400	0.0800	ug/L	1	---	ND	---	---	---	20%
Nickel	3.50	1.00	2.00	ug/L	1	---	3.15	---	---	11	20%
Potassium	2520	50.0	100	ug/L	1	---	2490	---	---	1	20%
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%
Silver	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%
Sodium	44200	50.0	100	ug/L	1	---	43900	---	---	0.6	20%

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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  
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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D1156 - EPA 3015A												
Water												
Duplicate (23D1156-DUP1)												
Prepared: 04/28/23 10:20 Analyzed: 04/28/23 23:18												
QC Source Sample: Non-SDG (A3D1354-03)												
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Zinc	9.25	2.00	4.00	ug/L	1	---	9.27	---	---	0.2	20%	
Duplicate (23D1156-DUP2)												
Prepared: 04/28/23 10:20 Analyzed: 05/02/23 18:31												
QC Source Sample: Non-SDG (A3D1354-03RE1)												
Calcium	81000	7500	15000	ug/L	25	---	82300	---	---	2	20%	Q-16
Manganese	4540	12.5	25.0	ug/L	25	---	4560	---	---	0.5	20%	Q-16
Matrix Spike (23D1156-MS1)												
Prepared: 04/28/23 10:20 Analyzed: 04/28/23 23:23												
QC Source Sample: Non-SDG (A3D1354-03)												
EPA 6020B												
Aluminum	2850	25.0	50.0	ug/L	1	2780	ND	103	75-125%	---	---	
Antimony	29.2	0.500	1.00	ug/L	1	27.8	ND	105	75-125%	---	---	
Arsenic	64.4	0.500	1.00	ug/L	1	55.6	9.06	100	75-125%	---	---	
Barium	124	1.00	2.00	ug/L	1	55.6	59.2	116	75-125%	---	---	
Beryllium	27.6	0.100	0.200	ug/L	1	27.8	ND	99	75-125%	---	---	
Cadmium	54.4	0.100	0.200	ug/L	1	55.6	ND	98	75-125%	---	---	
Calcium	75800	300	600	ug/L	1	2780	74800	35	75-125%	---	---	E, Q-65
Chromium	56.1	1.00	2.00	ug/L	1	55.6	ND	101	75-125%	---	---	
Copper	55.3	1.00	2.00	ug/L	1	55.6	1.46	97	75-125%	---	---	
Iron	23500	25.0	50.0	ug/L	1	2780	21000	87	75-125%	---	---	
Lead	55.7	0.110	0.200	ug/L	1	55.6	ND	100	75-125%	---	---	
Magnesium	49200	75.0	150	ug/L	1	2780	47100	75	75-125%	---	---	
Manganese	4520	0.500	1.00	ug/L	1	55.6	4540	-34	75-125%	---	---	E, Q-65
Mercury	1.04	0.0400	0.0800	ug/L	1	1.11	ND	93	75-125%	---	---	
Nickel	57.9	1.00	2.00	ug/L	1	55.6	3.15	98	75-125%	---	---	
Potassium	5260	50.0	100	ug/L	1	2780	2490	100	75-125%	---	---	
Selenium	27.3	0.500	1.00	ug/L	1	27.8	ND	98	75-125%	---	---	
Silver	26.1	0.100	0.200	ug/L	1	27.8	ND	94	75-125%	---	---	
Sodium	45600	50.0	100	ug/L	1	2780	43900	62	75-125%	---	---	Q-65
Thallium	25.9	0.100	0.200	ug/L	1	27.8	ND	93	75-125%	---	---	

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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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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D1156 - EPA 3015A												
Water												
Matrix Spike (23D1156-MS1) Prepared: 04/28/23 10:20 Analyzed: 04/28/23 23:23												
QC Source Sample: Non-SDG (A3D1354-03)												
Vanadium	56.9	1.00	2.00	ug/L	1	55.6	ND	102	75-125%	---	---	
Zinc	61.0	2.00	4.00	ug/L	1	55.6	9.27	93	75-125%	---	---	
Matrix Spike Dup (23D1156-MSD1) Prepared: 04/28/23 10:20 Analyzed: 04/28/23 23:28												
QC Source Sample: Non-SDG (A3D1354-03)												
Aluminum	2810	25.0	50.0	ug/L	1	2780	ND	101	75-125%	1	20%	
Antimony	28.9	0.500	1.00	ug/L	1	27.8	ND	104	75-125%	1	20%	
Arsenic	63.2	0.500	1.00	ug/L	1	55.6	9.06	98	75-125%	2	20%	
Barium	122	1.00	2.00	ug/L	1	55.6	59.2	113	75-125%	1	20%	
Beryllium	27.9	0.100	0.200	ug/L	1	27.8	ND	100	75-125%	1	20%	
Cadmium	53.0	0.100	0.200	ug/L	1	55.6	ND	95	75-125%	3	20%	
Calcium	76800	300	600	ug/L	1	2780	74800	71	75-125%	1	20%	E, Q-65
Chromium	54.8	1.00	2.00	ug/L	1	55.6	ND	99	75-125%	2	20%	
Copper	54.2	1.00	2.00	ug/L	1	55.6	1.46	95	75-125%	2	20%	
Iron	23300	25.0	50.0	ug/L	1	2780	21000	80	75-125%	0.8	20%	
Lead	55.5	0.110	0.200	ug/L	1	55.6	ND	100	75-125%	0.3	20%	
Magnesium	49000	75.0	150	ug/L	1	2780	47100	67	75-125%	0.4	20%	Q-65
Manganese	4500	0.500	1.00	ug/L	1	55.6	4540	-84	75-125%	0.6	20%	E, Q-65
Mercury	1.05	0.0400	0.0800	ug/L	1	1.11	ND	94	75-125%	1	20%	
Nickel	56.7	1.00	2.00	ug/L	1	55.6	3.15	96	75-125%	2	20%	
Potassium	5230	50.0	100	ug/L	1	2780	2490	99	75-125%	0.6	20%	
Selenium	26.8	0.500	1.00	ug/L	1	27.8	ND	96	75-125%	2	20%	
Silver	25.8	0.100	0.200	ug/L	1	27.8	ND	93	75-125%	1	20%	
Sodium	45800	50.0	100	ug/L	1	2780	43900	70	75-125%	0.5	20%	Q-65
Thallium	25.8	0.100	0.200	ug/L	1	27.8	ND	93	75-125%	0.3	20%	
Vanadium	56.1	1.00	2.00	ug/L	1	55.6	ND	101	75-125%	1	20%	
Zinc	60.0	2.00	4.00	ug/L	1	55.6	9.27	91	75-125%	2	20%	

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## ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Dissolved 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 23E0028 - Matrix Matched Direct Inject						Water						
Blank (23E0028-BLK1)			Prepared: 05/01/23 10:06		Analyzed: 05/02/23 01:43							
EPA 6020B (Diss)												
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Magnesium	ND	75.0	150	ug/L	1	---	---	---	---	---	---	
LCS (23E0028-BS1)			Prepared: 05/01/23 10:06		Analyzed: 05/02/23 01:49							
EPA 6020B (Diss)												
Iron	2700	25.0	50.0	ug/L	1	2780	---	97	80-120%	---	---	
Magnesium	2830	75.0	150	ug/L	1	2780	---	102	80-120%	---	---	
Duplicate (23E0028-DUP1)			Prepared: 05/01/23 10:06		Analyzed: 05/02/23 02:50							
QC Source Sample: Non-SDG (A3D1354-03)												
Iron	18700	25.0	50.0	ug/L	1	---	19400	---	---	4	20%	
Magnesium	48300	75.0	150	ug/L	1	---	49800	---	---	3	20%	
Matrix Spike (23E0028-MS1)			Prepared: 05/01/23 10:06		Analyzed: 05/02/23 02:55							
QC Source Sample: Non-SDG (A3D1354-03)												
EPA 6020B (Diss)												
Iron	22000	25.0	50.0	ug/L	1	2780	19400	95	75-125%	---	---	
Magnesium	53200	75.0	150	ug/L	1	2780	49800	123	75-125%	---	---	
Matrix Spike Dup (23E0028-MSD1)			Prepared: 05/01/23 10:06		Analyzed: 05/02/23 03:01							
QC Source Sample: Non-SDG (A3D1354-03)												
Iron	21400	25.0	50.0	ug/L	1	2780	19400	75	75-125%	3	20%	
Magnesium	52300	75.0	150	ug/L	1	2780	49800	91	75-125%	2	20%	

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Darwin Thomas, Business Development Director





## ANALYTICAL REPORT

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A3D1399 - 05 19 23 1327

## QUALITY CONTROL (QC) SAMPLE RESULTS

## Anions by Ion Chromatography

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0835 - Method Prep: Aq						Water						
Blank (23D0835-BLK1)			Prepared: 04/20/23 14:57   Analyzed: 04/20/23 19:02									
EPA 300.0												
Chloride	ND	0.500	1.00	mg/L	1	---	---	---	---	---	---	
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	---	---	---	---	---	---	
Sulfate	ND	0.500	1.00	mg/L	1	---	---	---	---	---	---	
LCS (23D0835-BS1)			Prepared: 04/20/23 14:57   Analyzed: 04/20/23 19:23									
EPA 300.0												
Chloride	7.75	0.500	1.00	mg/L	1	8.00	---	97	90-110%	---	---	
Nitrate-Nitrogen	2.11	0.125	0.250	mg/L	1	2.00	---	105	90-110%	---	---	
Sulfate	8.24	0.500	1.00	mg/L	1	8.00	---	103	90-110%	---	---	
Duplicate (23D0835-DUP1)			Prepared: 04/20/23 14:57   Analyzed: 04/20/23 20:49									
QC Source Sample: GS-041923-89 (A3D1399-03)												
EPA 300.0												
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	---	ND	---	---	---	3%	
Duplicate (23D0835-DUP2)			Prepared: 04/20/23 14:57   Analyzed: 04/21/23 02:34									
QC Source Sample: Non-SDG (A3D1407-06)												
Chloride	8.67	0.500	1.00	mg/L	1	---	8.68	---	---	0.2	3%	
Nitrate-Nitrogen	0.590	0.125	0.250	mg/L	1	---	0.589	---	---	0.2	3%	
Sulfate	10.2	0.500	1.00	mg/L	1	---	10.2	---	---	0.09	4%	
Duplicate (23D0835-DUP3)			Prepared: 04/20/23 14:57   Analyzed: 04/21/23 22:47									
QC Source Sample: GS-041923-89 (A3D1399-03RE1)												
EPA 300.0												
Chloride	303	5.00	10.0	mg/L	10	---	302	---	---	0.2	3%	Q-16
Sulfate	135	5.00	10.0	mg/L	10	---	135	---	---	0.06	4%	Q-16
Matrix Spike (23D0835-MS1)			Prepared: 04/20/23 14:57   Analyzed: 04/20/23 21:11									
QC Source Sample: GS-041923-89 (A3D1399-03)												
EPA 300.0												
Nitrate-Nitrogen	2.64	0.156	0.312	mg/L	1	2.50	ND	105	87-112%	---	---	

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Anions by Ion Chromatography

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0835 - Method Prep: Aq							Water					
Matrix Spike (23D0835-MS2)			Prepared: 04/20/23 14:57   Analyzed: 04/21/23 03:39									
QC Source Sample: Non-SDG (A3D1407-06)												
EPA 300.0												
Chloride	18.7	0.625	1.25	mg/L	1	10.0	8.68	100	90-113%	---	---	
Nitrate-Nitrogen	3.22	0.156	0.312	mg/L	1	2.50	0.589	105	87-112%	---	---	
Sulfate	20.6	0.625	1.25	mg/L	1	10.0	10.2	104	88-115%	---	---	
Matrix Spike (23D0835-MS3)			Prepared: 04/20/23 14:57   Analyzed: 04/21/23 23:08									
QC Source Sample: GS-041923-89 (A3D1399-03RE1)												
EPA 300.0												
Chloride	379	5.00	10.0	mg/L	10	80.0	302	96	90-113%	---	---	Q-16
Sulfate	217	5.00	10.0	mg/L	10	80.0	135	102	88-115%	---	---	Q-16

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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-Prod. Wells 1Q 2023 Perf. Mon

Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23E0036 - Lachat Micro Dist - aqueous						Water						
Blank (23E0036-BLK1)			Prepared: 05/01/23 10:59   Analyzed: 05/01/23 17:29									
EPA 335.4												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23E0036-BS1)			Prepared: 05/01/23 10:59   Analyzed: 05/01/23 17:39									
EPA 335.4												
Total Cyanide	0.240	0.00500	0.00500	mg/L	1	0.250	---	96	90-110%	---	---	
Duplicate (23E0036-DUP1)			Prepared: 05/01/23 10:59   Analyzed: 05/01/23 17:45									
QC Source Sample: Non-SDG (A3D1354-04)												
Total Cyanide	0.0571	0.00500	0.00500	mg/L	1	---	0.0539	---	---	6	10%	
Duplicate (23E0036-DUP2)			Prepared: 05/01/23 10:59   Analyzed: 05/01/23 18:09									
QC Source Sample: GS-041923-88 (A3D1399-02)												
EPA 335.4												
Total Cyanide	0.0388	0.00500	0.00500	mg/L	1	---	0.0415	---	---	7	10%	
Matrix Spike (23E0036-MS1)			Prepared: 05/01/23 10:59   Analyzed: 05/01/23 17:47									
QC Source Sample: Non-SDG (A3D1354-04)												
EPA 335.4												
Total Cyanide	0.291	0.00500	0.00500	mg/L	1	0.250	0.0539	95	90-110%	---	---	
Matrix Spike (23E0036-MS2)			Prepared: 05/01/23 10:59   Analyzed: 05/01/23 18:11									
QC Source Sample: GS-041923-88 (A3D1399-02)												
EPA 335.4												
Total Cyanide	0.263	0.00500	0.00500	mg/L	1	0.250	0.0415	89	90-110%	---	---	Q-01

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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-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****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 23D1057 - Method Prep: Aq						Water						
Blank (23D1057-BLK1)			Prepared: 04/26/23 12:42    Analyzed: 04/26/23 14:05									
D6888-09												
Available Cyanide	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
LCS (23D1057-BS1)			Prepared: 04/26/23 12:42    Analyzed: 04/26/23 14:06									
D6888-09												
Available Cyanide	0.0243	0.00100	0.00200	mg/L	1	0.0250	---	97	90-117%	---	---	
Matrix Spike (23D1057-MS1)			Prepared: 04/26/23 12:42    Analyzed: 04/26/23 14:17									
QC Source Sample: Non-SDG (A3D1354-03)												
D6888-09												
Available Cyanide	0.0240	0.00101	0.00201	mg/L	1	0.0251	ND	96	82-130%	---	---	
Matrix Spike (23D1057-MS2)			Prepared: 04/26/23 12:42    Analyzed: 04/26/23 14:42									
QC Source Sample: GS-041923-91 (A3D1399-05)												
D6888-09												
Available Cyanide	0.0254	0.00101	0.00201	mg/L	1	0.0251	0.00111	97	82-130%	---	---	
Matrix Spike Dup (23D1057-MSD1)			Prepared: 04/26/23 12:42    Analyzed: 04/26/23 14:18									
QC Source Sample: Non-SDG (A3D1354-03)												
Available Cyanide	0.0238	0.00101	0.00201	mg/L	1	0.0251	ND	95	82-130%	0.9	11%	
Matrix Spike Dup (23D1057-MSD2)			Prepared: 04/26/23 12:42    Analyzed: 04/26/23 14:44									
QC Source Sample: GS-041923-91 (A3D1399-05)												
D6888-09												
Available Cyanide	0.0242	0.00101	0.00201	mg/L	1	0.0251	0.00111	92	82-130%	5	11%	

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Project Number: 000029-02.84 T-01.001G

Project Manager: John Renda

Report ID:

A3D1399 - 05 19 23 1327

## 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 23D0922 - Microdiffusion						Water						
Blank (23D0922-BLK1)			Prepared: 04/24/23 09:55		Analyzed: 04/24/23 15:20							
<u>D4282-02</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0922-BS1)			Prepared: 04/24/23 09:55		Analyzed: 04/24/23 15:20							
<u>D4282-02</u>												
Free Cyanide	0.0654	0.00250	0.00500	mg/L	1	0.0667	---	98	74-120%	---	---	
LCS Dup (23D0922-BSD1)			Prepared: 04/24/23 09:55		Analyzed: 04/24/23 15:26							
<u>D4282-02</u>												
Free Cyanide	0.0644	0.00250	0.00500	mg/L	1	0.0667	---	97	74-120%	2	20%	
Matrix Spike (23D0922-MS1)			Prepared: 04/24/23 09:55		Analyzed: 04/24/23 15:32							
<u>QC Source Sample: Non-SDG (A3D1354-03)</u>												
<u>D4282-02</u>												
Free Cyanide	0.0644	0.00250	0.00500	mg/L	1	0.0667	ND	97	74-120%	---	---	
Matrix Spike Dup (23D0922-MSD1)			Prepared: 04/24/23 09:55		Analyzed: 04/24/23 15:33							
<u>QC Source Sample: Non-SDG (A3D1354-03)</u>												
Free Cyanide	0.0683	0.00250	0.00500	mg/L	1	0.0667	ND	102	74-120%	6	20%	

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Portland, OR 97219Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****QUALITY CONTROL (QC) SAMPLE RESULTS****Conventional Chemistry Parameters**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D1098 - Method Prep: Aq						Water						
Blank (23D1098-BLK1)			Prepared: 04/27/23 09:12		Analyzed: 04/27/23 09:52							
SM 2320 B												
Total Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Bicarbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
LCS (23D1098-BS1)			Prepared: 04/27/23 09:12		Analyzed: 04/27/23 10:00							
SM 2320 B												
Total Alkalinity	112	20.0	20.0	mg CaCO3/L	1	100	---	112	90-115%	---	---	
Duplicate (23D1098-DUP1)			Prepared: 04/27/23 09:12		Analyzed: 04/27/23 13:51							
QC Source Sample: Non-SDG (A3D1354-03)												
Total Alkalinity	334	20.0	20.0	mg CaCO3/L	1	---	339	---	---	1	5%	
Bicarbonate Alkalinity	334	20.0	20.0	mg CaCO3/L	1	---	339	---	---	1	5%	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	ND	---	---	---	5%	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	ND	---	---	---	5%	

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## QUALITY CONTROL (QC) SAMPLE RESULTS

## Conventional Chemistry Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23E0142 - Method Prep: Aq						Water						
Blank (23E0142-BLK1)			Prepared: 05/03/23 09:05		Analyzed: 05/03/23 10:10							
SM 2320 B												
Total Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Bicarbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
LCS (23E0142-BS1)			Prepared: 05/03/23 09:05		Analyzed: 05/03/23 10:40							
SM 2320 B												
Total Alkalinity	108	20.0	20.0	mg CaCO3/L	1	100	---	108	90-115%	---	---	
Duplicate (23E0142-DUP1)			Prepared: 05/03/23 09:05		Analyzed: 05/03/23 11:40							
QC Source Sample: Non-SDG (A3E0928-01)												
Total Alkalinity	59.8	20.0	20.0	mg CaCO3/L	1	---	60.4	---	---	1	5%	
Bicarbonate Alkalinity	59.8	20.0	20.0	mg CaCO3/L	1	---	60.4	---	---	1	5%	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	ND	---	---	---	5%	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	---	ND	---	---	---	5%	

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Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327**

## SAMPLE PREPARATION INFORMATION

## 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: 23D0859							
A3D1399-04	WG	EPA 8260D	04/19/23 11:30	04/21/23 09:00	5mL/5mL	5mL/5mL	1.00
A3D1399-05	WG	EPA 8260D	04/19/23 13:35	04/21/23 09:00	5mL/5mL	5mL/5mL	1.00
A3D1399-06	WG	EPA 8260D	04/19/23 14:15	04/21/23 09:00	5mL/5mL	5mL/5mL	1.00
A3D1399-07	W	EPA 8260D	04/19/23 14:40	04/21/23 09:00	5mL/5mL	5mL/5mL	1.00
Batch: 23D0923							
A3D1399-02RE1	WG	EPA 8260D	04/19/23 10:15	04/24/23 10:00	5mL/5mL	5mL/5mL	1.00
A3D1399-03RE1	WG	EPA 8260D	04/19/23 10:30	04/24/23 10:00	5mL/5mL	5mL/5mL	1.00

## Volatile Organic Compounds by EPA 8260D SIM

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0991							
A3D1399-04	WG	EPA 8260D SIM	04/19/23 11:30	04/25/23 11:00	5mL/5mL	5mL/5mL	1.00
A3D1399-05	WG	EPA 8260D SIM	04/19/23 13:35	04/25/23 11:00	5mL/5mL	5mL/5mL	1.00
A3D1399-06	WG	EPA 8260D SIM	04/19/23 14:15	04/25/23 11:00	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: 23D0846							
A3D1399-02	WG	EPA 8270E LVI	04/19/23 10:15	04/21/23 06:02	100.65mL/5mL	125mL/5mL	1.24
A3D1399-02RE1	WG	EPA 8270E LVI	04/19/23 10:15	04/21/23 06:02	100.65mL/5mL	125mL/5mL	1.24
A3D1399-03	WG	EPA 8270E LVI	04/19/23 10:30	04/21/23 06:02	100.63mL/5mL	125mL/5mL	1.24
A3D1399-03RE1	WG	EPA 8270E LVI	04/19/23 10:30	04/21/23 06:02	100.63mL/5mL	125mL/5mL	1.24
A3D1399-04	WG	EPA 8270E LVI	04/19/23 11:30	04/21/23 06:02	105.6mL/5mL	125mL/5mL	1.18
A3D1399-05	WG	EPA 8270E LVI	04/19/23 13:35	04/21/23 06:02	99.79mL/5mL	125mL/5mL	1.25
A3D1399-06	WG	EPA 8270E LVI	04/19/23 14:15	04/21/23 06:02	104.48mL/5mL	125mL/5mL	1.20

## 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: 23D1156							
A3D1399-01	WR	EPA 6020B	04/19/23 09:20	04/28/23 10:20	45mL/50mL	45mL/50mL	1.00

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Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****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
A3D1399-02	WG	EPA 6020B	04/19/23 10:15	04/28/23 10:20	45mL/50mL	45mL/50mL	1.00
A3D1399-02RE1	WG	EPA 6020B	04/19/23 10:15	04/28/23 10:20	45mL/50mL	45mL/50mL	1.00
A3D1399-03	WG	EPA 6020B	04/19/23 10:30	04/28/23 10:20	45mL/50mL	45mL/50mL	1.00
A3D1399-03RE2	WG	EPA 6020B	04/19/23 10:30	04/28/23 10:20	45mL/50mL	45mL/50mL	1.00
A3D1399-04	WG	EPA 6020B	04/19/23 11:30	04/28/23 10:20	45mL/50mL	45mL/50mL	1.00
A3D1399-05	WG	EPA 6020B	04/19/23 13:35	04/28/23 10:20	45mL/50mL	45mL/50mL	1.00
A3D1399-06	WG	EPA 6020B	04/19/23 14:15	04/28/23 10:20	45mL/50mL	45mL/50mL	1.00

**Dissolved Metals by EPA 6020B (ICPMS)****Prep: Matrix Matched Direct Inject**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23E0028							
A3D1399-01	WR	EPA 6020B (Diss)	04/19/23 09:20	05/01/23 10:06	45mL/50mL	45mL/50mL	1.00
A3D1399-02	WG	EPA 6020B (Diss)	04/19/23 10:15	05/01/23 10:06	45mL/50mL	45mL/50mL	1.00
A3D1399-03	WG	EPA 6020B (Diss)	04/19/23 10:30	05/01/23 10:06	45mL/50mL	45mL/50mL	1.00
A3D1399-04	WG	EPA 6020B (Diss)	04/19/23 11:30	05/01/23 10:06	45mL/50mL	45mL/50mL	1.00
A3D1399-05	WG	EPA 6020B (Diss)	04/19/23 13:35	05/01/23 10:06	45mL/50mL	45mL/50mL	1.00
A3D1399-06	WG	EPA 6020B (Diss)	04/19/23 14:15	05/01/23 10:06	45mL/50mL	45mL/50mL	1.00

**Anions by Ion Chromatography****Prep: Method Prep: Ag**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0835							
A3D1399-01	WR	EPA 300.0	04/19/23 09:20	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-02	WG	EPA 300.0	04/19/23 10:15	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-02RE1	WG	EPA 300.0	04/19/23 10:15	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-03	WG	EPA 300.0	04/19/23 10:30	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-03RE1	WG	EPA 300.0	04/19/23 10:30	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-04	WG	EPA 300.0	04/19/23 11:30	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-04RE1	WG	EPA 300.0	04/19/23 11:30	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-05	WG	EPA 300.0	04/19/23 13:35	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-05RE1	WG	EPA 300.0	04/19/23 13:35	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00
A3D1399-06	WG	EPA 300.0	04/19/23 14:15	04/20/23 14:57	5mL/5mL	5mL/5mL	1.00

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only-Prod. Wells 1Q 2023 Perf. Mon**Project Number: **000029-02.84 T-01.001G**Project Manager: **John Renda****Report ID:****A3D1399 - 05 19 23 1327****SAMPLE PREPARATION INFORMATION****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: 23E0036							
A3D1399-02	WG	EPA 335.4	04/19/23 10:15	05/01/23 10:59	6mL/6mL	6mL/6mL	1.00
A3D1399-03	WG	EPA 335.4	04/19/23 10:30	05/01/23 10:59	6mL/6mL	6mL/6mL	1.00
A3D1399-04	WG	EPA 335.4	04/19/23 11:30	05/01/23 10:59	6mL/6mL	6mL/6mL	1.00
A3D1399-05	WG	EPA 335.4	04/19/23 13:35	05/01/23 10:59	6mL/6mL	6mL/6mL	1.00
A3D1399-06	WG	EPA 335.4	04/19/23 14:15	05/01/23 10:59	6mL/6mL	6mL/6mL	1.00

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

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D1057							
A3D1399-02	WG	D6888-09	04/19/23 10:15	04/26/23 12:42	5mL/5mL	5mL/5mL	1.00
A3D1399-03	WG	D6888-09	04/19/23 10:30	04/26/23 12:42	5mL/5mL	5mL/5mL	1.00
A3D1399-04	WG	D6888-09	04/19/23 11:30	04/26/23 12:42	5mL/5mL	5mL/5mL	1.00
A3D1399-05	WG	D6888-09	04/19/23 13:35	04/26/23 12:42	5mL/5mL	5mL/5mL	1.00
A3D1399-06	WG	D6888-09	04/19/23 14:15	04/26/23 12:42	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
Batch: 23D0922							
A3D1399-02	WG	D4282-02	04/19/23 10:15	04/24/23 09:55	3mL/3mL	3mL/3mL	1.00
A3D1399-03	WG	D4282-02	04/19/23 10:30	04/24/23 09:55	3mL/3mL	3mL/3mL	1.00
A3D1399-04	WG	D4282-02	04/19/23 11:30	04/24/23 09:55	3mL/3mL	3mL/3mL	1.00
A3D1399-05	WG	D4282-02	04/19/23 13:35	04/24/23 09:55	3mL/3mL	3mL/3mL	1.00
A3D1399-06	WG	D4282-02	04/19/23 14:15	04/24/23 09:55	3mL/3mL	3mL/3mL	1.00

**Conventional Chemistry Parameters****Prep: Method Prep: Ag**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D1098							
A3D1399-01	WR	SM 2320 B	04/19/23 09:20	04/27/23 09:12	60mL/60mL	60mL/60mL	NA
A3D1399-02	WG	SM 2320 B	04/19/23 10:15	04/27/23 09:12	60mL/60mL	60mL/60mL	NA
A3D1399-03	WG	SM 2320 B	04/19/23 10:30	04/27/23 09:12	60mL/60mL	60mL/60mL	NA

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503-718-2323  
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**Anchor QEA, LLC**

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

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

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

Project Manager: **John Renda**

**Report ID:**

**A3D1399 - 05 19 23 1327**

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: Method Prep: Ag

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A3D1399-04	WG	SM 2320 B	04/19/23 11:30	04/27/23 09:12	60mL/60mL	60mL/60mL	NA
A3D1399-05	WG	SM 2320 B	04/19/23 13:35	04/27/23 09:12	60mL/60mL	60mL/60mL	NA
<u>Batch: 23E0142</u>							
A3D1399-06	WG	SM 2320 B	04/19/23 14:15	05/03/23 09:05	60mL/60mL	60mL/60mL	NA

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## QUALIFIER DEFINITIONS

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

#### Apex Laboratories

- E** Estimated Value. The result is above the calibration range of the instrument.
- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- ICV-02** Estimated Result. Initial Calibration Verification (ICV) failed low.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- 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-02** Spike recovery is outside of established control limits due to matrix interference.
- Q-03** Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +12%. 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 +14%. 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 +15%. 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 +2%. 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 +23%. 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 +25%. 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 +27%. The results are reported as Estimated Values.

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- Q-54i** 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-54j** 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-54k** 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-54l** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -12%. The results are reported as Estimated Values.
- Q-54m** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
- Q-54n** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -6%. 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-65** Spike recovery is estimated due to the high analyte concentration of the source sample.
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- R-06** Reporting level raised due to possible carryover from a previous sample.
- S-01** Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- T-02** This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.

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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
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

**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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## APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA

Element WO#: A3D1399

Project/Project #: Gasco-MGP only Prod. Wells 1Q 2023 Perf. Mon.

## Delivery Info:

Date/time received: 4/20/23 @ 8:18 By: JS

Delivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Radio ☐ Morgan ☐ SDS ☐ Evergreen ☐ Other ☐

Cooler Inspection Date/time inspected: 4/20/23 @ 9:30 By: JS

Chain 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)	3.3						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	real						
Condition (In/Out):	In						

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

Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐

Sample Inspection: Date/time inspected: 4.20.23 @ 10:11 By: JS

All samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☒ No ☐ Comments: Date on containers for 65-041923-88, 65-041923-89, and 65-041923-92 reads 4-19-22.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: 65-041923-89 NaOH bottle pH=8 4/20/23

Additional information: TB # 3285

Labeled by:

DJS

Witness:

W

Cooler Inspected by:

DJS

Form Y-003 R-00

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