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## Technical Report for

### Occidental Petroleum Corporation

Kerr-McGee: GWA\_Griswold\_27N\_11HZ

FID:772625 Reg:Vol. Freq.:IN

SGS Job Number: DA62610

Sampling Date: 03/04/24

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Total number of pages in report: 48



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

Eric Hoffman

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Certifications: CO (CO00049), ND (R-027), UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY (8TMS-L) HI (CO00049), NJ (CO011), NV (CO00049), AK (CO00049), CA (3076), and NC (08701)

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Test results relate only to samples analyzed.

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Sample Summary

Occidental Petroleum Corporation

Job No: DA62610

Kerr-McGee: GWA\_Griswold\_27N\_11HZ  
Project No: FID:772625 Reg:Vol. Freq.:IN

Sample Number	Collected		Matrix		Client	
	Date	Time By	Received	Code Type	Sample ID	

This report contains results reported as ND = Not detected. The following applies:  
Organics ND = Not detected above the MDL

DA62610-1	03/04/24	10:47 EF	03/05/24	AQ	Ground Water	BW_BUFFALO_58905_F SEnw_12_1N_66W
DA62610-1A	03/04/24	10:47 EF	03/05/24	AQ	Ground Water	BW_BUFFALO_58905_F SEnw_12_1N_66W
DA62610-1B	03/04/24	10:47 EF	03/05/24	AQ	Ground Water	BW_BUFFALO_58905_F SEnw_12_1N_66W
DA62610-1F	03/04/24	10:47 EF	03/05/24	AQ	Groundwater Filtered	BW_BUFFALO_58905_F SEnw_12_1N_66W

## CASE NARRATIVE / CONFORMANCE SUMMARY

2

**Client:** Occidental Petroleum Corporation

**Job No:** DA62610

**Site:** Kerr-McGee: GWA\_Griswold\_27N\_11HZ

**Report Date** 3/26/2024 9:45:50 AM

On 03/05/2024, 1 sample(s), 0 Trip Blank(s), 0 Equip. Blanks and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 4 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of DA62610 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### MS Volatiles By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** V5V3932

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA62539-2MS, DA62539-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC Volatiles By Method RSK175 MOD

**Matrix:** AQ

**Batch ID:** GFK341

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA62742-1MS, DA62742-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC Volatiles By Method SW846 8015D

**Matrix:** AQ

**Batch ID:** GGA2849

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA62445-48MS, DA62445-48MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC/LC Semi-volatiles By Method SW846 8015C

**Matrix:** AQ

**Batch ID:** L:OP24741

- The data for SW846 8015C meets quality control requirements.
- DA62610-1: Analysis performed at SGS Scott, LA.

### Metals Analysis By Method EPA 200.8

**Matrix:** AQ

**Batch ID:** MP39042

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA62589-2FAMS, DA62589-2FAMSD were used as the QC samples for the metals analysis.
- The matrix spike (MS) recovery(s) of Calcium, Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Tuesday, March 26, 2024

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## General Chemistry By Method EPA 300.0

**Matrix:** AQ

**Batch ID:** GP36151

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA62610-1MS, DA62610-1MSD were used as the QC samples for the Bromide, Chloride, Fluoride, Nitrogen, Nitrate, Sulfate, Bromide, Nitrogen, Nitrite analysis.
- The matrix spike (MS) recovery(s) of Nitrogen, Nitrite are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- The matrix spike duplicate (MSD) recovery(s) of Nitrogen, Nitrite are outside control limits. Probable cause due to matrix interference.
- DA62610-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.
- DA62610-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- DA62610-1 for Sulfate: Elevated detection limit due to matrix interference.

**Matrix:** AQ

**Batch ID:** R62759

- The data for EPA 300.0 meets quality control requirements.
- DA62610-1 for Nitrogen, Nitrate + Nitrite: Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

## General Chemistry By Method EPA 365.1

**Matrix:** AQ

**Batch ID:** GP36147

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA62663-1DUP, DA62663-1MSD were used as the QC samples for the Phosphorus, Total analysis.
- The matrix spike (MS) recovery(s) of Phosphorus, Total are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## General Chemistry By Method HACH IRB-BART-NOCERT

**Matrix:** AQ

**Batch ID:** MB1743

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA62528-1BDUP were used as the QC samples for the Iron-Related Bacteria analysis.
- DA62610-1B for Iron-Related Bacteria: Certification for this test is not offered.

## General Chemistry By Method HC SLYM-BART-NO CERT

**Matrix:** AQ

**Batch ID:** MB1739

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA62528-1BDUP were used as the QC samples for the Slime Forming Bacteria analysis.
- DA62610-1B for Slime Forming Bacteria: Certification for this test is not offered.

### General Chemistry By Method HC SRB-BART-NO CERT

**Matrix:** AQ **Batch ID:** MB1741

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA62528-1BDUP were used as the QC samples for the Sulfate Reducing Bacteria analysis.
- DA62610-1B for Sulfate Reducing Bacteria: Certification for this test is not offered.

### General Chemistry By Method SM 2320B-2011

**Matrix:** AQ **Batch ID:** GN62813

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA62528-1DUP, DA62528-1MS, DA62528-1MSD were used as the QC samples for the Alkalinity, Total as CaCO<sub>3</sub> analysis.

**Matrix:** AQ **Batch ID:** GN62814

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

**Matrix:** AQ **Batch ID:** GN62815

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

### General Chemistry By Method SM 2510B-2011

**Matrix:** AQ **Batch ID:** GP36170

- Sample(s) DA62766-1DUP were used as the QC samples for the Specific Conductivity analysis.

### General Chemistry By Method SM 2540C-2011

**Matrix:** AQ **Batch ID:** GN62807

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA62660-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

### General Chemistry By Method SM1030E-2011

**Matrix:** AQ **Batch ID:** GN62887

- The data for SM1030E-2011 meets quality control requirements.

### General Chemistry By Method SM4500HB+-2011/9040C

**Matrix:** AQ **Batch ID:** GN62831

- The data for SM4500HB+-2011/9040C meets quality control requirements.
- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: DA62610-1 Analysis performed past recommended hold time.

### Field Data By Method FIELD

**Matrix:** AQ **Batch ID:** R62702

- The data for FIELD meets quality control requirements.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** SGS Wheat Ridge, CO

**Job No:** DA62610

**Site:** ANADACOD: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

**Report Date** 3/21/2024 11:31:03 A

On 03/07/2024, 1 sample was received at SGS North America Inc. (SGS) at a temperature of 2.2 °C. The sample was intact and properly preserved, unless noted below. An SGS Job Number of DA62610 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

## GC/LC Semi-volatiles By Method SW846 8015C

**Matrix:** AQ

**Batch ID:** OP24741

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.



## Summary of Hits

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Job Number: DA62610  
Account: Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ  
Collected: 03/04/24

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

DA62610-1 BW\_BUFFALO\_58905\_F SENW\_12\_1N\_66W

Fluoride	1.8	0.50		mg/l	EPA 300.0
Chloride	80.8	2.5		mg/l	EPA 300.0
Bromide	0.78	0.25		mg/l	EPA 300.0
Alkalinity, Bicarbonate as CaCO <sub>3</sub>	545	5.0		mg/l	SM 2320B-2011
Alkalinity, Carbonate	30.0	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO <sub>3</sub>	575	5.0		mg/l	SM 2320B-2011
Cation Anion Balance	3.3			%	SM1030E-2011
Phosphorus, Total	0.055	0.010		mg/l	EPA 365.1
Solids, Total Dissolved	663	10		mg/l	SM 2540C-2011
Specific Conductivity	1230	1.0		umhos/cm	SM 2510B-2011
pH <sup>a</sup>	8.82			su	SM4500HB+ -2011/9040C
Specific Conductivity (Field)	1213.9	0.50		umhos/cm	FIELD
pH (Field)	8.53			su	FIELD
Oxygen, Dissolved (Field)	1.65			mg/l	FIELD
Turbidity	1.26			NTU	FIELD
Redox Potential Vs H <sub>2</sub>	75.1			mv	FIELD
Temperature (Field)	14.2			Deg. C	FIELD

DA62610-1A BW\_BUFFALO\_58905\_F SENW\_12\_1N\_66W

Methane	9.74	0.040	0.035	mg/l	RSK175 MOD
Ethane	0.0221	0.0016	0.0010	mg/l	RSK175 MOD

DA62610-1B BW\_BUFFALO\_58905\_F SENW\_12\_1N\_66W

Iron-Related Bacteria <sup>b</sup>	35000	25		CFU/ml	HACH IRB-BART-NOCERT
Slime Forming Bacteria <sup>b</sup>	67000	500		CFU/ml	HC SLYM-BART-NO CERT
Sulfate Reducing Bacteria <sup>b</sup>	6000	200		CFU/ml	HC SRB-BART-NO CERT

DA62610-1F BW\_BUFFALO\_58905\_F SENW\_12\_1N\_66W

Barium	0.0711	0.0020		mg/l	EPA 200.8
Boron	0.377	0.040		mg/l	EPA 200.8
Calcium	1.81	0.40		mg/l	EPA 200.8
Iron	0.0689	0.020		mg/l	EPA 200.8
Magnesium	0.507	0.10		mg/l	EPA 200.8
Manganese	0.0046	0.0010		mg/l	EPA 200.8
Potassium	1.41	0.20		mg/l	EPA 200.8
Sodium	295	10		mg/l	EPA 200.8
Strontium	0.0803	0.020		mg/l	EPA 200.8

(a) Analysis performed past recommended hold time.

(b) Certification for this test is not offered.



Wheat Ridge, CO

Section 4

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BW_BUFFALO_58905_F SENW_12_1N_66W					Date Sampled:	03/04/24
Lab Sample ID:	DA62610-1					Date Received:	03/05/24
Matrix:	AQ - Ground Water					Percent Solids:	n/a
Method:	SW846 8260B						
Project:	Kerr-McGee: GWA_Griswold_27N_11HZ						

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	5V80028.D	1	03/07/24 18:44	MB	n/a	n/a	V5V3932

Run #1	Purge Volume
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	1.0	ug/l	
	m,p-Xylene	ND	1.0	0.96	ug/l	
95-47-6	o-Xylene	ND	1.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
17060-07-0	1,2-Dichloroethane-D4	98%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	BW_BUFFALO_58905_F SENW_12_1N_66W		
<b>Lab Sample ID:</b>	DA62610-1	<b>Date Sampled:</b>	03/04/24
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/05/24
<b>Method:</b>	SW846 8015D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Kerr-McGee: GWA_Griswold_27N_11HZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA64395.D	1	03/11/24 07:54	JC	n/a	n/a	GGA2849
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	0.040	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	119%		60-140%		

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

**J = Indicates an estimated value**  
**B = Indicates analyte found in associated method blank**  
**N = Indicates presumptive evidence of a compound**

Report of Analysis

Client Sample ID:	BW_BUFFALO_58905_F SENW_12_1N_66W				
Lab Sample ID:	DA62610-1			Date Sampled:	03/04/24
Matrix:	AQ - Ground Water			Date Received:	03/05/24
Method:	SW846 8015C SW846 3510C			Percent Solids:	n/a
Project:	Kerr-McGee: GWA_Griswold_27N_11HZ				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	X0027374.D	1	03/09/24 12:58	ALA	03/08/24 08:30	L:OP24741	L:GLB2650
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.19	0.016	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	76%		51-122%		

(a) Analysis performed at SGS Scott, LA.

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	BW_BUFFALO_58905_F SENW_12_1N_66W	Date Sampled:	03/04/24
Lab Sample ID:	DA62610-1	Date Received:	03/05/24
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Kerr-McGee: GWA_Griswold_27N_11HZ		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>300.0</b>							
Fluoride	1.8	0.50	mg/l	5	03/06/24 10:18	CS	EPA 300.0
Chloride	80.8	2.5	mg/l	5	03/06/24 10:18	CS	EPA 300.0
Nitrogen, Nitrite <sup>a</sup>	< 0.020	0.020	mg/l	5	03/06/24 10:18	CS	EPA 300.0
Bromide	0.78	0.25	mg/l	5	03/06/24 10:18	CS	EPA 300.0
Nitrogen, Nitrate <sup>a</sup>	< 0.050	0.050	mg/l	5	03/06/24 10:18	CS	EPA 300.0
Sulfate <sup>a</sup>	< 2.5	2.5	mg/l	5	03/06/24 10:18	CS	EPA 300.0
<b>300.0 NO2 + NO3O</b>							
Nitrogen, Nitrate + Nitrite <sup>b</sup>	< 0.070	0.070	mg/l	1	03/06/24 10:18	CS	EPA 300.0
Alkalinity, Bicarbonate as CaC	545	5.0	mg/l	1	03/07/24 12:00	JW	SM 2320B-2011
Alkalinity, Carbonate	30.0	5.0	mg/l	1	03/07/24 12:00	JW	SM 2320B-2011
Alkalinity, Total as CaCO3	575	5.0	mg/l	1	03/07/24 12:00	JW	SM 2320B-2011
Cation Anion Balance	3.3		%	1	03/20/24	MB	SM1030E-2011
Phosphorus, Total	0.055	0.010	mg/l	1	03/07/24 17:15	KH	EPA 365.1
Solids, Total Dissolved	663	10	mg/l	1	03/07/24 07:00	JW	SM 2540C-2011
Specific Conductivity	1230	1.0	umhos/cm	1	03/11/24 13:00	JW	SM 2510B-2011
pH <sup>c</sup>	8.82		su	1	03/08/24 12:00	JW	SM4500HB+ -2011/9040C

## Field Parameters

Oxygen, Dissolved (Field)	1.65		mg/l	1	03/04/24 10:47	SUB	FIELD
Redox Potential Vs H2	75.1		mv	1	03/04/24 10:47	SUB	FIELD
Specific Conductivity (Field)	1213.9	0.50	umhos/cm	1	03/04/24 10:47	SUB	FIELD
Temperature (Field)	14.2		Deg. C	1	03/04/24 10:47	SUB	FIELD
Turbidity	1.26		NTU	1	03/04/24 10:47	SUB	FIELD
pH (Field)	8.53		su	1	03/04/24 10:47	SUB	FIELD

(a) Elevated detection limit due to matrix interference.

(b) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

(c) Analysis performed past recommended hold time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BW_BUFFALO_58905_F SENW_12_1N_66W					Date Sampled:	03/04/24
Lab Sample ID:	DA62610-1A					Date Received:	03/05/24
Matrix:	AQ - Ground Water					Percent Solids:	n/a
Method:	RSK175 MOD						
Project:	Kerr-McGee: GWA_Griswold_27N_11HZ						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FK4657.D	1	03/11/24 13:45	MB	n/a	n/a	GFK341
Run #2	FK4658.D	50	03/11/24 13:51	MB	n/a	n/a	GFK341

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	39.0 ml	4.0 ml	500 ul	20.8 Deg. C
Run #2	39.0 ml	4.0 ml	500 ul	20.8 Deg. C

Methane, Ethane and Propane

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	9.74 <sup>a</sup>	0.040	0.035	mg/l	
74-84-0	Ethane	0.0221	0.0016	0.0010	mg/l	
74-98-6	Propane	ND	0.0022	0.0017	mg/l	

(a) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.2  
4

Report of Analysis

Client Sample ID:	BW_BUFFALO_58905_F SENW_12_1N_66W	Date Sampled:	03/04/24
Lab Sample ID:	DA62610-1B	Date Received:	03/05/24
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Kerr-McGee: GWA_Griswold_27N_11HZ		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Not certifiable							
Iron-Related Bacteria <sup>a</sup>	35000	25	CFU/ml	1	03/14/24 08:00	CS	HACH IRB-BART-NOCERT
Slime Forming Bacteria <sup>a</sup>	67000	500	CFU/ml	1	03/14/24 08:00	CS	HC SLYM-BART-NO CERT
Sulfate Reducing Bacteria <sup>a</sup>	6000	200	CFU/ml	1	03/14/24 08:00	CS	HC SRB-BART-NO CERT

(a) Certification for this test is not offered.

RL = Reporting Limit

4.3  
4



Report of Analysis

Client Sample ID:	BW_BUFFALO_58905_F SENW_12_1N_66W	Date Sampled:	03/04/24
Lab Sample ID:	DA62610-1F	Date Received:	03/05/24
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Kerr-McGee: GWA_Griswold_27N_11HZ		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0711	0.0020	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Boron	0.377	0.040	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Calcium	1.81	0.40	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Iron	0.0689	0.020	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Magnesium	0.507	0.10	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Manganese	0.0046	0.0010	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Potassium	1.41	0.20	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Selenium	< 0.00040	0.00040	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Sodium	295	10	mg/l	20	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Strontium	0.0803	0.020	mg/l	1	03/15/24	03/16/24	CDL EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>

- (1) Instrument QC Batch: MA17756
- (2) Prep QC Batch: MP39042

RL = Reporting Limit

**Misc. Forms**

5

**Custody Documents and Other Forms**

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**Includes the following where applicable:**

- Chain of Custody



## CHAIN OF CUSTODY

Page 1 of 1

4036 Youngfield Street, Wheat Ridge, CO 80033  
TEL: 303-425-6021 FAX: 303-425-6854  
www.acctest.com

Bottle Order Control #	FED-EX Tracking #
SGS Quote #	SGS Job # DA 62610
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	
DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
LAB USE ONLY	

Field ID / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	NOV	HCI	NaOH	HNO3	H2SO4	DI Water	MEOH	ENCORE	Na2S2O4	Other	PH, SCOD, TDS	XCARBICALK	BRO, CHL, F, NO2, XNO3O, NO32, SO4	TP04	Dissolved Metals - Lab Filtered*	VRSK175DGMPEP	V8260BTX	B8015DDRO	V8015GRO	IRBAC, SFBAC, SO4RBAC	CABAL	LAB USE ONLY		
BW_Buffalo_58905_F	3/4/2024	10:47	EF	GW	17	9	6								1		X	X	X	X	X	X	X	X	X	X	01		
SENW_12_1N_66W																													
Temperature, field	14.2																												
pH, field	6.53																												
Specific Conductivity, field	1213.9																												
Oxidation Reduction Potential, field	75.1																												
Dissolved Oxygen, field	1.65																												
Turbidity, field	1.26																												
Turnaround Time (Business days)						Data Deliverable Information										Comments / Special Instructions													
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day Emergency <input type="checkbox"/> 2 Day Emergency <input type="checkbox"/> 1 Day Emergency Emergency & Rush T/A data available VIA LabLink. RUSH TAT approval needed.						<input type="checkbox"/> Commercial "A" (Level 1, Results Only) <input type="checkbox"/> Commercial "B" (Level 2, Results + QC Summary) <input type="checkbox"/> COMMBN (Results/QC/Narrative) <input type="checkbox"/> COMMBN+ [Results/QC/Narrative (+ chromatograms)] <input type="checkbox"/> REDT2 <input type="checkbox"/> FULLT1 <input checked="" type="checkbox"/> EDD Format: COGCC Compatible										*Dissolved Metals (200.7/200.8): BaMS, B, Ca, Fe, Mg, Mn, K, SeMS, Na, Sr Please also send reports to Michelle.Henry@absarokasolutions.com and Jordan.Fleming@absarokasolutions.com													
Sample Custody must be documented below each time samples change possession, including courier delivery.																													
Relinquished by Sampler:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:
1	3/4/24	18:00	1	3/4/24	18:00	2			3			4																	
3			3			4																							
Custody Seal #	Intact <input checked="" type="checkbox"/>	Not intact <input type="checkbox"/>	Absent <input type="checkbox"/>	Preserved where applicable <input type="checkbox"/>	Cooler Temp. °C: 4.0	Therm. ID: 1034	On Ice <input checked="" type="checkbox"/>	Form MSQA 064-01, RV 6/19/17																					

DA62610: Chain of Custody

Page 1 of 2



## SGS Sample Receipt Summary

Job Number: da62610

Client: ABSAROKA

Project: GWA

Date / Time Received: 3/5/2024 3:15:00 PM

Delivery Method: co

Airbill #'s: \_\_\_\_\_

Cooler Temps (Raw Measured) °C: Cooler 1: (4.0);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

### Cooler Information

Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present:    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Cooler temp verification: | IR Gun                              |                          |
| 5. Cooler media:             | Ice (Bag)                           |                          |

### Trip Blank Information

Y or N N/A

- |                                 |                                     |                          |                          |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

W or S N/A

- |                        |                                     |                          |                          |
|------------------------|-------------------------------------|--------------------------|--------------------------|
| 3. Type of TB Received | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|------------------------|-------------------------------------|--------------------------|--------------------------|

### Sample Information

Y or N N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Sample labels present on bottles:                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Samples presented properly                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 3. Sufficient volume/containers recv'd for analysis | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Condition of sample:                             | Intact                              |                                     |                                     |
| 5. Sample recv'd within HT                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 6. Dates/Times/IDs on COC match sample label        | <input type="checkbox"/>            | <input type="checkbox"/>            |                                     |
| 7. VOCs have headspace                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 8. Bottles received for unspecified tests           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 9. Compositing instructions clear                   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. Voa Soil Kits/Jars received past 48hrs?         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 11. % Solids Jar Received?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 12. Residual Chlorine Present?                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

### Misc Information

Number of Encores: 25 Gram                      5 Gram

Number of Lab Filtered Metals:

Test Strip Lot #: pH 0-3: \_\_\_\_\_

pH 10-12: \_\_\_\_\_ Other: (Specify) \_\_\_\_\_

Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments

SM001

Rev. Date 05/04/17

Technician: JEREMYD

Date: 3/5/2024 3:45:11 PM

Reviewer: \_\_\_\_\_

Date: \_\_\_\_\_

DA62610: Chain of Custody

Page 2 of 2

**MS Volatiles****QC Data Summaries**

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**Includes the following where applicable:**

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

## Method Blank Summary

Page 1 of 1

Job Number: DA62610

Account: ANADACOD Occidental Petroleum Corporation

Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V3932-MB	5V80009.D	1	03/07/24	MB	n/a	n/a	V5V3932

The QC reported here applies to the following samples:

Method: SW846 8260B

DA62610-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.60	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
	m,p-Xylene	ND	1.0	0.96	ug/l	
95-47-6	o-Xylene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	106% 70-130%
17060-07-0	1,2-Dichloroethane-D4	96% 70-130%
2037-26-5	Toluene-D8	97% 70-130%
460-00-4	4-Bromofluorobenzene	100% 70-130%

## Blank Spike Summary

Page 1 of 1

Job Number: DA62610

Account: ANADACOD Occidental Petroleum Corporation

Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V3932-BS	5V80007.D	1	03/07/24	MB	n/a	n/a	V5V3932

The QC reported here applies to the following samples:

Method: SW846 8260B

DA62610-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	52.6	105	70-130
100-41-4	Ethylbenzene	50	51.0	102	70-130
108-88-3	Toluene	50	49.8	100	70-130
	m,p-Xylene	100	102	102	70-130
95-47-6	o-Xylene	50	50.0	100	70-130
1330-20-7	Xylene (total)	150	152	101	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	70-130%
17060-07-0	1,2-Dichloroethane-D4	99%	70-130%
2037-26-5	Toluene-D8	97%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

\* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA62610  
Account: ANADACOD Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA62539-2MS	5V80011.D	10	03/07/24	MB	n/a	n/a	V5V3932
DA62539-2MSD	5V80012.D	10	03/07/24	MB	n/a	n/a	V5V3932
DA62539-2	5V80010.D	10	03/07/24	MB	n/a	n/a	V5V3932

The QC reported here applies to the following samples: Method: SW846 8260B

DA62610-1

CAS No.	Compound	DA62539-2 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	500	520	104	500	523	105	1	70-130/30
100-41-4	Ethylbenzene	ND	500	513	103	500	499	100	3	70-130/30
108-88-3	Toluene	ND	500	498	100	500	485	97	3	70-130/30
	m,p-Xylene	ND	1000	1010	101	1000	981	98	3	70-130/30
95-47-6	o-Xylene	ND	500	503	101	500	492	98	2	70-130/30
1330-20-7	Xylene (total)	ND	1500	1520	101	1500	1470	98	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	DA62539-2	Limits
1868-53-7	Dibromofluoromethane	103%	105%	107%	70-130%
17060-07-0	1,2-Dichloroethane-D4	98%	99%	105%	70-130%
2037-26-5	Toluene-D8	96%	97%	99%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	102%	70-130%

\* = Outside of Control Limits.



**GC Volatiles****QC Data Summaries**

7

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**Includes the following where applicable:**

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

Method Blank Summary

Job Number: DA62610  
Account: ANADACOD Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA2849-MB	GA64373.D	1	03/10/24	JC	n/a	n/a	GGA2849

The QC reported here applies to the following samples: Method: SW846 8015D

DA62610-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	0.040	mg/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	122% 60-140%

Method Blank Summary

Job Number: DA62610  
Account: ANADACOD Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFK341-MB	FK4653.D	1	03/11/24	MB	n/a	n/a	GFK341

The QC reported here applies to the following samples: Method: RSK175 MOD

DA62610-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00070	mg/l	
74-84-0	Ethane	ND	0.0016	0.0010	mg/l	
74-98-6	Propane	ND	0.0022	0.0017	mg/l	

Blank Spike Summary

Job Number: DA62610  
Account: ANADACOD Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA2849-BS	GA64371.D	1	03/10/24	JC	n/a	n/a	GGA2849

The QC reported here applies to the following samples: Method: SW846 8015D

DA62610-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.10	95	64-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	118%	60-140%

\* = Outside of Control Limits.

Blank Spike Summary

Job Number: DA62610  
Account: ANADACOD Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFK341-BS	FK4654.D	10	03/11/24	MB	n/a	n/a	GFK341

The QC reported here applies to the following samples: Method: RSK175 MOD

DA62610-1A

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
74-82-8	Methane	0.512	0.595	116	70-135
74-84-0	Ethane	0.923	1.18	128	70-147
74-98-6	Propane	1.38	1.67	121	70-140

\* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA62610  
Account: ANADACOD Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA62445-48MS	GA64374.D	1	03/10/24	JC	n/a	n/a	GGA2849
DA62445-48MSD	GA64375.D	1	03/10/24	JC	n/a	n/a	GGA2849
DA62445-48	GA64376.D	1	03/10/24	JC	n/a	n/a	GGA2849

The QC reported here applies to the following samples: Method: SW846 8015D

DA62610-1

CAS No.	Compound	DA62445-48 Spike mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.0450	J	2.2	2.08	93	2.2	2.09	93	0	49-130/30

CAS No.	Surrogate Recoveries	MS	MSD	DA62445-48 Limits
120-82-1	1,2,4-Trichlorobenzene	120%	122%	125% 60-140%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: DA62610

Account: ANADACOD Occidental Petroleum Corporation

Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA62742-1MS	FK4661.D	10	03/11/24	MB	n/a	n/a	GFK341
DA62742-1MSD	FK4662.D	10	03/11/24	MB	n/a	n/a	GFK341
DA62742-1	FK4659.D	1	03/11/24	MB	n/a	n/a	GFK341
DA62742-1	FK4660.D	10	03/11/24	MB	n/a	n/a	GFK341

The QC reported here applies to the following samples:

Method: RSK175 MOD

DA62610-1A

CAS No.	Compound	DA62742-1 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
74-82-8	Methane	0.833 <sup>a</sup>	0.512	1.32	93	0.512	1.31	91	1	15-200/30
74-84-0	Ethane	ND	0.923	0.714	77	0.923	0.708	77	1	64-147/30
74-98-6	Propane	ND	1.38	1.02	74	1.38	1.01	73	1	63-140/30

(a) Result is from Run #2.

\* = Outside of Control Limits.

## Metals Analysis

### QC Data Summaries



Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: DA62610  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

QC Batch ID: MP39042  
Matrix Type: AQUEOUS

Methods: EPA 200.8  
Units: ug/l

Prep Date: 03/15/24

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.52	13		
Antimony	0.40	.01	.3		
Arsenic	0.20	.05	.05		
Barium	2.0	.096	.25	0.087	<2.0
Beryllium	0.20	.077	.1		
Boron	40	18	20	1.4	<40
Cadmium	0.10	.03	.04		
Calcium	400	25	100	16.8	<400
Chromium	2.0	.087	.25		
Cobalt	0.20	.04	.05		
Copper	2.0	.05	.81		
Iron	20	1.6	10	3.0	<20
Lead	0.50	.094	.13		
Magnesium	100	10	25	7.0	<100
Manganese	1.0	.079	.51	0.083	<1.0
Molybdenum	1.0	.037	.27		
Nickel	2.0	.098	.35		
Phosphorus	60	7.6	25		
Potassium	200	2	50	3.7	<200
Selenium	0.40	.05	.1	0.0036	<0.40
Silver	0.10	.0081	.025		
Sodium	500	10	130	42.4	<500
Strontium	20	.1	5	0.038	<20
Thallium	0.20	.032	.05		
Tin	10	.22	2.5		
Titanium	2.0	.05	.37		
Uranium	0.20	.015	.05		
Vanadium	1.0	.14	.2		
Zinc	10	.05	2.1		

Associated samples MP39042: DA62610-1F

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62610  
 Account: ANADACOD - Occidental Petroleum Corporation  
 Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

QC Batch ID: MP39042  
 Matrix Type: AQUEOUS

Methods: EPA 200.8  
 Units: ug/l

Prep Date: 03/15/24

Metal	DA62589-2FA Original MS		Spikelot ICPMS5	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium	6.8	400	400	98.3	70-130
Beryllium					
Boron	138	562	400	106.0	70-130
Cadmium	anr				
Calcium	44500	52800	5000	166.0(a)	70-130
Chromium	anr				
Cobalt					
Copper	anr				
Iron	20.1	1020	1000	100.0	70-130
Lead	anr				
Magnesium	4780	9380	5000	92.0	70-130
Manganese	10.4	212	200	100.8	70-130
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	13100	19400	5000	126.0	70-130
Selenium	0.20	205	200	102.4	70-130
Silver	anr				
Sodium	43800	51400	5000	152.0(a)	70-130
Strontium	118	214	100	96.0	70-130
Thallium					
Tin					
Titanium					
Uranium	anr				
Vanadium					
Zinc	anr				

Associated samples MP39042: DA62610-1F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62610  
 Account: ANADACOD - Occidental Petroleum Corporation  
 Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

QC Batch ID: MP39042  
 Matrix Type: AQUEOUS

Methods: EPA 200.8  
 Units: ug/l

Prep Date: 03/15/24

	DA62589-2FA		Spikelot		MSD	QC
Metal	Original MSD		ICPMS5	% Rec	RPD	Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	6.8	407	400	100.1	1.7	20
Beryllium						
Boron	138	570	400	108.0	1.4	20
Cadmium	anr					
Calcium	44500	52900	5000	168.0(a)	8.1	20
Chromium	anr					
Cobalt						
Copper	anr					
Iron	20.1	1040	1000	102.0	1.9	20
Lead	anr					
Magnesium	4780	9380	5000	92.0	0.0	20
Manganese	10.4	212	200	100.8	0.0	20
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	13100	19300	5000	124.0	8.1	20
Selenium	0.20	210	200	104.9	2.4	20
Silver	anr					
Sodium	43800	50900	5000	142.0(a)	2.4	20
Strontium	118	213	100	95.0	0.5	20
Thallium						
Tin						
Titanium						
Uranium	anr					
Vanadium						
Zinc	anr					

Associated samples MP39042: DA62610-1F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA62610  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

QC Batch ID: MP39042  
Matrix Type: AQUEOUS

Methods: EPA 200.8  
Units: ug/l

Prep Date: 03/15/24

Metal	BSP Result	Spikelot ICPMS5	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	401	400	100.3	85-115
Beryllium				
Boron	423	400	105.8	85-115
Cadmium	anr			
Calcium	5140	5000	102.8	85-115
Chromium	anr			
Cobalt				
Copper	anr			
Iron	998	1000	99.8	85-115
Lead	anr			
Magnesium	5000	5000	100.0	85-115
Manganese	202	200	101.0	85-115
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	5310	5000	106.2	85-115
Selenium	207	200	103.5	85-115
Silver	anr			
Sodium	5310	5000	106.2	85-115
Strontium	99.1	100	99.1	85-115
Thallium				
Tin				
Titanium				
Uranium	anr			
Vanadium				
Zinc	anr			

Associated samples MP39042: DA62610-1F

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

## General Chemistry

### QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA62610  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN62814	5.0	0.0	mg/l	100	101	101.3	90-110%
Alkalinity, Carbonate	GN62815	5.0	0.0	mg/l	100	101	101.3	90-110%
Alkalinity, Total as CaCO3	GN62813	5.0	0.0	mg/l	100	101	101.3	90-110%
Bromide	GP36151/GN62819	0.050	0.0	mg/l	0.5	0.479	95.8	90-110%
Chloride	GP36151/GN62819	0.50	0.0	mg/l	5	4.98	99.6	90-110%
Fluoride	GP36151/GN62819	0.10	0.0	mg/l	1	0.950	95.0	90-110%
Iron-Related Bacteria	MB1743	25	0	CFU/ml				
Nitrogen, Nitrate	GP36151/GN62819	0.010	0.0	mg/l	0.1	0.0994	99.4	90-110%
Nitrogen, Nitrite	GP36151/GN62819	0.0040	0.0	mg/l	0.05	0.0515	103.0	90-110%
Phosphorus, Total	GP36147/GN62804	0.010	0.0	mg/l	0.2	0.202	101.0	90-110%
Slime Forming Bacteria	MB1739	500	0	CFU/ml				
Solids, Total Dissolved	GN62807	10	0.0	mg/l	250	232	92.8	90-110%
Specific Conductivity	GP36170/GN62833			umhos/cm	10000	1080	108.4	90-110%
Sulfate	GP36151/GN62819	0.50	0.0	mg/l	5	5.06	101.2	90-110%
Sulfate Reducing Bacteria	MB1741	200	0	CFU/ml				

Associated Samples:

Batch MB1739: DA62610-1B  
Batch MB1741: DA62610-1B  
Batch MB1743: DA62610-1B  
Batch GN62807: DA62610-1  
Batch GN62813: DA62610-1  
Batch GN62814: DA62610-1  
Batch GN62815: DA62610-1  
Batch GP36147: DA62610-1  
Batch GP36151: DA62610-1  
Batch GP36170: DA62610-1  
(\*) Outside of QC limits

9.1  
6

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA62610  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN62813	DA62528-1	mg/l	208	210	1.2	0-20%
Iron-Related Bacteria	MB1743	DA62528-1B	CFU/ml	2200	2200	0.0	0-%
Phosphorus, Total	GP36147/GN62804	DA62663-1	mg/l	464	471	1.5	0-20%
Slime Forming Bacteria	MB1739	DA62528-1B	CFU/ml	<500	<500	0.0	0-%
Solids, Total Dissolved	GN62807	DA62660-1	mg/l	928	948	2.1	0-5.44%
Specific Conductivity	GP36170/GN62833	DA62766-1	umhos/cm	1200	1200	0.4	0-20%
Sulfate Reducing Bacteria	MB1741	DA62528-1B	CFU/ml	325	<200	47.6	0-%

Associated Samples:

Batch MB1739: DA62610-1B  
Batch MB1741: DA62610-1B  
Batch MB1743: DA62610-1B  
Batch GN62807: DA62610-1  
Batch GN62813: DA62610-1  
Batch GP36147: DA62610-1  
Batch GP36170: DA62610-1  
(\*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA62610  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO <sub>3</sub>	GN62813	DA62528-1	mg/l	208	100	308	100.0	80-120%
Bromide	GP36151/GN62819	DA62610-1	mg/l	0.78	2.5	3.2	96.8	80-120%
Chloride	GP36151/GN62819	DA62610-1	mg/l	80.8	25	106	100.8	80-120%
Fluoride	GP36151/GN62819	DA62610-1	mg/l	1.8	5	6.9	102.0	80-120%
Nitrogen, Nitrate	GP36151/GN62819	DA62610-1	mg/l	0.0	0.5	0.49	98.0	80-120%
Nitrogen, Nitrite	GP36151/GN62819	DA62610-1	mg/l	0.0	0.25	0.14	56.0N(a)	80-120%
Phosphorus, Total	GP36147/GN62804	DA62663-1	mg/l	464	0.2	468(a)	2000.0(b)	90-110%
Sulfate	GP36151/GN62819	DA62610-1	mg/l	0.0	25	25.7	102.8	80-120%

Associated Samples:

Batch GN62813: DA62610-1

Batch GP36147: DA62610-1

Batch GP36151: DA62610-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

9.3

6



MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA62610  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO <sub>3</sub>	GN62813	DA62528-1	mg/l	208	100	310	0.8	20%
Bromide	GP36151/GN62819	DA62610-1	mg/l	0.78	2.5	3.2	0.0	20%
Chloride	GP36151/GN62819	DA62610-1	mg/l	80.8	25	105	0.9	20%
Fluoride	GP36151/GN62819	DA62610-1	mg/l	1.8	5	6.8	1.5	20%
Nitrogen, Nitrate	GP36151/GN62819	DA62610-1	mg/l	0.0	0.5	0.48	2.1	20%
Nitrogen, Nitrite	GP36151/GN62819	DA62610-1	mg/l	0.0	0.25	0.14	0.0	20%
Phosphorus, Total	GP36147/GN62804	DA62663-1	mg/l	464	0.2	439(a)	6.4	20%
Sulfate	GP36151/GN62819	DA62610-1	mg/l	0.0	25	25.4	1.2	20%

Associated Samples:

Batch GN62813: DA62610-1

Batch GP36147: DA62610-1

Batch GP36151: DA62610-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

9.4

9

**Misc. Forms****Custody Documents and Other Forms**

(SGS Scott, LA)

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**Includes the following where applicable:**

- Chain of Custody



CHAIN OF CUSTODY  
SGS North America Inc. - Wheat Ridge  
4036 Youngfield Street, Wheat Ridge, CO 80033  
TEL: 303-425-6021 FAX: 303-425-6854  
www.sgs.com/ehsusa

Page 1 of 1

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)												Matrix Codes	
Company Name: <b>SGS North America Inc.</b>		Project Name: <b>Kerr-McGee: GWA_Griswold_27N_11HZ</b>														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address: <b>4036 Youngfield Street</b>		Street:															
City: <b>Wheat Ridge, CO 80033</b>		City: <b>Wheat Ridge, CO 80033</b>															
Project Contact: <b>parma</b>		Project #:															
E-mail: <b>parma.eskandaripayandehi@sgs.com</b>		Street Address:															
Phone #: <b>303-425-6021</b>		Client Purchase Order #:															
Fax #: <b>303-425-6021</b>		City: <b>Wheat Ridge, CO 80033</b>															
Sampler(s) Name(s): <b>EF</b>		Project Manager:															
Attention:																	
Turnaround Time (Business days):		Data Deliverable Information														Comments / Special Instructions	
Approved By (SGS PM): / Date:		Commercial "A" (Level 1) Commercial "B" (Level 2) REDT1 (Level 3) FULT1 (Level 4) Commercial "C"		State Forms EDD Format Other UL												R.L. 0.19 mg/l required  (1A 1)	
Standard 10 Day (business) 5 Business Days RUSH 3 Business Days RUSH 2 Business Days RUSH 1 Business Day EMERGENCY <input checked="" type="checkbox"/> other Due 3/12/2024		Commercial "A" = Results Only Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data														http://www.sgs.com/en/terms-and-conditions	
Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT																	
Relinquished by Sampler: <b>1</b>		Date Time: <b>3/6/24</b>		Received By: <b>Feder</b>		Relinquished By: <b>2</b>		Date Time: <b>03-22-24 09:45</b>		Received By: <b>2</b>		Relinquished By: <b>3</b>		Date Time: <b>03-22-24 09:45</b>		Received By: <b>4</b>	
Relinquished by Sampler: <b>3</b>		Date Time: <b>03-22-24 09:45</b>		Received By: <b>4</b>		Relinquished By: <b>5</b>		Date Time: <b>03-22-24 09:45</b>		Received By: <b>5</b>		Relinquished by Sampler: <b>5</b>		Date Time: <b>03-22-24 09:45</b>		Received By: <b>5</b>	
Custody Seal # <b>1</b>		Intact <input checked="" type="checkbox"/> Not Intact <input type="checkbox"/>		Preserved where applicable <input checked="" type="checkbox"/>		Therm. ID <input checked="" type="checkbox"/>		Cooling Time <input checked="" type="checkbox"/>									

DA62610: Chain of Custody  
Page 1 of 3  
SGS Scott, LA



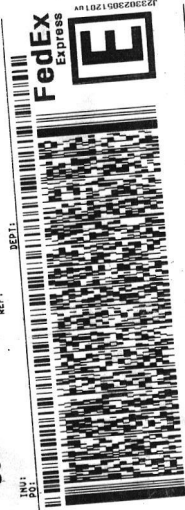
SHIP DATE: 06MAR24  
ACTUAL DATE: 06MAR24  
CNO: 0659493/CAFE3755

ORIGIN ID: DENR (303) 425-6021  
ATTN: TERRI RIDGE  
5056 YOUNGFIELD STREET  
4056 WHEAT RIDGE, CO 80033  
UNITED STATES US

BILL SENDER

TO SAMPLE RECEIVING  
ACCUTEST LOUISIANA  
500 AMBASSADOR CAFFERY DRIVE

SCOTT LA 70583



THU - 07 MAR 10:30A  
PRIORITY OVERNIGHT

TRK# 6466 4897 7818

70583  
LA-US  
LFT

XH LFTA



Part # 156148-434 M1W EXP 04/23 \*\*

## SGS Sample Receipt Summary

Job Number: da62610

Client: SGS NORTH AMERICA

Project: GWA

Date / Time Received: 3/7/2024 9:45:00 AM

Delivery Method: FEDEXPRESS

Airbill #s: 646648977818

Cooler Temps (Raw Measured) °C: Cooler 1: (2.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.2);

### Cooler Security

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Cooler Temperature

Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IRGUN                               |                          |
| 3. Cooler media:             | Ice (direct contact)                |                          |
| 4. No. Coolers:              | 1                                   |                          |

### Quality Control Preservation

Y or N

N/A

- |                                 |                                     |                          |                                     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

### Sample Integrity - Documentation

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Condition

Y or N

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

### Sample Integrity - Instructions

Y or N

N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Test Strip Lot #s: pH 1-12: \_\_\_\_\_ pH 12+: \_\_\_\_\_ Other: (Specify) \_\_\_\_\_

Comments

SM089-03  
Rev. Date 12/7/17

DA62610: Chain of Custody

Page 3 of 3

**GC/LC Semi-volatiles****QC Data Summaries**

(SGS Scott, LA)

**Includes the following where applicable:**

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: DA62610  
Account: ALMS SGS Wheat Ridge, CO  
Project: ANADACOD: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24741-MB	X0027366.D	1	03/09/24	JT	03/08/24	OP24741	GLB2650

The QC reported here applies to the following samples: Method: SW846 8015C

DA62610-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.10	0.017	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	85% 51-122%

11.1.1  
11

Blank Spike/Blank Spike Duplicate Summary

Job Number: DA62610  
Account: ALMS SGS Wheat Ridge, CO  
Project: ANADACOD: Kerr-McGee: GWA\_Griswold\_27N\_11HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24741-BS	X0027367.D	1	03/09/24	JT	03/08/24	OP24741	GLB2650
OP24741-BSD	X0027368.D	1	03/09/24	JT	03/08/24	OP24741	GLB2650

The QC reported here applies to the following samples: Method: SW846 8015C

DA62610-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	3	2.70	90	2.65	88	2	49-103/24

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	95%	97%	51-122%

\* = Outside of Control Limits.