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## Technical Report for

### Occidental Petroleum Corporation

GWA\_Acacia\_13\_17HZ

FID:755337 Reg:ECMC 615 Freq.:IN

SGS Job Number: DA65924

Sampling Date: 07/25/24

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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.

A handwritten signature in black ink, appearing to read "Eric Hoffman".

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: DA65924**

**GWA\_Acacia\_13\_17HZ**

**Project No: FID:755337 Reg:ECMC 615 Freq.:IN**

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
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**This report contains results reported as ND = Not detected. The following applies:**  
**Organics ND = Not detected above the MDL**

DA65924-1	07/25/24	12:21 PP	07/26/24	AQ	Ground Water	BW_PLAINS_290142 SWSE_17_2N_63W
DA65924-1A	07/25/24	12:21 PP	07/26/24	AQ	Ground Water	BW_PLAINS_290142 SWSE_17_2N_63W
DA65924-1B	07/25/24	12:21 PP	07/26/24	AQ	Ground Water	BW_PLAINS_290142 SWSE_17_2N_63W
DA65924-1F	07/25/24	12:21 PP	07/26/24	AQ	Groundwater Filtered	BW_PLAINS_290142 SWSE_17_2N_63W

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Occidental Petroleum Corporation

**Job No:** DA65924

**Site:** GWA\_Acacia\_13\_17HZ

**Report Date** 8/14/2024 8:51:23 AM

On 07/26/2024, 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 5.5 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of DA65924 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:** V5V4071

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA65879-1MS, DA65879-1MSD were used as the QC samples indicated.

### GC Volatiles By Method RSK175 MOD

**Matrix:** AQ **Batch ID:** GFK372

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA65895-1AMS, DA65895-1AMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- DA65924-1A: The pH of the sample was >2 at time of analysis. Bottles marked as unpreserved.

### GC Volatiles By Method SW846 8015D

**Matrix:** AQ **Batch ID:** GGA2912

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA65769-51MS, DA65769-51MSD 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:** OP26115

- 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.
- Sample(s) DA65924-1MS, DA65924-1MSD were used as the QC samples indicated.

## Metals Analysis By Method EPA 200.8

**Matrix:** AQ                      **Batch ID:** MP39834

- 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) DA65914-1FAMS, DA65914-1FAMSD 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.
- DA65924-1F for Potassium: Elevated reporting limit(s) due to matrix interference.
- DA65924-1F for Calcium: Elevated reporting limit(s) due to matrix interference.
- DA65924-1F for Magnesium: Elevated reporting limit(s) due to matrix interference.

## General Chemistry By Method EPA 300.0

**Matrix:** AQ                      **Batch ID:** GP37063

- 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) DA65924-1MS, DA65924-1MSD were used as the QC samples for the Bromide, Chloride, Fluoride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Bromide analysis.
- DA65924-1 for Sulfate: Elevated detection limit due to matrix interference.
- DA65924-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.
- DA65924-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.

**Matrix:** AQ                      **Batch ID:** R63793

- The data for EPA 300.0 meets quality control requirements.
- DA65924-1 for Nitrogen, Nitrate + Nitrite: Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

## General Chemistry By Method EPA 365.1

**Matrix:** AQ                      **Batch ID:** GP37077

- 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) DA65957-3DUP, DA65957-3MS, DA65957-3MSD were used as the QC samples for the Phosphorus, Total analysis.

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

**Matrix:** AQ                      **Batch ID:** MB1786

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA66089-1BDUP were used as the QC samples for the Iron-Related Bacteria analysis.
- DA65924-1B for Iron-Related Bacteria: Certification for this test is not offered.
- MB1786-MB for Iron-Related Bacteria: Certification for this test is not offered.

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

**Matrix:** AQ                      **Batch ID:** MB1785

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA66089-1BDUP were used as the QC samples for the Slime Forming Bacteria analysis.
- DA65924-1B for Slime Forming Bacteria: Certification for this test is not offered.
- MB1785-MB for Slime Forming Bacteria: Certification for this test is not offered.

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

**Matrix:** AQ                      **Batch ID:** MB1784

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA66089-1BDUP were used as the QC samples for the Sulfate Reducing Bacteria analysis.
- MB1784-MB for Sulfate Reducing Bacteria: Certification for this test is not offered.
- DA65924-1B for Sulfate Reducing Bacteria: Certification for this test is not offered.

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

**Matrix:** AQ                      **Batch ID:** GN64215

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA65947-1DUP, DA65947-2MS, DA65947-2MSD were used as the QC samples for the Alkalinity, Total as CaCO<sub>3</sub> analysis.

**Matrix:** AQ                      **Batch ID:** GN64216

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

**Matrix:** AQ                      **Batch ID:** GN64217

- 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:** GP37095

- Sample(s) DA66054-1DUP were used as the QC samples for the Specific Conductivity analysis.

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

**Matrix:** AQ                      **Batch ID:** GN64232

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA65924-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

### General Chemistry By Method SM1030E-2011

**Matrix:** AQ                      **Batch ID:** GN64301

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

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

**Matrix:** AQ

**Batch ID:** GN64272

- The data for SM4500HB+-2011/9040C meets quality control requirements.
- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: DA65924-1 Analysis performed past recommended hold time.

## Field Data By Method FIELD

**Matrix:** AQ

**Batch ID:** R63785

- 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.

# Summary of Hits

Job Number: DA65924  
 Account: Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ  
 Collected: 07/25/24



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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**DA65924-1 BW\_PLAINS\_290142 SWSE\_17\_2N\_63W**

Fluoride	3.1	0.20			mg/l	EPA 300.0
Chloride	75.7	13			mg/l	EPA 300.0
Bromide	0.44	0.10			mg/l	EPA 300.0
Alkalinity, Bicarbonate as CaCO3	618	5.0			mg/l	SM 2320B-2011
Alkalinity, Carbonate	25.1	5.0			mg/l	SM 2320B-2011
Alkalinity, Total as CaCO3	643	5.0			mg/l	SM 2320B-2011
Cation Anion Balance	2.7				%	SM1030E-2011
Phosphorus, Total	0.17	0.010			mg/l	EPA 365.1
Solids, Total Dissolved	801	10			mg/l	SM 2540C-2011
Specific Conductivity	1370	1.0			umhos/cm	SM 2510B-2011
pH <sup>a</sup>	8.63				su	SM4500HB+ -2011/9040C
Specific Conductivity (Field)	1342.7	0.50			umhos/cm	FIELD
pH (Field)	8.63				su	FIELD
Temperature (Field)	34.2				Deg. C	FIELD
Oxygen, Dissolved (Field)	0.05				mg/l	FIELD
Redox Potential Vs H2	79.2				mv	FIELD
Turbidity	6.64				NTU	FIELD

**DA65924-1A BW\_PLAINS\_290142 SWSE\_17\_2N\_63W**

Methane <sup>b</sup>	7.31	0.040	0.035		mg/l	RSK175 MOD
Ethane <sup>b</sup>	0.0103	0.0016	0.0010		mg/l	RSK175 MOD

**DA65924-1B BW\_PLAINS\_290142 SWSE\_17\_2N\_63W**

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

**DA65924-1F BW\_PLAINS\_290142 SWSE\_17\_2N\_63W**

Barium	0.0436	0.0020			mg/l	EPA 200.8
Boron	0.652	0.040			mg/l	EPA 200.8
Calcium <sup>d</sup>	2.12	2.0			mg/l	EPA 200.8
Iron	0.0980	0.020			mg/l	EPA 200.8
Magnesium <sup>d</sup>	0.592	0.50			mg/l	EPA 200.8
Manganese	0.0144	0.0010			mg/l	EPA 200.8
Potassium <sup>d</sup>	1.48	1.0			mg/l	EPA 200.8
Sodium	326	10			mg/l	EPA 200.8
Strontium	0.0841	0.020			mg/l	EPA 200.8

(a) Analysis performed past recommended hold time.

(b) The pH of the sample was > 2 at time of analysis. Bottles marked as unpreserved.

## Summary of Hits

**Job Number:** DA65924  
**Account:** Occidental Petroleum Corporation  
**Project:** GWA\_Acacia\_13\_17HZ  
**Collected:** 07/25/24



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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- (c) Certification for this test is not offered.
- (d) Elevated reporting limit(s) due to matrix interference.

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

<b>Client Sample ID:</b> BW_PLAINS_290142 SWSE_17_2N_63W <b>Lab Sample ID:</b> DA65924-1 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> GWA_Acacia_13_17HZ	<b>Date Sampled:</b> 07/25/24 <b>Date Received:</b> 07/26/24 <b>Percent Solids:</b> n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V83135.D	1	07/26/24 18:32	MB	n/a	n/a	V5V4071
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00060	mg/l	
108-88-3	Toluene	ND	0.0010	0.00050	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
1330-20-7	Xylene (total)	ND	0.0010	0.0010	mg/l	
	m,p-Xylene	ND	0.0010	0.00096	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
17060-07-0	1,2-Dichloroethane-D4	99%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		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

<b>Client Sample ID:</b> BW_PLAINS_290142 SWSE_17_2N_63W <b>Lab Sample ID:</b> DA65924-1 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8015D <b>Project:</b> GWA_Acacia_13_17HZ	<b>Date Sampled:</b> 07/25/24 <b>Date Received:</b> 07/26/24 <b>Percent Solids:</b> n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA66330.D	1	08/01/24 23:20	JC	n/a	n/a	GGA2912
Run #2							

Run #	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	116%		60-140%		

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

<b>Client Sample ID:</b> BW_PLAINS_290142 SWSE_17_2N_63W <b>Lab Sample ID:</b> DA65924-1 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846-8015C SW846 3510C <b>Project:</b> GWA_Acacia_13_17HZ	<b>Date Sampled:</b> 07/25/24 <b>Date Received:</b> 07/26/24 <b>Percent Solids:</b> n/a
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH077811.D	1	07/31/24 10:27	JB	07/30/24 13:00	OP26115	GFH23926
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.20	0.19	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	41%		10-131%		

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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

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> BW_PLAINS_290142 SWSE_17_2N_63W <b>Lab Sample ID:</b> DA65924-1 <b>Matrix:</b> AQ - Ground Water <b>Project:</b> GWA_Acacia_13_17HZ	<b>Date Sampled:</b> 07/25/24 <b>Date Received:</b> 07/26/24 <b>Percent Solids:</b> n/a
---	---

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>300.0</b>							
Fluoride	3.1	0.20	mg/l	2	07/26/24 13:46	CS	EPA 300.0
Chloride	75.7	13	mg/l	25	07/26/24 13:54	CS	EPA 300.0
Nitrogen, Nitrite <sup>a</sup>	< 0.10	0.10	mg/l	25	07/26/24 13:54	CS	EPA 300.0
Bromide	0.44	0.10	mg/l	2	07/26/24 13:46	CS	EPA 300.0
Nitrogen, Nitrate <sup>a</sup>	< 0.020	0.020	mg/l	2	07/26/24 13:46	CS	EPA 300.0
Sulfate <sup>a</sup>	< 1.0	1.0	mg/l	2	07/26/24 13:46	CS	EPA 300.0
<b>300.0 NO2 + NO3O</b>							
Nitrogen, Nitrate + Nitrite <sup>b</sup>	< 0.12	0.12	mg/l	1	07/26/24 13:54	CS	EPA 300.0
Alkalinity, Bicarbonate as CaC	618	5.0	mg/l	1	07/29/24 10:49	JW	SM 2320B-2011
Alkalinity, Carbonate	25.1	5.0	mg/l	1	07/29/24 10:49	JW	SM 2320B-2011
Alkalinity, Total as CaCO3	643	5.0	mg/l	1	07/29/24 10:49	JW	SM 2320B-2011
Cation Anion Balance	2.7		%	1	08/06/24	MB	SM1030E-2011
Phosphorus, Total	0.17	0.010	mg/l	1	07/30/24 13:41	KH	EPA 365.1
Solids, Total Dissolved	801	10	mg/l	1	07/29/24 07:00	JW	SM 2540C-2011
Specific Conductivity	1370	1.0	umhos/cm	1	08/02/24 12:00	JW	SM 2510B-2011
pH <sup>c</sup>	8.63		su	1	08/02/24 08:35	KH	SM4500HB+ -2011/9040C

### Field Parameters

Oxygen, Dissolved (Field)	0.05		mg/l	1	07/25/24 12:21	SUB	FIELD
Redox Potential Vs H2	79.2		mv	1	07/25/24 12:21	SUB	FIELD
Specific Conductivity (Field)	1342.7	0.50	umhos/cm	1	07/25/24 12:21	SUB	FIELD
Temperature (Field)	34.2		Deg. C	1	07/25/24 12:21	SUB	FIELD
Turbidity	6.64		NTU	1	07/25/24 12:21	SUB	FIELD
pH (Field)	8.63		su	1	07/25/24 12:21	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

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> BW_PLAINS_290142 SWSE_17_2N_63W	<b>Date Sampled:</b> 07/25/24
<b>Lab Sample ID:</b> DA65924-1A	<b>Date Received:</b> 07/26/24
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD	
<b>Project:</b> GWA_Acacia_13_17HZ	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FK5130.D	1	07/26/24 13:37	JC	n/a	n/a	GFK372
Run #2 <sup>a</sup>	FK5131.D	50	07/26/24 13:45	JC	n/a	n/a	GFK372

Run #	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	39.0 ml	4.0 ml	500 ul	22.2 Deg. C
Run #2	39.0 ml	4.0 ml	500 ul	22.2 Deg. C

**Methane, Ethane and Propane**

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	7.31 <sup>b</sup>	0.040	0.035	mg/l	
74-84-0	Ethane	0.0103	0.0016	0.0010	mg/l	
74-98-6	Propane	ND	0.0022	0.0017	mg/l	

(a) The pH of the sample was > 2 at time of analysis. Bottles marked as unpreserved.

(b) Result is from Run# 2

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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

<b>Client Sample ID:</b> BW_PLAINS_290142 SWSE_17_2N_63W	<b>Date Sampled:</b> 07/25/24
<b>Lab Sample ID:</b> DA65924-1B	<b>Date Received:</b> 07/26/24
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> GWA_Acacia_13_17HZ	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Not certifiable							
Iron-Related Bacteria <sup>a</sup>	35000	25	CFU/ml	1	08/05/24 10:00	TH	HACH IRB-BART-NOCERT
Slime Forming Bacteria <sup>a</sup>	< 500	500	CFU/ml	1	08/05/24 10:00	TH	HC SLYM-BART-NO CERT
Sulfate Reducing Bacteria <sup>a</sup>	< 200	200	CFU/ml	1	08/05/24 10:00	TH	HC SRB-BART-NO CERT

(a) Certification for this test is not offered.

---

RL = Reporting Limit

4.3  
4

## Report of Analysis

<b>Client Sample ID:</b> BW_PLAINS_290142 SWSE_17_2N_63W <b>Lab Sample ID:</b> DA65924-1F <b>Matrix:</b> AQ - Groundwater Filtered <b>Project:</b> GWA_Acacia_13_17HZ	<b>Date Sampled:</b> 07/25/24 <b>Date Received:</b> 07/26/24 <b>Percent Solids:</b> n/a
--	---

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0436	0.0020	mg/l	1	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Boron	0.652	0.040	mg/l	1	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Calcium <sup>a</sup>	2.12	2.0	mg/l	5	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Iron	0.0980	0.020	mg/l	1	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Magnesium <sup>a</sup>	0.592	0.50	mg/l	5	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Manganese	0.0144	0.0010	mg/l	1	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Potassium <sup>a</sup>	1.48	1.0	mg/l	5	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Selenium	< 0.00040	0.00040	mg/l	1	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Sodium	326	10	mg/l	20	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>
Strontium	0.0841	0.020	mg/l	1	07/31/24	08/01/24 DU	EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>2</sup>

(1) Instrument QC Batch: MA18281

(2) Prep QC Batch: MP39834

(a) Elevated reporting limit(s) due to matrix interference.

---

RL = Reporting Limit

4.4  
4

**Misc. Forms**

**Custody Documents and Other Forms**

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**Includes the following where applicable:**

- Chain of Custody



CHAIN OF CUSTODY

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 # DA65924

Client / Reporting Information
Project Information
Requested Analysis (see TEST CODE sheet)
Matrix Codes
Collection
Data Deliverable Information
Comments / Special Instructions
Sample Custody must be documented below each time samples change possession, including courier delivery.

5.1
5



## SGS Sample Receipt Summary

Job Number: da65924

Client: ABSAROKA

Project: GWA

Date / Time Received: 7/26/2024 12:00:00 PM

Delivery Method: co

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

Cooler Temps (Raw Measured) °C: Cooler 1: (5.5);

Cooler Temps (Corrected) °C: Cooler 1: (5.5);

**Cooler Informatio**

Y or N

- 1. Custody Seals Present:
- 2. Custody Seals Intact:
- 3. Temp criteria achieved:
- 4. Cooler temp verification: IR Gun
- 5. Cooler media: Ice (Bag)

**Trip Blank Information**

Y or N N/A

- 1. Trip Blank present / cooler:
- 2. Trip Blank listed on COC:

W or S N/A

- 3. Type of TB Received

**Sample Information**

Y or N N/A

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

**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: 7/26/2024 12:06:35 PM

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

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

DA65924: Chain of Custody

Page 2 of 3

5.1  
5

Job Change Order: DA65924

Requested Date: 7/29/2024 Received Date: 7/26/2024  
Account Name: Occidental Petroleum Corporation Due Date: 7/29/2024  
Project Description: GWA\_Acacia\_13\_17HZ Deliverable: COMMBN  
C/O Initiated By: P\_ESKAND PM: PP TAT (Days): 1

Sample #: DA65924-

Client ID:

Dept:

TAT:

Change: Please change the regulation from Voluntary to ECMC 615.

Date/Time: 7/29/2024

Above Changes Per: Tanya Cude

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

## MS Volatiles

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## 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

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V4071-MB	5V83120A.D	1	07/26/24	MB	n/a	n/a	V5V4071

The QC reported here applies to the following samples:

Method: SW846 8260B

DA65924-1

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	103% 70-130%
17060-07-0	1,2-Dichloroethane-D4	101% 70-130%
2037-26-5	Toluene-D8	99% 70-130%
460-00-4	4-Bromofluorobenzene	98% 70-130%

# Blank Spike Summary

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V4071-BS	5V83118A.D	1	07/26/24	MB	n/a	n/a	V5V4071

The QC reported here applies to the following samples:

Method: SW846 8260B

DA65924-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	51.2	102	70-130
100-41-4	Ethylbenzene	50	49.9	100	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	50.7	101	70-130
1330-20-7	Xylene (total)	150	152	101	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	70-130%
17060-07-0	1,2-Dichloroethane-D4	99%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA65879-1MS <sup>a</sup>	5V83122A.D	25	07/26/24	MB	n/a	n/a	V5V4071
DA65879-1MSD <sup>a</sup>	5V83123A.D	25	07/26/24	MB	n/a	n/a	V5V4071
DA65879-1 <sup>a</sup>	5V83121A.D	25	07/26/24	MB	n/a	n/a	V5V4071

The QC reported here applies to the following samples:

Method: SW846 8260B

DA65924-1

CAS No.	Compound	DA65879-1 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	1250	1310	105	1250	1320	106	1	70-130/30
100-41-4	Ethylbenzene	ND	1250	1320	106	1250	1330	106	1	70-130/30
108-88-3	Toluene	13.5	J 1250	1340	106	1250	1340	106	0	70-130/30
	m,p-Xylene	ND	2500	2700	108	2500	2690	108	0	70-130/30
95-47-6	o-Xylene	ND	1250	1330	106	1250	1340	107	1	70-130/30
1330-20-7	Xylene (total)	ND	3750	4030	107	3750	4030	107	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	DA65879-1	Limits
1868-53-7	Dibromofluoromethane	101%	101%	103%	70-130%
17060-07-0	1,2-Dichloroethane-D4	99%	98%	102%	70-130%
2037-26-5	Toluene-D8	98%	98%	98%	70-130%
460-00-4	4-Bromofluorobenzene	94%	96%	98%	70-130%

(a) Sample received with headspace. Results may be biased low.

\* = Outside of Control Limits.

## GC Volatiles

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## 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

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA2912-MB	GA66316.D	1	08/01/24	JC	n/a	n/a	GGA2912

The QC reported here applies to the following samples:

Method: SW846 8015D

DA65924-1

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	115% 60-140%

7.1.1  
7

# Method Blank Summary

Job Number: DA65924  
Account: ANADACOD Occidental Petroleum Corporation  
Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFK372-MB	FK5128.D	1	07/26/24	JC	n/a	n/a	GFK372

The QC reported here applies to the following samples:

Method: RSK175 MOD

DA65924-1A

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	

7.1.2

7

# Blank Spike Summary

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA2912-BS	GA66314.D	1	08/01/24	JC	n/a	n/a	GGA2912

The QC reported here applies to the following samples:

Method: SW846 8015D

DA65924-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.12	96	64-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	138%	60-140%

\* = Outside of Control Limits.

7.2.1  
7

# Blank Spike Summary

**Job Number:** DA65924  
**Account:** ANADACOD Occidental Petroleum Corporation  
**Project:** GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFK372-BS	FK5129.D	10	07/26/24	JC	n/a	n/a	GFK372

The QC reported here applies to the following samples:

Method: RSK175 MOD

DA65924-1A

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
74-82-8	Methane	0.51	0.621	122	70-135
74-84-0	Ethane	0.956	1.23	129	70-150
74-98-6	Propane	1.4	1.76	126	70-145

7.2.2  
7

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA65769-51MS	GA66318.D	1	08/01/24	JC	n/a	n/a	GGA2912
DA65769-51MSD	GA66319.D	1	08/01/24	JC	n/a	n/a	GGA2912
DA65769-51	GA66317.D	1	08/01/24	JC	n/a	n/a	GGA2912

The QC reported here applies to the following samples:

Method: SW846 8015D

DA65924-1

CAS No.	Compound	DA65769-51 Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD	
	TPH-GRO (C6-C10)	ND	2.2	2.03	92	2.2	2.04	93	0	49-130/30

CAS No.	Surrogate Recoveries	MS	MSD	DA65769-51 Limits	
120-82-1	1,2,4-Trichlorobenzene	118%	115%	114%	60-140%

\* = Outside of Control Limits.

7.3.1  
7

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA65895-1AMS	FK5134.D	10	07/26/24	JC	n/a	n/a	GFK372
DA65895-1AMSD	FK5135.D	10	07/26/24	JC	n/a	n/a	GFK372
DA65895-1A <sup>a</sup>	FK5133.D	1	07/26/24	JC	n/a	n/a	GFK372
DA65895-1A <sup>a</sup>	FK5132.D	10	07/26/24	JC	n/a	n/a	GFK372

The QC reported here applies to the following samples:

Method: RSK175 MOD

DA65924-1A

CAS No.	Compound	DA65895-1A Spike		MS	MS	Spike	MSD	MSD	RPD	Limits
		mg/l	Q mg/l	mg/l	%	mg/l	mg/l	%		Rec/RPD
74-82-8	Methane	5.87 <sup>c</sup>	0.51	5.91	29	0.51	5.80	8* <sup>b</sup>	2	20-183/30
74-84-0	Ethane	ND	0.956	1.16	121	0.956	1.14	119	2	50-140/30
74-98-6	Propane	ND	1.4	1.63	116	1.4	1.60	114	2	50-140/30

(a) The pH of the sample was > 2 at time of analysis. Bottles marked as unpreserved.

(b) Outside control limits due to high level in sample relative to spike amount.

(c) Result is from Run #2.

\* = Outside of Control Limits.

7.3.2  
7

## GC/LC Semi-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

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26115-MB	FH077807.D	1	07/31/24	JB	07/30/24	OP26115	GFH23926

The QC reported here applies to the following samples:

Method: SW846-8015C

DA65924-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.20	0.19	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	46% 10-131%

8.1.1  
8

# Blank Spike Summary

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26115-BS	FH077808.D	1	07/31/24	JB	07/30/24	OP26115	GFH23926

The QC reported here applies to the following samples:

Method: SW846-8015C

DA65924-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-DRO (C10-C28)	5	3.41	68	20-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	53%	10-131%

8.2.1  
8

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA65924  
 Account: ANADACOD Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP26115-MS	FH077809.D	1	07/31/24	JB	07/30/24	OP26115	GFH23926
OP26115-MSD	FH077810.D	1	07/31/24	JB	07/30/24	OP26115	GFH23926
DA65924-1	FH077811.D	1	07/31/24	JB	07/30/24	OP26115	GFH23926

The QC reported here applies to the following samples:

Method: SW846-8015C

DA65924-1

CAS No.	Compound	DA65924-1 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	10	6.76	68	10	7.29	73	8	20-130/30

CAS No.	Surrogate Recoveries	MS	MSD	DA65924-1	Limits
84-15-1	o-Terphenyl	52%	52%	41%	10-131%

8.3.1  
8

\* = Outside of Control Limits.

## Metals Analysis

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### QC Data Summaries

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**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: DA65924  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_Acacia\_13\_17HZ

QC Batch ID: MP39834  
Matrix Type: AQUEOUS

Methods: EPA 200.8  
Units: ug/l

Prep Date: 07/31/24

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	0.023	<2.0
Beryllium	0.20	.077	.1		
Boron	40	18	20	2.6	<40
Cadmium	0.10	.03	.04		
Calcium	400	25	100	7.9	<400
Chromium	2.0	.087	.25		
Cobalt	0.20	.04	.05		
Copper	2.0	.05	.81		
Iron	20	1.6	10	4.6	<20
Lead	0.50	.094	.13		
Magnesium	100	10	25	8.0	<100
Manganese	1.0	.079	.51	0.073	<1.0
Molybdenum	1.0	.037	.27		
Nickel	2.0	.098	.35		
Phosphorus	60	7.6	25		
Potassium	200	2	50	-5.6	<200
Selenium	0.40	.05	.1	0.013	<0.40
Silver	0.10	.0081	.025		
Sodium	500	10	130	26.4	<500
Strontium	20	.1	5	0.017	<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 MP39834: DA65924-1F

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

9.1.1  
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA65924  
 Account: ANADACOD - Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

QC Batch ID: MP39834  
 Matrix Type: AQUEOUS

Methods: EPA 200.8  
 Units: ug/l

Prep Date: 07/31/24

Metal	DA65914-1FA Original MS		Spike ICPMS5	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium	55.2	450	400	98.7	70-130
Beryllium					
Boron	126	523	400	102.0	70-130
Cadmium	anr				
Calcium	59500	68200	5000	174.0(a)	70-130
Chromium	anr				
Cobalt					
Copper	anr				
Iron	101	1090	1000	98.9	70-130
Lead	anr				
Magnesium	11500	16800	5000	128.0(b)	70-130
Manganese	15.0	221	200	103.0	70-130
Molybdenum	anr				
Nickel	anr				
Phosphorus					
Potassium	9330	15300	5000	119.4(b)	70-130
Selenium	0.67	208	200	103.9	70-130
Silver	anr				
Sodium	33400	42900	5000	190.0(a)	70-130
Strontium	367	499	100	116.0	70-130
Thallium					
Tin					
Titanium					
Uranium	anr				
Vanadium					
Zinc	anr				

Associated samples MP39834: DA65924-1F

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: DA65924  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_Acacia\_13\_17HZ

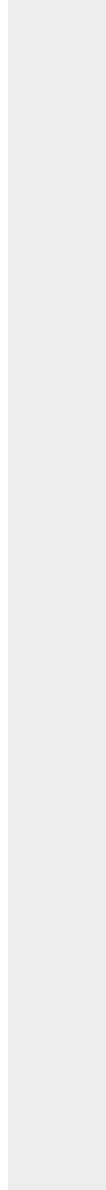
QC Batch ID: MP39834  
Matrix Type: AQUEOUS

Methods: EPA 200.8  
Units: ug/l

Prep Date: 07/31/24

Metal	DA65914-1FA Original MS	SpikeLot ICPMS5	% Rec	QC Limits
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(b) Elevated reporting limit(s) due to matrix interference.



9.1.2  
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA65924  
 Account: ANADACOD - Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

QC Batch ID: MP39834  
 Matrix Type: AQUEOUS

Methods: EPA 200.8  
 Units: ug/l

Prep Date: 07/31/24

Metal	DA65914-1FA Original MSD	SpikeLot ICPMS5	% Rec	MSD RPD	QC Limit	
Aluminum						
Antimony						
Arsenic	anr					
Barium	55.2	451	400	99.0	0.2	20
Beryllium						
Boron	126	530	400	103.8	1.3	20
Cadmium	anr					
Calcium	59500	71200	5000	234.0(a)	13.7	20
Chromium	anr					
Cobalt						
Copper	anr					
Iron	101	1120	1000	101.9	2.7	20
Lead	anr					
Magnesium	11500	16700	5000	126.0(b)	16.2	20
Manganese	15.0	217	200	101.0	1.8	20
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium	9330	15300	5000	119.4(b)	12.5	20
Selenium	0.67	212	200	105.9	1.9	20
Silver	anr					
Sodium	33400	43100	5000	194.0(a)	15.5	20
Strontium	367	503	100	120.0	0.8	20
Thallium						
Tin						
Titanium						
Uranium	anr					
Vanadium						
Zinc	anr					

Associated samples MP39834: DA65924-1F

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: DA65924  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_Acacia\_13\_17HZ

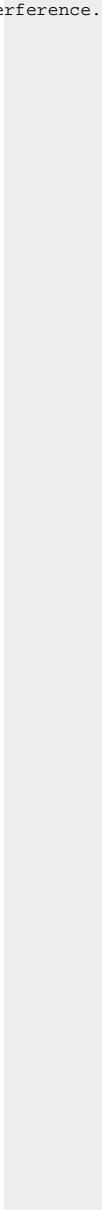
QC Batch ID: MP39834  
Matrix Type: AQUEOUS

Methods: EPA 200.8  
Units: ug/l

Prep Date: 07/31/24

Metal	DA65914-1FA Original MSD	SpikeLot ICPMS5	% Rec	MSD RPD	QC Limit
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(b) Elevated reporting limit(s) due to matrix interference.



SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA65924  
 Account: ANADACOD - Occidental Petroleum Corporation  
 Project: GWA\_Acacia\_13\_17HZ

QC Batch ID: MP39834  
 Matrix Type: AQUEOUS

Methods: EPA 200.8  
 Units: ug/l

Prep Date: 07/31/24

Metal	BSP Result	SpikeLot ICPMS5	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	420	400	105.0	85-115
Beryllium				
Boron	422	400	105.5	85-115
Cadmium	anr			
Calcium	5200	5000	104.0	85-115
Chromium	anr			
Cobalt				
Copper	anr			
Iron	1030	1000	103.0	85-115
Lead	anr			
Magnesium	4880	5000	97.6	85-115
Manganese	206	200	103.0	85-115
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium	5260	5000	105.2	85-115
Selenium	216	200	108.0	85-115
Silver	anr			
Sodium	5170	5000	103.4	85-115
Strontium	104	100	104.0	85-115
Thallium				
Tin				
Titanium				
Uranium	anr			
Vanadium				
Zinc	anr			

Associated samples MP39834: DA65924-1F

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

9.1.3  
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## General Chemistry

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### QC Data Summaries

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#### 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: DA65924  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_Acacia\_13\_17HZ

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN64216	5.0	0.0	mg/l	100	109	108.6	90-110%
Alkalinity, Carbonate	GN64217	5.0	0.0	mg/l	100	109	108.6	90-110%
Alkalinity, Total as CaCO3	GN64215	5.0	0.0	mg/l	100	109	108.6	90-110%
Bromide	GP37063/GN64209	0.050	0.0	mg/l	0.5	0.539	107.8	90-110%
Chloride	GP37063/GN64209	0.50	0.0	mg/l	5	5.25	105.0	90-110%
Fluoride	GP37063/GN64209	0.10	0.0	mg/l	1	1.08	108.0	90-110%
Iron-Related Bacteria	MB1786	25	0(a)	CFU/ml				
Nitrogen, Nitrate	GP37063/GN64209	0.010	0.0	mg/l	0.1	0.110	110.0	90-110%
Nitrogen, Nitrite	GP37063/GN64209	0.0040	0.0	mg/l	0.05	0.0516	103.2	90-110%
Phosphorus, Total	GP37077/GN64226	0.010	0.0	mg/l	0.2	0.201	100.5	90-110%
Slime Forming Bacteria	MB1785	500	0(a)	CFU/ml				
Solids, Total Dissolved	GN64232	10	0.0	mg/l	250	1000	100.0	90-110%
Specific Conductivity	GP37095/GN64258			umhos/cm	10000	1420	100.7	90-110%
Sulfate	GP37063/GN64209	0.50	0.0	mg/l	5	5.26	105.2	90-110%
Sulfate Reducing Bacteria	MB1784	200	0(a)	CFU/ml				

Associated Samples:

Batch MB1784: DA65924-1B  
Batch MB1785: DA65924-1B  
Batch MB1786: DA65924-1B  
Batch GN64215: DA65924-1  
Batch GN64216: DA65924-1  
Batch GN64217: DA65924-1  
Batch GN64232: DA65924-1  
Batch GP37063: DA65924-1  
Batch GP37077: DA65924-1  
Batch GP37095: DA65924-1

(\*) Outside of QC limits

(a) Certification for this test is not offered.

10.1  
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DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA65924  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_Acacia\_13\_17HZ

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN64215	DA65947-1	mg/l	56.1	56.5	0.6	0-20%
Iron-Related Bacteria	MB1786	DA66089-1B	CFU/ml	150	150(a)	0.0(a)	0-%
Phosphorus, Total	GP37077/GN64226	DA65957-3	mg/l	0.049	0.049	0.0	0-20%
Slime Forming Bacteria	MB1785	DA66089-1B	CFU/ml	<500	<500(a)	0.0(a)	0-%
Solids, Total Dissolved	GN64232	DA65924-1	mg/l	801	815	1.7	0-5.44%
Specific Conductivity	GP37095/GN64258	DA66054-1	umhos/cm	1350	1350	0.3	0-20%
Sulfate Reducing Bacteria	MB1784	DA66089-1B	CFU/ml	<200	<200(a)	0.0(a)	0-%

Associated Samples:

Batch MB1784: DA65924-1B

Batch MB1785: DA65924-1B

Batch MB1786: DA65924-1B

Batch GN64215: DA65924-1

Batch GN64232: DA65924-1

Batch GP37077: DA65924-1

Batch GP37095: DA65924-1

(\*) Outside of QC limits

(a) Certification for this test is not offered.

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA65924  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_Acacia\_13\_17HZ

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN64215	DA65947-2	mg/l	60.1	100	159	98.6	80-120%
Bromide	GP37063/GN64209	DA65924-1	mg/l	0.44	12.5	13.2	102.1	80-120%
Chloride	GP37063/GN64209	DA65924-1	mg/l	75.7	125	200	99.4	80-120%
Fluoride	GP37063/GN64209	DA65924-1	mg/l	3.1	25	28.0	99.6	80-120%
Nitrogen, Nitrate	GP37063/GN64209	DA65924-1	mg/l	0.0	2.5	2.5	100.0	80-120%
Nitrogen, Nitrite	GP37063/GN64209	DA65924-1	mg/l	0.0	1.25	1.2	96.0	80-120%
Phosphorus, Total	GP37077/GN64226	DA65957-3	mg/l	0.049	0.2	0.25	100.5	90-110%
Sulfate	GP37063/GN64209	DA65924-1	mg/l	0.0	125	120	96.0	80-120%

Associated Samples:

Batch GN64215: DA65924-1

Batch GP37063: DA65924-1

Batch GP37077: DA65924-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

10.3  
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MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA65924  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_Acacia\_13\_17HZ

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO3	GN64215	DA65947-2	mg/l	60.1	100	159	0.0	20%
Bromide	GP37063/GN64209	DA65924-1	mg/l	0.44	12.5	13.1	0.8	20%
Chloride	GP37063/GN64209	DA65924-1	mg/l	75.7	125	199	0.5	20%
Fluoride	GP37063/GN64209	DA65924-1	mg/l	3.1	25	27.9	0.4	20%
Nitrogen, Nitrate	GP37063/GN64209	DA65924-1	mg/l	0.0	2.5	2.5	0.0	20%
Nitrogen, Nitrite	GP37063/GN64209	DA65924-1	mg/l	0.0	1.25	1.2	0.0	20%
Phosphorus, Total	GP37077/GN64226	DA65957-3	mg/l	0.049	0.2	0.25	0.0	20%
Sulfate	GP37063/GN64209	DA65924-1	mg/l	0.0	125	119	0.8	20%

Associated Samples:

Batch GN64215: DA65924-1

Batch GP37063: DA65924-1

Batch GP37077: DA65924-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

10.4  
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