

ANALYTICAL REPORT

PREPARED FOR

Attn: Rick Allison
Colorado Oil&Gas Conservation Commision
1120 Lincoln St.
Suite 801
Denver, Colorado 80203

Generated 12/5/2024 8:06:44 AM

JOB DESCRIPTION

SB23-186 Lab Services 2024-2025

JOB NUMBER

280-198978-2

Eurofins Denver

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



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Authorized for release by
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Case Narrative

Client: Colorado Oil&Gas Conservation Commission
Project: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Job ID: 280-198978-2

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Job Narrative 280-198978-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 11/1/2024 1:19 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.0°C, 2.9°C, 4.5°C and 5.4°C.

Receipt Exceptions

The reference method requires samples to have a pH of less than 2. 071-07213 Hill Ranch 22-01V (280-198978-1) and 071-09629 Apache Canyon 03-11 (280-198978-4). The samples were adjusted to the appropriate pH in the laboratory.

Gamma Spectroscopy

Method 901.1_Ra: Gamma prep batch 160- 687058

The detection goal of 50 pCi/L was not met for Ra226 and/or Ra228 for the following sample. An elevated MDC can occur when higher background counts are applied to a peak ROI. This is due to the relatively small size of the peak or subsequent "force-fit" of the non-existent peak which resulted in higher than normal background counts due to statistical fluctuations in the Compton baseline. The laboratory does not believe this adversely affects the data, the activity is well below the RL and MDC. 071-09185 Golden Eagle 20-13 (280-198978-2) and 071-09212 Apache Canyon 35-10 (280-198978-3)

Method 901.1_Ra: Gamma Prep Batch 160-687058

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211

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Case Narrative

Client: Colorado Oil&Gas Conservation Commission
Project: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Job ID: 280-198978-2 (Continued)

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Bi-214 Ra-226

071-09185 Golden Eagle 20-13 (280-198978-2), 071-09212 Apache Canyon 35-10 (280-198978-3), (280-198970-C-1-A) and (280-198970-C-1-B DU)

Method 901.1_Ra: Gamma prep batch 160-687606

The minimum detectable concentration (MDC) for the method blank (MB) is above the requested limit for Ra226. The activity was not observed in the MB above the MDC or reporting limit (RL). The data for the following sample have been reported with the MDC achieved: (MB 160-687606/1-A)

Method 901.1_Ra: Gamma prep batch 160- 687606

The detection goal of 50 pCi/L was not met for Ra226 and/or Ra228 for the following sample. An elevated MDC can occur when higher background counts are applied to a peak ROI. This is due to the relatively small size of the peak or subsequent "force-fit" of the non-existent peak which resulted in higher than normal background counts due to statistical fluctuations in the Compton baseline. The laboratory does not believe this adversely affects the data, the activity is well below the RL and MDC. 071-07213 Hill Ranch 22-01V (280-198978-1), 071-09629 Apache Canyon 03-11 (280-198978-4) and (280-198978-C-1-B DU)

Method 901.1_Ra: Gamma Prep Batch 160-687606

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

071-07213 Hill Ranch 22-01V (280-198978-1), 071-09629 Apache Canyon 03-11 (280-198978-4) and (280-198978-C-1-B DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Definitions/Glossary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Detection Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Client Sample ID: 071-07213 Hill Ranch 22-01V

Lab Sample ID: 280-198978-1

☐ No Detections.

Client Sample ID: 071-09185 Golden Eagle 20-13

Lab Sample ID: 280-198978-2

☐ No Detections.

Client Sample ID: 071-09212 Apache Canyon 35-10

Lab Sample ID: 280-198978-3

☐ No Detections.

Client Sample ID: 071-09629 Apache Canyon 03-11

Lab Sample ID: 280-198978-4

☐ No Detections.

This Detection Summary does not include radiochemical test results.

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Method Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Method	Method Description	Protocol	Laboratory
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	EET SL
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency
None = None

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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Sample Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-198978-1	071-07213 Hill Ranch 22-01V	Water	10/28/24 13:20	11/01/24 13:19
280-198978-2	071-09185 Golden Eagle 20-13	Water	10/29/24 10:00	11/01/24 13:19
280-198978-3	071-09212 Apache Canyon 35-10	Water	10/29/24 11:40	11/01/24 13:19
280-198978-4	071-09629 Apache Canyon 03-11	Water	10/29/24 12:50	11/01/24 13:19

Client Sample Results

Client: Colorado Oil&Gas Conservation Commision
Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Client Sample ID: 071-07213 Hill Ranch 22-01V
Date Collected: 10/28/24 13:20
Date Received: 11/01/24 13:19

Lab Sample ID: 280-198978-1
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-12.5	U G	33.9	33.9	50.0	59.3	pCi/L	11/08/24 12:55	12/03/24 03:19	1
Radium-228	-14.5	U G	40.2	40.2	50.0	55.9	pCi/L	11/08/24 12:55	12/03/24 03:19	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Other Detected Radionuclide	None						pCi/L	11/08/24 12:55	12/03/24 03:19	1

Client Sample ID: 071-09185 Golden Eagle 20-13
Date Collected: 10/29/24 10:00
Date Received: 11/01/24 13:19

Lab Sample ID: 280-198978-2
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	66.6		23.3	24.2	50.0	23.1	pCi/L	11/05/24 15:45	12/01/24 05:09	1
Radium-228	-36.0	U G	44.5	44.6	50.0	65.9	pCi/L	11/05/24 15:45	12/01/24 05:09	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Other Detected Radionuclide	None						pCi/L	11/05/24 15:45	12/01/24 05:09	1

Client Sample ID: 071-09212 Apache Canyon 35-10
Date Collected: 10/29/24 11:40
Date Received: 11/01/24 13:19

Lab Sample ID: 280-198978-3
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	21.5	U	17.3	17.4	50.0	22.3	pCi/L	11/05/24 15:45	12/01/24 06:24	1
Radium-228	-50.5	U G	49.8	50.0	50.0	74.4	pCi/L	11/05/24 15:45	12/01/24 06:24	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Other Detected Radionuclide	None						pCi/L	11/05/24 15:45	12/01/24 06:24	1

Client Sample ID: 071-09629 Apache Canyon 03-11
Date Collected: 10/29/24 12:50
Date Received: 11/01/24 13:19

Lab Sample ID: 280-198978-4
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	9.23	U G	12.9	12.9	50.0	50.8	pCi/L	11/08/24 12:55	12/03/24 06:08	1
Radium-228	1.51	U	6.13	6.14	50.0	43.5	pCi/L	11/08/24 12:55	12/03/24 06:08	1

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Client Sample Results

Client: Colorado Oil&Gas Conservation Commision

Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

Other Detected Radionuclides		Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Other Detected Radionuclide		None						pCi/L	11/08/24 12:55	12/03/24 06:08	1

QC Association Summary

Client: Colorado Oil&Gas Conservation Commision

Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Rad

Prep Batch: 687058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-198978-2	071-09185 Golden Eagle 20-13	Total/NA	Water	Fill_Geo-21	
280-198978-3	071-09212 Apache Canyon 35-10	Total/NA	Water	Fill_Geo-21	
LCS 160-687058/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	

Prep Batch: 687606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-198978-1	071-07213 Hill Ranch 22-01V	Total/NA	Water	Fill_Geo-21	
280-198978-4	071-09629 Apache Canyon 03-11	Total/NA	Water	Fill_Geo-21	
MB 160-687606/1-A	Method Blank	Total/NA	Water	Fill_Geo-21	
LCS 160-687606/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-21	
280-198978-1 DU	071-07213 Hill Ranch 22-01V	Total/NA	Water	Fill_Geo-21	

QC Sample Results

Client: Colorado Oil&Gas Conservation Commision
Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: LCS 160-687058/2-A
Matrix: Water
Analysis Batch: 691422

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687058

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	135000	147300		15100		395	pCi/L	109	75 - 125
Cesium-137	39300	43970		4300		98.5	pCi/L	112	75 - 125
Cobalt-60	14300	15730		1540		56.7	pCi/L	110	75 - 125

Lab Sample ID: MB 160-687606/1-A
Matrix: Water
Analysis Batch: 691544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 687606

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-1.795	U G	4.89	4.89	50.0	56.4	pCi/L	11/08/24 12:55	12/03/24 04:44	1
Radium-228	9.009	U	8.86	8.90	50.0	43.5	pCi/L	11/08/24 12:55	12/03/24 04:44	1
Other Detected Radionuclides	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Other Detected Radionuclide	None						pCi/L	11/08/24 12:55	12/03/24 04:44	1

Lab Sample ID: LCS 160-687606/2-A
Matrix: Water
Analysis Batch: 691542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687606

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	135000	150400		15500		491	pCi/L	112	75 - 125
Cesium-137	39300	44910		4390		90.6	pCi/L	114	75 - 125
Cobalt-60	14300	16500		1620		82.2	pCi/L	116	75 - 125

Lab Sample ID: 280-198978-1 DU
Matrix: Water
Analysis Batch: 691542

Client Sample ID: 071-07213 Hill Ranch 22-01V
Prep Type: Total/NA
Prep Batch: 687606

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	-12.5	U G	-38.31	U G	24.2	50.0	86.1	pCi/L	0.44	1
Radium-228	-14.5	U G	23.50	U	32.6	50.0	43.1	pCi/L	0.52	1
Other Detected Radionuclides	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Other Detected Radionuclide	None		None					pCi/L		

Lab Chronicle

Client: Colorado Oil&Gas Conservation Commision
Project/Site: SB23-186 Lab Services 2024-2025

Job ID: 280-198978-2

Client Sample ID: 071-07213 Hill Ranch 22-01V

Lab Sample ID: 280-198978-1

Date Collected: 10/28/24 13:20

Matrix: Water

Date Received: 11/01/24 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	687606	11/08/24 12:55	SAC	EET SL
Total/NA	Analysis	901.1		1			691544	12/03/24 03:19	CAH	EET SL

Client Sample ID: 071-09185 Golden Eagle 20-13

Lab Sample ID: 280-198978-2

Date Collected: 10/29/24 10:00

Matrix: Water

Date Received: 11/01/24 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	687058	11/05/24 15:45	ASG	EET SL
Total/NA	Analysis	901.1		1			691259	12/01/24 05:09	CAH	EET SL

Client Sample ID: 071-09212 Apache Canyon 35-10

Lab Sample ID: 280-198978-3

Date Collected: 10/29/24 11:40

Matrix: Water

Date Received: 11/01/24 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	687058	11/05/24 15:45	ASG	EET SL
Total/NA	Analysis	901.1		1			691259	12/01/24 06:24	CAH	EET SL

Client Sample ID: 071-09629 Apache Canyon 03-11

Lab Sample ID: 280-198978-4

Date Collected: 10/29/24 12:50

Matrix: Water

Date Received: 11/01/24 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Fill_Geo-21			1000 mL	1.0 g	687606	11/08/24 12:55	SAC	EET SL
Total/NA	Analysis	901.1		1			691544	12/03/24 06:08	CAH	EET SL

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Login Sample Receipt Checklist

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-198978-2

Login Number: 198978

List Source: Eurofins Denver

List Number: 1

Creator: Swegle, Jarod M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Headspace larger than 1/4" in one or more vials, one vial with accpt. headspace
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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Login Sample Receipt Checklist

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-198978-2

Login Number: 198978

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 11/05/24 12:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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Bottle Order Information

Bottle Order: SB23-186 Lab Services 2024-2025
Bottle Order #: 39654
Request From Client: 10/17/2024
Date Order Posted: 10/17/2024 2:50:02PM
Order Status: Ready To Process
Prepared By: Allannah Blair
Deliver By Date: 10/24/2024 11:59:00PM
Lab Project Number: 28027319
PWSID:

Order Completion Information

Creator: Allannah Blair
Filled by:
Sent Date:
Sent Via:
Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
24	1	24	Plastic 1 liter - Nitric Acid	Nitric Acid	901.1_Ra - Radium-226/228	Water	Normal	901 - RAD 226/228	
24	2	48	Amber Glass 250ml - unpreserved	None	8270E - SVOCs	Water	Normal	8270 - SVOCs	
24	2	48	Plastic 250ml - unpreserved	None	9056A_28D - Anions	Water	Normal	9056 - Anions	
24	1	24	Plastic 500ml - with Nitric Acid	Nitric Acid	6020B - Total metals	Water	Normal	6010,6020,7470 - Metals + Hg	
					6010D - Total Metals 7470A - Hg	Water Water	Normal Normal		
24	1	24	Amber Glass 500mL - Sulfuric Acid	Sulfuric Acid	351.2 - Nitrogen	Water	Normal	351.2 - TKN	
24	1	24	Amber Glass 500mL - Sulfuric Acid	Sulfuric Acid	353.2_Pres - Nitrate-Nitrite	Water	Normal	353.2 - Nitrate-Nitrite	
24	1	24	Amber Glass 250ml - Sulfuric Acid	Sulfuric Acid	365.1 - Total Phosphorus	Water	Normal	365, SM5310 - Total Phosphorus, TOC	
24	1	24	Amber Glass 250ml - Sulfuric Acid	Sulfuric Acid	SM5310B - TOC	Water	Normal		
24	1	24	Amber Glass 250ml - Sulfuric Acid	Sulfuric Acid	350.1 - Ammonia	Water	Normal	350 - Ammonia	
24	3	72	Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid	8015D_GRO - GRO	Water	Normal	8015 - GRO	
24	2	48	Amber Glass 1 liter - unpreserved	None	8015D_DRO - DRO & ORO	Water	Normal	8015 - DRO	
24	1	24	Plastic 1 liter - unpreserved	None	2540D - TSS	Water	Normal	2540D - TSS	
24	1	24	Plastic 1 liter - unpreserved	None	2540C_Calcd - TDS	Water	Normal	2540C - TDS	
24	1	24	Plastic 250ml - with Zinc Acetate & NaOH	Zinc Acetate and Sodium Hydroxide	SM4500_S2_D - Sulfide	Water	Normal	SM4500 - Sulfide	
24	1	24	Plastic 250ml - unpreserved	None	2320B - Alkalinity	Water	Normal	2320, 2510B, 4500 - pH, Alk, Conductance	
					SM4500_H+ - pH 2510B - Conductance	Water Water	Normal Normal		
28	3	84	Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid	8260D - VOCs	Water	Normal	8260 - VOCs	

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

28	3	84	Plastic 125mL - unpreserved	None	1633_Final - PFAS	Water	Normal	1633 - PFAS
4	2	8	Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid	8015D_GRO - GRO	Water	Trip Blank	8015 - GRO
4	2	8	Voa Vial 40ml - Hydrochloric Acid	Hydrochloric Acid	8260D - VOCs	Water	Trip Blank	8260 - VOCs

Total Bottle Summary				Preservative	Bottle Count
Bottle Type Description					
Normal					624
Amber Glass 1 liter - unpreserved				None	48
Amber Glass 250ml - Sulfuric Acid				Sulfuric Acid	48
Amber Glass 250ml - unpreserved				None	48
Amber Glass 500mL - Sulfuric Acid				Sulfuric Acid	48
Plastic 1 liter - Nitric Acid				Nitric Acid	24
Plastic 1 liter - unpreserved				None	48
Plastic 125mL - unpreserved				None	84
Plastic 250ml - unpreserved				None	72
Plastic 250ml - with Zinc Acetate & NaOH				Zinc Acetate and Sodium Hydroxide	24
Plastic 500ml - with Nitric Acid				Nitric Acid	24
Voa Vial 40ml - Hydrochloric Acid				Hydrochloric Acid	156
Trip Blank					16
Voa Vial 40ml - Hydrochloric Acid				Hydrochloric Acid	16
				Total Bottles:	640

Notes to Field Staff:



Scan QR code for field sampler instructions

Health and Safety Notes:

Preservative	Comment
Hydrochloric Acid	CAUTION! CONTAINS 1:1 HYDROCHLORIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Nitric Acid	CAUTION! STRONG OXIDIZER! CONTAINS 1:1 NITRIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sulfuric Acid	CAUTION! CONTAINS 1:1 SULFURIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Zinc Acetate and Sodium Hydroxide	Contains 2N Zinc Acetate. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water. CAUTION! STRONG CAUSTIC! CONTAINS SODIUM HYDROXIDE PELLETS. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

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Chain of Custody Record



Environment Testing

[illegible]