

ANALYTICAL REPORT

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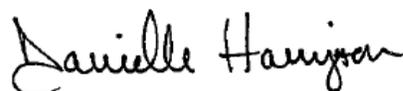
Laboratory Job ID: 280-151727-2

Client Project/Site: 909j Water Sampling - RAD ONLY

For:

Evergreen Natural Resources LLC
27000 Hwy 12
Trinidad, Colorado 81082

Attn: Stacey Wiseman



Authorized for release by:
9/17/2021 9:24:30 AM

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

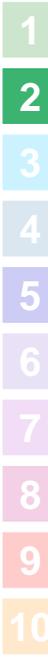


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Definitions/Glossary

Client: Evergreen Natural Resources LLC
Project/Site: 909j Water Sampling - RAD ONLY

Job ID: 280-151727-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Case Narrative

Client: Evergreen Natural Resources LLC
Project/Site: 909j Water Sampling - RAD ONLY

Job ID: 280-151727-2

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Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: Evergreen Natural Resources, Inc.

Project: 909j Water Sampling- RAD ONLY

Report Number: 280-151727-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Receipt

The sample was received on 8/11/2021. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.3°C.

This report only contains the Radiochemistry analyses. The analyses for Radiochemistry were performed at the Eurofins TestAmerica St. Louis laboratory.

Eurofins TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone: 314-298-8566

Radiochemistry

The method 903.0 MS/MSD was performed a sample from another client and/or lot and was within control limits.

The method 904.0 MS/MSD was performed a sample from another client and/or lot and was within control limits.

Method 903.0: Radium 226 prep batch 160-522951The Barium carrier recovery is outside the upper control limit (110%) for the following sample: 257333 (280-151727-1). During the barium sulfate precipitation these samples appeared to be larger than that of the QC and when plated and weighed the samples are above the maximum accepted level for this test.

Method 903.0: Radium 226 prep batch 160-522951The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e.sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The data have been qualified and reported. 257333 (280-151727-1)

Method 904.0: Radium 228 prep batch 160-522959The Barium carrier recovery is outside the upper control limit (110%) for the following sample: 257333 (280-151727-1). During the barium sulfate precipitation these samples appeared to be larger than that of the QC and when plated and weighed the samples are above the maximum accepted level for this test.

Method 904.0: Radium 228 prep batch 160-522959The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e.sodium, and strontium)

Case Narrative

Client: Evergreen Natural Resources LLC
Project/Site: 909j Water Sampling - RAD ONLY

Job ID: 280-151727-2

Job ID: 280-151727-2 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The data have been qualified and reported. 257333 (280-151727-1)

No other anomalies were observed.

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Detection Summary

Client: Evergreen Natural Resources LLC
Project/Site: 909j Water Sampling - RAD ONLY

Job ID: 280-151727-2

Client Sample ID: 257333

Lab Sample ID: 280-151727-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Method Summary

Client: Evergreen Natural Resources LLC
Project/Site: 909j Water Sampling - RAD ONLY

Job ID: 280-151727-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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

Sample Summary

Client: Evergreen Natural Resources LLC
Project/Site: 909j Water Sampling - RAD ONLY

Job ID: 280-151727-2

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
280-151727-1	257333	Water	08/10/21 13:40	08/11/21 12:42

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Client Sample Results

Client: Evergreen Natural Resources LLC
 Project/Site: 909j Water Sampling - RAD ONLY

Job ID: 280-151727-2

Client Sample ID: 257333

Lab Sample ID: 280-151727-1

Date Collected: 08/10/21 13:40

Matrix: Water

Date Received: 08/11/21 12:42

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.61		0.503	0.555	1.00	0.389	pCi/L	08/17/21 10:58	09/14/21 20:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	119	X	40 - 110					08/17/21 10:58	09/14/21 20:30	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.66		0.383	0.454	1.00	0.378	pCi/L	08/17/21 11:52	09/14/21 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	119	X	40 - 110					08/17/21 11:52	09/14/21 14:02	1
Y Carrier	81.5		40 - 110					08/17/21 11:52	09/14/21 14:02	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.27		0.632	0.717	5.00	0.389	pCi/L		09/16/21 18:36	1

Lab Chronicle

Client: Evergreen Natural Resources LLC
Project/Site: 909j Water Sampling - RAD ONLY

Job ID: 280-151727-2

Client Sample ID: 257333

Date Collected: 08/10/21 13:40

Date Received: 08/11/21 12:42

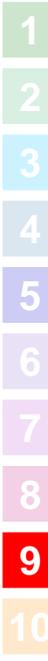
Lab Sample ID: 280-151727-1

Matrix: Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dil Factor</u>	<u>Initial Amount</u>	<u>Final Amount</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			1000.57 mL	1.0 g	522951	08/17/21 10:58	MJ	TAL SL
Total/NA	Analysis	903.0		1			526846	09/14/21 20:30	MLK	TAL SL
Total/NA	Prep	PrecSep_0			1000.57 mL	1.0 g	522959	08/17/21 11:52	MJ	TAL SL
Total/NA	Analysis	904.0		1			526848	09/14/21 14:02	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1			527437	09/16/21 18:36	CAH	TAL SL

Laboratory References:

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





280-151727 Waybill

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EVERGREEN NATURAL RESOURCES LLC
27000 HWY 12
TRINIDAD CO 81082
EXTREMELY URGENT DELIVERY TO

DANIELLE HARRIN TELEPHONE 303-421-6611
TEST AMERICA
4955 YARROW ST
ARVADA CO 80002
RRD 31 5A 07/2020
0201952542609 6/12 RRD
United Parcel Service, Louisville, KY

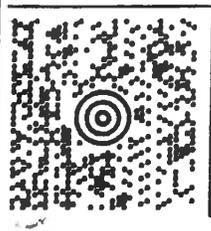
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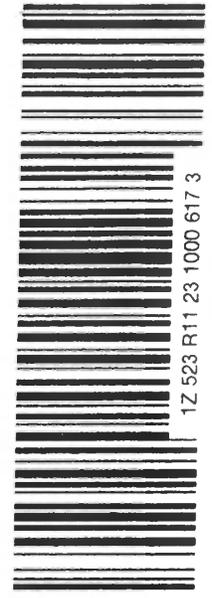
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