



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

Report Review

Inspection ID: 355315

Permit No: 62877

Place ID: 827

AZURITE Place Name: ENERGY FUELS RESOURCES - CANYON MINE

Inspection Type: Report Review

Type of Report: Annual Environmental Soil Sampling Report (2020)

Date Received: 8/14/2020

Date Reviewed: 8/17/2020

Reviewer: Mariana Mendez Armendariz

Results of Inspection:

Is the report certified for truth, accuracy, and completeness by a responsible official?

- Yes – William P. Goranson
 No – Contact Permittee for proper signature.

Reviewer Comments:

The Permittee has not exceeded the Uranium and Radium-226 trigger levels as stated in the permit; therefore, the report is submitted annually.

2020 Soil Results (Uranium) -

Duplicate of West: 0.86 mg/kg

Badge #66: 0.67 mg/kg

Badge #67: 0.89 mg/kg

Badge #68: 0.64 mg/kg

Badge #69: 0.55 mg/kg

The trigger level for uranium for this mine is 60 mg/kg.

2020 Soil Results (Radium-226) -

Duplicate of West: 1.4 ± 0.22 pCi/g

Badge #66: 1.0 ± 0.18 pCi/g

Badge #67: 1.2 ± 0.21 pCi/g

Badge #68: 1.1 ± 0.25 pCi/g

Badge #69: 1.0 ± 0.23 pCi/g

The trigger level for Radium-226 for this mine is 20 pCi/g.

No reporting deficiencies noted.

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303 974 2140
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August 13, 2020

VIA PDF AND EXPEDITED DELIVERY

Daniel Czecholinski, Director
Division of Air Quality
Arizona Department of Environmental Quality
Technical Services Unit
1110 West Washington Street
Phoenix, AZ 85007

Subject: Energy Fuels Resources (USA) Inc. Canyon Mine 20209 Annual Environmental Soil Sampling Results – Revision 63895 to Air Quality Class II Permit No. 59874

Dear Mr. Czecholinski:

Attached please find the Annual Environmental Soil Sampling Results for the Canyon Mine for 2020. The Environmental Soil Monitoring Results are required by Section II.B.2.b of Attachment D to the Arizona Department of Environmental Quality (“ADEQ”) Revision 63895 to Air Quality Class II Permit No. 59874 (the “Permit”) for the Canyon Mine. Attachment D, Section II.B.2.b requires that soil samples be collected within 60 days of Permit issuance and subsequent samples be collected quarterly for one year and annually thereafter. Reporting of soil data is required within 30 days of data receipt. As previously noted, the final quarterly soil sampling data required by the Permit was submitted in November 2017. Beginning in 2018, soil samples were collected annually. Also attached is a certification signature as required by VIII of Attachment A to the Permit.

The soil results are below the trigger levels specified in the Permit. No additional reporting as contemplated in Attachment D, Section II.B.3.c and Section II.B.3.d is required.

If you have any questions or comments, please do not hesitate to contact me at 303-389-4134.

Yours very truly,

A handwritten signature in blue ink that reads 'Kathy Weinel'.

ENERGY FUELS RESOURCES (USA) INC.

Kathy Weinel

Quality Assurance Manager

cc: Paul Goranson
Scott Bakken
Steve Hancock

ANNUAL ENVIRONMENTAL SOIL MONITORING REPORT

FOR 2020

ENERGY FUELS RESOURCES (USA) INC.



**CANYON MINE
6.5 MILES SOUTHEAST OF TUSAYAN
COCONINO COUNTY, ARIZONA**

August 13, 2020

**PREPARED BY:
Energy Fuels Resources (USA) Inc.
225 Union Boulevard, Ste. 600
Lakewood, Colorado 80228**

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FIGURES

Figure 1	Sampling and Monitoring Location Map
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Canyon Mine Air Quality Control Permit No. 62877 (As Amended by 65899)

1.0 Introduction

The Canyon Mine (the “Mine”) is an underground uranium mine, operated by Energy Fuels Resources (USA) Inc. (“EFRI”). The Mine is located 6.5 miles southeast of Tusayan in Coconino County, Arizona. The Mine is capable of producing a maximum of 109,500 tons per year of uranium ore. Ore is hauled to the White Mesa Mill (the “Mill”), near Blanding, Utah for processing. No ore processing occurs on site when operating. The site contains a mine shaft, a ventilation shaft, an office building, a head-frame and associated hoist and maintenance building, a septic vault, ore stockpiles (when mining), development rock stockpiles (when mining), topsoil stockpiles, other facilities associated with the mine operation and a lined non-stormwater impoundment. The location of the Mine is shown on Figure 1.

Pursuant to Attachment D, Section II.A of the Arizona Department of Environmental Quality (ADEQ”) Air Quality Control Permit, Number 62877 (As Amended by 65899) (the “Permit”), EFRI is required to conduct soil and gamma monitoring at four locations outside of the mine site. The locations are shown on Figure 1. The frequency of monitoring is described in Section 2 below.

This report presents the soil monitoring results for the Mine as required by the Permit and as described below.

2.0 Radiation Monitoring Activities In 2020

Pursuant to the current Permit, approved on October 13, 2016, soil and passive gamma monitoring is required to be conducted in accordance with the ADEQ-approved standard Operating Procedures (“SOPs”) included as Appendices 2 and 3 to the Permit. Attachment D, Section II.B.1.b requires that Optically Stimulated Luminescence (“OSL”) monitors for passive gamma be collected on a calendar quarter basis. Attachment D, Section II.B.2.b requires that soil samples be collected within 60 days of Permit issuance and subsequent samples be collected quarterly for one year and annually thereafter. Reporting of both soil and gamma data is required within 30 days of data receipt. Pursuant to the Permit, 5 quarterly soil samples were collected from fourth quarter 2016 through fourth quarter 2017. Soil sampling was conducted annually starting in 2018. The annual 2020 results are reported herein.

Gamma data will be reported under separate cover within 30 days of data receipt in accordance with the Permit requirements.

3.0 Trigger Levels

Attachment D, Section II.B.3.c specifies Initial Action Trigger Levels (“trigger level”) for uranium and radium-226 in soil and passive gamma results. The ADEQ-approved trigger levels were developed as described in the ADEQ Technical Review and Evaluation of Application for Air Quality Significant Revision and in the report entitled *Development of the Proposed Trigger Levels for Energy Fuel’s Arizona Mines*.

The trigger level for uranium and radium-226 in soil are 60 mg/kg and 20 pCi/g respectively. The soil results reported herein will be compared to this trigger level.

4.0 Analysis of Findings

Soil and duplicate results are included in Appendix A.

The soil results are below the trigger levels specified in the Permit. No additional reporting as contemplated in Attachment D, Section II.B.3.c and Section II.B.3.d is required. Please note that this report includes the final quarterly soil sampling data required by the Permit. Beginning in 2018, soil samples will be collected annually.

5.0 Certification

**ENERGY FUELS RESOURCES (USA) INC.
CANYON MINE, AIR QUALITY CONTROL PERMIT NUMBER 62877
(AS AMENDED BY 65899)
CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS**

Based on information and belief formed after reasonable inquiry, the statements and information in the foregoing document are true, accurate, and complete.



August 13, 2020

Signature of Responsible Official
William Paul Goranson
Chief Operating Officer

Date

APPENDIX A
CANYON SOIL RESULTS

Summary of Soil Results for Canyon Mine

Badge Location	Uranium Trigger Level (mg/kg)	Uranium Results (mg/kg)	Radium-226 Trigger Level (pCi/g)	Radium-226 Results (pCi/g)
Fourth Quarter 2016				
Canyon South (66)	60	1.02	20	1 ± 0.23
Canyon West (67)		0.96		1.1 ± 0.23
Canyon North (68)		0.65		0.91 ± 0.25
Canyon East (69)		0.57		0.54 ± 0.16
Duplicate (70) of East (69)		0.59		0.88 ± 0.22
First Quarter 2017				
Duplicate (65) of East (69)	60	0.67	20	0.64 ± 0.19
Canyon South (66)		0.75		0.81 ± 0.19
Canyon West (67)		0.93		1.5 ± 0.27
Canyon North (68)		0.60		1 ± 0.25
Canyon East (69)		0.60		0.41 ± 0.2
Second Quarter 2017				
Duplicate (65) of South (66)	60	1.66	20	2 ± 0.26
Canyon South (66)		1.78		1.3 ± 0.26
Canyon West (67)		0.97		1.2 ± 0.29
Canyon North (68)		0.64		1.4 ± 0.3
Canyon East (69)		0.58		0.61 ± 0.27
Third Quarter 2017				
Duplicate (65) of South (66)	60	0.74	20	0.31 ± 0.14
Canyon South (66)		0.81		1 ± 0.2
Canyon West (67)		0.84		1 ± 0.2
Canyon North (68)		0.57		0.8 ± 0.19
Canyon East (69)		0.57		0.3 ± 0.2
Fourth Quarter 2017				
Duplicate (65) of South (66)	60	0.81	20	0.77 ± 0.17
Canyon South (66)		1.07		0.87 ± 0.18
Canyon West (67)		0.85		1.2 ± 0.23
Canyon North (68)		0.58		0.75 ± 0.22
Canyon East (69)		0.54		0.63 ± 0.18
Annual 2018				
Duplicate (65) of North (68)	60	0.59	20	1.2 ± 0.35
Canyon South (66)		0.72		0.74 ± 0.24
Canyon West (67)		0.84		1.1 ± 0.28
Canyon North (68)		0.54		0.91 ± 0.2
Canyon East (69)		0.52		0.71 ± 0.19
Annual 2019				
Duplicate of North (68)	60	0.69	20	1.4 ± 0.31
Canyon South (66)		0.70		0.83 ± 0.17
Canyon West (67)		0.89		1.4 ± 0.27
Canyon North (68)		0.63		1 ± 0.22
Canyon East (69)		0.55		1.1 ± 0.21

Summary of Soil Results for Canyon Mine

Badge Location	Uranium Trigger Level (mg/kg)	Uranium Results (mg/kg)	Radium-226 Trigger Level (pCi/g)	Radium-226 Results (pCi/g)
Annual 2020				
Duplicate of West (67)	60	0.86	20	1.4 ± 0.22
Canyon South (66)		0.67		1 ± 0.18
Canyon West (67)		0.89		1.2 ± 0.21
Canyon North (68)		0.64		1.1 ± 0.25
Canyon East (69)		0.55		1 ± 0.23

APPENDIX B

CANYON LABORATORY DATA

August 11, 2020

Report to:
Kathy Weinel
Energy Fuels Resources (USA) Inc.
225 Union Blvd. , Suite 600
Lakewood, CO 80228

Bill to:
Accounts Payable
Energy Fuels Resources (USA) Inc.
225 Union Blvd. , Suite 600
Lakewood, CO 80228

Project ID:
ACZ Project ID: L60301

Kathy Weinel:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 17, 2020. This project has been assigned to ACZ's project number, L60301. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L60301. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 10, 2020. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and approved this report.



Energy Fuels Resources (USA) Inc.
 Project ID:
 Sample ID: CANYON MINE-69

ACZ Sample ID: **L60301-01**
 Date Sampled: 07/13/20 13:49
 Date Received: 07/17/20
 Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	505	0.55		*	mg/Kg	0.05	0.3	07/28/20 15:20	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	98.5		*	%	0.1	0.5	07/21/20 8:55	llr

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972				*				07/21/20 8:30	llr
Digestion - Hot Plate	M3050B ICP-MS				*				07/27/20 11:08	krs
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2				*				07/22/20 10:20	qcm

Arizona license number: AZ0102

Energy Fuels Resources (USA) Inc.
 Project ID:
 Sample ID: CANYON MINE-68

ACZ Sample ID: **L60301-02**
 Date Sampled: 07/13/20 14:04
 Date Received: 07/17/20
 Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	505	0.64		*	mg/Kg	0.05	0.3	07/28/20 15:26	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	98.7		*	%	0.1	0.5	07/21/20 12:59	llr

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972				*				07/21/20 8:31	llr
Digestion - Hot Plate	M3050B ICP-MS				*				07/27/20 11:57	krs
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2				*				07/22/20 10:25	qcm

Arizona license number: AZ0102

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: CANYON MINE-66

ACZ Sample ID: **L60301-03**

Date Sampled: 07/13/20 14:30

Date Received: 07/17/20

Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	505	0.67		*	mg/Kg	0.05	0.3	07/28/20 15:27	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	98.9		*	%	0.1	0.5	07/21/20 17:03	llr

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972				*				07/21/20 8:32	llr
Digestion - Hot Plate	M3050B ICP-MS				*				07/27/20 12:13	krs
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2				*				07/22/20 10:30	qcm

Arizona license number: AZ0102

Energy Fuels Resources (USA) Inc.

Project ID:
 Sample ID: CANYON MINE-67

ACZ Sample ID: **L60301-04**
 Date Sampled: 07/13/20 14:17
 Date Received: 07/17/20
 Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	510	0.89		*	mg/Kg	0.05	0.3	07/28/20 15:29	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	98.2		*	%	0.1	0.5	07/21/20 21:07	llr

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972				*				07/21/20 8:33	llr
Digestion - Hot Plate	M3050B ICP-MS				*				07/27/20 12:29	krs
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2				*				07/22/20 10:35	qcm

Arizona license number: AZ0102

Energy Fuels Resources (USA) Inc.
 Project ID:
 Sample ID: CANYON MINE-100

ACZ Sample ID: **L60301-05**
 Date Sampled: 07/13/20 14:17
 Date Received: 07/17/20
 Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	510	0.86		*	mg/Kg	0.05	0.3	07/28/20 15:36	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	98.2		*	%	0.1	0.5	07/22/20 5:15	llr

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972				*				07/21/20 8:35	llr
Digestion - Hot Plate	M3050B ICP-MS				*				07/27/20 12:45	krs
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2				*				07/22/20 10:40	qcm

Arizona license number: AZ0102

Water Recovery Limit, in % (except for LCSS, mg/Kg)
 Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5).
 Allowances for instrument and annual fluctuations.
 Number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
 Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
 True Value of the Control Sample or the amount added to the Spike
 Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
 Relative Percent Difference, calculation used for Duplicate QC Types
 Upper Recovery Limit, in % (except for LCSS, mg/Kg)
 Value of the Sample of interest

Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
Sample Duplicate	LRB	Laboratory Reagent Blank
Initial Calibration Blank	MS	Matrix Spike
Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
Laboratory Control Sample - Soil	PBW	Prep Blank - Water
Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
Laboratory Control Sample - Water	SDL	Serial Dilution

Explanations

Blank	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Accuracy	Verifies the accuracy of the method, including the prep procedure.
Precision	Verifies the precision of the instrument and/or method.
Matrix	Determines sample matrix interferences, if any.
Calibration	Verifies the validity of the calibration.

Qual

Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
 Analysis exceeded method hold time. pH is a field test with an immediate hold time.
 Target analyte response was below the laboratory defined negative threshold.
 The material was analyzed for, but was not detected above the level of the associated value.
 The associated value is either the sample quantitation limit or the sample detection limit.

References

EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
 EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
 EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
 EPA SW-846. Test Methods for Evaluating Solid Waste.
 Standard Methods for the Examination of Water and Wastewater.

QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
 Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
 Animal matrices for Inorganic analyses are reported on an "as received" basis.
 An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
 If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a list of ACZ's Extended Qualifiers, please click:

<https://ac2.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L60301**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Solids, Percent

D2216-80

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG501848													
L60301-04DUP	DUP	07/22/20 1:11			98.2	98.25	%				0	20	
WG501848PBS	PBS	07/22/20 9:20				U	%		-0.1	0.1			

Uranium, total (3050)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG502358													
WG502358ICV	ICV	07/28/20 15:03	MS200701-2	.05		.04698	mg/L	98	90	110			
WG502358ICB	ICB	07/28/20 15:04				U	mg/L		-0.0003	0.0003			
WG502139PBS	PBS	07/28/20 15:15				U	mg/Kg		-0.15	0.15			
WG502139LCSS	LCSS	07/28/20 15:17	PCN61044	22.5		21.49	mg/Kg		17.3	27.8			
WG502139LCSSD	LCSSD	07/28/20 15:19	PCN61044	22.5		21.64	mg/Kg		17.3	27.8	1	20	
L60301-01MS	MS	07/28/20 15:22	MS200514-4	12.625	.55	12.602	mg/Kg	95	75	125			
L60301-01MSD	MSD	07/28/20 15:24	MS200514-4	12.625	.55	12.79	mg/Kg	97	75	125	1	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L60301**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
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No extended qualifiers associated with this analysis

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: CANYON MINE-69

Locator:

ACZ Sample ID: **L60301-01**

Date Sampled: 07/13/20 13:49

Date Received: 07/17/20

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/10/20 0:00		1	0.23	0.13	pCi/g	*	djc

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: CANYON MINE-68

Locator:

ACZ Sample ID: **L60301-02**

Date Sampled: 07/13/20 14:04

Date Received: 07/17/20

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/10/20 0:00		1.1	0.25	0.2	pCi/g	*	djc

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: CANYON MINE-66

Locator:

ACZ Sample ID: **L60301-03**

Date Sampled: 07/13/20 14:30

Date Received: 07/17/20

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/10/20 0:00		1	0.18	0.15	pCi/g	*	djc

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: CANYON MINE-67

Locator:

ACZ Sample ID: **L60301-04**

Date Sampled: 07/13/20 14:17

Date Received: 07/17/20

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/10/20 0:00		1.2	0.21	0.23	pCi/g	*	djc

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: CANYON MINE-100

Locator:

ACZ Sample ID: **L60301-05**

Date Sampled: 07/13/20 14:17

Date Received: 07/17/20

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/10/20 0:00		1.4	0.22	0.18	pCi/g	*	djc



Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L60301**

NOTE: if the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Units: pCi/g

M903.1

Radium 226 (3050)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG502526																
WG502051PBS	PBS	08/10/20				0.17	0.38	.37	0.98	0.17			0.76			
WG502051LCSS	LCSS	08/10/20	PCN57864	40		0.98	0.17	39	0.98	0.17	98	43	148			
L60257-04DUP	DUP-RPD	08/10/20			4.4	0.36	0.28	4.9	0.37	0.28				11	20	
L60257-01MS	MS	08/10/20	PCN57864	40.82	4.1	0.34	0.22	29	0.83	0.23	61	43	148			

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L60301**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
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No extended qualifiers associated with this analysis

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L60301**

Metals Analysis

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Uranium, total (3050)	M6020B ICP-MS
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Radiochemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Radium 226 (3050)	M903.1
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Soil Analysis

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Solids, Percent	D2216-80
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The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Solids, Percent	D2216-80
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Sample Receipt

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L60301
 Date Received: 07/17/2020 11:26
 Received By:
 Date Printed: 7/20/2020

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? ¹			X
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA33229	22.6	NA	16	Yes

Was ice present in the shipment container(s)?

No - Wet or gel ice was not present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L60301

Date Received: 07/17/2020 11:26

Received By:

Date Printed: 7/20/2020

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

FIGURE

LEGEND

- Existing Contours
- Proposed Changes To Contours After Resurfacing
- Proposed Expansion Contour
- Property Boundary
- Fence
- Building / Structure
- Topsoil Storage Area
- Future Ore/development Rock Storage Pad
- Future Drainage Pipe
- Rip Rap
- Potential Stormwater Outfall
- Water Supply Feature
- Containment Pond and Proposed Expansion
- Septic Leach Field
- Berm
- Gamma Monitoring Locations
- Soil Sample Locations

Contour Interval = 1 foot
 State Planes Coordinate System
 Arizona Central Zone, NAD 83



Energy Fuels Resources (USA) Inc.

Project	Canyon Mine
State	Utah, Colorado
Date	2-28-11
Drawn By	CS
Location	T 28 N, R 3 E, Sec 20
Scale	1" = 100'
Sheet No.	105

CANYON MINE
 SAMPLING AND MONITORING LOCATION MAP

Author: MH-RHC Date: 03-2010

