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ENERGY FUELS RESOURCES (USA) INC.

TECHNICAL REPORT ON THE CANYON MINE, COCONINO COUNTY, ARIZONA, U.S.A.

NI 43-101 Report

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1 SUMMARY

EXECUTIVE SUMMARY

Roscoe Postle Associates Inc. (RPA) was retained by Energy Fuels Resources (USA) Inc. (Energy Fuels) to prepare an independent technical report on the Canyon Mine (the Property or the Canyon Mine), located in Coconino County, Arizona, USA. This technical report conforms to National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101). The purpose of this report is to provide an updated Mineral Resource estimate on the Canyon Uranium-Copper Mine, which includes copper resources discovered subsequent to the last Technical Report. RPA visited the Property from June 13 to 15, 2017.

Energy Fuels' parent company, Energy Fuels Inc., is incorporated in Ontario, Canada. Energy Fuels Resources (USA) is a US-based uranium and vanadium mining company, with projects located in the states of Colorado, Utah, Arizona, Wyoming, Texas and New Mexico. Energy Fuels holds three key uranium production centers, the White Mesa Conventional Mill in Utah, the Nichols Ranch In-Situ Recovery (ISR) Project in Wyoming (Nichols Ranch), and the Alta Mesa ISR Project in Texas (Alta Mesa). The White Mesa Mill is the only conventional uranium mill operating in the U.S. today and has a licensed capacity of over eight million pounds of U_3O_8 per year. Energy Fuels is listed on the NYSE American Stock Exchange (symbol UUUU), and the Toronto Stock Exchange (symbol EFR).

In June 2012, Energy Fuels acquired all of Denison Mines Corporation's (Denison) mining assets and operations in the United States, including the Canyon Mine and the White Mesa Mill.

A Mineral Resource estimate for the Canyon Mine, based on 130 diamond drill holes totalling 79,775 ft., was completed by Energy Fuels and audited by RPA. Table 1-1 summarizes Mineral Resources based on a \$60/lb uranium price at an equivalent uranium cut-off grade of 0.36% U_3O_8 for zones (the Main Zone and Main-Lower Zones) containing copper and 0.29% U_3O_8 for the remaining zones. Uranium and copper estimates pertain to the same deposit and there is an overlap of tonnages in the Main and Main Lower zones, therefore they are listed separately in Table 1-1.

For uranium, Measured Resources total 6,000 tons at an average grade of 0.43% U₃O₈ for a total of 56,000 lb U₃O₈. Indicated Resources total 132,000 tons at an average grade of 0.90% U₃O₈ for a total of 2,378,000 lb U₃O₈. Inferred Resources total 18,000 tons at an average grade of 0.38% U₃O₈ for a total of 134,000 lb U₃O₈.

For copper, Measured Resources total 6,000 tons at an average grade of 9.29% Cu for a total of 1,203,000 lb Cu. Indicated Resources total 94,000 tons at an average grade of 5.70% Cu for a total of 10,736,000 lb Cu. Inferred Resources total 5,000 tons at an average grade of 5.90% Cu for a total of 570,000 lb Cu.

The effective date of the Mineral Resource estimate is June 17, 2017. Estimated block model uranium grades are based on chemical assay and radiometric probe grades. No Mineral Reserves have been estimated for the Property.

TABLE 1-1 SUMMARY OF MINERAL RESOURCES – JUNE 17, 2017
Energy Fuels Resources (USA) Inc. – Canyon Mine

URANIUM					
Classification	COG (% U₃O₈Eq)	Zone	Tonnage (Tons)	Grade (% U₃O₈)	Contained Metal (U₃O₈ lb)
Measured	0.36	Main	6,000	0.43	56,000
Total Measured			6,000	0.43	56,000
Indicated	0.36	Main	94,000	0.89	1,669,000
	0.29	Juniper I	38,000	0.94	709,000
Total Indicated			132,000	0.90	2,378,000
Total Measured & Indicated			139,000	0.88	2,434,000
Inferred	0.29	Cap			
	0.29	Upper	9,000	0.43	78,000
	0.36	Main-Lower	5,000	0.20	20,000
	0.29	Juniper I	2,000	0.57	25,000
	0.29	Juniper II	1,000	0.35	9,000
Total Inferred			18,000	0.38	134,000
COPPER					
Classification	COG (% U₃O₈Eq)	Zone	Tonnage (Tons)	Grade (% Cu)	Contained Metal (Cu lb)
Measured	0.36	Main	6,000	9.29	1,203,000
Total Measured			6,000	9.29	1,203,000
Indicated	0.36	Main	94,000	5.70	10,736,000
Total Indicated			94,000	5.70	10,736,000
Total Measured & Indicated			101,000	5.93	11,939,000
Inferred					
	0.36	Main-Lower	5,000	5.90	570,000
Total Inferred			5,000	5.90	570,000

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at an equivalent Uranium cut-off grade of 0.36% U₃O₈ for copper bearing zone and 0.29% U₃O₈ for non-copper bearing zones.
3. Mineral Resources are estimated using a long-term Uranium price of US\$60 per pound, and copper price of US\$3.50 per pound.
4. A copper to U₃O₈ conversion factor of 18.19 was used for converting copper grades to equivalent U₃O₈ grades for cut-off grade evaluation and reporting.
5. No minimum mining width was used.
6. Bulk density is 0.082 tons/ft³ (12.2 ft³/ton or 2.63 t/m³)
7. Mineral Resources are exclusive of Mineral Reserves and do not have demonstrated economic viability.
8. Numbers may not add due to rounding.
9. Tonnages of uranium and copper cannot be added as they overlap in the Main and Main Lower Zone.

CONCLUSIONS

Sampling and assaying are adequately completed and have been carried out using industry standard QA/QC practices. These practices include, but are not limited to, sampling, assaying, chain of custody of the samples, sample storage, use of third-party laboratories, standards, blanks, and duplicates.

RPA considers the estimation procedures employed at the Canyon Mine, including compositing, top-cutting, variography, block model construction, and interpolation to be reasonable and in line with industry standard practice.

RPA finds the classification criteria to be reasonable.

The metallurgical test results provided by White Mesa Mill Laboratory personnel indicated that metallurgical recoveries using optimum roasting and leach conditions will be approximately 96% for uranium and 90% for copper. The White Mesa Mill has a significant operating history for the uranium solvent extraction (SX) circuit which includes processing of relatively high copper content with no detrimental impact to the uranium recovery or product grade. Expected White Mesa Mill modifications to recover copper include utilizing the existing vanadium solvent extraction circuit for copper and the addition of an electro-winning circuit. Carry over of uranium to the copper electrolyte is not expected and will be verified by laboratory test work.

RECOMMENDATIONS

Drilling activities at the Canyon Mine have outlined the presence of significant additional U_3O_8 and copper mineralization which warrants further investigation.

Energy Fuels proposed Phase I budget of \$255,000 is for studies to support the completion of a Preliminary Economic Assessment (Table 1-2).

TABLE 1-2 PROPOSED BUDGET
Energy Fuels Resources (USA) Inc. – Canyon Mine

Item	US\$
Metallurgical test work	50,000
Mine planning study	30,000
Process engineering study and Preliminary Economic Assessment	150,000
Sub-total	230,000
Contingency	25,000
Total	255,000

RPA makes the following recommendations regarding the QA/QC data supporting the drill hole database at Canyon Mine:

- Submit field duplicates using two ½ core samples at a rate of one in 50.
- Continue to monitor for low-grade bias of copper and slight low-grade bias of U₃O₈ at White Mesa Mill.
- Continue to monitor for temporal trends (change in average grade of certified reference material (CRM) data over time) observed at White Mesa Mill to ensure assay accuracy.
- Procure CRM made from Canyon Mine resource material (matrix matched), to obtain an improved understanding of laboratory performance as applied to Canyon Mine samples.
- Source three matrix matched or matrix-similar CRMs for U₃O₈ that represent low, medium and high-grade ore at Canyon Mine. Incorporate the CRM in the sample stream sent to White Mesa Mill at a rate of one in 25. Ensure the certified values of these CRM are blind to the laboratory. Also submit these CRM to independent laboratories alongside check assays at a rate of one in ten to obtain a meaningful sample size for analysis.
- Implement a duplicate assay protocol for field, coarse and pulp samples that is blind to the laboratory, and that the rates of insertion for duplicate samples be approximately one in 50 for field duplicates, and one in 25 for coarse and pulp duplicate samples.

RPA recommends exploring the use of dynamic anisotropy for the interpolation of copper mineralization within the Main zone, where mineralization follows the contact of the breccia pipe with the country rock.

TECHNICAL SUMMARY

PROPERTY DESCRIPTION AND LOCATION

The Canyon Mine is located in northern Arizona, within the Kaibab National Forest, on a fully permitted 17-acre site. It is located 153 miles north of Phoenix, 86 miles northwest of Flagstaff and seven miles southeast of Tusayan, in Sections 19 and 20, T29N, R03E, GSRM, Coconino County, Arizona. The haulage distance from Canyon to White Mesa Mill in Blanding, Utah is 270 miles to 320 miles, depending on the route.

LAND TENURE

Energy Fuels' property position at the Canyon Mine consists of nine unpatented mining claims (Canyon 64-66, 74-76, and 84-86), located on U.S. Forest Service (USFS) land, encompassing approximately 186 acres (Figure 4-2). Gulf Mineral Resources (Gulf) originally staked the claims in 1978 and various companies have maintained the claims since the original staking. Energy Fuels acquired the Property in June 2012 and has a 100% interest in the claims.

All claims, which are renewed annually in September of each year, are in good standing until September 30, 2018 (at which time they would be expected to be renewed for the following year as a matter of course).

GEOLOGY AND MINERALIZATION

Parts of two distant physiographic provinces are found within Arizona: the Basin and Range Province is located in the southern and western portions of the state, and the Colorado Plateau Province is located across most of the northern and central portions of the state. The Canyon Mine lies within the Colorado Plateau Province.

The region has experienced volcanic activity since Pliocene time. A number of lava-capped buttes rise above the general landscape, and lava flows cover large areas of the southern part of the district. Faulting has exerted significant control on the geologic development and geomorphic history of the region. Major structural features include the Grand Wash, Hurricane, and Toroweap fault systems, all trending generally north-south with the up-thrown side to the east. These faults are topographically prominent, showing impressive scarps. Other less prominent fault systems exist.

The surface expression of the Canyon breccia pipe (the pipe) is a broad shallow depression in the Permian Kaibab Formation. The pipe is essentially vertical with an average diameter of less than 200 ft., but it is considerably narrower through the Coconino and Hermit horizons (80 ft.). The cross sectional area is in the order of 20,000 ft.² to 25,000 ft.². The pipe extends for at least 2,300 ft. from the Toroweap limestone to the upper Redwall horizons. The ultimate depth of the pipe is unknown. Uranium mineralization is concentrated in an annular ring within the breccia pipe.

Mineralization extends vertically both inside and outside the pipe over approximately 1,700 vertical ft., but potentially economic grade mineralization has been found mainly in the collapsed portions of the Coconino, Hermit, and Esplanade horizons and at the margins of the pipe in fracture zones. Sulphide zones are found scattered throughout the pipe, but are especially concentrated in a sulphide cap near the Toroweap-Coconino contact, where the cap averages 20 ft. in thickness and consists of pyrite and bravoite, an iron-nickel sulphide. The mineralization assemblage consists of uranium-pyrite-hematite with massive copper sulphide mineralization common in and near the uranium zone. The strongest mineralization appears to occur in the lower Hermit-upper Esplanade horizons in an annular fracture zone.

At the Canyon Mine, the uranium mineralization occurs largely as blebs, streaks, small veins, and fine disseminations of uraninite/pitchblende (UO₂). Mineralization is mainly confined to matrix material, but may extend into clasts and larger breccia fragments, particularly where these fragments are of Coconino sandstone. In addition to uranium, copper mineralization is also found within the breccia pipe. Typically replacing the matrix material, copper occurs as chalcocite, bornite, tennantite, and covelite. Additionally, an extensive suite of elements is reported to be anomalously concentrated in mineralized rock within breccia pipes throughout northern Arizona: Ag, As, Ba, Cd, Co, Cr, Cs, Hg, Mo, Ni, Pb, Sb, Se, Sr, V, and Zn.

EXPLORATION STATUS

Gulf drilled eight exploration holes at the site from 1978 through May 1982, but found only low-grade uranium in this pipe. Additional drilling completed by Energy Fuels Nuclear, Inc. (EFNI) in 1983 identified a major deposit. No drilling activity was completed on the property between EFNI's final drill program in 1994 and Energy Fuels Resources underground drilling program in 2016 to 2017.

Exploration for breccia pipes in northern Arizona typically begins with a search for surface expressions of circular features. Geologic mapping, Landsat aerial photography, thermal infrared imagery, geochemical testing, and certain geophysical methods, such as resistivity, Very Low Frequency (VLF), and time domain electromagnetics, also aid in these searches. Other techniques tested included: geobotany, microbiology, and biogeochemistry. All of these methods were utilized to identify surface expressions of breccia pipes. The key element of the process was to zero in on the throat of the pipe as a focus for drilling from the surface, since the throat is usually associated directly with the centre of the collapse.

Shallow drilling was often conducted to locate the centre of the collapse feature as a guide to the throat of the underlying breccia pipe. The basic tool for exploring breccia pipes in northern Arizona is deep rotary drilling supplemented by core drilling, to a depth of 2,000 ft. or more from surface. Prospective pipes were usually first tested with three drill holes. If no mineralization was present, the effort was abandoned.

METALLURGY AND PROCESSING

Energy Fuels owns and operates White Mesa Mill, which is located near Blanding, Utah. White Mesa Mill is 270 road miles to 320 road miles from the Canyon Mine, depending on the route.

The White Mesa Mill currently utilizes agitated hot acid leach and solvent extraction to recover uranium. Historical and recent metallurgical tests, along with White Mesa Mill production records, confirm this processing method will recover approximately 96% of the contained uranium.

Bench scale metallurgical test work has been ongoing since January 2017 at White Mesa Mill and at the Australian Nuclear Science and Technology Organisation (ANSTO), an independent testing firm in Australia. The copper is expected to be processed using acid leach followed by solvent extraction (the same method used for uranium). Following solvent extraction, a saleable copper product is expected to be produced by either electro-winning or copper sulphate crystallization. To recover copper from the Canyon mineralized material, some modifications to White Mesa Mill process circuits will be required. The copper modifications include using the existing vanadium solvent extraction circuit for copper extraction, the addition of a roaster to improve copper recovery, and the addition of either an electro-winning circuit or copper sulphate crystallization circuit. Preliminary bench test work indicates that acid leaching after roasting pre-treatment will result in average copper and uranium recoveries of

approximately 92% and 91% respectively. Using optimum roasting and leaching conditions, it is expected that for a continuous operation, recoveries will improve and uranium recoveries will match the nominal 96% currently experienced at the White Mesa Mill. Production copper recoveries are expected to be in the 90% range.

PROCESS DESCRIPTION

Operations at the White Mesa Mill will receive run-of-mine (RoM) material from the Canyon Mine, as well as from other mines or various sources. Material will be dumped from trucks on an ore pad and stockpiled by type to be blended as needed. Material will be weighed, sampled, and probed for uranium grade. The ore pad area has a capacity of approximately 450,000 tons of feed material.

Material will be withdrawn from the stockpiles by a CAT 980 (or equivalent) front end loader and fed to a semi-autogenous grinding (SAG) mill. The ground material, which will be in slurry with water, will be placed in agitated storage tanks and fed to the new filtration and drying circuit followed by pre-treatment in the new roaster. The material will be quenched, cooled and transferred to the leaching circuit.

The leaching will be conducted in seven, agitated leach tanks using sulfuric acid, steam, and sodium chlorate. After leaching, the slurry proceeds to the counter current decantation (CCD) washing circuit to recover the dissolved uranium and copper values. Once the uranium and copper are recovered, the tailings solids are sent to the tailings cells. The pregnant solution recovered in the CCD circuit is clarified, and then treated in a uranium solvent extraction (SX) circuit to increase the concentration of uranium in solution and remove impurities.

After uranium extraction, the leach solution would report to a copper SX circuit (a modification of the existing vanadium SX circuit) to increase the copper concentration and remove impurities. Following solvent extraction, a saleable copper product is expected to be produced by either electro-winning or copper sulphate crystallization. The most likely process at this date is SX followed by electro-winning. It is proposed that the copper SX organic would be stripped into an aqueous electrolyte and the copper would be recovered as cathode using an electro-winning process. The copper cathodes can then be harvested and stripped from the cathode blanks and prepared for shipment and sale. It is expected that the copper cathodes will be LME Grade A copper at 99.99%.

Uranium is precipitated from the SX pregnant strip solution using ammonia for pH control. Precipitated uranium is sent to a thickener and a centrifuge for washing and dewatering. The uranium is then dried in a multi-hearth dryer and the resulting “yellowcake” is placed in 55-gallon sealed drums for shipment.

The White Mesa Mill was constructed in 1979 to 1980, and is currently fully operational. With the exception of the required copper circuit modifications, all required facility infrastructure items are in place at the White Mesa Mill for processing of Canyon mineralization.

MINERAL RESOURCE ESTIMATE

The Canyon Mine Mineral Resource Estimate is based on the results of surface and underground diamond drilling campaigns conducted from 1978 to 2017 (Table 1-1). The effective date of the Mineral Resource Estimate is June 17, 2017. The Mineral Resources of the Canyon Mine are classified as Measured, Indicated and Inferred based on drill hole spacing and apparent continuity of mineralization.

RPA has reviewed the geology, structure, and mineralization at the Canyon Mine from 130 diamond drill holes and audited 3D wireframe models developed by Energy Fuels, which represent 0.15% U₃O₈ grade envelopes and 1.0% Cu (Low-Grade) and 8% Cu (High-Grade) envelopes. The block model incorporated 4 ft. by 4 ft. by 4 ft. blocks to model the mineralization, however, no minimum thickness was used for wireframe construction.

High grade values were capped and their influence restricted during the block estimation process. Capping and restriction of high grade assays at the Canyon Mine were considered to be necessary, because apparent erratic high-grade outliers can have a disproportionate effect on average grade. Very high-grade uranium outliers were capped at 15% U₃O₈ within domains in the Main Zone (M-01) and Juniper I Zones (J_1_01). Very high-grade Cu outliers were capped at 35% Cu in the high-grade domain (M_cu_01_HG).

The resulting block model was validated by swath plots, volumetric comparison, visual inspection, parallel secondary estimation using inverse distance squared (ID²), and statistical comparison. As well, the mean block grade at zero cut-off was compared to the mean of the composited assay data to ensure that there was no global bias.

2 INTRODUCTION

Roscoe Postle Associates Inc. (RPA) was retained by Energy Fuels Resources (USA) Inc. (Energy Fuels) to prepare an independent Technical Report on the Canyon Mine, located in Coconino County, Arizona, USA. The purpose of this report is to provide an updated Mineral Resource Estimate on the Canyon Uranium-Copper Mine, which includes copper resources discovered subsequent to the last Technical Report completed in 2012. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

Energy Fuels' parent company, Energy Fuels Inc., is incorporated in Ontario, Canada. Energy Fuels Resources (USA) Inc. is a US-based uranium and vanadium exploration and mine development company with projects located in the states of Colorado, Utah, Arizona, Wyoming, Texas, and New Mexico. Energy Fuels is listed on the NYSE American Stock Exchange (symbol UUUU) and the Toronto Stock Exchange (symbol EFR).

The Canyon Mine was originally included as part of the Arizona Strip Uranium Project located in northwestern Arizona, containing three deposits: the Pinenut Mine, the Arizona 1 Mine, and the Canyon Mine (formerly known as the Canyon pipe). The Pinenut and Arizona 1 breccia pipes are located between the town of Fredonia, Arizona, and the Grand Canyon National Park. The Pinenut Mine was mined-out in 2015 and is currently being reclaimed. The Arizona 1 Mine is currently on standby. The Canyon Mine is located south of the Grand Canyon National Park, and is the only deposit documented in this report. It has been considered separate from the Arizona Strip Uranium Project since 2017.

SOURCES OF INFORMATION AND DATA

This report was prepared by Mark B. Mathisen, C.P.G., RPA Principal Geologist, Valerie Wilson, P.Geo., RPA Senior Geologist, and Jeffrey L. Woods, RPA Associate Principal Consulting Metallurgist. All are Qualified Persons in accordance with NI 43-101.

Mr. Mathisen, C.P.G., visited the Canyon Mine on June 13 to 15, 2017 during maintenance stand-by in connection with the Canyon Mine Mineral Resource Estimate. Mr. Jeff Woods visited the White Mesa Mill between July 17 to July 19, 2017.

Discussions for this updated report were held with personnel from Energy Fuels:

- Mr. Dan Kapostasy, P.G., Geologist
- Mr. Logan Shumway, White Mesa Mill Manager
- Trey White, P.E., Vice President Technical Services

Mr. Mathisen and Ms. Wilson share responsibility for all sections of this report excluding Section 13 which is the responsibility of Mr. Woods. All are independent for the purposes of NI 43-101.

The documentation reviewed and other sources of information are listed at the end of this report in Section 27 References.

EFFECTIVE DATE

The effective date of the Mineral Resource estimate reported in Section 14 is June 17, 2017.

LIST OF ABBREVIATIONS

Units of measurement used in this report conform to the metric system. All currency in this report is US dollars (US\$) unless otherwise noted.

a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C\$	Canadian dollars	M	mega (million); molar
cal	calorie	m ²	square metre
cfm	cubic feet per minute	m ³	cubic metre
cm	centimetre	μ	micron
cm ²	square centimetre	MASL	metres above sea level
d	day	μg	microgram
dia	diameter	m ³ /h	cubic metres per hour
dmt	dry metric tonne	mi	mile
dwt	dead-weight ton	min	minute
°F	degree Fahrenheit	μm	micrometre
ft	foot	mm	millimetre
ft ²	square foot	mph	miles per hour
ft ³	cubic foot	MVA	megavolt-amperes
ft/s	foot per second	MW	megawatt
g	gram	MWh	megawatt-hour
G	giga (billion)	oz	Troy ounce (31.1035g)
Gal	Imperial gallon	oz/st, opt	ounce per short ton
g/L	gram per litre	ppb	part per billion
Gpm	Imperial gallons per minute	ppm	part per million
g/t	gram per tonne	psia	pound per square inch absolute
gr/ft ³	grain per cubic foot	psig	pound per square inch gauge
gr/m ³	grain per cubic metre	RL	relative elevation
ha	hectare	s	second
hp	horsepower	st	short ton
hr	hour	stpa	short ton per year
Hz	hertz	stpd	short ton per day
in.	inch	t	metric tonne
in ²	square inch	tpa	metric tonne per year
J	joule	tpd	metric tonne per day
k	kilo (thousand)	US\$	United States dollar
kcal	kilocalorie	USg	United States gallon
kg	kilogram	USgpm	US gallon per minute
km	kilometre	V	volt
km ²	square kilometre	W	watt
km/h	kilometre per hour	wmt	wet metric tonne
kPa	kilopascal	wt%	weight percent
kVA	kilovolt-amperes	yd ³	cubic yard
kW	kilowatt	yr	year

3 RELIANCE ON OTHER EXPERTS

This report has been prepared by RPA for Energy Fuels. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to RPA at the time of preparation of this report,
- Assumptions, conditions, and qualifications as set forth in this report, and
- Data, reports, and other information supplied by Energy Fuels and other third party sources.

For the purpose of this report, RPA has relied on ownership information provided by Energy Fuels. RPA has not researched property title or mineral rights for the Canyon Mine and expresses no opinion as to the ownership status of the property.

Except for the purposes legislated under provincial securities laws, any use of this report by any third party is at that party's sole risk.

4 PROPERTY DESCRIPTION AND LOCATION

The Canyon Mine is located in northern Arizona within the Kaibab National Forest, on a fully permitted 17-acre site. It is located 153 miles north of Phoenix, 86 miles northwest of Flagstaff and seven miles southeast of Tusayan, in Sections 19 and 20, T29N, R03E, GSRM, Coconino County, Arizona (Figure 4-1). The haulage distance from Canyon to the White Mesa Mill in Blanding, Utah is 270 miles to 320 miles, depending on the route.

LAND TENURE

Energy Fuels' property position at the Canyon Mine consists of nine unpatented mining claims (Canyon 64-66, 74-76, and 84-86), located on U.S. Forest Service (USFS) land, encompassing approximately 186 acres (Figure 4-2). Gulf Mineral Resources (Gulf) originally staked the claims in 1978 and various companies have maintained the claims since the original staking. Energy Fuels acquired the Property in June 2012 and has a 100% interest in the claims.

MINERAL RIGHTS

All claims, which are renewed annually in September of each year, are in good standing until September 30, 2018 (at which time they would be expected to be renewed for the following year as a matter of course). Table 4-1 lists the mineral claims covering the Canyon Mine Property.

TABLE 4-1 SUMMARY OF MINERAL CLAIMS
Energy Fuels Resources (USA) Inc. – Canyon Mine

Sec	Sub Div. (1/4 Section)	Type	Claim Name/No.	Claimant	Loc. Date	Expiration Date
19	NE	Lode	Canyon #64	EFR Arizona Strip LLC	4/5/1978	2018
19	NE,SE	Lode	Canyon #65	EFR Arizona Strip LLC	4/5/1978	2018
19	SE	Lode	Canyon #66	EFR Arizona Strip LLC	4/5/1978	2018
20	NE,NW	Lode	Canyon #84	EFR Arizona Strip LLC	4/4/1978	2018
20	NE,NW,SE,SW	Lode	Canyon #85	EFR Arizona Strip LLC	4/4/1978	2018
20	NW	Lode	Canyon #64	EFR Arizona Strip LLC	4/5/1978	2018
20	NW	Lode	Canyon #74	EFR Arizona Strip LLC	4/5/1978	2018
20	NW,SW	Lode	Canyon #65	EFR Arizona Strip LLC	4/5/1978	2018
20	NW,SW	Lode	Canyon #75	EFR Arizona Strip LLC	4/5/1978	2018
20	SW	Lode	Canyon #66	EFR Arizona Strip LLC	4/5/1978	2018
20	SW	Lode	Canyon #76	EFR Arizona Strip LLC	4/5/1978	2018
20	SW,SE	Lode	Canyon #66	EFR Arizona Strip LLC	4/4/1978	2018

ROYALTIES AND OTHER ENCUMBRANCES

There is some indication that a historic uranium royalty may have been granted with the following terms:

- 3.5% weighted average price tied to the Atomic Energy Commission Circular 5.
- At a \$60/lb U₃O₈ price the royalty would be:
 - \$17.93/ton of mill feed at a 0.82% U₃O₈ grade
 - \$7.25/ton of mill feed at a 0.36% U₃O₈ grade
 - \$5.68/ton of mill feed at a 0.29% U₃O₈ grade

Energy Fuels is investigating whether this royalty currently exists. However, for purposes of the resource estimate in this Technical Report, the royalty cost was incorporated into the cutoff grade calculations and resource estimate.

PERMITTING

The Canyon Property is located on public lands managed by the United States Forest Service (USFS) and has an approved Plan of Operations with the USFS. The Canyon Property has also received permit authorizations through the Arizona Department of Environmental Quality (ADEQ), which include Aquifer Protection Permits for the Non-Stormwater Impoundment, Ore Stockpile and Development Rock Stockpile, an Air Quality Control Permit, and Storm Water Multi-Sector General Permit coverage. In 2015, the Property also received approval from the US Environmental Protection Agency (EPA) to Construct/Modify an Underground Uranium Mine pursuant to the National Emissions Standards for Hazardous Air Pollutants (NESHAPs).

RPA is not aware of any factors or risks that may affect access, title, or the right or ability to perform the proposed work program on the Property.

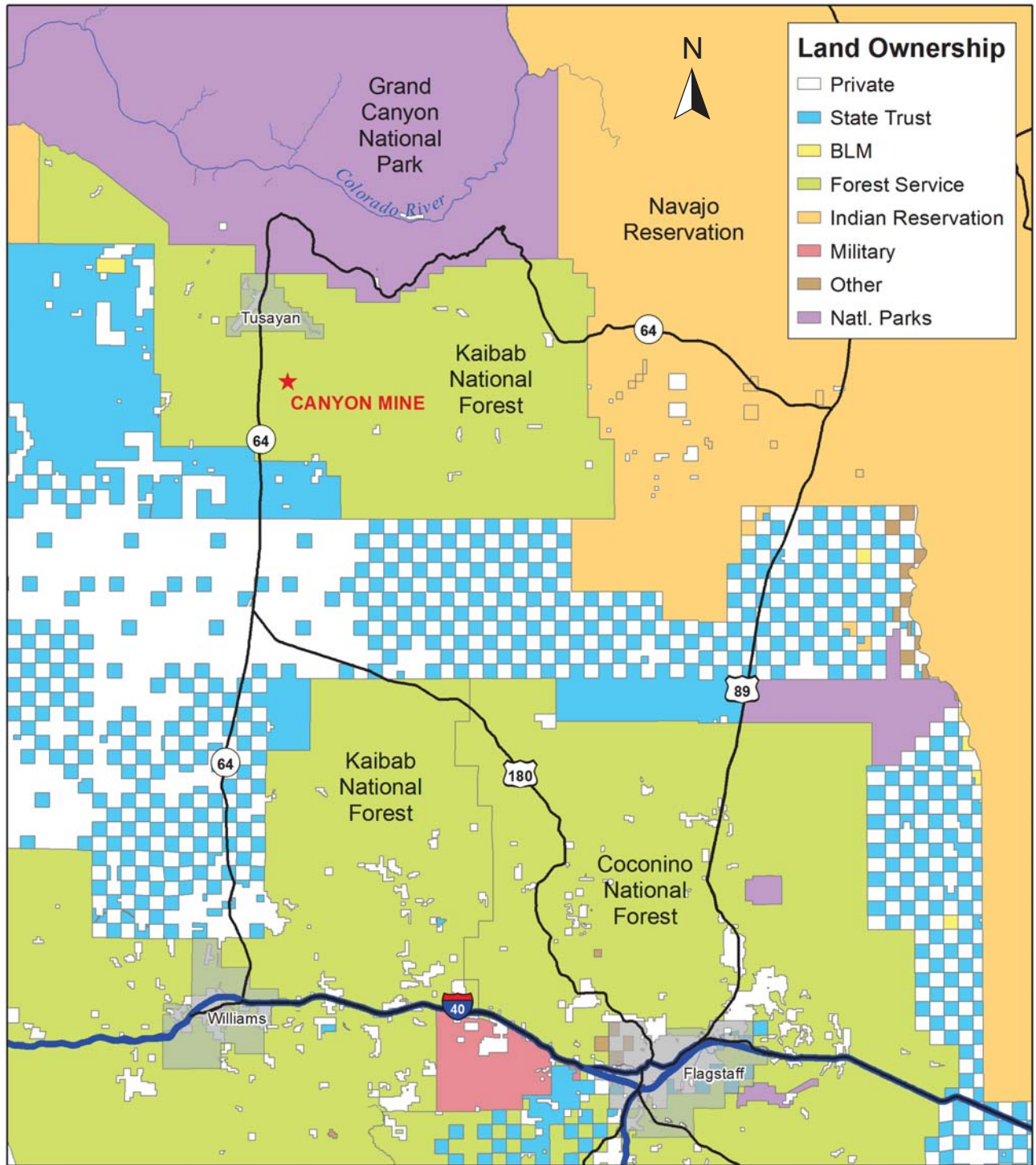
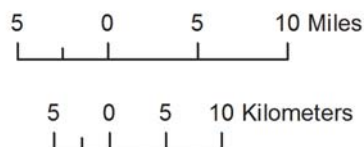


Figure 4-1



Energy Fuels Resources (USA) Inc.

Canyon Mine Project

Arizona, U.S.A.

Location Map

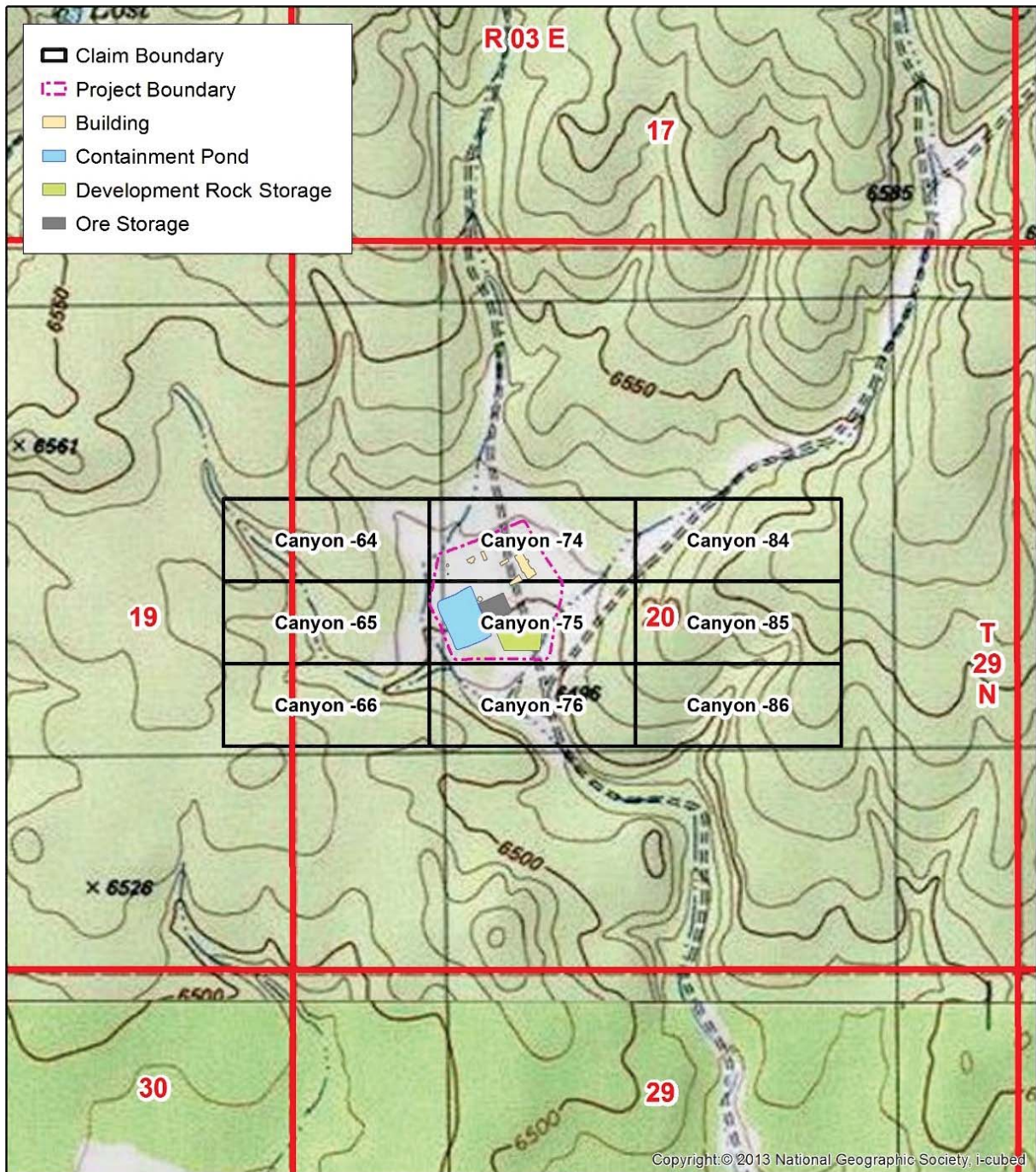
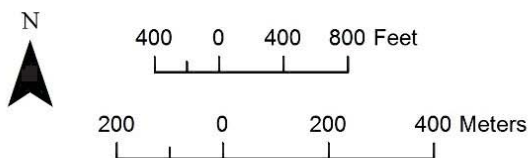


Figure 4-2



Energy Fuels Resources (USA) Inc.
Canyon Mine Project
 Arizona, U.S.A.
Property Map

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

ACCESSIBILITY

Access to the Canyon Mine site is via State Highway 64 and Federal Highway 180 to within five miles of the mine site, then over unsurfaced public Forest Service roads. The Atchison, Topeka and Santa Fe railway line passes east-west 50 mi. south of the site at Williams, and a spur of the railway, which passes 10 mi. west of the Canyon Mine site, services the Grand Canyon National Park. Airports at Flagstaff, Phoenix, and Tusayan provide air access to the area.

Although the Coconino Plateau is sparsely populated, tourist traffic to Grand Canyon National Park results in large numbers of people passing through the region daily.

The White Mesa Mill, owned by Energy Fuels, is located 270 road miles to 320 road miles from the Canyon Mine site, depending on the route.

CLIMATE

Climate in northern Arizona is semi-arid, with cold winters and hot summers. January temperatures range from about 7°F to 57°F and July temperatures range from 52°F to 97°F. Annual precipitation, mostly in the form of rain but some snow, is about 12 in. Vegetation on the plateaus is primarily ponderosa pine forest with some open pinyon-juniper woodland and shrubs. The local climate allows for a year-round mining operation.

LOCAL RESOURCES

The community of Tusayan, seven miles northwest of the Canyon Mine, provides much of the housing and other facilities for people who work within Grand Canyon National Park. Seasonal population is from 500 to 1,000. A clinic run by a Phoenix hospital is operated at Grand Canyon Village inside the national park, as well as a K-12 grade school with a capacity of 250 students. Williams, a rural community, 44 miles south of the site at Interstate 40, has a population of

approximately 2,500. Williams relies heavily on tourism to maintain its economy, but many people are also involved in agriculture and forestry. The town offers an elementary, middle and high school, an emergency medical center, shopping and a variety of community services. Although housing is available, lack of adequate water supplies has limited housing construction. Flagstaff, 56 miles southeast of the Canyon Mine, is a full-service city with a population of 70,000 and the regional trade center for northern Arizona.

Arizona, and particularly Coconino County, is among the fastest growing areas in the United States, due to the climate, landscape diversity, and economic and recreational opportunities. Resources and services are often stretched to meet the needs of the growing population.

Personnel for future mining operations are expected to be sourced from the nearby towns of Williams and Flagstaff, as well as other underground mining districts in the western United States.

INFRASTRUCTURE

From 1982 to 1987 Energy Fuels Nuclear, Inc. (EFNI) acquired the property, conducted exploration drilling, permitted the mine, and constructed certain surface facilities including a headframe, hoist, and compressor. EFNI also sunk the shaft to a depth of 50 ft. From 1987 to 2013 the Canyon Mine was put on standby due to low uranium prices. In 2012, Energy Fuels acquired the project through its acquisition of Denison's US assets. Beginning in 2013, Energy Fuels refurbished the surface facilities and extended the shaft an additional 228 ft. to a depth of 278 ft. In late 2013, the mine was again placed on standby due to low uranium prices. In October 2015, Energy Fuels re-started the project and committed to completing the shaft and underground delineation drilling program. From October 2015 to March 2017, the shaft was sunk to a depth of 1,452 ft. and three levels and drill stations were completed at the 1,003; 1,220; 1,400 ft. depths. The planned final depth for the shaft is 1,470 ft. A schematic of the production shaft is shown in Figure 5-1.

In addition to the mine shaft, existing mine infrastructure includes surface maintenance shops, employee offices and change rooms, a water well, an evaporation pond, explosive magazines, water tank, fuel tank, and rock stockpile pads. Electrical power is available through an existing power line that terminates at the site.

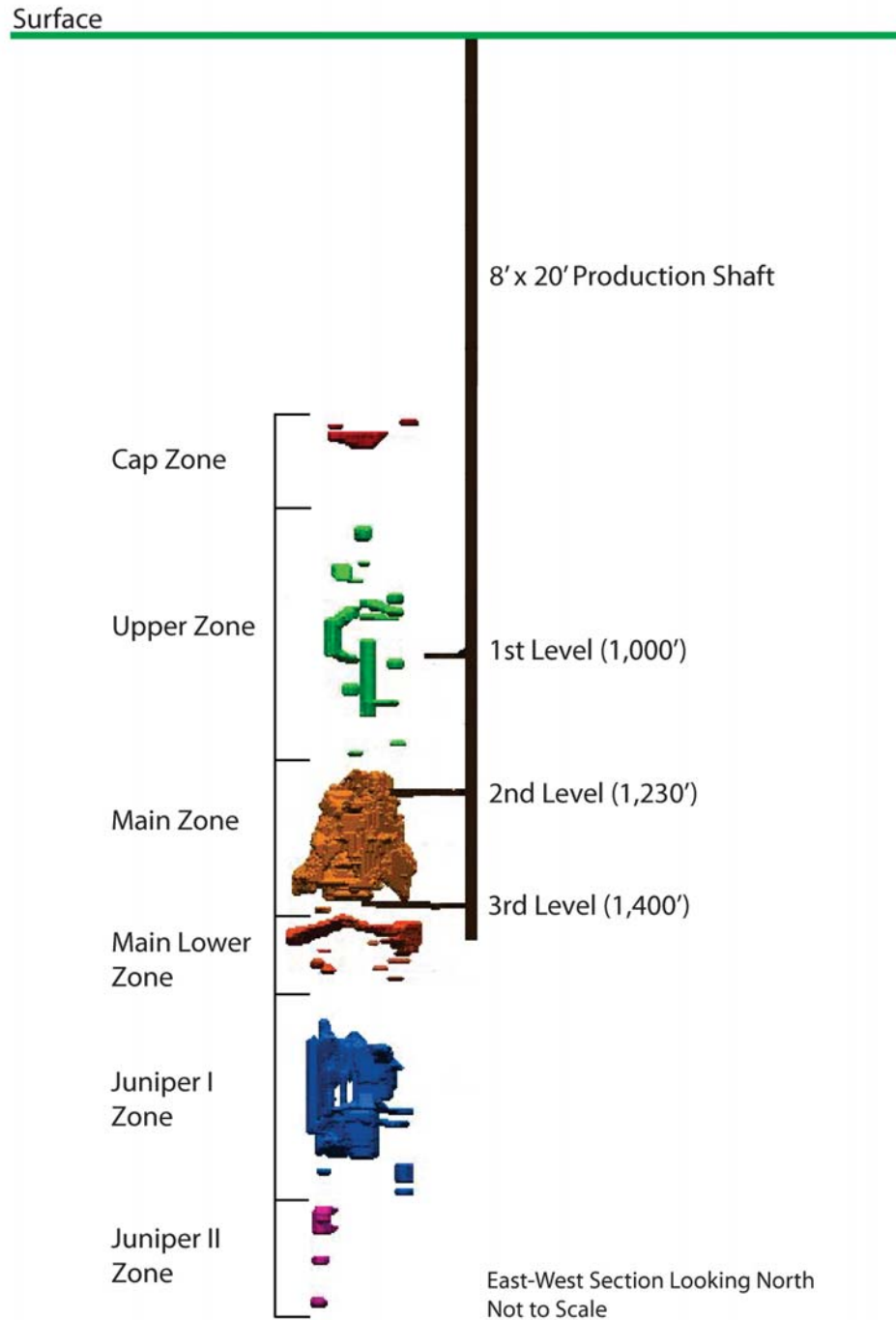


Figure 5-1

Energy Fuels Resources (USA) Inc.

Canyon Mine Project
Arizona, U.S.A.

**North Facing Schematic
of Production Shaft**

PHYSIOGRAPHY

Northern Arizona is part of the Colorado Plateau, a region of the western United States characterized by semi-arid, high-altitude, gently sloping plateaus dissected by steep walled canyons, volcanic mountain peaks, and extensive erosional escarpments. The Canyon Mine is located on the Coconino Plateau within the Colorado Plateau, at an elevation of approximately 6,500 ft.

6 HISTORY

Uranium exploration and mining of breccia pipe deposits started in 1951 when a geologist with the US Geological Survey noted uranium ore on the dump of an old copper prospect on the South Rim of the Grand Canyon in Northern Arizona. The prospect was inside Grand Canyon National Park, but on fee land that predated the park. A mining firm acquired the prospect and mined a significant high-grade uranium deposit, the Orphan Mine. By the time mining ended in the early 1960s, 4.26 million pounds of U_3O_8 and some minor amounts of copper and silver had been produced.

After the discovery of this first deposit in the 1950s, an extensive search for other deposits was made by the government and industry, but only a few low-grade prospects were found. Exploration started again in the early-1970s. In the mid-1970s, Western Nuclear leased the Hack Canyon prospect located about 25 miles north of the Grand Canyon and found high-grade uranium mineralization offsetting an old shallow copper/uranium site. In the next few years, a second deposit was found a mile away along a fault.

In the late-1970s, EFNI formed a uranium exploration venture with several Swiss utilities and acquired significant uranium reserves in southeast Utah. EFNI permitted and built the 2,000 ton per day White Mesa Mill near Blanding, Utah, to process this Colorado Plateau ore, which was expected to average 0.13% U_3O_8 , and sell into a market that was more than \$30 per pound of U_3O_8 . The uranium market fell in 1980, and the Hack Canyon Property was leased by EFNI from Western Nuclear in December 1980 as a likely low-cost source of U_3O_8 .

Development started promptly, and the Hack Canyon deposits were in production by the end of 1981. They proved to be much better than the initial estimates suggested. The EFNI exploration program provided a continuing flow of new reserves in newly discovered uranium bearing pipes.

EFNI identified and investigated more than 4,000 circular features in northern Arizona. About 110 of the most prospective features were explored by deep drilling, and approximately 50% of those drilled were shown to contain uranium mineralization. Ultimately, nine pipes were deemed worthy of development. Total mine production from the EFNI breccia pipes from 1980

through 1991 was approximately 19.1 million pounds U_3O_8 at an average grade of just over 0.60% U_3O_8

CANYON MINE OWNERSHIP HISTORY

The Canyon Mine is located on mining claims that EFNI acquired from Gulf in 1982. Gulf originally stake the claims in April, 1978. EFNI was acquired by the Concord group in the early-1990s. The Concord group declared bankruptcy in 1995, and most of the EFNI assets, including the Canyon Mine, were acquired by International Uranium Corporation (IUC) in 1997. IUC merged with Denison Mines Inc. on December 1, 2006 and Denison changed its name to Denison Mines Corp. In June 2012, Energy Fuels Inc. acquired all of Denison's mining assets and operations in the United States.

EXPLORATION HISTORY

Gulf drilled eight exploration holes at the Canyon Mine site from 1978 to May 1982 but found only low-grade uranium in this pipe. Additional drilling completed by EFNI in 1983 identified the Canyon Mine breccia pipe.

Exploration activities carried out by Energy Fuels predecessors from 1983 to 1987 include:

- Ground controls source audio magneto tellurium (CSAMT) surveys
- Ground magnetics
- Ground very low frequency (VLF) surveys
- Time domain electro-magnetic surveys (TDEM)
- Surface gravity surveys
- Airborne electro-magnetic (EM) surveys

Since 1994, no exploration activities (excluding drilling) were undertaken on the property.

HISTORICAL RESOURCE ESTIMATES

From 1979 to 1997, EFNI prepared a number of historic uranium mineral resource estimates on the Arizona Strip breccia pipes, including the Canyon Mine. Resource estimates were compiled by EFNI's exploration department in accordance with parameters developed

specifically for breccia pipe resource estimates. These parameters were based on previous experience with breccia pipes in the region. These parameters are shown in Table 6-1.

TABLE 6-1 RESERVE/RESOURCE ESTIMATION PARAMETERS USED BY ENFI Energy Fuels Resources (USA) Inc. – Canyon Mine

Parameter	Details
Cut-off Thickness	Minimum of 8.0 ft.
Cut-off Grade	Minimum of 0.15% U ₃ O ₈ as determined from radiometric logs or in core
Cut-off GT	1.20% ft.
Dilution	The top and bottom of each ore zone will include 3.0 ft. of waste or mineral. The ore intercept may be comprised of two or more smaller zones separated by a six-foot maximum section of waste or mineral between each of the included ore zones.
Tonnage Factor	13 ft. ³ per ton of dry ore (substantiated by Hack Canyon Mine runs)
Extraction	100% recoverable reserve
Disequilibrium Factor	1.00 chemical to radiometric ratio
Levels	Vertical section of mineralized breccia pipe divided into 10-ft. horizontal slices
Drill hole Location	Location established at midpoint of each level by deviation survey
Map Scale	1 in. = 20 ft. for the final reserve calculation

ENFI established the following method of calculation for reserves.

“Ore zones for the reserve calculations are prepared by entering the probe data into the GAMLOG program, where mineable ore zones for each drill hole are established using the cut-off and dilution parameters as defined above. The mineralized portion(s) of each drill hole is divided into 10-ft. thick levels; thickness, grade, and top elevation are computed for each drill hole intercept for each level. If a zone is greater than 10 ft. thick, or occurs across level divisions, the half-foot intervals included in the applicable level are averaged to establish the grade for the appropriate segment of the intercept. These divided intercepts are not required to satisfy the minimum grade and thickness parameters for each portion, but they must satisfy the criteria as a whole” (Memorandum from Mathisen, 1985).

Mineralization was classified by ENFI into proven, probable, and possible categories based on the distance from the mineralized drill hole. The Proven Category was based on a 25 ft. diameter circle around the drill hole; The Probable Category was based on a 50 ft. diameter

circle around the drill hole; and Possible Category included mineralization interpolated from more widely spaced holes.

Uranium resources at the Canyon Mine were estimated by EFNI on the basis of surface drilling only, in accordance with the standard practice outlined above. As of June 27, 1994, the total resource was reported to be 100,000 tons at an average grade of 0.84% U_3O_8 containing 1.8 million pounds U_3O_8 . The EFNI estimate used a cut-off grade of 0.15% U_3O_8 , which is considered too low for current market conditions.

This estimate is considered to be historical in nature and should not be relied upon. A qualified person has not completed sufficient work to classify the historical estimate as a current Mineral Resource or Mineral Reserve, and Energy Fuels is not treating the historical estimates as current Mineral Resources or Mineral Reserves.

In 2007, RPA (Pool and Ross, 2012) carried out a Mineral Resource estimate of Canyon Mine using historical drill hole data contained in 45 surface holes totalling 61,400 ft. of drilling provided by EFNI. Using a cut-off grade of 0.20% U_3O_8 , an Inferred Mineral Resource at the Canyon Deposit was estimated to include 70,500 tons with an average grade of 1.08% eU_3O_8 (equivalent U_3O_8) containing 1,523,000 pounds eU_3O_8 . All Mineral Resources were classified as Inferred given the drill hole spacing and orientation with respect to the continuity of the mineralization.

The historic resource estimates prepared by EFNI in 1994 and RPA in 2007 are superseded by the current Mineral Resource estimate contained in this report.

PAST PRODUCTION

There is no past production from the Property.

7 GEOLOGICAL SETTING AND MINERALIZATION

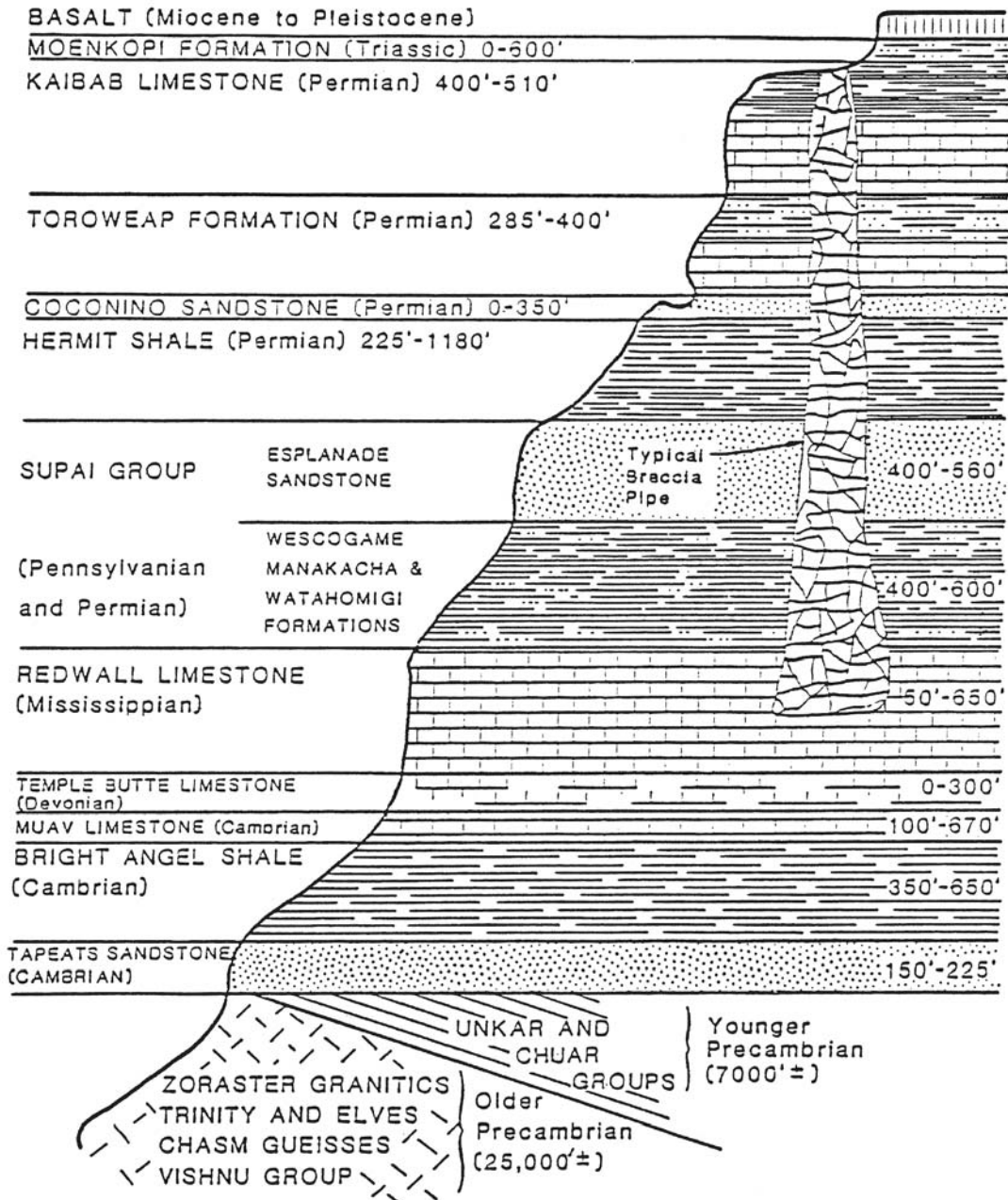
REGIONAL GEOLOGY

Parts of two distant physiographic provinces are found within Arizona: the Basin and Range Province in the southern and western portions of the state, and the Colorado Plateau Province in the northern and central portions of the state. The Canyon Mine lies within the Colorado Plateau Province.

Surface exposures near the Canyon Mine reveal sedimentary and volcanic rocks ranging in age from upper Paleozoic to Quaternary; the area is largely underlain by Mississippian through Triassic sedimentary rocks (Figure 7-1). However, exposed within the Grand Canyon are older rocks reaching Precambrian in age.

The region has experienced volcanic activity since Pliocene time. A number of lava-capped buttes rise above the general landscape, and lava flows cover large areas of the southern part of the district. Faulting has exerted significant control on the geologic development and geomorphic history of the region. Major structural features are the Grand Wash, Hurricane, and Toroweap fault systems, all trending generally north-south with the up thrown side to the east. These faults are topographically prominent, showing impressive scarps. Other less prominent fault systems exist.

The deep incision of the Grand Canyon, and associated side canyons such as Kanab Creek, has dewatered the sedimentary section. Ground water is regionally encountered in the Redwall limestone, which coincides with the deeper formations exposed in the Grand Canyon. Perched ground water, usually of very limited quantity, is often encountered at the base of the Coconino sandstone in contact with the low permeability Hermit shale sequence.



SOURCES:

- DEPT. OF INTERIOR, 1976, DRAFT ENVIRONMENTAL STATEMENT, GRAND CANYON
- NUEXCO, REPORT 176, APRIL, 1983

Section Not to Scale

Figure 7-1

Energy Fuels Resources (USA) Inc.

Canyon Mine Project
Arizona, U.S.A.

Stratigraphic Section,
Grand Canyon, Arizona

LOCAL AND PROPERTY GEOLOGY

The surface expression of the Canyon pipe is a broad shallow depression in the Permian Kaibab Formation. The pipe is essentially vertical with an average diameter of less than 200 ft., but it is considerably narrower through the Coconino and Hermit horizons (80 ft.). The cross sectional area is approximately 20,000 ft.² to 25,000 ft.². The pipe extends for at least 2,300 ft. vertically from the Toroweap limestone to the upper Redwall horizons. The ultimate depth of the pipe is unknown. Uranium mineralization is concentrated in an annular ring within the breccia pipe.

ALTERATION

The Canyon Mine breccia pipe is surrounded by bleached zones, particularly notable in the Hermit Formation where unaltered red sediments contrast sharply with grey-green bleached material. Bleaching is common within 100 ft. of the pipe boundary. Sulphide mineralization, commonly pyrite, is found as streaks or blebs within the bleached zones.

STRUCTURE

Regional joint systems rooted below the Redwall trend NW/SE and NE/SW. The regional joints and fractures lead to upward caving of the karstic voids in the Redwall Limestone vertically through the overlying Paleozoic sediments. As surface water and groundwater interact with the pipe, a circular brecciated column forms inside of the fracture controlled boundary.

Fractures related to the pipe can surround the brecciated zone and extend thin “ring fractures” up to 300 ft. beyond the breccia pipe. Vertical joints and associated breccia pipes increase permeability and porosity leading to the mineralization observed in the region.

MINERALIZATION

Mineralization extends vertically both inside and outside the pipe over about 1,700 vertical ft., but high grade mineralization has been found mainly in the collapsed portions of the Coconino, Hermit, and Esplanade horizons and at the margins of the pipe in fracture zones. Sulphide zones are found scattered throughout the pipe but are especially concentrated (within a sulphide cap) near the Toroweap-Coconino contact, where the cap averages 20 ft. thick and consists of pyrite and bravoite, an iron-nickel sulphide. The ore assemblage consists of uranium-pyrite-hematite with massive copper sulphide mineralization common in and near the

high grade zone. The strongest mineralization appears to occur in the lower Hermit-upper Esplanade horizons in an annular fracture zone.

The two metals of interest within the Canyon breccia pipe are uranium and copper. Since the rocks making up the breccia within the pipe are all sedimentary rocks, mineralization typically occurs within the matrix material (primarily sand) surrounding the larger breccia clasts.

URANIUM

Uranium mineralization at Canyon is concentrated in six stratigraphic levels or zones (Cap, Upper, Main, Main-Lower, Juniper I and Juniper II) within a collapse structure ranging from 80 ft. to 230 ft. wide with a vertical extension from a depth of 650 ft. to over 2,100 ft., resulting in approximately 1,450 ft. of mineralization. Intercepts range widely up to several tens of ft. with grades in excess of 1.00% U_3O_8 .

Age dating of mineralization (U-Pb) indicates a range from 101 to 260 million years, which suggests that the earliest uranium mineralization had occurred in the Permian before the pipes completely formed into the Triassic.

Consistent with other breccia pipe deposits, uranium at Canyon Mine occurs largely as blebs, streaks, small veins, and fine disseminations of uraninite/pitchblende (UO_2). Mineralization is mainly confined to matrix material, but may extend into clasts and larger breccia fragments, particularly where these fragments are of Coconino sandstone. Uranium mineralization occurs primarily as uraninite and various uranium phase minerals (unidentifiable minerals) with lesser amounts of brannerite and uranospinite.

COPPER

Copper mineralization occurs in concentrations within the Main and Main-Lower zones that have a reasonable prospect for eventual economic extraction. It is also present in the Juniper zone, but at much lower concentrations than the Main zone.

Mineralization can be disseminated throughout the matrix material (commonly replacing calcite cement) with higher-grade mineralization typically occurring as vug fills, blebs, or streaks within the matrix and sometimes zoning the breccia clasts. The highest grade copper mineralization either completely replaces the matrix cement or replaces the matrix material all together.

Copper mineralization occurs primarily as tennantite, chalcocite, and bornite with lesser amounts of covellite. Pyrite and sphalerite are also found throughout the pipe. Silver is commonly associated with the copper mineralization in the main zone. Assay values of silver in excess of one ounce per ton are common where copper grades are high. Arsenic is present where tennantite mineralization occurs. Additionally, lower quantities of Zn, Pb, Mo, Co, Ni, and V are present and scattered throughout the pipe.

8 DEPOSIT TYPES

Paleozoic sedimentary rocks of northern Arizona are host to thousands of breccia pipes. The pipes extend from the Mississippian Redwall Limestone up to the Triassic Chinle Formation, which makes about 4,000 ft. of section. Because of erosion and other factors, however, no single pipe has been observed cutting through the entire section. No pipe occurs above the Chinle Formation or below the Redwall Limestone. Breccia pipes mineralized with uranium are called Solution-Collapse Breccia Pipe Uranium deposits, which are defined as U.S. Geological Survey Model 32e (Finch, 1992).

Breccia pipes within the Arizona Strip are vertical or near vertical, circular to elliptical bodies of broken rock. Broken rock is comprised of slabs and rotated angular blocks and fragments of surrounding and stratigraphically higher formations. The inclusion of breccia made of stratigraphically higher formations suggests that the pipes formed by solution collapse of underlying calcareous rocks, such as the Redwall Limestone. Surrounding the blocks and slabs making up the breccia is a matrix of fine material comprised of surrounding and overlying rock from various formations. For the most part, the matrix consists of siliceous or calcareous cement.

Breccia pipes are comprised of three interrelated features: a basinal or structurally shallow depression at surface (designated by some as a collapse cone); a breccia pipe, which underlies the structural depression; and annular fracture rings, which occur outside, but at the margin of the pipes. Annular fracture rings are commonly, but not always, mineralized. The structural depression may range in diameter up to 0.5 miles or more, whereas breccia pipe diameters range up to about 600 ft.; the normal range of diameters for breccia pipe is 200 ft. to 300 ft.

Mineralization of the breccia pipes takes place by water flowing along fractures and through porous materials that provide conduits for fluid flow. Mineralization typically takes place in stages. Wenrich and Sutphin (1989) identified at least four separate mineralizing events that occur within the pipe, with uranium and copper mineralization occurring as part of the last two mineralizing events.

Mineralized breccia pipes found to date appear to occur in clusters or trends. Spacing between pipes ranges from hundreds of feet within a cluster to several miles within a trend. Pipe location may have been controlled by deep-seated faults, but karstification of the Redwall Limestone in the Mississippian and Permian times is considered to have initiated formation of the numerous and widespread pipes in the region.

9 EXPLORATION

Energy Fuels, or its predecessors have not carried out any regional or local exploration activities, other than drilling, on the property since 1994.

10 DRILLING

As of the effective date of this report, Energy Fuels and its predecessors have completed a total of 150 holes (45-surface and 105-underground) totalling 92,724 ft. from 1978 to 2017. No drilling was conducted on the property from 1994 to 2016. Since 2016, Energy Fuels completed 105 underground drill holes totalling 30,314 ft. on the Property. For this resource estimate, all of the underground holes and 25 of the 45 surface holes were used in the modelling of mineralization. Some of the surface holes were excluded because they are located outside the pipe and contain no mineralization.

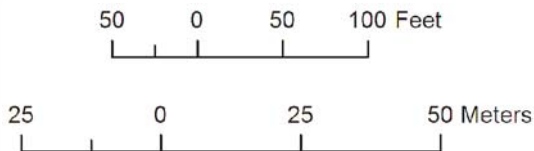
A drilling summary up to and including all drilling information available as of June 6, 2017 is presented in Table 10-1. A map of drill hole collars and traces is shown in Figure 10-1.

TABLE 10-1 DRILL HOLE DATABASE
Energy Fuels Resources (USA) Inc. – Canyon Mine

Year	Company	Location	# Holes	Total Depth (ft.)	Hole ID	Type
1978-1982	Gulf	Surface	8	13,041	COG Series Holes	Rotary
1983	EFNI	Surface	5	10,504	CYN Series 01 - 05	Rotary
1984	EFNI	Surface	13	1,350	CYN Series S01 - S13	Rotary
1984	EFNI	Surface	10	18,462	CYN Series 06 - 14-C & 16-C	Core/Rotary
1985	EFNI	Surface	2	3,534	CYN-15-C & CYN-15W1	Core
1986	EFNI	Surface	1	3,086	55-515772	Water Well
1994	EFNI	Surface	6	12,312	CYN Series 17 - 22	Rotary
2016	EFR	1-3 Level	15	12,435	CMCH Series 001 - 015	Core
2016	EFR	1-4 Level	25	4,179	CMLH Series 001 - 025	Percussion
2016-2017	EFR	1-4 Level	42	8,420	CMCH Series 016 - 058	Core
2017	EFR	1-5 Level	23	5,401	CMCH Series 059 - 081	Core
Total			150	92,724		



Figure 10-1



Energy Fuels Resources (USA) Inc.

Canyon Mine Project
Arizona, U.S.A.

**Drill Hole Collar
Locations**

PREVIOUS DRILLING

Shallow drilling was often conducted to locate the centre of the collapse feature as a guide to the throat of the underlying breccia pipe. The basic tool for exploring breccia pipes in northern Arizona is deep rotary drilling supplemented by core drilling, to a depth of 2,000 ft. or more from surface. Prospective pipes were usually first tested with three drill holes. If no mineralization was present, the effort was abandoned.

Drilling of breccia pipes is a difficult process due to substantial depths (approximately 2,000 ft.), small targets (approximately 200 ft. in diameter), and non-homogeneous rock formations that combine to limit the accuracy of the drilling process. The presence of cavernous and brecciated sediments near the present land surface can result in loss of circulation of drilling fluid; as a result, much drilling is conducted “blind”. Periodic “spot cores” are taken to determine whether or not holes are within the target structure or have drifted away from the pipe. Indeed, most pipes cannot be completely drilled out from the surface due to deviation from desired targets. All drill holes are surveyed for deviation and logged with gamma logging equipment.

If surface drilling provides sufficient encouragement that a mine can be developed, a vertical shaft is sunk to its ultimate depth and underground drill stations are established at various levels to provide platforms for further exploration and delineation drilling. Longhole drilling from underground stations typically utilized percussion drills. The resulting drill holes, up to 200 ft. long, were then gamma logged and surveyed as a supplement to surface drilling.

Drilling of the Canyon breccia pipe by previous owners has been described in Section 6 History.

RECENT DRILLING

Diamond drill holes were completed from a variety of angles and orientations from surface and from three drill platforms established at depth and adjacent to the shaft. Drillers removed the core from the wireline core barrel and placed it in core boxes, orienting core to fit together where possible, and limiting a core box to a single run. The core box was labeled sequentially with respect to depth. Drill hole ID, box number, and from and to depths were recorded on the bottom of the core box and core box lid by the driller. The driller also placed blocks or core

markers in the core box to indicate the “from” and “to” depths of the core run as well as the core run number. If core was not recovered during a core run, a wooden block was placed in the core box by the driller with the “from” and “to” depths of no recovery (if known). Core was removed from the drill station by the driller or the geologist to surface for logging.

Upon arrival to the core logging facility on surface, core was photographed and screened radiometrically using a Radiation Solutions RS-125 Super-SPEC device and elementally using a handheld x-ray fluorescent (XRF) analyzer. Drill core recovery was noted. Core was then logged by the field geologist by hand, noting the depth of each stratigraphic unit, as well as a description of lithology and structures. Details noted on the lithology log include colour, texture, grain size, cementation, and mineralogy of each lithologically distinct unit, as well as the type of fracture and any voids or vugs.

RADIOMETRIC LOGGING OF DRILL HOLES

All drill holes on the Property were logged with a radiometric probe to measure the natural gamma radiation, from which an indirect estimate of uranium content was made. In those holes associated with copper mineralization or where EFR personnel reported that the probe underestimated U_3O_8 grades above 2% due to saturation of the probe’s sodium iodide crystal, (a normal occurrence associated with gamma logging for uranium), Energy Fuels used chemical assay for both copper and uranium. For this resource estimate, most of the U_3O_8 grade data used for the Canyon Mine Mineral Resource estimate was obtained from chemical assays of the rock. Where there was lower grade uranium and areas of low grade copper mineralization, radiometric data was used in lieu of chemical assays.

RADIOMETRIC PROBING

Probing with a Mount Sopris gamma logging unit employing a natural gamma probe was completed systematically on every drill hole. The probe measures natural gamma radiation using one 0.5 inch by 1.5 inch sodium iodide (NaI) crystal assembly. Normally, accurate concentrations can be measured in uranium grades ranging from less than 0.1% to as high as 5% U_3O_8 . Data are logged at a speed of 15 ft. to 20 ft. per minute down hole and 15 ft. to 20 ft. per minute up hole, typically in open holes. Occasionally, unstable holes are logged through the drill pipe and the grades are adjusted for the material type and wall thickness of the pipe used.

The radiometric or gamma probe measures gamma radiation which is emitted during the natural radioactive decay of uranium (U) and variations in the natural radioactivity originating from changes in concentrations of the trace element thorium (Th) as well as changes in concentration of the major rock forming element potassium (K).

Potassium decays into two stable isotopes (argon and calcium) which are no longer radioactive, and emits gamma rays with energies of 1.46 MeV. Uranium and thorium, however, decay into daughter products which are unstable (i.e., radioactive). The decay of uranium forms a series of about a dozen radioactive elements in nature which finally decay to a stable isotope of lead. The decay of thorium forms a similar series of radioelements. As each radioelement in the series decays, it is accompanied by emissions of alpha or beta particles, or gamma rays. The gamma rays have specific energies associated with the decaying radionuclide. The most prominent of the gamma rays in the uranium series originate from decay of ^{214}Bi (bismuth 214), and in the thorium series from decay of ^{208}Tl (thallium 208).

The natural gamma measurement is made when a detector emits a pulse of light when struck by a gamma ray. This pulse of light is amplified by a photomultiplier tube, which outputs a current pulse which is accumulated and reported as counts per second (cps). The gamma probe is lowered to the bottom of a drill hole and data are recorded as the tool travels to the bottom and then is pulled back up to the surface. The current pulse is carried up a conductive cable and processed by a logging system computer which stores the raw gamma cps data.

The basis of the indirect uranium grade calculation (referred to as "eU₃O₈" for "equivalent U₃O₈") is the sensitivity of the detector used in the probe which is the ratio of cps to known uranium grade and is referred to as the probe calibration factor. Each detector's sensitivity is measured when it is first manufactured and is also periodically checked throughout the operating life of each probe against a known set of standard "test pits," with various known grades of uranium mineralization or through empirical calculations. Application of the calibration factor, along with other probe correction factors, allows for immediate grade estimation in the field as each drill hole is logged.

Downhole total gamma data are subjected to a complex set of mathematical equations, taking into account the specific parameters of the probe used, speed of logging, size of bore hole, drilling fluids, and presence or absence of any type of drill hole casing. The result is an indirect measurement of uranium content within the sphere of measurement of the gamma detector.

An Energy Fuels in-house computer program known as GAMLOG converts the measured counts per second of the gamma rays into 0.5 ft. increments of equivalent percent U_3O_8 (%e U_3O_8). GAMLOG is based on the Scott's Algorithm developed by James Scott of the Atomic Energy Commission (AEC) in 1962 and is widely used in the industry.

The conversion coefficients for conversion of probe counts per second to %e U_3O_8 equivalent uranium grades are based on the calibration results obtained at the United States Department of Energy Uranium Calibration Pits in Grand Junction, Colorado, USA.

In RPA's opinion, the drilling, logging, sampling, and conversion and recovery factors at Canyon Mine meet or exceed industry standards and are adequate for use in the estimation of Mineral Resources.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

SAMPLING METHOD AND APPROACH

Energy Fuels prepared a Standard Operating Procedure (SOP) Handbook for core handling, sampling, and QA/QC protocols for core drilling at the Canyon Mine in December 2016 (EF, 2016), which is referenced in this section.

Samples respect geological contacts, and vary from 2 ft. to 10 ft. in length depending on core recovery, length of the lithological unit, and mineralization. Most core samples were 4 ft. long, except where broken along lithological or mineralization contacts. Core outside the breccia pipe was considered barren and was not sampled. Sample interval and number were marked on the core log, the core sampling log and the sample bags.

Sample core was cut in half, lengthwise, by technicians with a diamond saw, returning half of the split core to the core box and submitting the other half for sample preparation and analysis. The sample number, which references the drill hole name, depth, and sample length, was written on two butter aluminum tags. One sample tag was stapled to the sample bag and an additional sample tag was placed within the bag. The sample tag that was affixed to the outside of the sample bag also contained the sample date and the sampler's initials.

Once sampled, the remaining half core splits were returned to the core box and archived onsite. RPA recommends sample tags with sequential numbering be incorporated into the sampling approach in place of sample numbers with reference drill hole name, depth and length to keep the sample information blind to the analytical team.

SAMPLE CHAIN OF CUSTODY AND STORAGE

Bagged samples were placed in barrels which were secured in the back of a truck for transport and delivered by Energy Fuels personnel to the laboratory at White Mesa Mill for analytical testing. White Mesa Mill personnel were responsible for shipping check samples to various third-party laboratories. A chain of custody form was maintained at all times.

Following analysis, dried, crushed samples were stored in sealed, plastic bottles for long term storage. Pulverized samples were also stored in sealed, plastic bottles. All samples are stored out of the elements to ensure stored sample quality.

DENSITY ANALYSIS

Bulk Densities were determined at White Mesa Mill, for a majority of the samples submitted (2,630 of 3,347). A single piece of split core sample, at least four inches in length was measured in all dimensions using calipers to calculate volume, and then weighed dry. Density was calculated using the measured volume and the mass. An additional 37, full core, six-inch samples, were submitted to White Mesa Mill to verify the caliper method. These 37 full core samples were measured with calipers to calculate volume and then weighed dry. Additionally, these samples were immersed in water to determine volume via water displacement. The densities calculated by both methods were compared. The caliper method showed approximately 1% greater than water displacement densities on the same core samples, a negligible difference.

SAMPLE PREPARATION

Upon delivery of the samples to White Mesa Mill, samples were weighed, dried for 16 to 24 hours, and weighed again to determine the moisture content. The samples were crushed using a Bico Jaw Crusher and Metso Minerals cone crusher and split using a riffle splitter before pulverization using a ring and puck pulverizer. The crushers, splitters and pulverisers are cleaned between uses with abrasive sand.

SAMPLE ANALYSIS

A split of the pulverized sample was digested in the laboratory in a combination of nitric, perchloric, and hydrofluoric acid, diluted, and analyzed. Determination of uranium content in the sample was performed by a spectrophotometric analysis using the Thermo Scientific Biomate 3 Spectrophotometer. Other analyses were performed either on the Perkin Elmer Optima 5300V ICP-OES or the Perkin Elmer ELAN DRC II ICP-MS. Calibrations were performed daily on these instruments, and every four in 100 analyses were spiked with a standard solution after analysis to ensure consistency of results.

DATABASE MANAGEMENT

The laboratory at White Mesa Mill uses a combination of digital exports from the instrument's computer and hand entry from log books to maintain a master spreadsheet, which calculates grade based on the various inputs. Certificates of analysis were provided to Canyon Mine personnel in secured .pdf and Microsoft excel format.

In RPA's opinion, the sample preparation, security, and analytical procedures are acceptable for the purposes of a Mineral Resource estimate.

QUALITY ASSURANCE/QUALITY CONTROL

Quality assurance (QA) consists of evidence to demonstrate that the assay data has precision and accuracy within generally accepted limits for the sampling and analytical method(s) used in order to have confidence in the assay data used in a resource estimate. Quality control (QC) consists of procedures used to ensure that an adequate level of quality is maintained in the process of collecting, preparing, and assaying the exploration drilling samples. In general, QA/QC programs are designed to prevent or detect contamination and allow assaying (analytical), precision (repeatability), and accuracy to be quantified. In addition, a QA/QC program can disclose the overall sampling-assaying variability of the sampling method itself.

QA/QC PROTOCOLS

QA/QC samples, including duplicate, blank, standard and check were submitted by the onsite team at Canyon Mine, the Lakewood, Colorado Office of Energy Fuels, and the White Mesa Mill laboratory. The submission rate and responsible party of each sample type is listed in Table 11-1.

**TABLE 11-1 QA/QC SAMPLES AT CANYON MINE
Energy Fuels Resources (USA) Inc. – Canyon Mine**

Sample Type	Responsible Party		Collection Method	Rate of Insertion
Duplicates	Field	Field Geologist	¼ core	1 in 100
	Coarse	WMM Lab personnel	Second split of crushed sample	2 in 100
		Pulp	WMM Lab personnel	Second split of pulverized sample
CRM ¹		Lakewood Office	Shipped directly to lab	4 in 100
Blank	Coarse	Lakewood Office	Shipped directly to lab	2 in 100
	Pulp	Lakewood Office	Shipped directly to lab	2 in 100
Check Assay		WMM Lab personnel	Split of reject sample	4 in 100
CRM ¹ with		WMM Lab personnel		10 in 100
Check Assay				
Bulk Density		WMM Lab personnel	Core samples	As Available

1. Certified Reference Material

Standard reference material and fine blanks were shuffled (random sequence applied), numbered, and catalogued in the Lakewood, Colorado office by EFR technical personnel prior to shipment to the White Mesa Mill laboratory manager. These samples (blind to the White Mesa Mill manager, laboratory manager, and lab personnel) were inserted into the sample stream by the laboratory manager. The coarse blanks were not blind to the White Mesa Mill laboratory manager.

Check assays were performed by three independent laboratories and were submitted by White Mesa Mill personnel. Drilling and assaying were performed in 2016 and 2017, however, all assay results were received by Canyon Mine personnel in 2017. Table 11-2 outlines the number of submitted QA/QC samples and the portion of the total database they comprise.

Results of the QA/QC program were compiled in a series of Microsoft Excel tables and charts on a regular basis as the program progressed, and were distributed to the mine and laboratory personnel QA/QC trends were discussed as the program progressed and action was taken to correct issues.

**TABLE 11-2 SUMMARY OF QA/QC SUBMITTALS
Energy Fuels Resources (USA) Inc. – Canyon Mine**

Sample Type	Count	Percentage of assay samples
Drill Holes	130	-
Assay Samples	3,413	-
Probe Samples	97,994	-
Probe / Assay Duplicates	563	16%
Coarse Blanks	63	2%
Fine Blanks	63	2%
Copper CRMs	125	4%
Field Duplicates	36	1%
Coarse Duplicates	62	2%
Pulp Duplicates	69	2%
Check Assays	114	3%
Total QA/QC Samples	532	16%

QA/QC RESULTS

RPA reviewed QA/QC information compiled by Energy Fuels, tabulated data, and prepared several graphs for comparison of QC assays with original assays.

BLANKS

The regular submission of blank material is used to assess contamination during sample preparation and to identify sample numbering errors. Energy Fuels submitted blank samples at an insertion rate of one in 50 at both the coarse and fine preparation stages. The coarse blank sample is a granite matrix sourced from ASL and certified as barren for both copper and uranium, and the fine blank material was purchased from Ore Research and Exploration (reference material OREAS 24b). OREAS 24b has certified values of 0.0038% Cu and 0.000174% U. RPA reviewed the results of the blank samples submitted alongside drill core and tabulated the number of failures for both coarse and fine blanks. A blank sample was considered to have failed if the assay returned a copper or uranium value more than ten times the detection limit for the assay method. No failures were reported for the coarse or fine blank samples.

CERTIFIED REFERENCE MATERIAL

Results of the regular submission of certified reference material (standards) are used to identify problems with specific sample batches, and biases associated with the primary assay

laboratory. Three different copper certified reference materials were submitted into the sample stream at White Mesa Mill, representing low, medium and high-grade copper material for an insertion rate of one in 25. The matrix of the material, expected value, and tolerance limits are listed in Table 11-3. The reference materials were assayed using a 4-acid digest or *aqua regia* technique with inductively coupled plasma (ICP) or atomic absorption (AA) finish.

**TABLE 11-3 EXPECTED VALUES AND RANGES OF COPPER CRM
Energy Fuels Resources (USA) Inc. – Canyon Mine**

CRM	Cert. Date	Matrix	Expected Value (%)	Tolerance 2 S.D. (%)
CDN-CM-41	2016	Minto mine: hypogene copper sulphide hosted in granodiorite	1.71	0.05
CDN-ME-1410	2014	High sulphide VMS	3.80	0.17
OREAS 113 ¹	2009	Tritton Copper Project: chalcopyrite breccia ore	13.5	0.8

1. Certified tolerance is a 95% confidence interval from 13.3% to 13.8% Cu.

No U₃O₈ specific CRMs were sent to White Mesa Mill. As part of the mill's daily protocol for running samples, the equipment was calibrated daily using U₃O₈ CRM 129-A, sourced from the New Brunswick Laboratory at the U.S. Department of Energy. RPA recommends sourcing three matrix matched or matrix-similar, certified reference materials for U₃O₈, representing low, medium and high grades at Canyon Mine, and incorporating them into sample stream sent to White Mesa Mill at a rate of one in 25.

RPA calculated failure rates of each copper CRM, prepared control plots, as well as looked at temporal trends of the CRMs. Failure rates, defined as a copper value reporting more than three standard deviations (SD) from the expected value, or two consecutive copper values reporting more than two SD from the expected values were tabulated, and are presented in Table 11-4. All CRMs assayed at White Mesa Mill displayed a low bias relative to the expected copper value, as well as a positive temporal trend, and a high failure rate. Control plots of each CRM are shown in Figure 11-1 and a graph of the average copper value by date for each CRM is shown in Figure 11-2. Two of the CRMs, CDN-CM-41 and CDN-ME-1410, are made of a material unlike the material at Canyon Mine.

TABLE 11-4 SUMMARY OF CRM PERFORMANCE
Energy Fuels Resources (USA) Inc. – Canyon Mine

CRM	Expected Value (%Cu)	Submittals	Failures	Percentage of Failures
CDN-CM-41	1.71	39	31	79%
CDN-ME-1410	3.80	49	25	51%
OREAS 113	13.5	37	20	54%
Total		125	76	61%

FIGURE 11-1 CONTROL CHARTS OF COPPER CRM

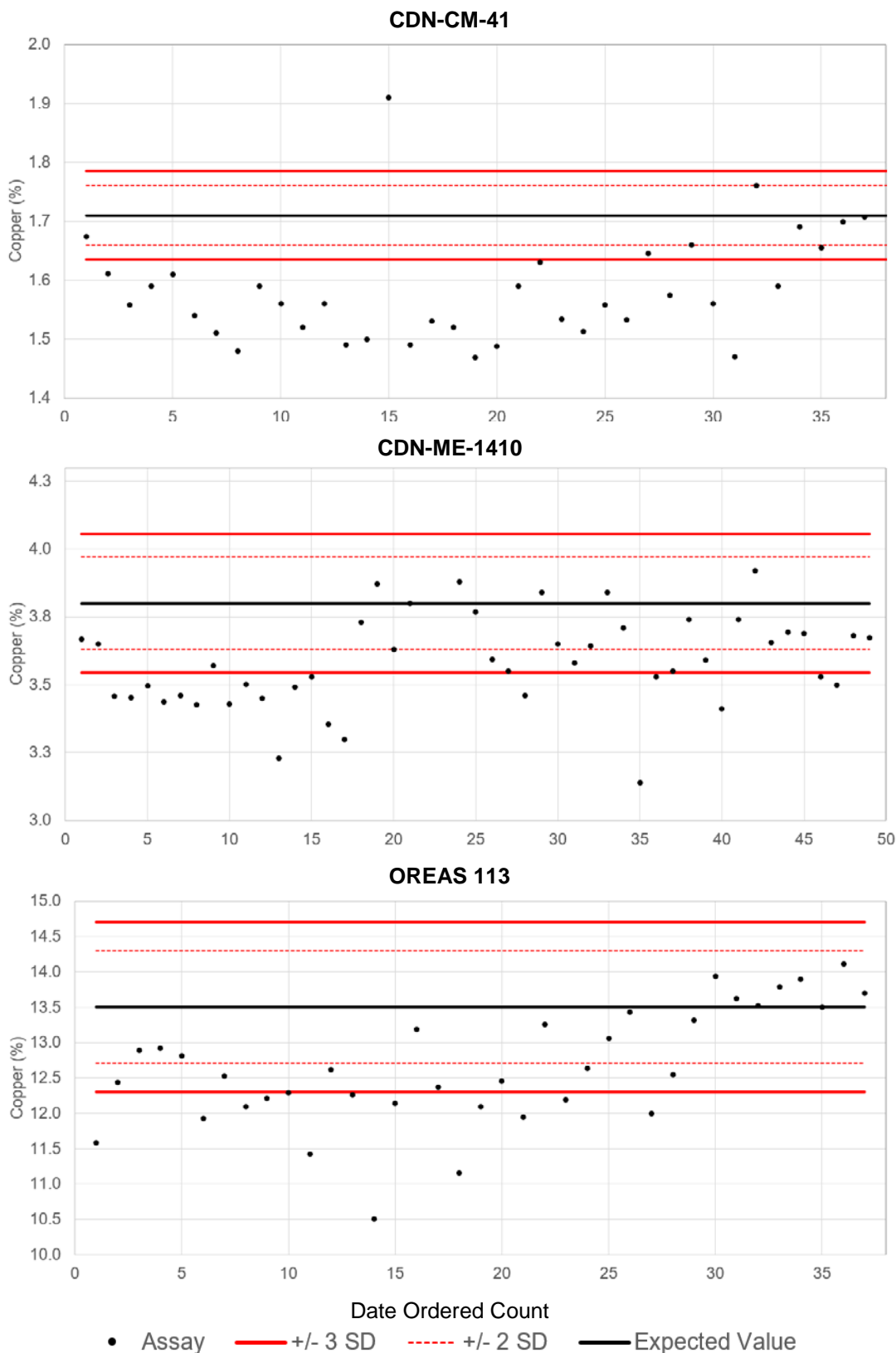
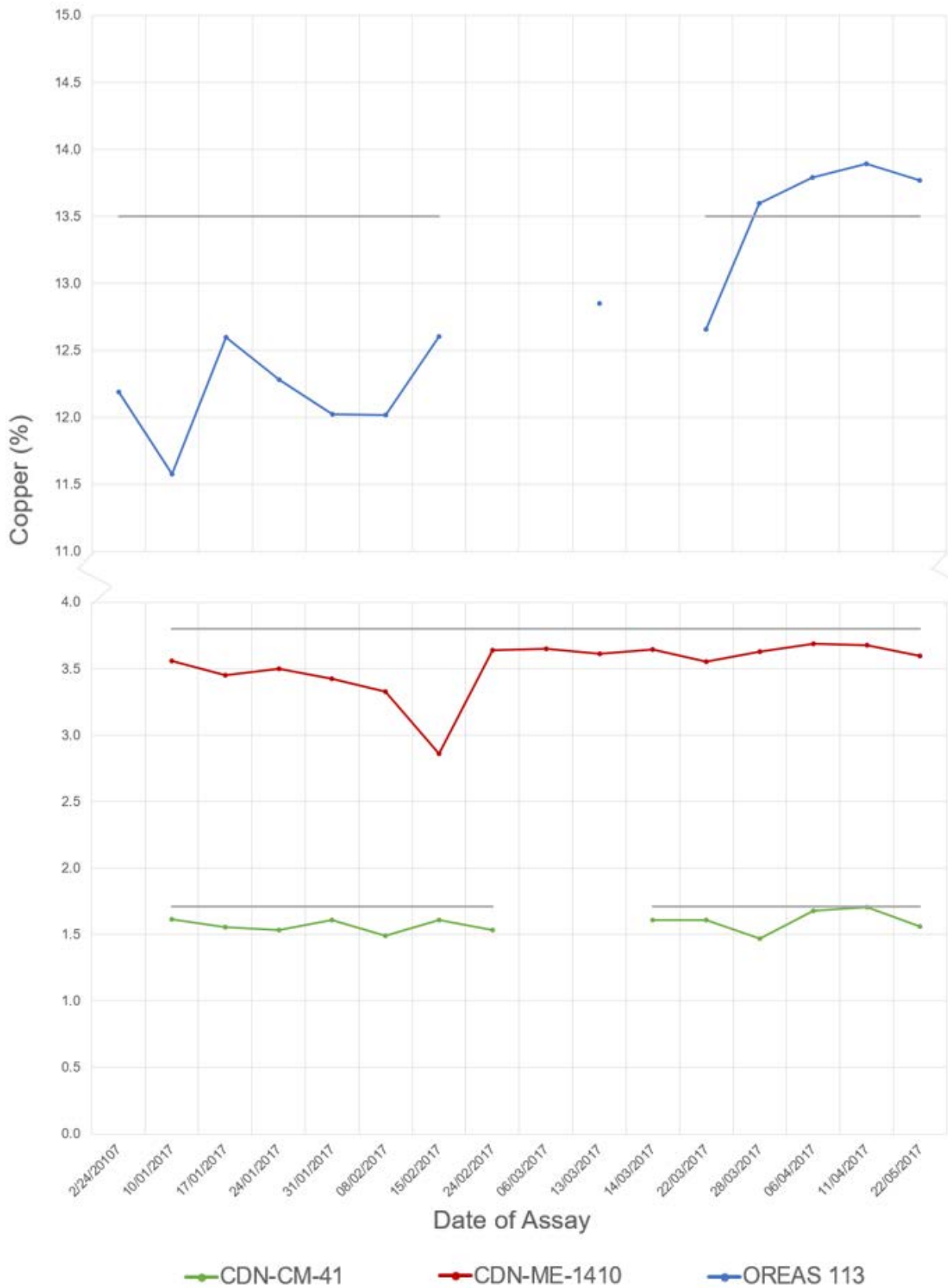


FIGURE 11-2 AVERAGE COPPER GRADE OF CRM OVER TIME



DUPLICATES

Duplicate samples help to monitor preparation and assay precision and grade variability as a function of sample homogeneity and laboratory error. The field duplicate includes the natural variability of the original core sample, as well as levels of error at various stages, including core splitting, sample size reduction in the preparatory laboratory, sub-sampling of the pulverized sample, and the analytical error. Coarse reject and pulp duplicates provide a measure of the sample homogeneity at different stages of the preparation process (crushing and pulverizing).

Field duplicate samples were collected by the onsite geologist and submitted to the laboratory as separate samples, adjacent in the sample stream and clearly marked as such. A total of 1% of the drill hole samples have been duplicated in the form of two, quarter core samples. The duplicate protocol and procedure for collecting, submitting and analyzing coarse and pulp duplicate assays is carried out by the White Mesa Mill. A total of 2% of the drill hole samples were resubmitted at the coarse and pulp assay preparation stages for comparison.

Results for both coarse and pulp sample pairs show excellent correlation (Table 11-5) with very good repeatability for both copper and uranium. Of the field, coarse and pulp duplicate sample sets, however, less than 20% of each of the submitted sample types report grades above the COG of 0.29% U_3O_8 and less than 10% are above the expected average grade of 1% U_3O_8 .

Over half of the field duplicates reported U_3O_8 values with a relative difference greater than 20%, which may be related to the uranium occurring as blebs or vug fill. Only one of the four field sample pairs within the grade range of interest, however, had a relative difference greater than 20%. Over half of the field duplicates reported copper values with a relative difference greater than 20%. Only five of the sixteen sample pairs with a grade higher than 1% Cu, however, had a relative difference greater than 20%. RPA recommends collecting additional field samples, in the form of $\frac{1}{2}$ core, in the grade range of interest in order to draw deeper conclusions about the nature of the material at Canyon Mine.

RPA also recommends implementing a duplicate assay protocol for field, coarse and pulp samples that is blind to the laboratory, and recommends that the rates of insertion for duplicate samples be approximately one in 50 for field duplicates, and one in 25 for coarse and pulp duplicate samples.

TABLE 11-5 BASIC COMPARATIVE STATISTICS OF 2017 DUPLICATE ASSAYS
Energy Fuels Resources (USA) Inc. – Canyon Mine

	Field		Coarse		Pulp	
	Original	Duplicate	Original	Duplicate	Original	Duplicate
U₃O₈						
Count	36	36	62	62	69	69
Mean (%)	0.14	0.13	0.30	0.31	1.13	1.12
Maximum Value (%)	1.45	1.00	9.71	9.80	25.90	25.36
Minimum Value (%)	0	0	0	0	0	0
Median (%)	0.02	0.01	0.02	0.02	0.02	0.03
Variance	0.10	0.06	1.67	1.73	19.74	19.03
Std. Dev	0.32	0.25	1.29	1.31	4.44	4.36
Correlation Coefficient	0.961		1.000		1.000	
% Diff. Between Means	8.5%		-2.0%		1.3%	
Copper						
Count	35	35	61	61	69	69
Mean (%)	4.12	4.33	2.22	2.21	3.51	3.42
Maximum Value (%)	24.22	22.60	22.38	22.84	30.50	26.14
Minimum Value (%)	0	0	0	0	0	0
Median (%)	0.34	0.44	0.14	0.12	0.20	0.20
Variance	48.18	49.38	19.86	20.06	52.68	49.60
Std. Dev	6.94	7.03	4.46	4.48	7.26	7.04
Correlation Coefficient	0.983		0.997		0.997	
% Diff. Between Means	-5.0%		0.6%		2.5%	

CHECK ASSAYS

A total of 114 assays were sent for re-assay at one of three independent laboratories to ascertain if any bias is present within the primary laboratory, Energy Fuels' White Mesa Mill laboratory. The check laboratories employed, as well as the number of samples sent, are shown in Table 11-6. Because Inter-Mountain Labs (IML) is the only laboratory with a significant number of samples, and the only laboratory to include CRMs, it was chosen for comparison with the primary laboratory at White Mesa Mill. Scatter plots of the primary and independent laboratory results for copper and U₃O₈ are shown in Figure 11-3.

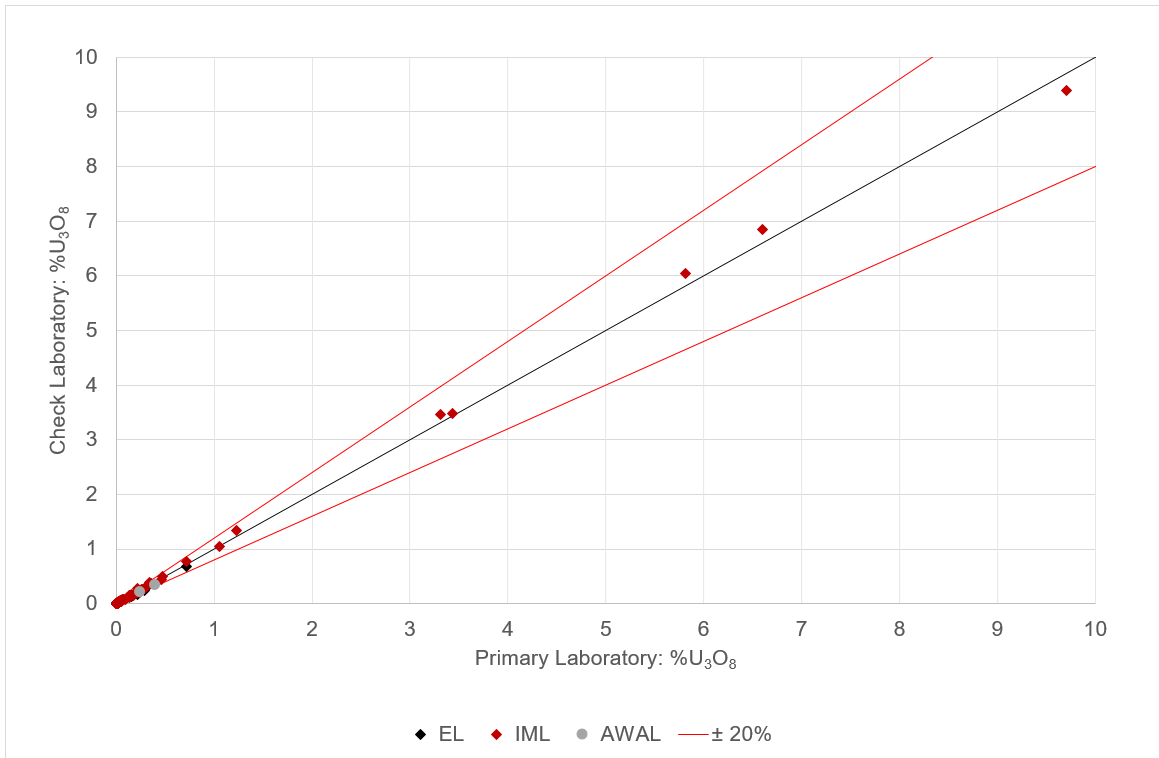
**TABLE 11-6 LOCATION AND COUNT OF CHECK ASSAY
Energy Fuels Resources (USA) Inc. – Canyon Mine**

Laboratory	No. Samples Sent	No. Cu CRMs sent
AWAL	10	-
Energy Laboratories Inc. (ELI)	5	-
Inter-Mountain Labs (IML)	99	11
Total	114	11

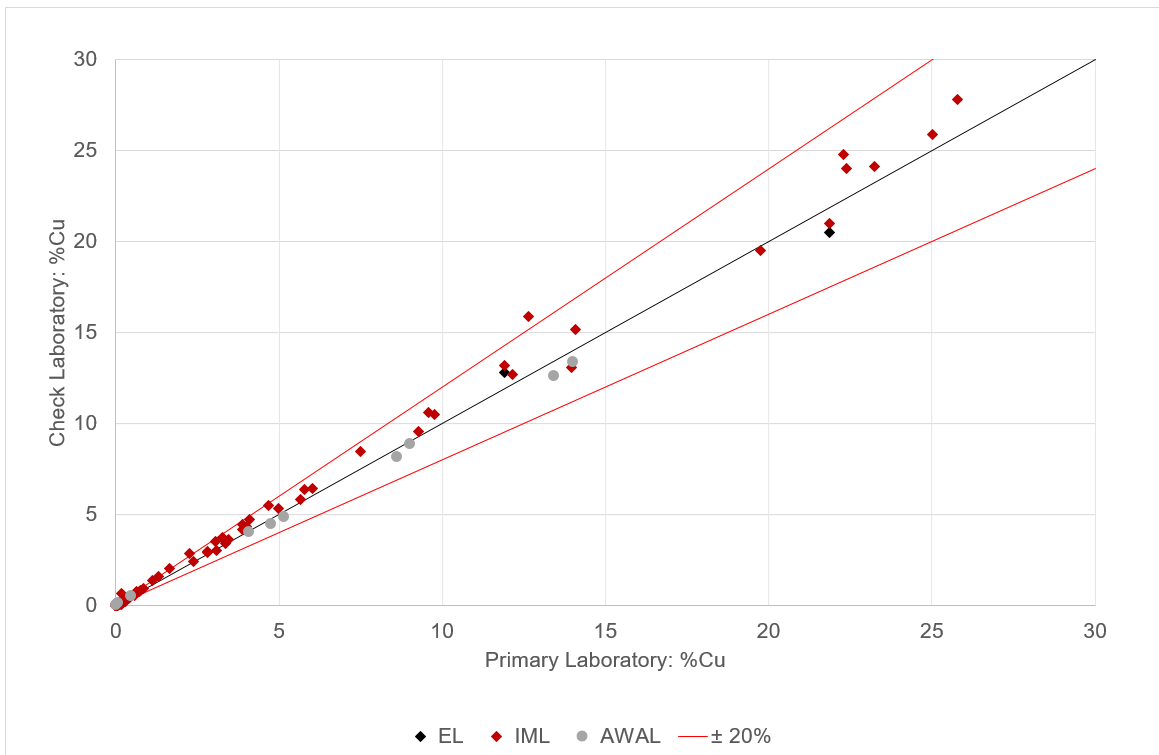
The results indicate a slight low bias of both copper and U₃O₈ results at White Mesa Mill. This finding is supported by the low bias observed in the copper CRM results from White Mesa Mill. Copper CRM results from IML are not conclusive due to the small number of samples submitted; however, the CRM results from IML were mostly slightly above the expected value, with no failures.

FIGURE 11-3 SCATTER PLOTS OF INDEPENDENT VERSUS PRIMARY LABORATORY CHECK ASSAY RESULTS FOR U_3O_8 AND CU

A: U_3O_8



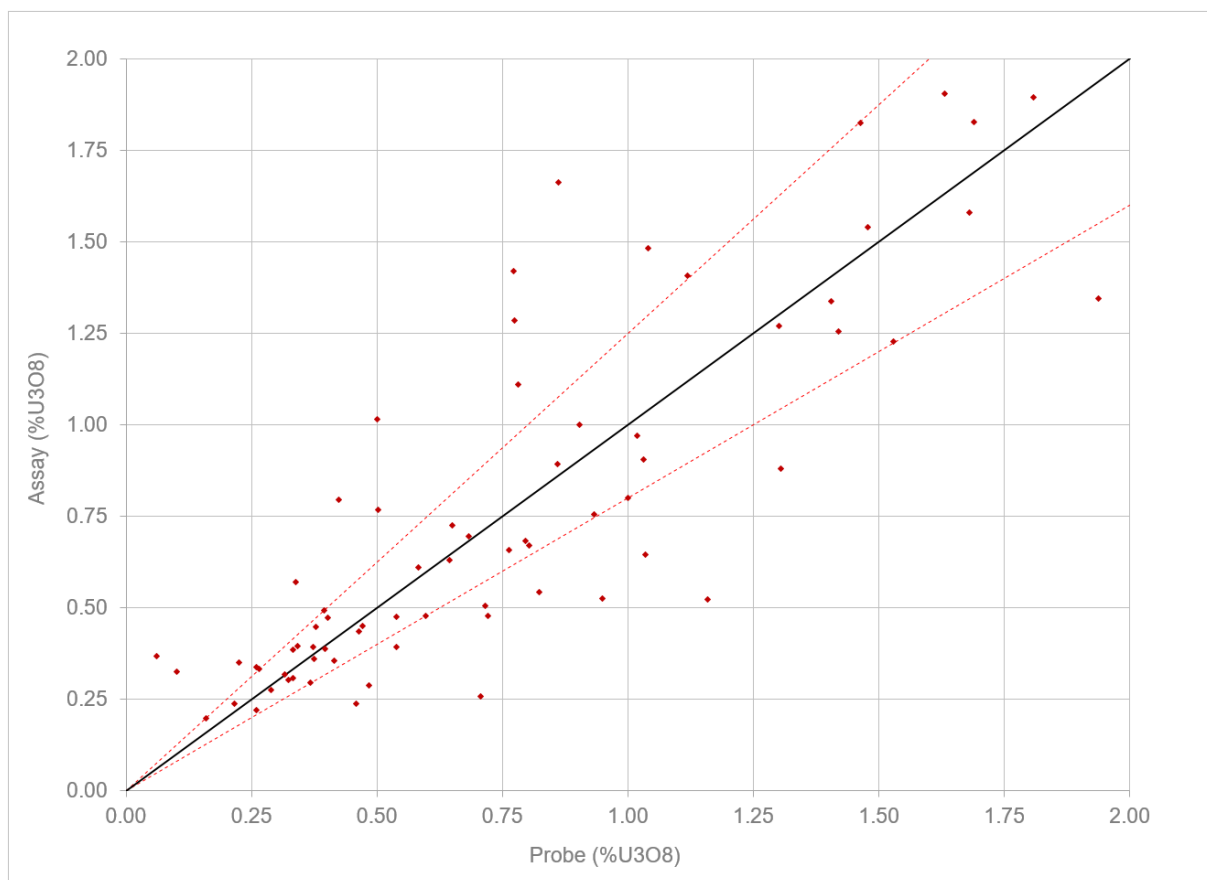
B: Cu



COMPARISON OF PROBE AND ASSAY U_3O_8 RESULTS

A total of 97,944 U_3O_8 0.5 ft. probe samples were included in the Mineral Resource database where assay data were not available. In order to check for dis-equilibrium and ensure that no bias was present between assay and probe results, Energy Fuels assayed several drill holes for which probe data were available. RPA flagged the drill hole intervals located within the Main Zone and calculated weighted averages for each method's result over the interval of interest. These weighted averages were then compared by RPA using basic statistics, including scatter and quantile-quantile plots. RPA removed 14 sample pairs, representing those pairs which returned results above 2% U_3O_8 , to account for probe saturation. A scatter plot of the 77 sample pair results is shown in Figure 11-4.

FIGURE 11-4 SCATTER PLOT OF THE WEIGHTED AVERAGE OF PROBE AND ASSAY U_3O_8 RESULTS OVER DRILL HOLE INTERCEPTS WITHIN THE MAIN ZONE



The results indicate good correlation between the assay and probe data, with negligible bias.

QA/QC CONCLUSIONS AND RECOMMENDATIONS

RPA makes the following conclusions regarding the QA/QC data supporting the drill hole database at the Canyon Mine:

RPA reviewed results from Energy Fuels QA/QC program undertaken in 2017 and is of the opinion that the results are sufficient to support Mineral Resource estimation.

- There is no evidence of sample contamination at White Mesa Mill.
- Additional field duplicate samples must be collected before conclusions can be drawn on the natural variability and initial sample preparation stages at Canyon Mine.
- Results for both coarse and pulp sample pairs show excellent repeatability for both copper and uranium at White Mesa Mill.
- The number and grade range of the individual copper CRMs in use at Canyon Mine are appropriate for the program.
- At all grade ranges for copper there appears to be a low bias at White Mesa Mill, as evidenced by CRM assay results and independent laboratory check assays. Energy Fuels worked with White Mesa Mill actively to address this bias during the drilling program, and the low bias was significantly reduced towards the end of the sampling program.
- At all grade ranges for U_3O_8 there appears to be a slight low bias at White Mesa Mill, as evidenced by independent laboratory check assays.
- There appears to be good correlation between the assay and probe data, with negligible bias at grades less than 2% U_3O_8 . Above this grade, the grades are chemically positive due to probe saturation.

RPA makes the following recommendations regarding the QA/QC data supporting the drill hole database at Canyon Mine:

- Submit field duplicates using two ½ core samples at a rate of one in 50.
- Continue to monitor for low-grade bias of copper and slight low-grade bias of U_3O_8 at White Mesa Mill.
- Continue to monitor for temporal trend (change in average grade of CRM data over time) observed at White Mesa Mill to ensure assay accuracy.
- Procure certified reference material made from Canyon Mine resource material (matrix matched), to obtain an improved understanding of laboratory performance as applied to Canyon Mine samples.
- Source three matrix matched or matrix-similar, certified reference materials for U_3O_8 that represent low, medium and high-grade ore at Canyon Mine. Incorporate the Certified Reference Material (CRM) in the sample stream sent to White Mesa Mill at a rate of one in 25. Ensure the certified values of these CRM are blind to the laboratory. Also submit these CRM to independent laboratories alongside check assays at a rate of one in 10 to obtain a meaningful sample size for analysis.

- Implement a duplicate assay protocol for field, coarse and pulp samples that is blind to the laboratory, and that the rates of insertion for duplicate samples be approximately one in 50 for field duplicates, and one in 25 for coarse and pulp duplicate samples.

12 DATA VERIFICATION

AUDIT OF DRILL HOLE DATABASE

RPA conducted a series of verification tests on the drill hole database provided by Energy Fuels. These tests included a search for missing information and tables, unique location of drill hole collars, and overlapping sample or lithology intervals. Empty tables were limited to lithology, alteration, and geotechnical results. No database issues were identified.

SITE VISIT AND CORE REVIEW

Mr. Mark Mathisen, CPG, visited the Canyon Mine Property on June 13 to 15, 2017 in connection with the Canyon Mine Mineral Resource estimate. The Canyon Mine was on maintenance stand-by during this visit. RPA reviewed core handling, logging, sample preparation and analytical protocols, and storage procedures. RPA examined core from several drill holes and compared observations with assay results and descriptive log records made by Energy Fuels geologists.

Mr. Jeff Woods, RPA Associate Principal Metallurgist visited the White Mesa Mill on July 17 to July 19, 2017.

INDEPENDENT VERIFICATION OF ASSAY TABLE

RPA compared 100% of the assay sample database for both copper and uranium to assay results in excel format from White Mesa Mill. Several values in the database were recorded at 0% Cu or 0% U₃O₈. Standard practice is to record assays which return a value below detection limit at a value equal to half the detection limit. This is not expected to materially impact the Mineral Resources. No other discrepancies were found.

RPA is of the opinion that database verification procedures for the Canyon Mine comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

Preliminary metallurgical bench tests have been completed on samples from the Canyon Mine to determine both uranium and copper metallurgical performance. The majority of the test work was completed at the White Mesa Mill's metallurgical laboratory. Confirmatory testing was conducted independently at ANSTO Minerals metallurgical laboratory in NSW Australia. Testing included conventional acid leaching, flotation of conventionally leached residue, and roasting pre-treatment followed by conventional acid leaching. The primary goal of the work was to determine if the existing White Mesa Mill process flow sheet would be suitable for processing the Canyon Mine mineralized material types, and if not, what process flow sheet would be appropriate while minimizing capital modifications to the White Mesa circuit.

METALLURGICAL TESTING

Several metallurgical testing programs have been completed on the Canyon Mine mineralized material types. The goal of these tests is to maximize uranium and copper recoveries, and minimize changes to the White Mesa circuit and any associated capital requirements, while also minimizing operating costs and uranium deportment to the final copper product.

Two metallurgical composites were used for testing during 2016 and 2017.

METALLURGICAL TESTING OCTOBER 2016

The first metallurgical composite was created in October 2016 and was made from 37 core samples. White Mesa Mill laboratory testing showed the average grades for this composite were 0.81% U₃O₈ and 9.78% Cu. Testing was done on this composite from October 2016 to January 2017, and was the most representative of the Main Zone of the deposit from the samples available at the time. Preliminary conventional acid leaching test work was conducted to determine uranium and copper recoveries. Leaching conditions, namely, temperature, solids density, free acid and chlorate dosages, were varied between a total of 17 tests.

Uranium recoveries were high for this test series ranging from 96.3% to 99.8%. Copper recoveries were significantly lower ranging from 18.7% to 55.5%. Acid consumption was higher than normal ores treated at White Mesa Mill ranging between 221 lb per ton to 670 lb

per ton. Chlorate consumptions were significantly higher than the normal ore range of 0 lb to 30 lb per ton being 0 lb to 164 lb per ton of feed.

Owing to the poor copper metallurgical performance during conventional acid leaching, flotation testing of conventional leaching residue was examined. Owing to the possibility of uranium deportment to the copper concentrate, it was decided to run flotation concentration tests on leached residue in order to potentially minimize uranium concentrations. Flotation of copper worked very well with rougher copper recovery at 72% with a copper concentrate grade of 33.3%. Unfortunately, uranium deportment to the concentrate exceeded normal TCRC limits at 0.105% U_3O_8 making flotation an unlikely processing option.

METALLURGICAL TESTING JANUARY 2017

A second (and larger) composite was made up in January of 2017 and was used for testing from that point on. This composite was the most representative of the Main Zone of the deposit from the samples available at the time. The metallurgical testing composite was generated from 60 core samples representing 240 ft. of half drill core (approximately 360 pounds) from the Canyon deposit. A split of this composite was also sent to ANSTO in Australia for independent testing. White Mesa Mill laboratory testing showed the average grades for this composite were 0.76% U_3O_8 and 9.93% Cu. The primary goal of this program was to determine the metallurgical response using the conventional acid leach process currently in use at White Mesa Mill. Summary results are presented in Table 13-1 below.

As expected uranium recoveries averaged 93.4% ranging from a low of 68.3% to 99.8%. Copper recoveries were considerably lower averaging 26.9% with a range of 4% to 53.7%. Reagent consumptions using the conventional leaching averaged 900 lb t⁻¹ for sulfuric acid and 20 lb t⁻¹ chlorate.

TABLE 13-1 CONVENTIONAL ACID LEACH TEST RESULTS
Energy Fuels Resources (USA) Inc. – Canyon Mine

Test #	Recovery		Targets				Actual Final		Consumption #/ton	
	U ₃ O ₈	Cu	Free Acid	Temp	EMF	% Solids	Free Acid	EMF3	Acid	Chlorate
1	98.2	37.6	85	85	none	50	80.9	385	224	80
2	98.0	48.6	80	80	500	50	76.4	443	434	128
3	96.8	50.0	50	80	500	50	48.5	457	361	128
4	94.0	53.7	20	80	500	50	18.1	439	265	144
5	98.0	46.9	80	80	450	50	76.9	438	420	120
6	99.2	53.3	80	80	500	33	85.3	415	316	80
7	96.7	35.9	50	50	500	50	39.7	658	280	100
8	96.6	17.0	50	ambient	500	50	51.5	846	258	80
9	97.0	33.1	50	50	400	50	52.4	396	309	80
10	95.5	6.8	50	50	none	50	49.5	409	228	0
11	96.7	17.2	50	50	none	50	47	416	246	20
12	80.9	9.2	50	ambient	none	50	47.5	401	228	20
13	80.1	7.8	80	ambient	none	50	73	398	291	20
14	99.8	11.9	50	60	none	50	43.1	366	220	20
15	97.5	18.4	50	60	none	33	54.9	366	362	20
16	97.2	30.6	50	60	none	50	48.5	386	276	40
17	96.6	20.7	20	50	none	50	19.1	357	154.6	20
18	97.8	19.0	20	80	none	50	15.2	325	147.2	20
19	82.4	16.6	50	60	none	50	48	318	209.8	10
20	68.3	4.0	50	60	none	50	45.6	278	180.3	0
Average	93.4	26.9							270.5	56.5
MAX	99.8	53.7							434	144
MIN	68.3	4							147.2	0

Due to low copper recoveries, a series of tests were run to determine the effect of a roasting pretreatment. Roasting temperatures were varied between 450°C and 650°C. As shown in Table 13-2 below, roasting improved recoveries for both uranium and copper averaging 86% and 87.6% respectively. Using the optimum roasting temperature of 650°C, recoveries averaged 91.6% for uranium and 94.9% for copper. Reagent consumptions on the roasted material averaged 250 lb t⁻¹ for sulfuric acid and 15 lb t⁻¹ chlorate using 650°C roast and 50°C leaching phase.

TABLE 13-2 ROASTED ACID LEACH TEST RESULTS
Energy Fuels Resources (USA) Inc. – Canyon Mine

Test #	Roasting		Recovery			Targets			Actual Final		Consumption #/ton	
	Temp	Time	U ₃ O ₈	Cu	Free Acid	Temp	EMF	% Solids	Free Acid	EMF	Acid	Chlorate
2	450	45	78.8	85.2	80	60	none	4	76.9	379	5500	0
3	550	45	98.7	98.4	80	60	none	4	78.4	550	5500	0
4	650	45	99.2	92.2	80	60	none	4	78.4	603	5500	0
5	550	45	60.9	63.3	80	60	none	4	67.1	337	4600	0
7	550	45	95.4	87.3	80	60	none	4	59.8	536	4600	20
8	550	90	93.3	86	80	60	none	4	60.3	534	4600	20
9	550	45	85.3	81.8	80	80	none	4	72	349	4875	20
10	550	120	63.6	73.9	80	80	none	15	81.8	336	4325	0
11	650	120	94.7	96	80	80	none	15	75.5	432	4325	0
12	650	20	81.3	76	80	80	none	15	78	341	1195	0
13	650	40	89.3	87.4	80	80	none	15	80.9	382	1195	0
14	650	60	94.9	91.9	80	80	none	15	77.9	417	1195	0
15	650	60	76.4	88.4	20	20	none	15	24	322	460	0
16	650	60	82.8	92	50	50	none	15	49.9	400	775	0
17	650	60	82.6	92.6	20	80	none	15	20.6	405	506	0
18	650	60	84	90.3	80	20	none	15	76	354	1150	0
19	650	60	95.9	97.3	80	80	none	15	85	433	1380	0
20	650	60	99.1	92.2	20	50	none	15	17.6	555	450	10
21	650	60	30.6	90.9	30	50	none	40	30.9	412	318	10
22	650	60	79.7	93.3	80	80	none	40	83.3	396	580	0
23	650	60	97.8	95.4	none	80	none	33	41.7	458	479	10
24	650	60	95.8	93.4	none	80	none	33	26	426	350	10
25	650	60	96.5	93.7	none	50	none	33	51	445	450	10
26	650	60	80.9	92	none	50	none	20	26.5	400	450	10
27	650	60	86.6	94.5	none	50	none	20	22.4	405	450	10
28	650	60	97.1	96.3	none	50	none	20	31.9	642	450	20
29	650	60	97.2	96.7	none	50	none	20	28.9	654	450	20
30	440	60	68.4	26.2	none	80	none	33	45.6	325	350	10
31	606	60	93.4	84.6	none	80	none	33	25.5	395	350	10
32	770	60	89.7	88.2	none	80	none	33	15.2	631	350	10
Average			86.0	87.6							1992.2	6.5
MAX			99.2	98.4							5500	20
MIN			30.6	26.2							317.5	0

ANTSO METALLURGICAL TESTING MAY 2017

Two different metallurgical testing programs have been completed at ANSTO’s facilities in Australia. These series of tests were conducted on the second bulk composite generated at White Mesa Mill and coincide with the White Mesa Mill’s program from January 2017. Pertinent test work focused on conventional acid leaching (one test) and roasting pre-treatment followed by acid leaching (six tests). Comparisons between the White Mesa Mill and ANSTO test work results are presented below in Figures 13-1 and 13-2 for conventional leaching and roasting pre-treatment respectively. Results are coded by laboratory ANSTO; blue and White Mesa Mill red. It should be noted that the results presented incorporate the entire data set and no outliers were culled.

FIGURE 13-1 INTERLAB COMPARISION CONVENTIONAL LEACHING

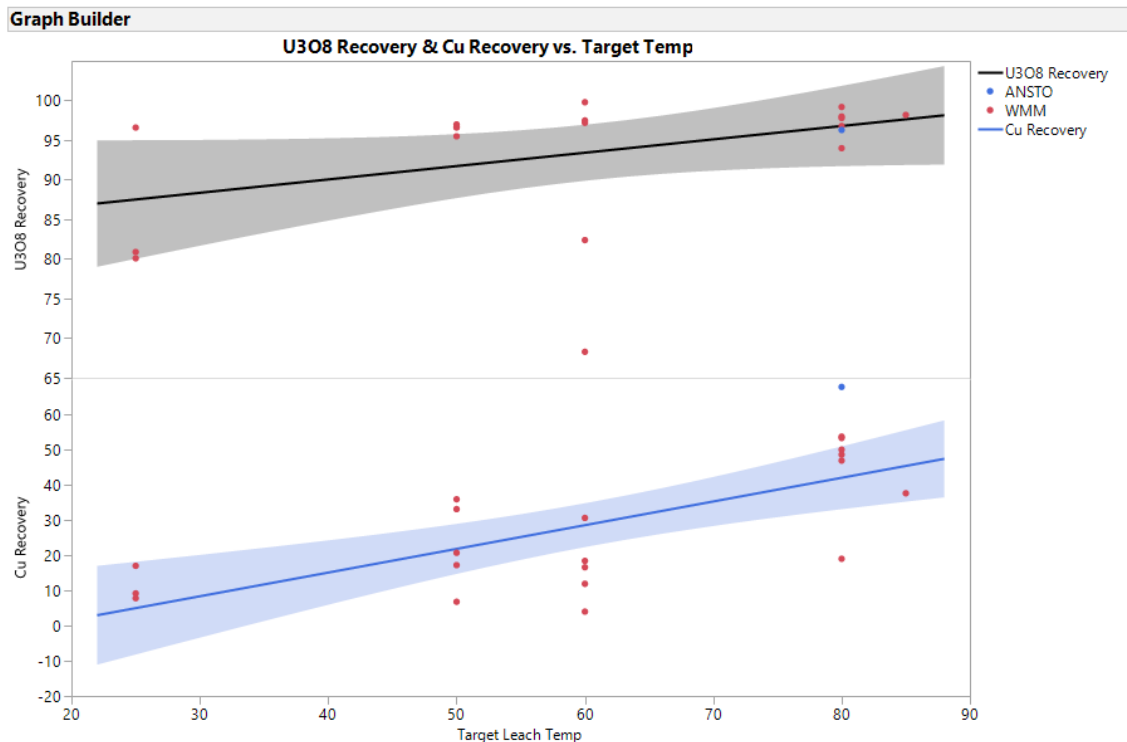
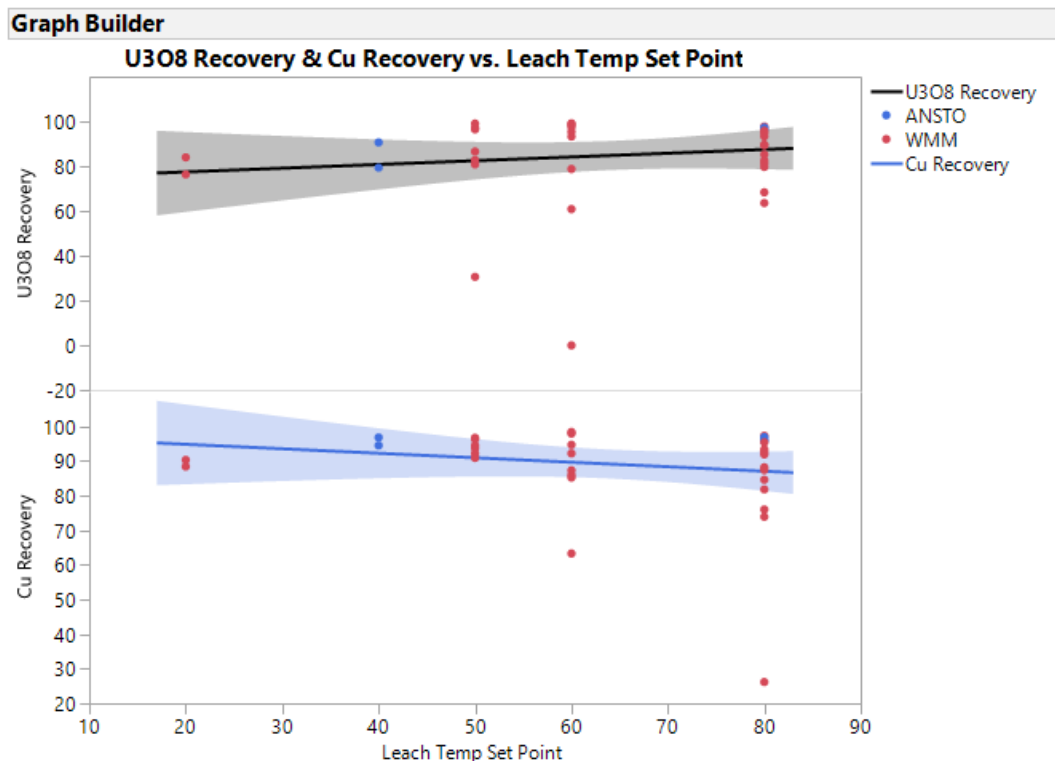


FIGURE 13-2 INTERLAB COMPARISON ROASTING PRETREATMENT AND LEACHING



CONCLUSION

The metallurgical test results provided by White Mesa Mill indicate that metallurgical recoveries using optimum roasting and leach conditions are expected to be approximately 96% for uranium and approximately 90% for copper.

The two metallurgical composites that were used for metallurgical testing are generally representative of the various types and styles of mineralization for the Main and Main Lower zones of the deposit which contain copper. The average U₃O₈ % grades for these two testing composites was close to the average grade of the U₃O₈ % presented as a resource in this Technical Report. However, it should be noted that the average copper grades for these testing composites were approximately 9.9% Cu which is higher than the average copper grade estimated for the resource in this Technical Report of approximately 5.9% Cu.

There are no known processing factors or deleterious elements that could have a significant effect on potential economic extraction.

White Mesa Mill has significant operating history for the uranium solvent extraction (SX) circuit, which includes relatively high copper content with no detrimental impact to the uranium recovery or product grade. Expected White Mesa Mill modifications to recover copper include utilizing the existing vanadium solvent extraction circuit for copper and the addition of an electro-winning circuit. Carry over of uranium to the copper electrolyte is not expected and will be verified by future laboratory test work.

RPA can support the conclusions of the metallurgical processes performance based on White Mesa Mill test work data and historical operating data.

It is proposed that uranium recovery of 96% and copper recovery of 90% be used for the evaluation of processing Canyon Mine mineralized material, and in support; the historical uranium recoveries realized at the White Mesa Mill. Additional site specific metallurgical tests are required to validate the mill recoveries. For this Technical Report, the White Mesa Mill process and costs are based on historical processing results and methods for uranium.

14 MINERAL RESOURCE ESTIMATES

SUMMARY

RPA has reviewed and accepted the Mineral Resource estimate prepared by Energy Fuels for the Canyon Mine, using block models constrained with 3D wireframes on the principal mineralized domains. Values for copper and U_3O_8 were interpolated into blocks using inverse distance squared (ID^2) or ordinary kriging (OK). The estimate is summarized in Table 14-1. RPA notes that the uranium and copper estimates pertain to the same deposit and there is an overlap of tonnages in the Main and Main Lower zones, therefore they are listed separately in Table 1-1.

A model of the breccia pipe host was constructed based on drill logs. Mineralization wireframes for U_3O_8 were based on assays at a nominal cut-off grade of 0.15%. Low and high grade copper wireframes were based on nominal cut-off grades of 1% and 8%, respectively.

Definitions for resource categories used in this report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as “a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction”. Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the “economically mineable part of a Measured and/or Indicated Mineral Resource” demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

RPA is not aware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that could materially affect the resource estimate at the time of this report.

TABLE 14-1 SUMMARY OF MINERAL RESOURCES – JUNE 17, 2017
Energy Fuels Resources (USA) Inc. – Canyon Mine

URANIUM					
Classification	COG (% U₃O₈Eq)	Zone	Tonnage (Tons)	Grade (% U₃O₈)	Contained Metal (U₃O₈ lb)
Measured	0.36	Main	6,000	0.43	56,000
Total Measured			6,000	0.43	56,000
Indicated	0.36	Main	94,000	0.89	1,669,000
	0.29	Juniper I	38,000	0.94	709,000
Total Indicated			132,000	0.90	2,378,000
Total Measured & Indicated			139,000	0.88	2,434,000
Inferred	0.29	Cap			
	0.29	Upper	9,000	0.43	78,000
	0.36	Main-Lower	5,000	0.20	20,000
	0.29	Juniper I	2,000	0.57	25,000
	0.29	Juniper II	1,000	0.35	9,000
Total Inferred			18,000	0.38	134,000
COPPER					
Classification	COG (% U₃O₈Eq)	Zone	Tonnage (Tons)	Grade (% Cu)	Contained Metal (Cu lb)
Measured	0.36	Main	6,000	9.29	1,203,000
Total Measured			6,000	9.29	1,203,000
Indicated	0.36	Main	94,000	5.70	10,736,000
Total Indicated			94,000	5.70	10,736,000
Total Measured & Indicated			101,000	5.93	11,939,000
Inferred					
	0.36	Main-Lower	5,000	5.9	570,000
Total Inferred			5,000	5.9	570,000

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at an equivalent Uranium cut-off grade of 0.36% U₃O₈ for copper bearing zone and 0.29% U₃O₈ for non-copper bearing zones.
3. Mineral Resources are estimated using a long-term Uranium price of US\$60 per pound, and Copper price of US\$3.50 per pound.
4. A copper to U₃O₈ conversion factor of 18.19 was used for converting copper grades to equivalent U₃O₈ grades for cut-off grade evaluation and reporting.
5. No minimum mining width was used.
6. Bulk density is 0.082 tons/ft³ (12.2 ft³/ton or 2.63 t/m³)
7. Mineral Resources are exclusive of Mineral Reserves and do not have demonstrated economic viability.
8. Numbers may not add due to rounding.
9. Tonnages of uranium and copper cannot be added as they overlap in the Main and Main Lower Zone.

RESOURCE DATABASE

As of the effective date of this report, Energy Fuels and its predecessors have completed a total of 150 holes (45-surface and 105-underground) totalling 92,724 ft. from 1978 to 2017. No drilling was conducted on the property from 1994 to 2016. Since 2016, Energy Fuels completed 105 underground drill holes totalling 30,314 ft. on the Property. For this resource estimate, all of the underground holes and 25 of the 45 surface holes were used in the modelling of mineralization. The surface holes were excluded because they are located outside the pipe and contain no mineralization.

RPA was supplied with an individual drill hole database for the Canyon Mine by Energy Fuels. The Canyon resource database, dated June 17, 2017, includes drilling results from 1978 to 2017 and includes drill hole collar locations (including dip and azimuth), assay, radiometric probe, and lithology data from 130 diamond drill holes totalling 79,775 ft. of drilling.

The resource dataset for the Main and Main Lower zones is primarily based on assay data, supported by probe composites where assay data was not available. This practice is fairly unique for an Arizona Strip uranium project, where the norm is to use mostly probe assay data, and is due to the large copper component at the Canyon Mine Project. A summary of the available data, inside, or immediately adjacent to the mineralization domains at Canyon Mine is presented in Table 14-2.

**TABLE 14-2 SUMMARY OF AVAILABLE DRILL HOLE DATA
Energy Fuels Resources (USA) Inc. – Canyon Mine**

Table	Number of Records
Collar	130
Survey	23,484
Geology	512
Geotech	488
Lab	3,651
Probe	120,943
Assay, including:	
Probe U ₃ O ₈	97,769
Assay U ₃ O ₈	3,410
Assay Cu	3,410

GEOLOGICAL INTERPRETATION AND 3D SOLIDS

A model of the breccia pipe host was constructed based on drill logs. The pipe is divided into six vertical zones: Cap, Upper, Main, Main Lower, Juniper I and Juniper II. Uranium mineralization is hosted within each zone; copper mineralization has been modelled within the Main and Main Lower zones only. The bulk of mineralization for both commodities is hosted within the Main Zone. At present, no structural features other than the pipe boundary have been incorporated into the geological model.

Geological interpretations supporting the estimate were generated by Energy Fuels personnel and then audited for completeness and accuracy by RPA. Topographical surfaces, solids and mineralized wireframes were modelled in Vulcan software.

URANIUM

Energy Fuels created a series of north-south and east-west polylines spaced 10 ft. The polylines were edited and joined together in 3D using tie lines. During this “stitching” process, polylines and/or tie lines were snapped to composite control intervals which were interpreted using a 0.15% eU₃O₈ cut-off. Occasionally, lower grade intersections were included to facilitate continuity. Extension distance for the mineralized wireframes was half-way to the next hole, or approximately 20 ft. vertically and horizontally past the last drill intercept.

Uranium mineralization at the Canyon Mine is concentrated in six stratigraphic levels or zones (Cap, Upper, Main, Main-Lower, Juniper I and Juniper II) within a collapse structure ranging from 100 ft. to 230 ft. wide with a vertical extension from a depth of 650 ft. to over 2,100 ft., resulting in approximately 1,450 ft. of mineralization vertically. Intercepts range widely up to several tens of ft. with grades in excess of 1.00% U₃O₈. In total, 38 uranium wireframes were contained within the six main geologic zones and assigned identifier numbers for Cap (3), Upper (14), Main (2), Main Lower (10), Juniper I (6), and Juniper II (3) zones (Figure 14-1). The domains ranged in size from 105 tons to 100,500 tons for a total of 187,700 tons. Domains M_01 (Main) and J_1_01 (Juniper I) account for over 80% of the total tons and are described in detail below

Within the M_01 domain, the uranium mineralization occurs within the structurally prepared breccia pipe and adjacent to the country rock forming a donut shape roughly 185 ft. in diameter and extending from an elevation of 5,325 ft. to 5,115 ft. Mineralization consists predominantly

of uraninite/pitchblende that occurs as massive to semi-massive accumulations ranging in thickness from less than five ft. to 50 ft., but is generally in the 30 ft. to 40 ft. range (horizontally). Within this area, the center or throat of the breccia pipe is essentially barren of uranium mineralization.

It has been proposed by Energy Fuels that the underlying J_1_01 zone that extends from 4,925 ft. elevation to 4,700 ft. elevation may be the down-dropped center block of uranium mineralization from the overlying M_01 domain. The shape, depth extension and horizontal thickness of the mineralization which ranges from five ft. to 50 ft. but is generally 25 ft. to 30 ft. generally mimics the dimensions of the unmineralized portion of the M_01 zone.

The deposit as defined in the Mineral Resource estimate is comprised of several zones within a collapse structure ranging from 100 ft. to 230 ft. wide with a vertical extension of 1,450 ft.

RPA reviewed the uranium mineralization domains and found them to be appropriately extended beyond existing drilling, snapped, and referencing the principal mineralization controls.

COPPER

Copper mineralization models at Canyon Mine are restricted to the Main and Main Lower Zones. Copper mineralization present within the Juniper zone has not been modelled at this time due to the much lower sample assay values overall. Final wireframe surfaces, as well as a cross section of mineralization from within the Main Zone, are shown in Figure 14-1.

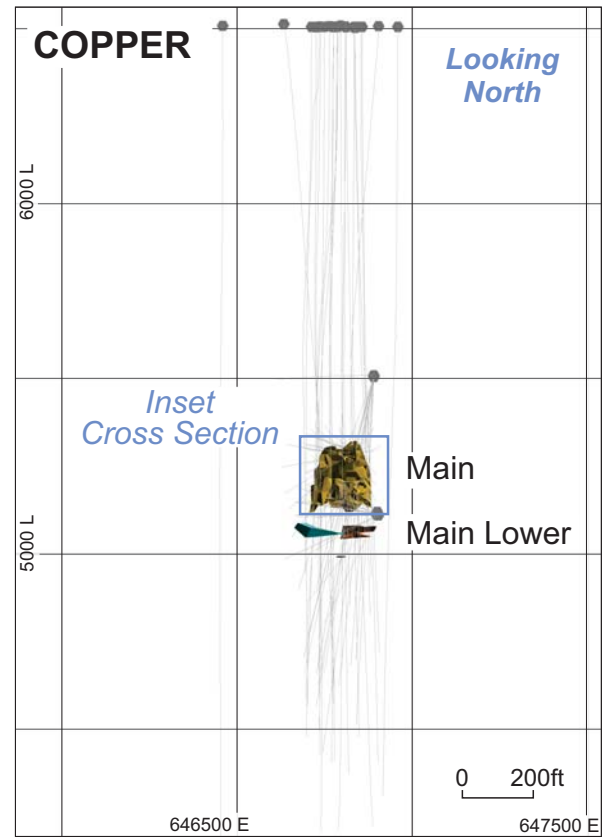
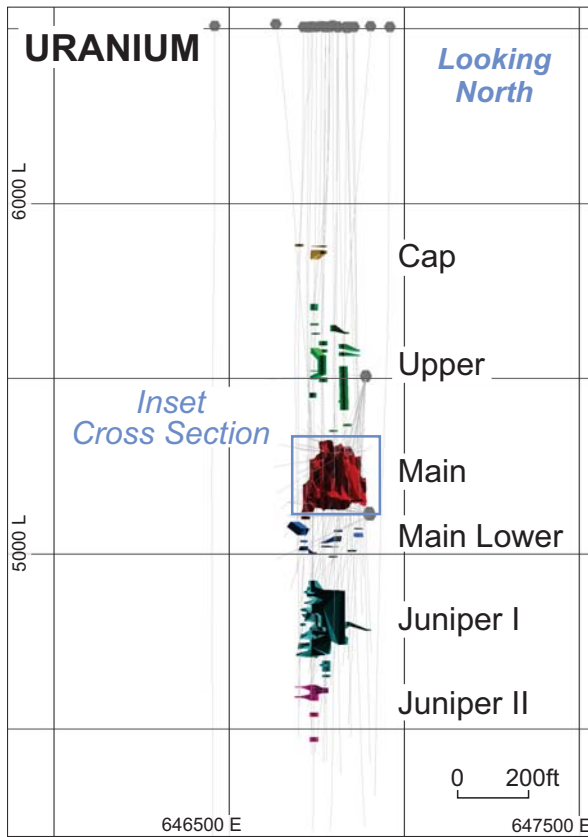
Within the Main zone, the copper mineralization domain has been modelled at a nominal cut-off grade of 1% Cu, encapsulating mineralization within the breccia pipe. The mineralization tends to concentrate at the contact between the breccia pipe and the country rock, creating a toroid (donut) shape, and elongated at depth. A few flat lying structures carry mineralization into the centre of the pipe. Mineralization ranges in thickness from five feet to 80 ft. thick (horizontally) but is generally from 20 ft. to 40 ft. thick. The domain is located from 5,320 ft. to 5,120 ft. elevation and ranges from 50 ft. deep in the southeast of the breccia pipe and up to 200 ft. deep elsewhere.

Additionally, a high grade domain has been modelled in the Main Zone at a cut-off grade of approximately 8% Cu. High grade mineralization also follows the contact with the country rock,

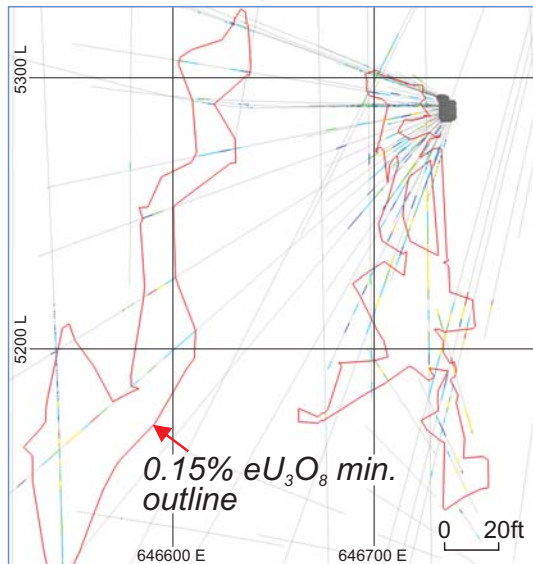
but does not extend into the centre, or to the southeast, creating a C-shape which is oriented to the southeast and vertically elongated. Mineralization has been modelled to be thickest in the northeast; however, this is also the region with the best access, and therefore the closest drill hole spacing, allowing for a more robust interpretation. The high grade domain is as elongate as the lower grade domain, but patchier, particularly at depth. The high grade domain accounts for approximately 30% of the total copper domain in the Main Zone. The copper domain overlaps approximately 50% of the uranium domain.

Within the Main Lower Zone, mineralization has been captured within three separate wireframes, using a cut-off grade of 1% Cu, delineated using from one to five drill holes. As with the Main Zone, mineralization is modelled towards the edge of the breccia pipe. There is no high grade domain in the Main Lower Zone.

RPA reviewed the copper mineralization domains and found them to be appropriately extended beyond existing drilling, snapped, and referencing the principal mineralization controls. RPA recommends that future updates include some marginal material where appropriate to increase the continuity and volume of the wireframes, particularly the high grade copper wireframe.



Northwest facing cross section: U



Northwest facing cross section: Cu

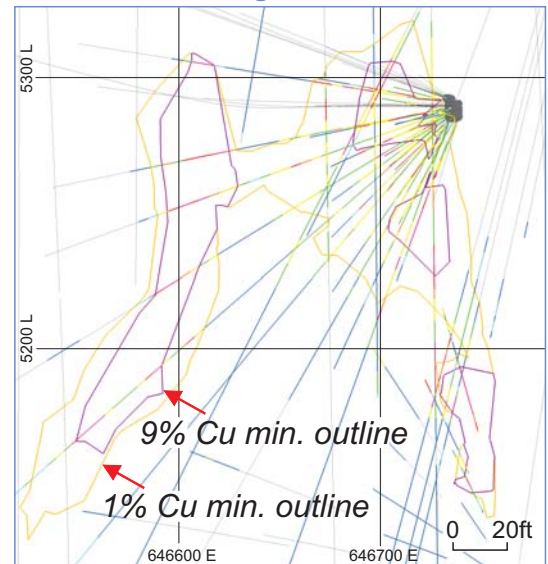


Figure 14-1

Legend:

% U ₃ O ₈	% Cu
0.15 - 0.20	0.0 - 0.50
0.20 - 0.50	0.5 - 1.0
0.50 - 1.00	1.0 - 5.0
1.00 - 2.00	5.0 - 10.0
2.00 - 5.00	10.0 - 12.0
5.00 - 10.00	12.0 - 15.0
10.00 - 99999.00	15.0 - 60.0

Energy Fuels Resources (USA) Inc.

Canyon Mine Project
Arizona, U.S.A.

Copper and Uranium Mineralization Zones

STATISTICAL ANALYSIS

The mineralization wireframe models were used to code the drill hole database and to identify samples within the mineralized wireframes. These samples were extracted from the database on a group-by-group basis, subjected to statistical analyses for their respective domains, and then analyzed by means of histograms and probability plots. A total of 5,203 samples were contained within the mineralized uranium wireframes. The sample statistics are summarized by zone in Table 14-3. The coefficient of variation (CV) is a measure of variability of the data.

TABLE 14-3 SUMMARY STATISTICS OF UNCAPPED U₃O₈ ASSAYS
Energy Fuels Resources (USA) Inc. – Canyon Mine

Zone	Count	Minimum (%U ₃ O ₈)	Maximum (%U ₃ O ₈)	Mean (%U ₃ O ₈)	Variance	Stdev (%U ₃ O ₈)	CV
CAP	99	0.009	1.040	0.213	0.020	0.141	0.660
UPPER	733	0.000	4.585	0.337	0.160	0.405	1.200
MAIN	3,128	0.000	45.121	0.886	5.750	2.397	2.710
MAIN-LOWER	108	0.000	1.835	0.267	0.090	0.305	1.140
JUNIPER-1	955	0.000	22.720	0.612	2.580	1.606	2.630
JUNIPER-2	180	0.000	1.489	0.254	0.030	0.159	0.630
ALL ZONES	5,203	0.000	45.121	0.710	4.010	2.002	2.820

TABLE 14-4 SUMMARY STATISTICS OF UNCAPPED COPPER ASSAYS
Energy Fuels Resources (USA) Inc. – Canyon Mine

Zone	Count	Minimum (%Cu)	Maximum (%Cu)	Mean (%Cu)	Variance	Stdev (%Cu)	CV
MAIN-HG	465	0.12	55.66	13.34	66.17	8.13	0.61
MAIN-LG	796	0.00	15.70	3.99	7.79	2.79	0.70
MAIN-LOWER	59	0.03	19.16	4.47	16.44	4.05	0.91
ALL ZONES	1,320	0.00	55.66	7.31	48.51	6.97	0.95

CAPPING HIGH GRADE VALUES

Where the assay distribution is skewed positively or approaches log-normal, erratic high-grade assay values can have a disproportionate effect on the average grade of a deposit. One method of treating these outliers in order to reduce their influence on the average grade is to cut or cap them at a specific grade level. In the absence of production data to calibrate the capping level, inspection of the assay distribution can be used to estimate a “first pass” cutting level.

RPA is of the opinion that the influence of high grade uranium assays must be reduced or controlled, and uses a number of industry best practice methods to achieve this goal, including capping of high grade values. RPA employs a number of statistical analytical methods to determine an appropriate capping value including preparation of frequency histograms, probability plots, decile analyses, and capping curves. Using these methodologies, RPA examined the selected capping values for the mineralized domains for the Canyon Mine.

Examples of the capping analysis are shown in Figures 14-2 and 14-3, and applied to the data set for the mineralized domains. Very high-grade uranium outliers were capped at 15% U_3O_8 within the M_01 and J_1_01 domains resulting in a total of 16 capped assay values. Copper values were capped at 35% in the Main and Lower-Main zone, affecting 8 samples within the Main HG zone. Capped assay statistics by zones are summarized in Table 14-5 and compared with uncapped assay statistics.

In RPA's opinion, the selected capping values are reasonable and have been correctly applied to the raw assay values for the Canyon Mine Mineral Resource estimate.

TABLE 14-5 SUMMARY STATISTICS OF UNCAPPED VS. CAP ASSAYS
Energy Fuels Resources (USA) Inc. – Canyon Mine

Zone Descriptive Statistics	CAP		UPPER		MAIN	
	Uncap	Cap	Uncap	Cap	Uncap	Cap
Number of Samples	99	99	733	733	3,128	3,128
Minimum (%U ₃ O ₈)	0.009	0.009	0.000	0.000	0.000	0.000
Maximum (%U ₃ O ₈)	1.040	1.040	4.585	4.585	45.121	15.000
Mean (%U ₃ O ₈)	0.213	0.213	0.337	0.337	0.886	0.842
Variance	0.020	0.020	0.160	0.160	5.750	3.710
Stdev (%U ₃ O ₈)	0.141	0.141	0.405	0.405	2.397	1.927
CV	0.660	0.660	1.200	1.200	2.710	2.290
Number of Caps	0	0	0	0	0	13

Zone Descriptive Statistics	MAIN-LOWER		JUNIPER-1		JUNIPER-2	
	Uncap	Cap	Uncap	Cap	Uncap	Cap
Number of Samples	108	108	955	955	180	180
Minimum (%U ₃ O ₈)	0.000	0.000	0.000	0.000	0.000	0.000
Maximum (%U ₃ O ₈)	1.835	1.835	22.720	15.000	1.489	1.489
Mean (%U ₃ O ₈)	0.267	0.267	0.612	0.595	0.254	0.254
Variance	0.090	0.090	2.580	2.000	0.030	0.030
Stdev (%U ₃ O ₈)	0.305	0.305	1.606	1.414	0.159	0.159
CV	1.140	1.140	2.630	2.380	0.630	0.630
Number of Caps	0	0	0	3	0	0

Zone Descriptive Statistics	MAIN-LG		MAIN-HG		MAIN LOWER	
	Uncap	Cap	Uncap	Cap	Uncap	Cap
Number of Samples	796	796	465	465	59	59
Minimum (%Cu)	0.00	0.00	0.12	0.12	0.03	0.03
Maximum (%Cu)	15.70	15.70	55.66	35.00	19.16	19.16
Mean (%Cu)	3.99	3.99	13.34	13.20	4.47	4.47
Variance	7.79	7.79	66.17	58.57	16.44	16.44
Stdev (%Cu)	2.79	2.79	8.13	7.65	4.05	4.05
CV	0.70	0.70	0.61	0.58	0.91	0.91
Number of Caps	0	0	0	8	0	0

FIGURE 14-2 HISTOGRAM OF U₃O₈ RESOURCE ASSAYS IN M_01 AND J_1_01 DOMAINS

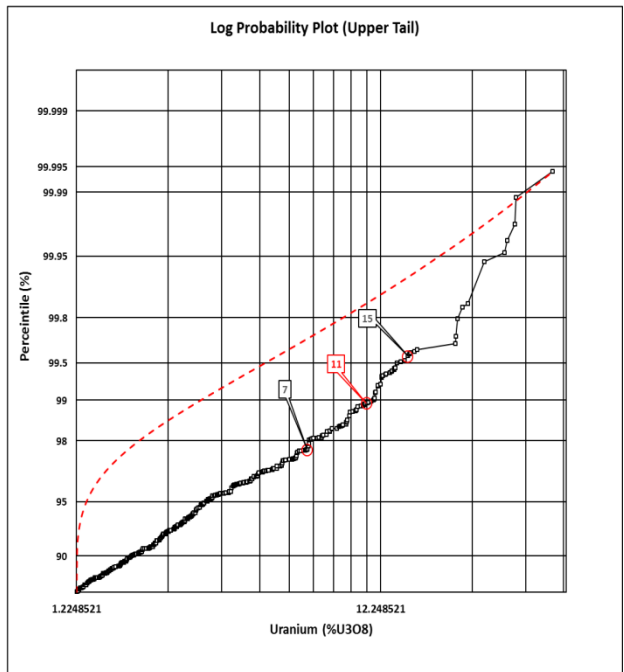
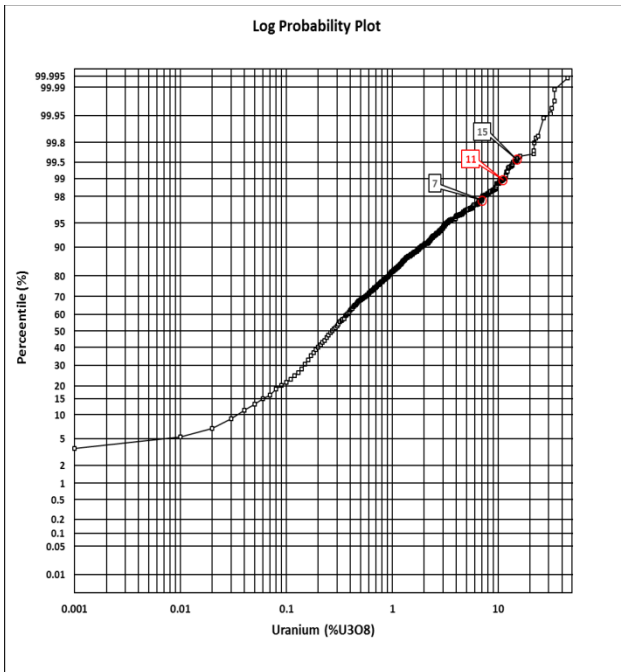
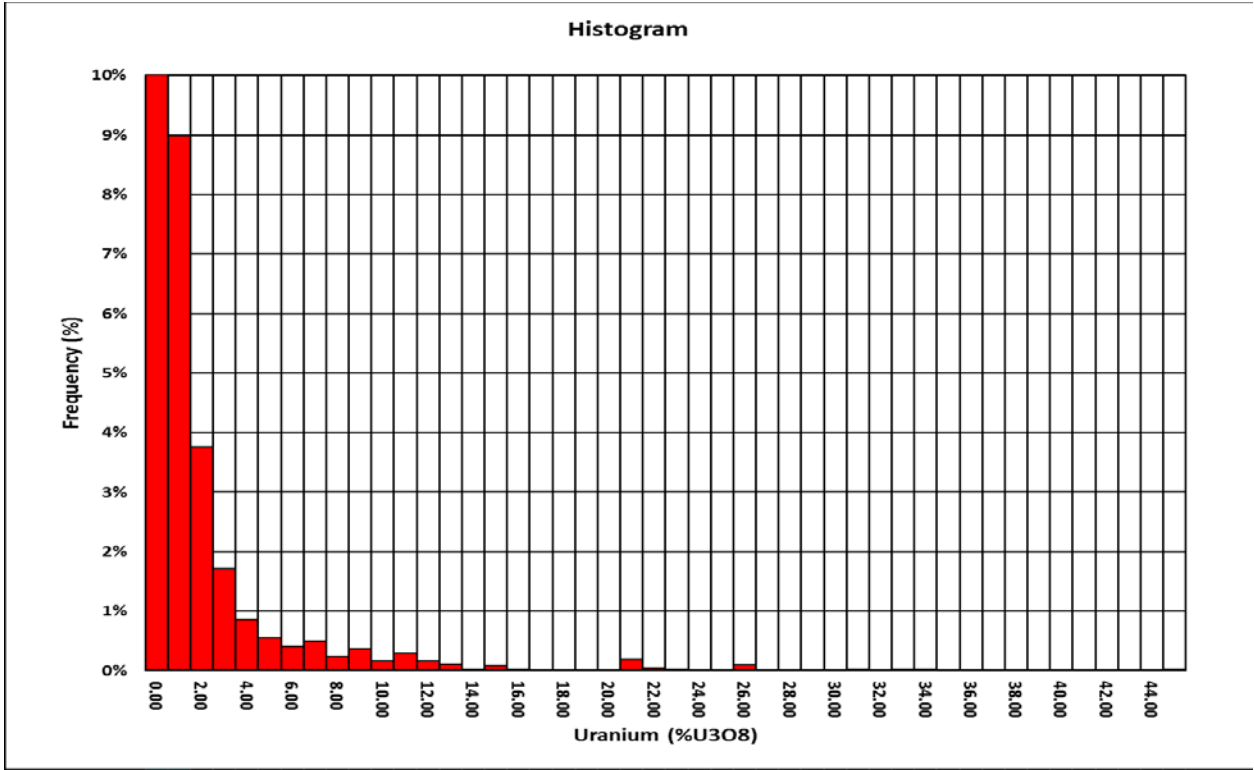
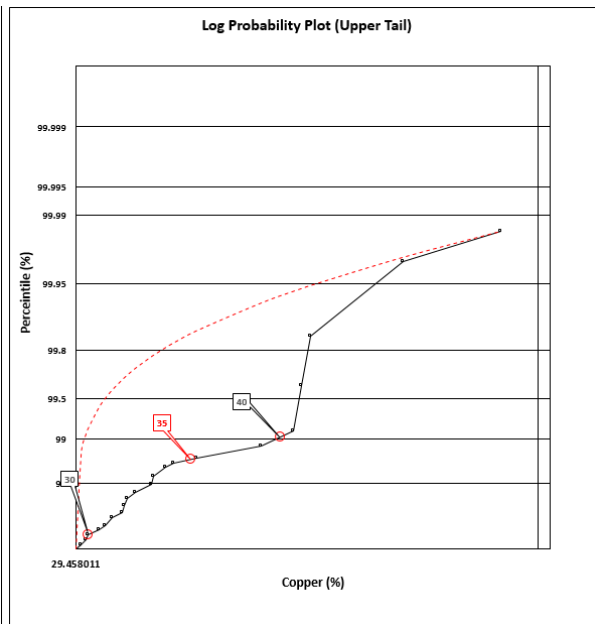
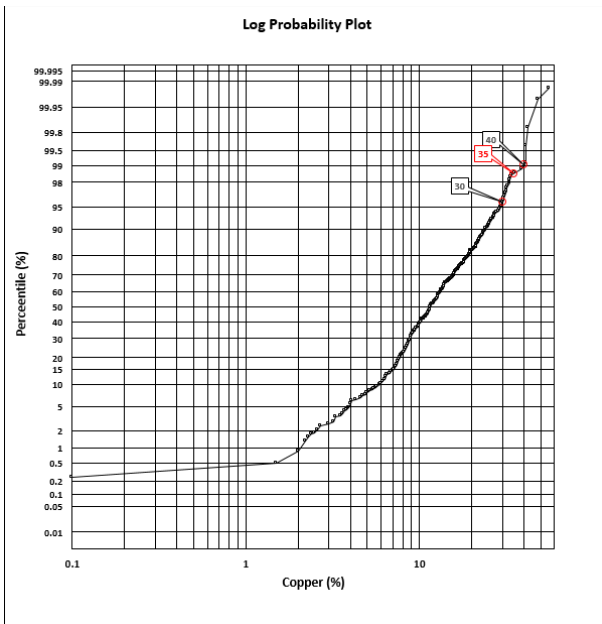
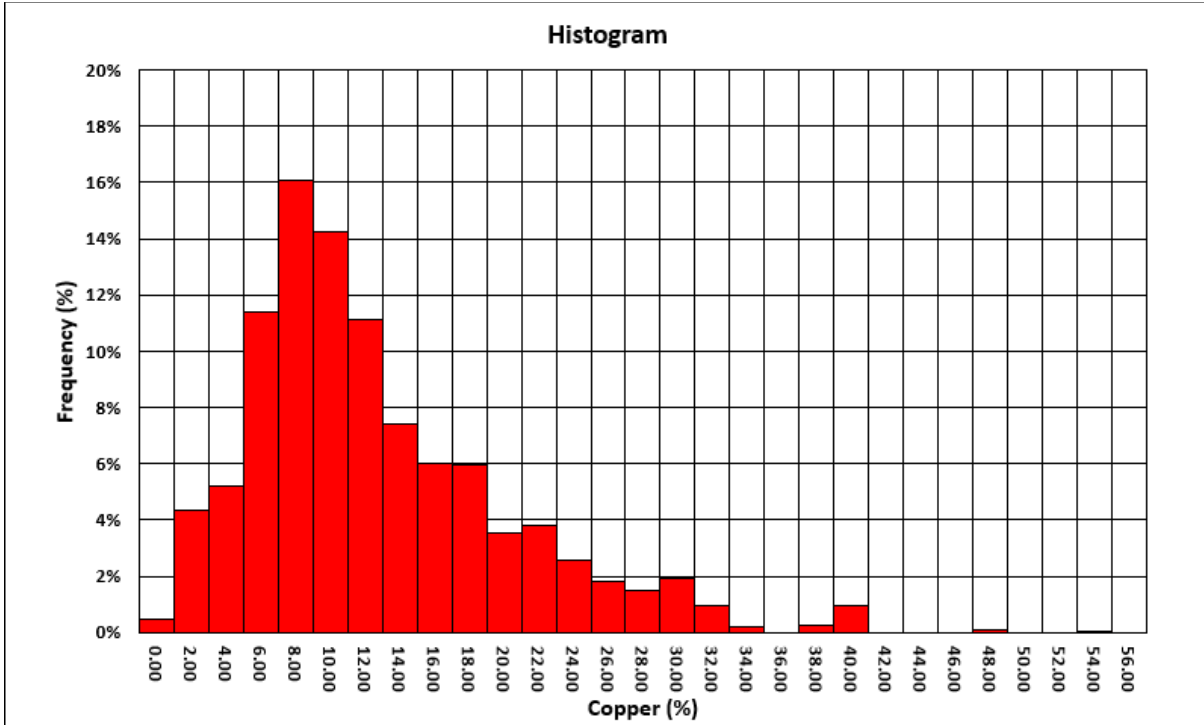


FIGURE 14-3 HISTOGRAM OF COPPER RESOURCE ASSAYS IN MAIN HG DOMAIN



COMPOSITES

Composites were created from the capped, raw assay values using the downhole compositing function of the Vulcan modelling software package. The composite lengths used during interpolation were chosen considering the predominant sampling length, the minimum mining width, style of mineralization, and continuity of grade. Assay intervals varied in length within the mineralized domains from 0.5 ft. (probe data) to 10 ft. (assay data), with a few samples outside this range. Most assay samples were four feet, and the drill hole samples were composited to four feet, starting at the wireframe pierce point for each domain, continuing to the point at which the hole exited the domain. A small number of un-sampled and missing sample intervals were ignored (Figure 14-4). Residual composites were maintained in the dataset. The composite statistics by zone are summarized in Tables 14-6 and 14-7.

FIGURE 14-4 HISTOGRAM OF SAMPLING LENGTH

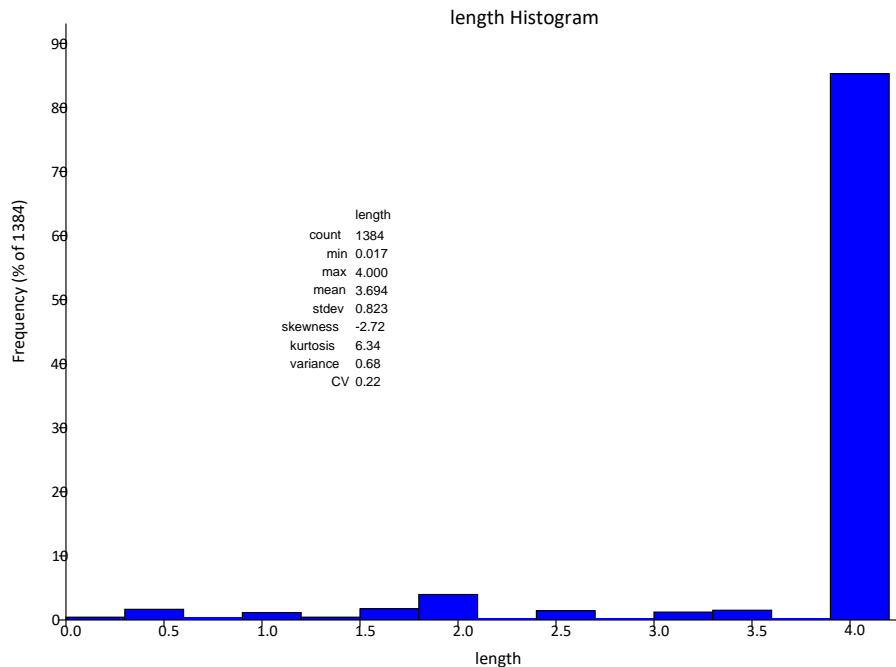


TABLE 14-6 SUMMARY OF URANIUM COMPOSITE DATA BY ZONE
Energy Fuels Resources (USA) Inc. – Canyon Mine

Zone	Count	Minimum (%U₃O₈)	Maximum (%U₃O₈)	Mean (%U₃O₈)	Variance	Stdev (%U₃O₈)	CV
CAP	16	0.076	0.689	0.220	0.020	0.148	0.670
UPPER	101	0.055	1.683	0.335	0.070	0.263	0.790
MAIN	1015	0.000	15.000	0.847	2.590	1.609	1.900
MAIN_LOWER	41	0.000	1.152	0.251	0.060	0.253	1.010
JUNIPER-1	186	0.000	14.130	0.691	2.400	1.550	2.240
JUNIPER-2	25	0.119	0.619	0.252	0.010	0.102	0.410
ALL ZONES	1384	0.000	15.000	0.753	2.260	1.504	2.000

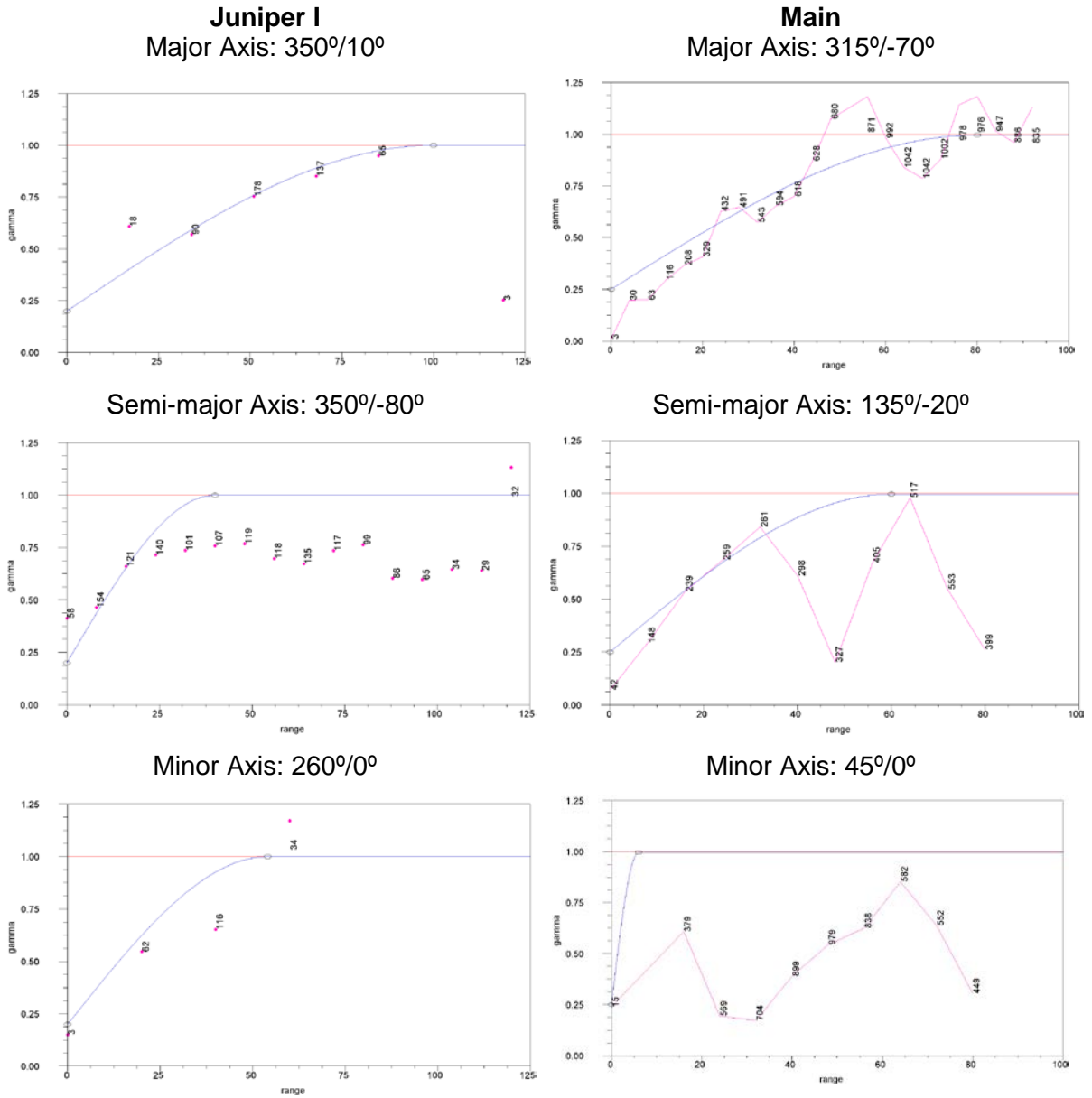
TABLE 14-7 SUMMARY OF COPPER COMPOSITE DATA BY ZONE
Energy Fuels Resources (USA) Inc. – Canyon Mine

Zone	Count	Minimum (%Cu)	Maximum (%Cu)	Mean (%Cu)	Variance	Stdev (%Cu)	CV
MAIN HG	431	0.12	35.00	13.48	52.09	7.22	0.54
MAIN LG	721	0.00	13.89	4.02	5.85	2.42	0.60
MAIN_LOWER	45	0.03	19.16	4.47	15.40	3.92	0.88
ALL ZONES	1,197	0.00	35.00	7.44	43.34	6.58	0.89

VARIOGRAPHY ANALYSIS

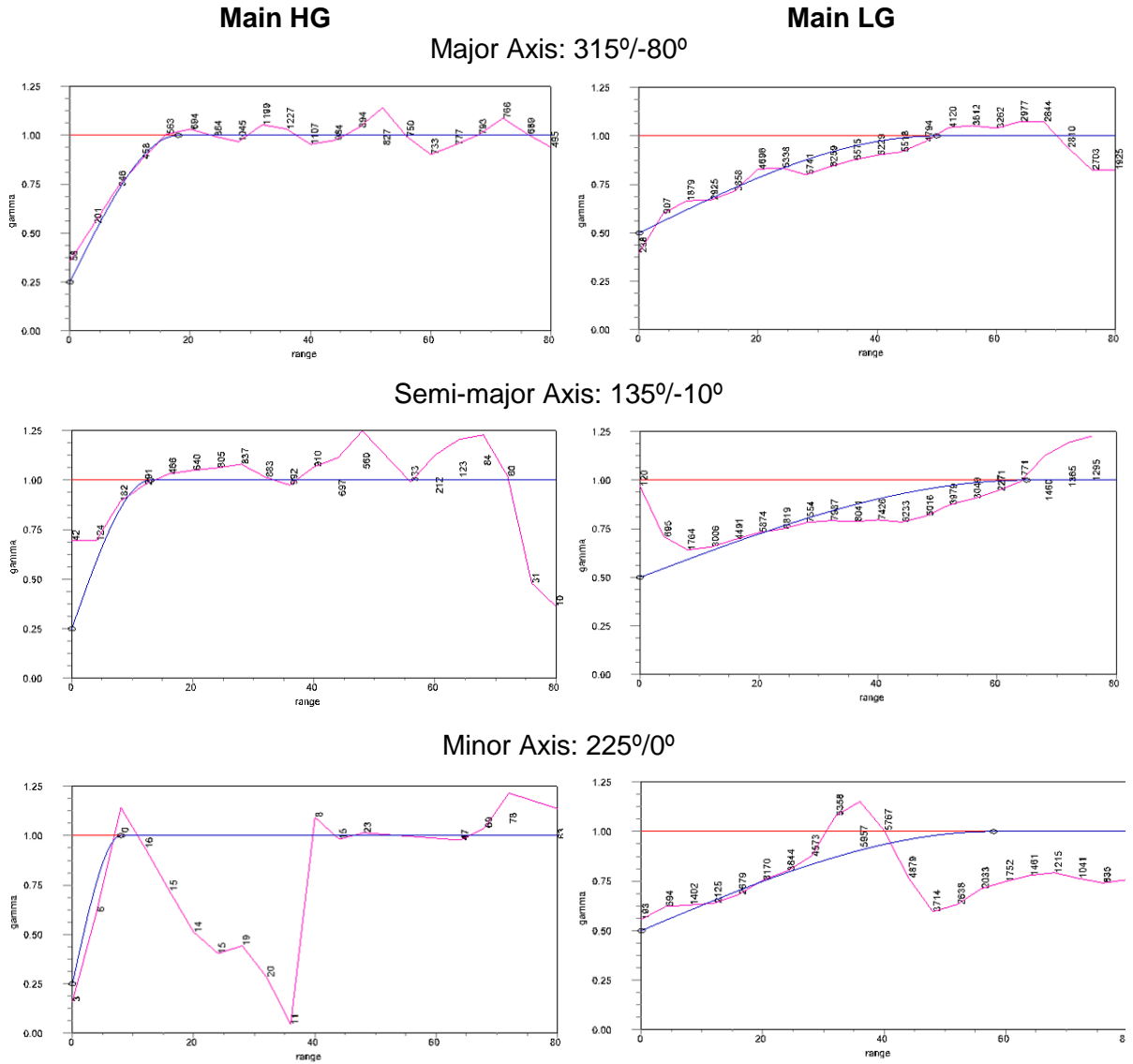
Energy Fuels generated downhole and directional variograms using the four-foot U₃O₈ composite values located within the M_01 and J_1_01 mineralized domains (Figure 14-5) for uranium, and within the Main HG and Main LG domains for copper (Figure 14-6). The variograms were used to support search ellipsoid anisotropy, linear trends observed in the data, and Mineral Resource classification decisions. Long range directional variograms were focused in the primary plane of mineralization, which commonly strikes northeast and dips steeply to the southeast. Most ranges were interpreted to be 40 ft. to 60 ft.

FIGURE 14-5 U₃O₈ VARIOGRAM MODELS



Zone	Type	C ₀	Major (ft.)	Semi-Major (ft.)	Minor (ft.)
Juniper	Pairwise Relative	0.2	100	54	40
Main	Spherical	0.25	80	60	6

FIGURE 14-6 COPPER VARIOGRAM MODELS



Zone	Type	C ₀	Major (ft.)	Semi-Major (ft.)	Minor (ft.)
Main HG	Spherical	0.25	18	13	8
Main LG	Spherical	0.50	50	65	58

DENSITY

Bulk density is determined by Energy Fuels with specific gravity (SG) measurements on drill core by measuring a minimum four inch piece of core in all directions with calipers to determine a volume. The sample is then weighed to get a mass and the density calculated. This method was used to determine the density of 2,630 samples. The density is modelled using inverse distance weighting squared and an average value across the deposit of 0.082 t/ft³ was calculated.

That value was validated using the water immersion method according to the Archimedes principle, after the core has been sealed in wax. SG is calculated as: weight in air (weight in air – weight in water). Under normal atmospheric conditions, SG (a unitless ratio) is equivalent to density in t/m³. The validation utilized a total of 37 bulk density measurements that were collected on six-inch drill core samples from the main mineralized zones to represent local major lithologic units, mineralization styles and alteration types. Samples were collected on full core which had been retained in the core box prior to splitting for sampling. Energy Fuels determined the difference between the caliper method and water immersion method is about 1% in favor of the caliper method.

A global density of 0.082 t/ft³ was assigned to the block model.

BLOCK MODEL

All modelling work was carried out using Maptek's Vulcan software version 10.0 software.

The Canyon Mine block model has 4 ft. x 4 ft. x 4 ft. whole blocks and an origin at 646,630 ft. East, 1,776,530 ft. North, 4,450 ft. elevation. The block model is not rotated, and extends 360 ft. east-west, 320 ft. north-south and 1,460 ft. elevation. Before grade estimation, all model blocks were assigned density and mineralized domain codes (copper and uranium), based on majority rules. A summary of the block model variables is listed in Table 14-8.

TABLE 14-8 SUMMARY OF BLOCK MODEL VARIABLES
Energy Fuels Resources (USA) Inc. – Canyon Mine

Variable	Type	Default	Description
u3o8_ok	Double	-99	U ₃ O ₈ estimation using ordinary kriging
u3o8_idw	Double	-99	U ₃ O ₈ estimation using inverse distance
u3o8_nn	Double	-99	U ₃ O ₈ estimation using nearest neighbor
ok_u_est_flag	Integer	0	Ordinary Kriging Estimation Flag
ok_u_samp_flag	Integer	0	No. of samples used in ordinary kriging
ok_u_holes_flag	Integer	0	No. of holes used in ordinary kriging
idw_u_est_flag	Integer	0	Inverse Distance Estimation Flag
idw_u_samp_flag	Integer	0	No. of samples used in inverse distance
idw_u_holes_flag	Integer	0	No. of samples used in inverse distance
nn_u_nearest_samp	Double	0	Distance to nearest neighbor
class	Integer	0	Block Classification
dens	Double	0.082	Density of Block (Default is 12.2 cu ft/ton - 0.082)
bound	Name	out	Mineralized Boundary Zone (C, U, M, ML, J_1, J_2)
cu_ok	Double	-99	U ₃ O ₈ estimation using ordinary kriging
cu_idw	Double	-99	U ₃ O ₈ estimation using inverse distance
cu_nn	Double	-99	U ₃ O ₈ estimation using nearest neighbor
ok_cu_est_flag	Integer	0	Ordinary Kriging Estimation Flag
ok_cu_samp_flag	Integer	0	No. of samples used in ordinary kriging
ok_cu_holes_flag	Integer	0	No. of holes used in ordinary kriging
idw_cu_est_flag	Integer	0	Inverse Distance Estimation Flag
idw_cu_samp_flag	Integer	0	No. of samples used in inverse distance
idw_cu_holes_flag	Integer	0	No. of samples used in inverse distance
nn_cu_nearest_samp	Double	0	Distance to nearest neighbor
class_cu	Integer	0	Block Classification Cu
bound_cu	Name	out	Mineralized Boundary Zone (C, U, M, ML, J_1, J_2)
class_eqv	Integer	0	Block Classification U Equivalent
u3o8_final	Double	-99	Final U ₃ O ₈ idw or ok block grade
cu_final	Double	-99	Final Cu idw or ok block grade
cu_to_u	Double	-99	Conversion of Cu to U eqv (Cu/18.19)
u_eqv_final	Double	-99	Final U equivalent grade
u_tri_flag	Integer	0	block in U shape (in =1, out=0)
cu_tri_flag	Integer	0	block in cu shape (in=2, out=0)
u_cu_tri_flag	Integer	0	block in u and cu shape (in =3, out = 0, 1, or 2)
u_for_cu_only_idw	Double	-99	IDW U estimate for blocks with only a Cu grade
cu_for_u_only_idw	Double	-99	IDW Cu estimate for block with only a U grade

INTERPOLATION PARAMETERS

EQUIVALENT %U₃O₈ CALCULATION STEPS

Table 14-9 describes the 17-step process, description and variable parameters used by Energy Fuels resource geologists to estimate the %U₃O₈Eq value as defined by the cut-off grades (COG) under the Cut-off Grade section of this report.

**TABLE 14-9 ESTIMATION STEPS OF BLOCK MODEL VARIABLES
Energy Fuels Resources (USA) Inc. – Canyon Mine**

Step	Description	Variable Name
Estimate Grade for U₃O₈ and Cu within individual wireframes		
1	Build Uranium Estimation File	1st Pass Estimation: canu_est_pass_1_final.bef 2nd Pass Estimation: canu_est_pass_2_final.bef 3rd Pass Estimation: canu_est_pass_3_final.bef
2	Run Uranium Estimation File: <i>Calculates U3O8_ok (2 triangulations) and u3o8_idw (38 triangulations) variables</i>	All Uranium: July_2017_43101_Est_Run_File_U_Only.ber
3	Build Copper Estimation File	All Passes, All Zones: cancu_est_all_07312017.bef
4	Run Copper Estimation File: <i>Calculates cu_ok (4 triangulation) and cu_idw (9 triangulations) variables</i>	All Copper: July_2017_43101_Est_Run_File_CU_ONLY.ber
Calculate u3o8_final (combines U3O8_ok and U3O8_idw estimations)		
Block->Manipulation->Calculate		
5	Variable Name: Calculation = OK Select Blocks by bounding triangulation: Select Block centers	u3o8_final u3o8_ok ore.tri/u3o8.tri/ok.00t to calc u3o8_final from u3o8_ok
Block->Manipulation->Calculate		
6	Variable Name: Calculation = OK Select Blocks by bounding triangulation: Select Block centers	u3o8_final u3o8_idw ore.tri/u3o8.tri/idw.00t to calc u3o8_final from u3o8_idw
Calculate cu_final (combines cu_ok and cu_idw estimations)		
Block->Manipulation->Calculate		
7	Variable Name: Calculation = OK Select Blocks by bounding triangulation: Select Block centers	cu_final cu_ok ore.tri/cu.tri/cu_ok.00t to calc cu_final from cu_ok
Block->Manipulation->Calculate		
8	Variable Name: Calculation = OK Select Blocks by bounding triangulation: Select Block centers	cu_final cu_idw ore.tri/cu.tri/cu_idw.00t to calc cu_final from cu_idw
Estimate Blocks for U3O8 and Cu outside of wireframes to be used in U₃O₈ equivalent grade calculation		
Calculate u_cu_tri_flag (calculates a value (1, 2, 3, or 4) for blocks that are in the U ₃ O ₈ wireframes (1), Cu wireframe (2), both (3), or zones that only contain Uranium (4).		
Block->Manipulation->Flag by Triangulation		
9	Spec File: Block Model: Use Block Centroids	Flag_Outside_Blocks.bfl.spec, Scenario ID: 1 canyon_all_july2017.bmf
	Triangulation:	U_blk_flg_1.00t Variable: u_cu_tri_flag, Value: 1, Priority: 1, Inversion: None, Projection: Along Z Axis
	Triangulation:	Cu_blk_flg_2.00t Variable: u_cu_tri_flag, Value: 2, Priority: 2, Inversion: None, Projection: Along Z Axis

- Triangulation: Other_blk_flg_4.00t
Variable: u_cu_tri_flag, Value: 4, Priority: 3, Inversion: None, Projection: Along Z Axis
- Block->Manipulation->Calculate
Variable Name: u_cu_tri_flag
Calculation = 3
- 10 OK
Bounding Triangulation: U_blk_flg_1.00t
Select Blocks by condition: u_cu_tri_flag eq 2
Use Block Centers
- Calculate U₃O₈ and Cu for blocks outside one of the shapes but inside another (Nearest Neighbor Estimation)**
- 11 Build Estimation File: cancu_outside_blks.bef
12 Estimation Run File: outside_blks_run_file.ber
- Calculate u3o8_final for U grades outside uranium shape**
- Block->Manipulation->Calculate
Variable Name: u3o8_final
13 Calculation = u_for_cu_only_idw
OK
Select Blocks by condition: u_cu_tri_flag eq 2
- Calculate cu_final for Cu grades outside copper shape**
- Block->Manipulation->Calculate
Variable Name: cu_final
14 Calculation = cu_for_u_only_idw
OK
Select Blocks by condition: u_cu_tri_flag eq 2
- Block->Manipulation->Calculate
Variable Name: cu_final
15 Calculation = 0
OK
Select Blocks by condition: u_cu_tri_flag eq 4
- Calculate Uranium equivalent grades from Copper Grades**
- Block->Manipulation->Calculate
Variable Name: cu_to_u
16 Calculation = cu_final / 18.194
OK
Select Blocks by condition: cu_final ge 0
- Calculate Uranium Equivalent Grades for All Estimated Blocks**
- Block->Manipulation->Calculate
Variable Name: u_eqv_final
17 Calculation = cu_to_u + u3o8_final
OK
Select Blocks by condition: u_cu_tri_flag gt 0

URANIUM

Estimation of the grades was controlled by the grade zones. In the larger domain wireframes, search ellipsoid geometry of the major, semi-major, and minor axis was oriented into the structural plane of the mineralization, as indicated by the variography ranges for each domain. Within the small domain wireframes, the search ellipse was isotropic. The interpolation strategy involved setting up search parameters in three nested estimation runs for each

domain. Each subsequent pass was doubled in size. A maximum of three passes was employed in order to interpolate all blocks.

First, second, and third pass search ellipses maintained normalized anisotropic ratios. Grade interpolation was carried out using OK on mineralized domains M-01 and J_1_01 with ID² on all remaining mineralized domains. Depending on the pass and domain wireframe a minimum of one to eight to a maximum of one to sixteen composites per block estimate were employed, with a maximum of two to six composites per drill hole. Hard boundaries were used to limit the restrict composites to within the domain wireframe in which they were located. A nearest neighbor (NN) block model was also prepared for comparison purposes. Search parameters are listed in Table 14-10 for the Canyon Mine.

In order to reduce the influence of very high-grade composites, grades greater than a designated threshold level for each domain were restricted to shorter search ellipse dimensions. The threshold grade level of 7% eU₃O₈ was chosen from the basic statistics and from visual inspection of the apparent continuity of very high grades within each domain, which indicated the need to limit their influence to 32 ft. x 22 ft. x 4 ft. or 40 ft. x 21.6 ft. x 16 ft., domain dependant.

TABLE 14-10 URANIUM INTERPOLATION PLAN
Energy Fuels Resources (USA) Inc. – Canyon Mine

Domain	Wireframe ¹	Interp. Type	Bearing	First Pass Dimensions (ft)
CAP	c_01	ID2	335°/-1°	64 x 44 x 8
CAP	c_03	ID2	345°/1°	64 x 44 x 8
UPPER	u_04	ID2	84°/-33°	64 x 44 x 8
UPPER	u_08	ID2	44.5°/-10°	64 x 44 x 8
UPPER	u_09	ID2	44.5°/-4°	64 x 44 x 8
UPPER	u_10	ID2	150°/-28°	64 x 44 x 8
UPPER	u_12	ID2	177°/2°	64 x 44 x 8
MAIN	m_01	OK	315°/-70°	64 x 44 x 8
MAIN LOWER	ml_01	ID2	345°/0°	64 x 44 x 8
MAIN LOWER	ml_02	ID2	356.5°/12°	64 x 44 x 8
MAIN LOWER	ml_05	ID2	245.5°/-5°	64 x 44 x 8
MAIN LOWER	ml_06	ID2	287.5°/4°	64 x 44 x 8
MAIN LOWER	ml_08	ID2	62.5°/-33°	64 x 44 x 8
JUNIPER I	j_1_01	OK	350°/10°	80 x 43.2 x 32
JUNIPER I	j_1_02	ID2	298°/-3°	64 x 44 x 8
JUNIPER II	j_2_01	ID2	284.5°/0°	64 x 44 x 8

Notes:

1. Wireframes not included in this table were interpolated using an omnidirectional search ellipse, the first pass of which was 20 ft. x 20 ft. x 20 ft.

COPPER

Copper was interpolated using OK in the Main zone and ID² in the Main Lower zone using a minimum of four and a maximum of eight composites per block with a maximum of two composites per drill hole. The anisotropic ratio was normalized to the dimensions of each search ellipse. The interpolation plan included a first pass, with search ellipse dimensions based on the variogram for the domain, and followed by three additional passes, each pass double in dimension to the previous pass. The fourth pass estimated very few blocks. High grade composites were restricted at 28% Cu, and 9.5% copper in the high and low grade domains, respectively, during interpolation. Details of the copper interpolation plan are listed in Table 14-11.

TABLE 14-11 COPPER INTERPOLATION PLAN
Energy Fuels Resources (USA) Inc. – Canyon Mine

Domain	Interp. Type	First Pass dimensions (ft)	High Yield (% Cu)	High Yield Restriction Dimensions
MAIN HG	OK	9.6 x 9.6 x 8	28	4.8 x 4.8 x 4
MAIN LG	OK	20 x 10 x 10	9.5	10 x 5 x 5
MAIN LOWER ¹	ID2	40 x 20 x 20	n/a	n/a

Notes:

1. Search ellipse was oriented in line with each individual wireframe (3 small wireframes define this domain and were interpolated separately using hard boundaries). All blocks were estimated within the first three passes.

BLOCK MODEL VALIDATION

RPA has reviewed and validated the block model using various modelling and interpolation aspects of the Canyon Mine model. RPA's observations and comments from the model validation are provided below.

Mineralization wireframes were checked for conformity to drill hole data, continuity, similarity between sections, overlaps, appropriate terminations between holes and into undrilled areas, and minimum mining thicknesses. The wireframes were snapped to drill hole intervals, are reasonably consistent, continuous, and generally representative of the extents and limits of the mineralization. RPA recommends that Energy Fuels continue to work to smooth the connection of the uranium wireframes between sections in future updates.

Capping statistics were reviewed and audited for a series of individual zones and compared to the statistics of capping groups defined by Energy Fuels. RPA is satisfied with the chosen caps.

Compositing routines were checked to confirm that composites started and stopped at the intersections with the wireframes and that the composite coding is consistent with the wireframes. RPA is satisfied with the compositing routines and finds the composites appropriate for Mineral Resource estimation.

Contact plots were prepared for selected mineralization domains and confirmed the appropriateness of hard boundaries between the domains during estimation.

Visual inspection and comparison of drill hole composites against mineralized solids were carried out for a number of sections with focus on the Main and Juniper I domains for both copper and uranium. The mineralized solids were found to conform reasonably well to the drill hole composite grades, although some evidence of smoothing was present. A cross section and plan section for both copper and uranium comparing composite and block grades is shown in Figures 14-7 to 14-10.

RPA reviewed the variogram models for selected mineralization groups and prepared variogram models representing selected individual mineralization domains for comparison. RPA validated the trend of the variogram against observed trends and grade shells created in Leapfrog Geo software. RPA recommends exploring the use of dynamic anisotropy for the interpolation of mineralization within the Main zone in future updates, where mineralization follows the contact of the breccia pipe with the country rock.

RPA validated the grades estimated in the block models prepared by Energy Fuels using basic statistics, visual inspection, volumetric comparison, swath plots, and a re-estimation of a portion of the Main zone using inverse distance to the power of two. The grades of re-estimated areas were found to be within 10%.

RPA reviewed and re-calculated the procedure used to calculate copper equivalent uranium grade values ($\%U_3O_8Eq$) for the blocks and is satisfied that it is correct.

A statistical comparison of the estimated block grades with the four-foot composites is shown in Tables 14-12 and 14-13. The block results compare well with the composites, indicating a reasonable overall representation of the copper and uranium grades in the block model.

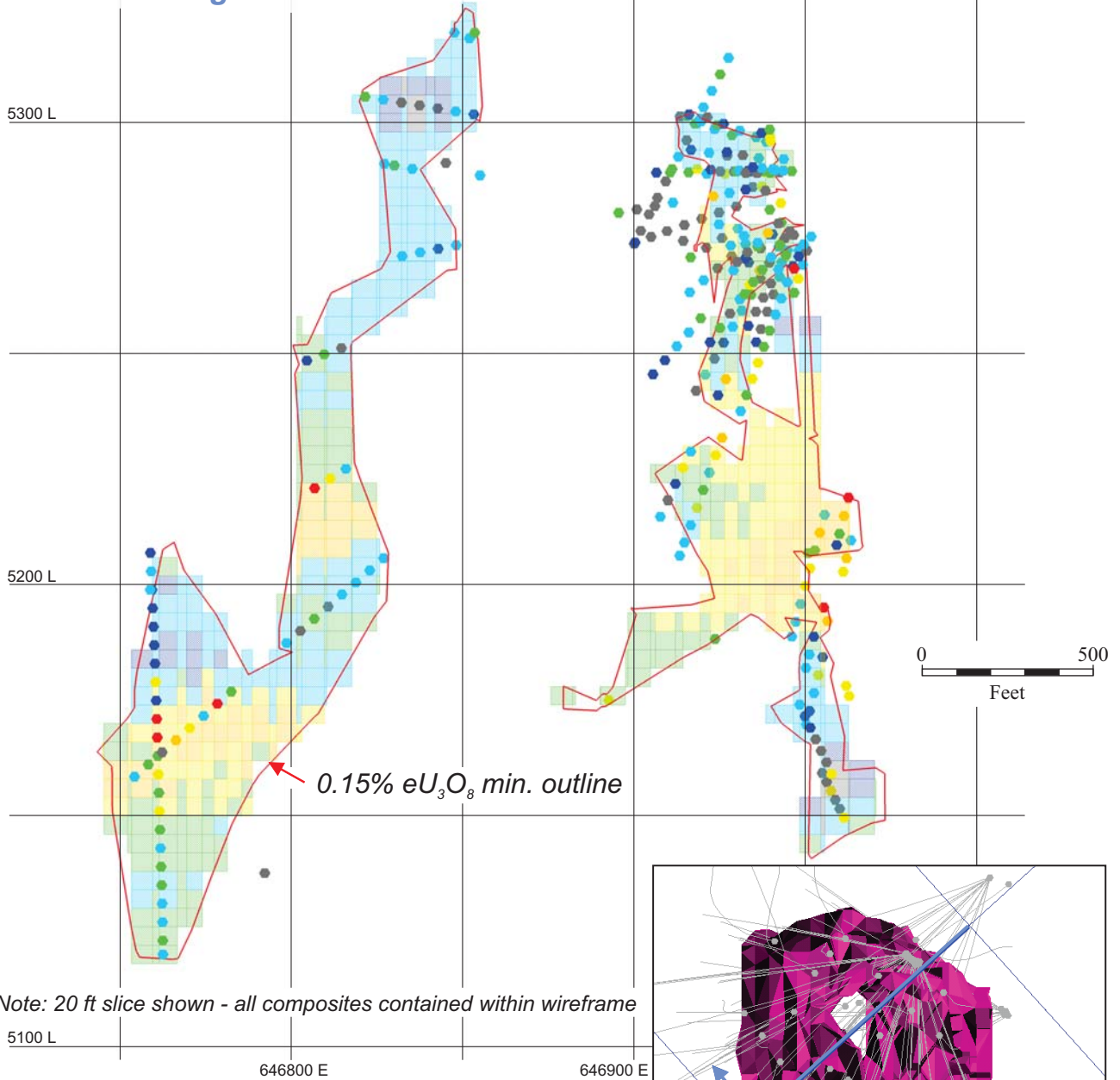
TABLE 14-12 COMPARISON OF BLOCK AND COMPOSITE URANIUM GRADES
Energy Fuels Resources (USA) Inc. – Canyon Mine

Domain	Type	Count	Min	Max	Mean	Variance	StDev	CV
CAP	Blocks	685	0.076	0.361	0.196	0.000	0.060	0.300
CAP	Comps	16	0.076	0.689	0.220	0.020	0.148	0.670
UPPER	Blocks	3,017	0.117	1.338	0.336	0.030	0.165	0.490
UPPER	Comps	101	0.055	1.683	0.335	0.070	0.263	0.790
MAIN	Blocks	19,339	0.069	10.887	0.872	0.910	0.953	1.090
MAIN	Comps	1,015	0.000	15.000	0.847	2.590	1.609	1.900
MAIN_LOWER	Blocks	1,397	0.016	0.884	0.233	0.030	0.170	0.730
MAIN_LOWER	Comps	41	0.000	1.152	0.251	0.060	0.253	1.010
JUNIPER-1	Blocks	10,516	0.034	11.831	0.724	1.110	1.054	1.460
JUNIPER-1	Comps	186	0.000	14.130	0.691	2.400	1.550	2.240
JUNIPER-2	Blocks	833	0.124	0.614	0.259	0.010	0.086	0.330
JUNIPER-2	Comps	25	0.119	0.619	0.252	0.010	0.102	0.410

TABLE 14-13 COMPARISON OF BLOCK AND COMPOSITE COPPER GRADES
Energy Fuels Resources (USA) Inc. – Canyon Mine

Domain	Type	Count	Min	Max	Mean	Variance	StDev	CV
MAIN HG	Blocks	6,725	3.79	29.96	13.09	11.53	3.40	0.26
MAIN HG	Comps	431	0.12	35.00	13.48	52.09	7.22	0.54
MAIN LG	Blocks	13,206	0.10	11.31	3.67	1.56	1.25	0.34
MAIN LG	Comps	721	0.00	13.89	4.02	5.85	2.42	0.60
MAIN LOWER	Blocks	2,290	0.25	18.42	4.80	6.50	2.55	0.53
MAIN LOWER	Comps	45	0.03	19.16	4.47	15.40	3.92	0.88

Northwest facing cross section



Note: 20 ft slice shown - all composites contained within wireframe

5100 L

646800 E

646900 E

Legend:

% U ₃ O ₈	
Dark Grey	0.00 - 0.15
Blue	0.15 - 0.20
Light Blue	0.20 - 0.50
Green	0.50 - 1.00
Yellow	1.00 - 2.00
Orange	2.00 - 5.00
Red	5.00 - 10.00
Purple	10.00 - 99999.00

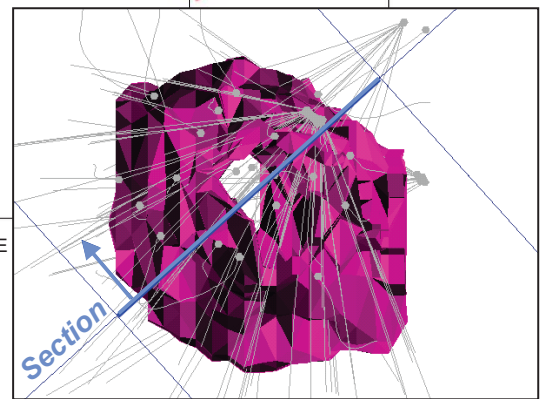
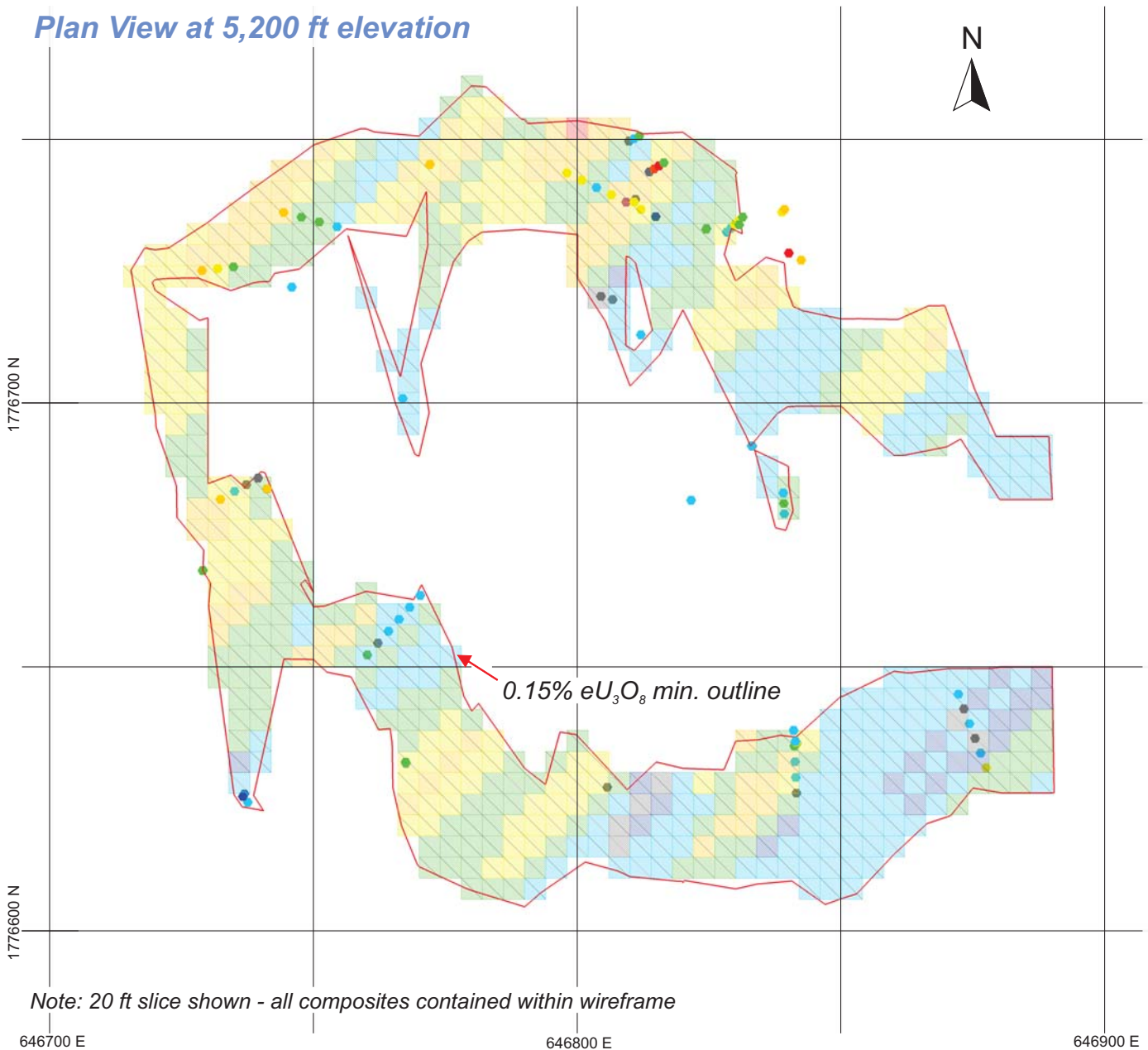


Figure 14-7

Energy Fuels Resources (USA) Inc.
Canyon Mine Project
 Arizona, U.S.A.
**Cross Section Comparing Block
 and Composite U₃O₈ Grades
 within the Main Zone**

Plan View at 5,200 ft elevation



0.15% eU₃O₈ min. outline

Note: 20 ft slice shown - all composites contained within wireframe

Legend:

% U ₃ O ₈	
Dark Grey	0.00 - 0.15
Blue-Black	0.15 - 0.20
Light Blue	0.20 - 0.50
Green	0.50 - 1.00
Yellow-Green	1.00 - 2.00
Yellow	2.00 - 5.00
Red-Orange	5.00 - 10.00
Purple	10.00 - 99999.00

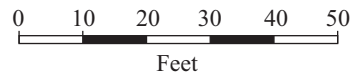
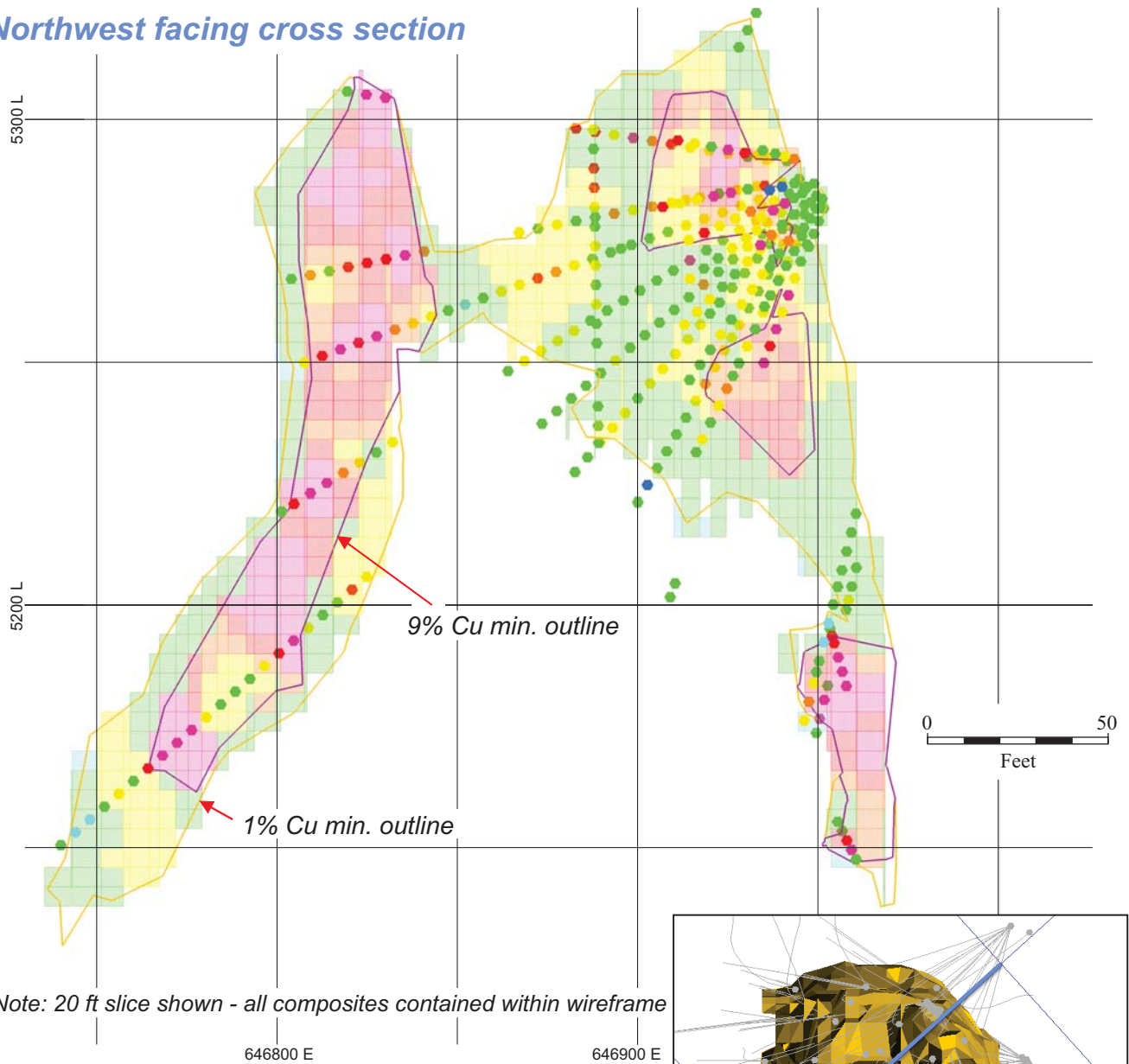


Figure 14-8

Energy Fuels Resources (USA) Inc.
Canyon Mine Project
 Arizona, U.S.A.
Plan View Comparing Block and Composite U₃O₈ Grades within the Main Zone

Northwest facing cross section



Legend:

% Cu

Blue	0.0 - 0.5
Light Blue	0.5 - 1.0
Green	1.0 - 5.0
Yellow	5.0 - 10.0
Orange	10.0 - 12.0
Red	12.0 - 15.0
Pink	15.0 - 60.0

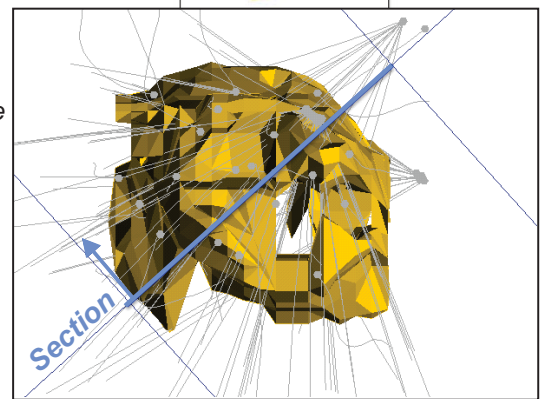
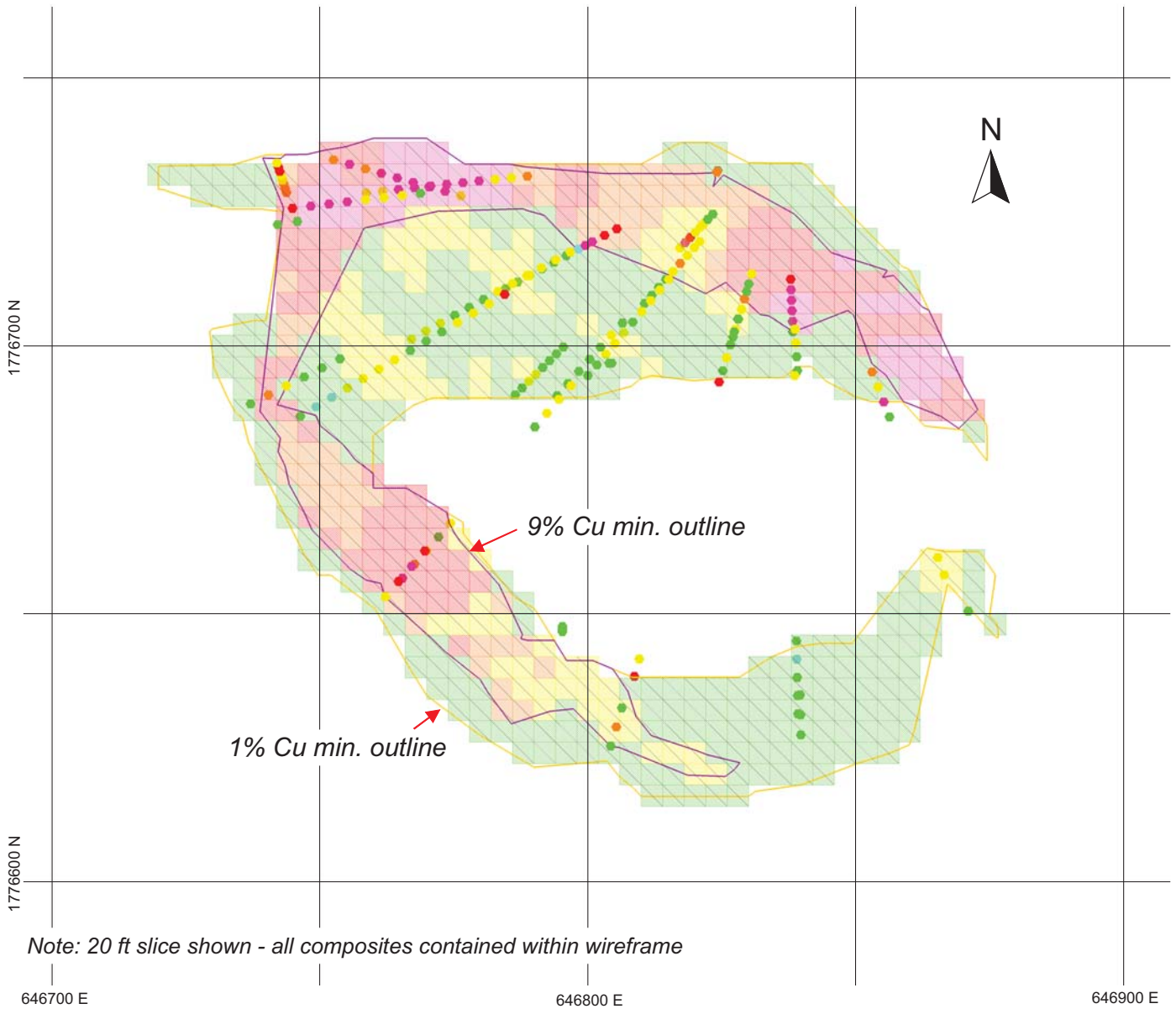


Figure 14-9

Energy Fuels Resources (USA) Inc.
Canyon Mine Project
 Arizona, U.S.A.
**Cross Section Comparing Block
 and Composite Cu Grades
 within the Main Zone**

Plan View at 5,240 ft elevation



Note: 20 ft slice shown - all composites contained within wireframe

646700 E

646800 E

646900 E

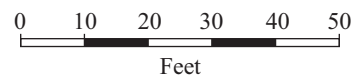
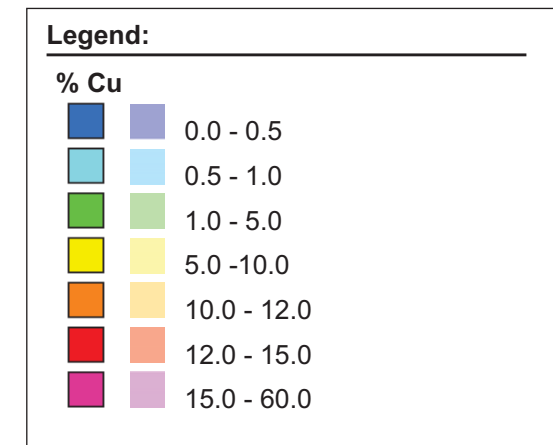


Figure 14-10

Energy Fuels Resources (USA) Inc.
Canyon Mine Project
 Arizona, U.S.A.
**Plan View Comparing Block
 and Composite Cu Grades
 within the Main Zone**

CUT-OFF GRADE

CIM (2014) specifies that to satisfy the definition of Mineral Resources, there must be “reasonable prospects for eventual economic extraction.” This is most commonly taken to mean that a cut-off grade should be applied to the resource model, which reflects some generally acceptable assumptions concerning metal prices, metallurgical recoveries, costs, and other operational constraints. RPA estimated a potential underground mining cut-off grades using assumptions based on historical operating costs for mines that have operated on the Arizona Strip.

Two cut-off grades were used for the resource estimate. For the uranium and copper bearing zones, a 0.36% uranium equivalent ($\%U_3O_8Eq$) cut-off grade was used. For the uranium-only zones, a 0.29% eU_3O_8 cut-off grade was used. The two cut-off grades account for separate process campaigns with different unit costs. Table 14-14 shows the assumptions for the uranium and copper bearing zones, while Table 14-15 shows the assumptions for the uranium only zones.

TABLE 14-14 CANYON MINE CUT-OFF GRADE CALCULATION
Energy Fuels Resources (USA) Inc. – Canyon Mine

Item	Quantity
Price in US\$/lb U_3O_8	US\$60.00
Price in US\$/lb Cu	US\$3.50
Process plant recovery (U_3O_8)	96.0%
Process plant recovery (Cu)	90.0%
Cu to U_3O_8 Conversion Factor	18.194
Mining cost per ton	US\$94
Haulage cost per ton	US\$62
Processing cost per ton	US\$250
G&A cost per ton	Included
Royalty cost per ton	US\$7
U_3O_8 conversion cost per pound	US\$0.30
Total operating cost per ton	US\$415
Break-Even Cut-off grade (U_3O_8Eq)	0.36%

TABLE 14-15 CANYON MINE CUT-OFF GRADE CALCULATION
Energy Fuels Resources (USA) Inc. – Canyon Mine

Item	Quantity
Price in US\$/lb U ₃ O ₈	US\$60.00
Process plant recovery (U ₃ O ₈)	96.0%
Mining cost per ton	US\$94
Haulage cost per ton	US\$62
Processing cost per ton	US\$165
G&A cost per ton	Included
Royalty cost per ton	US\$6
U ₃ O ₈ conversion cost per pound	US\$0.30
Total operating cost per ton	US\$329
Break-Even Cut-off grade (U ₃ O ₈)	0.29%

Table 14-16 and Figure 14-11 show the sensitivity of the Main and Main Lower zones to various cut-off grades and associated uranium and copper (fixed) prices. The tonnages and grades shown are for comparative purposes only and are not to be considered as Mineral Resources.

The high grade copper portion of the deposit (which overlaps with uranium mineralization) is relatively insensitive to uranium price and cut-off grade and contains the majority of the copper and U₃O₈ pounds at the project. However, there is significant lower grade tonnage that is more sensitive to price and cut-off grade.

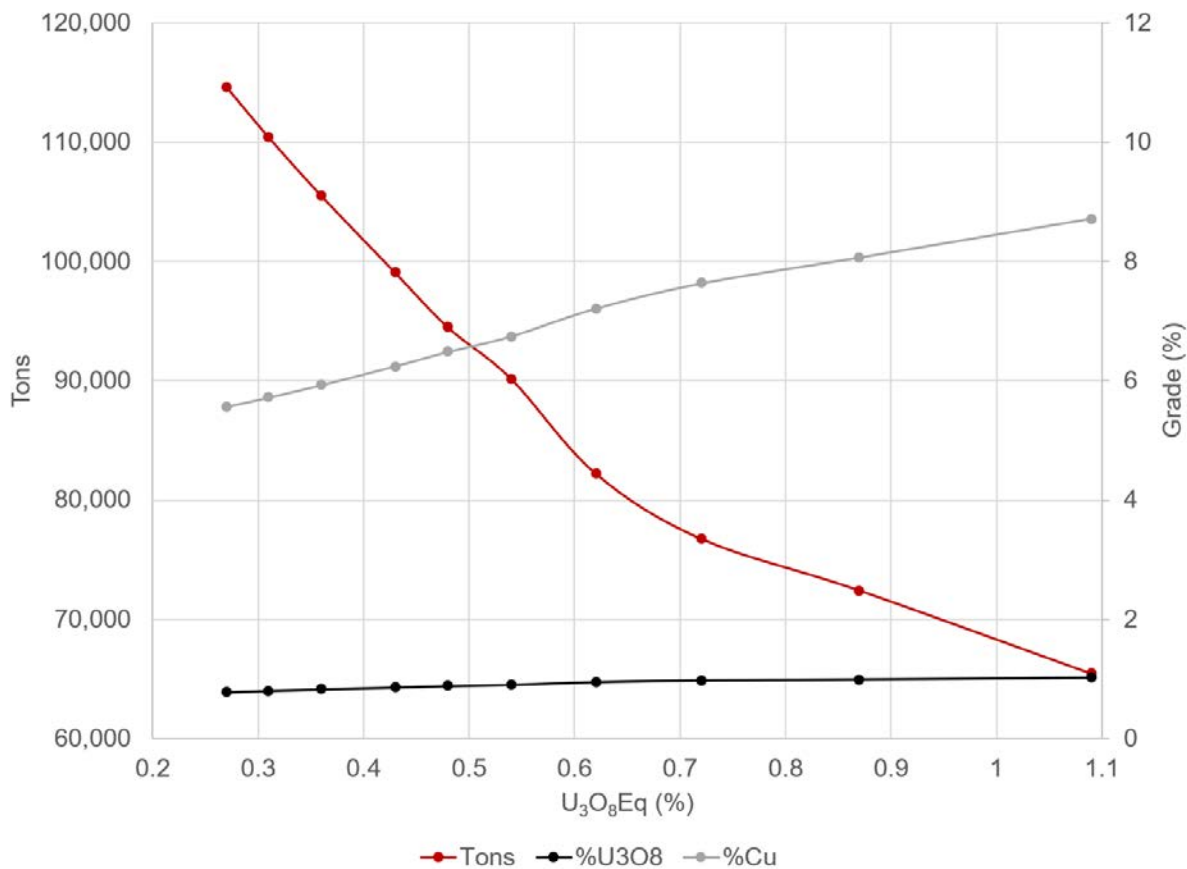
TABLE 14-16 BLOCK MODEL SENSITIVITY TO CUT-OFF GRADE AND URANIUM PRICE WITHIN THE MAIN AND MAIN LOWER ZONES
Energy Fuels Resources (USA) Inc. – Canyon Mine

Cutoff (%U ₃ O ₈ Eq)	Cu: U ₃ O ₈ Ratio	\$/lb U ₃ O ₈	\$/lb Cu	Tons	%U ₃ O ₈	lb U ₃ O ₈ (000)	%Cu	lb Cu (000)
0.27	24.3	\$80.00	\$3.50	114,627	0.780	1,789	5.56	12,756
0.31	21.2	\$70.00	\$3.50	110,418	0.802	1,772	5.72	12,630
0.36	18.2	\$60.00	\$3.50	105,501	0.827	1,744	5.93	12,509
0.43	15.1	\$50.00	\$3.50	99,056	0.859	1,701	6.25	12,372
0.48	13.6	\$45.00	\$3.50	94,480	0.883	1,668	6.49	12,255
0.54	12.1	\$40.00	\$3.50	90,166	0.905	1,632	6.75	12,165
0.62	10.6	\$35.00	\$3.50	82,241	0.952	1,566	7.21	11,858
0.72	9.1	\$30.00	\$3.50	76,763	0.982	1,507	7.63	11,718
0.87	7.5	\$25.00	\$3.50	72,433	0.995	1,442	8.07	11,691
1.09	6.0	\$20.00	\$3.50	65,474	1.028	1,346	8.72	11,422

Notes:

Recovery values held constant at 96% for copper and 90% for U₃O₈.

FIGURE 14-11 GRADE TONNAGE CURVE OF THE MAIN AND MAIN LOWER ZONES

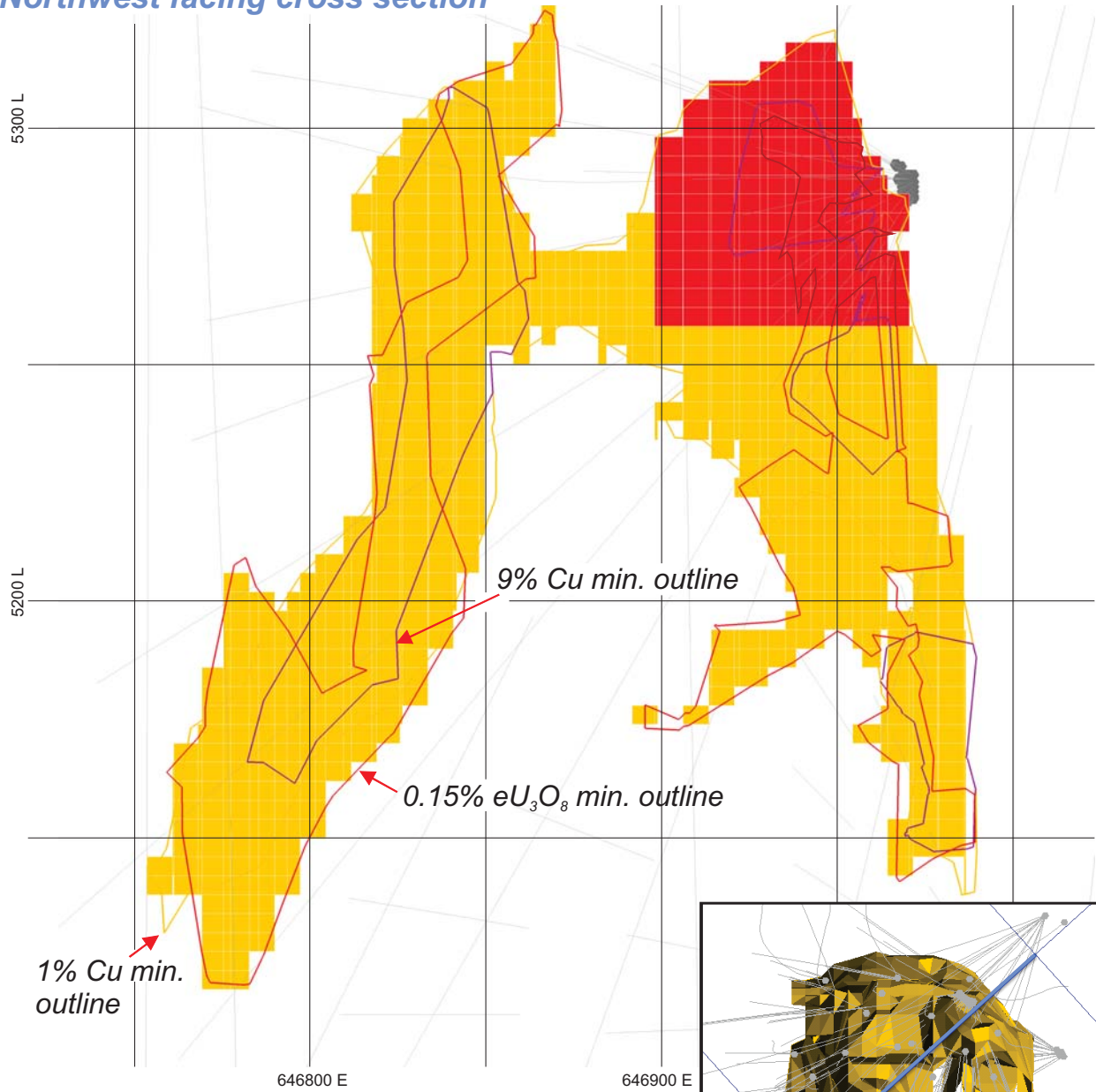


CLASSIFICATION

Canadian Institute of Mining, Metallurgy and Petroleum definition Standards for Mineral Resources and Mineral Reserves (CIM 2014) were followed for classification of Mineral Resources.

Blocks were classified as Measured, Indicated or Inferred based on drill hole spacing, confidence in the geological interpretation and apparent continuity of mineralization. Classification of Measured Resources was limited to the Main Zone, directly adjacent to underground drilling station 1-4, where 67 drill holes were collared. The remainder of the Main Zone, as well as the primary wireframe within Juniper I, j_1_01, were assigned a classification of Indicated. All other blocks in the model were limited to an Inferred classification. A cross section of block classification in the Main Zone is shown in Figure 14-12.

Northwest facing cross section



Legend:

	Measured
	Indicated

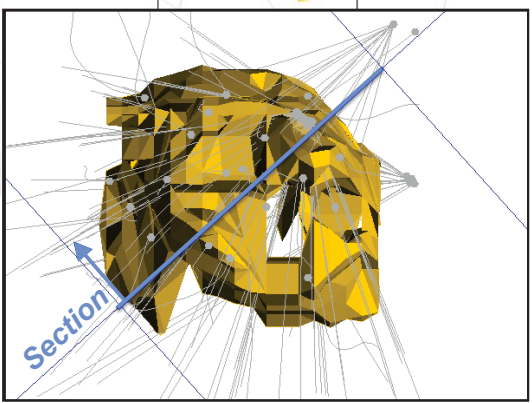


Figure 14-12

Energy Fuels Resources (USA) Inc.
Canyon Mine Project
 Arizona, U.S.A.
Block Classification Within the Main Zone

COMPARISON WITH PREVIOUS ESTIMATE

The previous estimate for Canyon Mine was completed by Denison Mines in 2011 (RPA 2012), which stated Inferred Mineral Resources of 82,200 tons grading 0.98% eU₃O₈ containing 1,629,000 lb eU₃O₈, reported within wireframes defined at a modelling cut-off grade of 0.2% eU₃O₈. The Mineral Resources reported in this current technical report represent a substantial change, including the inclusion of Measured and Indicated Resources, the incorporation of copper as an economic element, and a 60% increase in contained U₃O₈ pounds, at a slightly lower grade.

The changes to Mineral Resources can be attributed to the following:

- Discovery of copper as a potentially economic element at Canyon Mine
- Substantial increase in underground drilling feet completed by Energy Fuels
- Enhanced understanding of litho-structural controls on the mineralization and re-interpretation
- Application of a cut-off grade applied to blocks within wireframes defined using a modelling cut-off grade of 0.15% eU₃O₈ (previously all material within wireframes was reported)
- Changes to classification criteria and designation of material as Measured and Indicated following additional drilling and continuity analysis

15 MINERAL RESERVE ESTIMATES

There is no current Mineral Reserve estimate on the Canyon Mine.

16 MINING METHODS

This section is not applicable.

17 RECOVERY METHODS

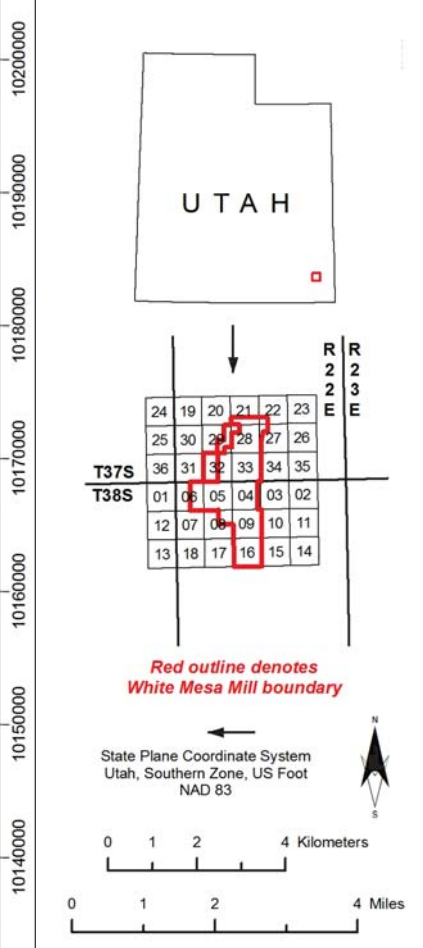
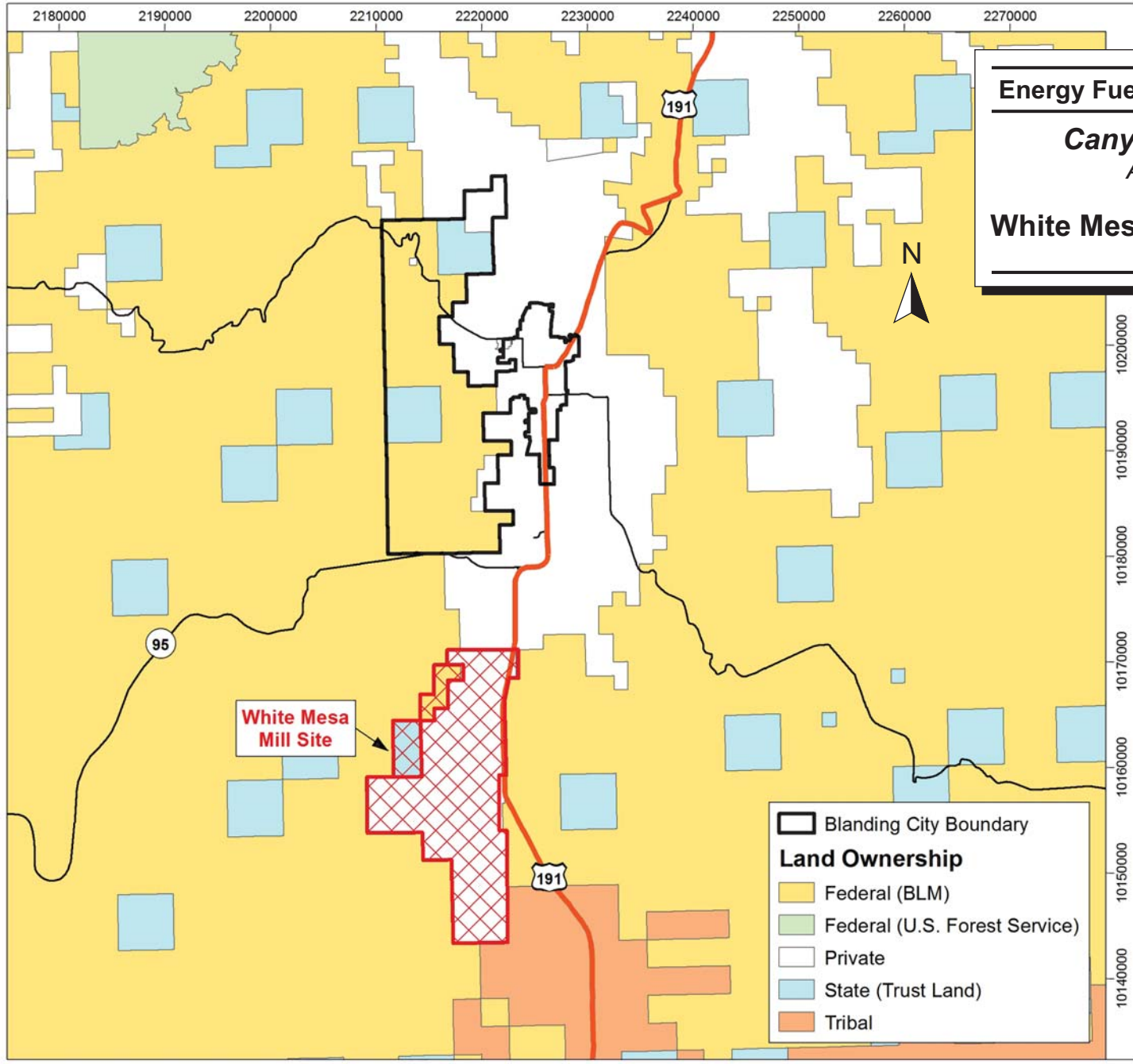
Should the Canyon Mine Project be placed into production, the mineralized material will be milled at the Energy Fuels' owned White Mesa Mill located near Blanding, Utah. The White Mesa Mill was originally built in 1980. Since construction, the White Mesa Mill has processed approximately five million tons of uranium and vanadium containing ores from Arizona, Colorado, and Utah. The White Mesa Mill is currently operated on a campaign basis to process uranium ores. It can also process alternate feed materials.

Capable of processing 2,000 short tons per day (stpd), the White Mesa Mill will process mineralized materials from the Canyon Mine Project, other Energy Fuels' uranium mines as well as potential toll milling ores from other producers in the area, and alternate feed material. This report only addresses the costs and revenues of the Canyon Mine Project including project specific costs at the White Mesa Mill. The location of the White Mesa Mill is shown in Figure 17-1. The site features of the White Mesa Mill are shown in Figure 17-2.

The White Mesa Mill process is described in the following sections and the flow sheet is shown in Figure 17-3.

Figure 17-1

Energy Fuels Resources (USA) Inc.
Canyon Mine Project
Arizona, U.S.A.
White Mesa Mill - Location Map



17-2

2211000 2212000 2213000 2214000 2215000 2216000 2217000 2218000 2219000 2220000 2221000 2222000

Figure 17-2

Energy Fuels Resources (USA) Inc.

Canyon Mine Project
Arizona, U.S.A.

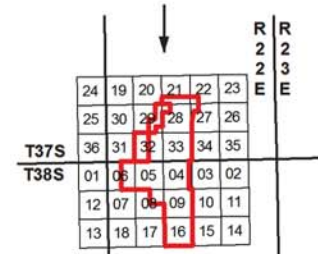
White Mesa Mill Site Map

Mill Area Inset Map

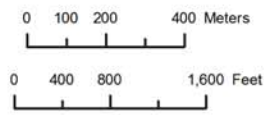


1000

10168000
10167000
10166000
10165000
10164000
10163000
10162000
10161000



Red outline denotes White Mesa Mill boundary



State Plane Coordinate System
Utah, Southern Zone, US Foot
NAD 83

17-3

- Mill Feature
- Mill Boundary
- Mill Claim/Lease



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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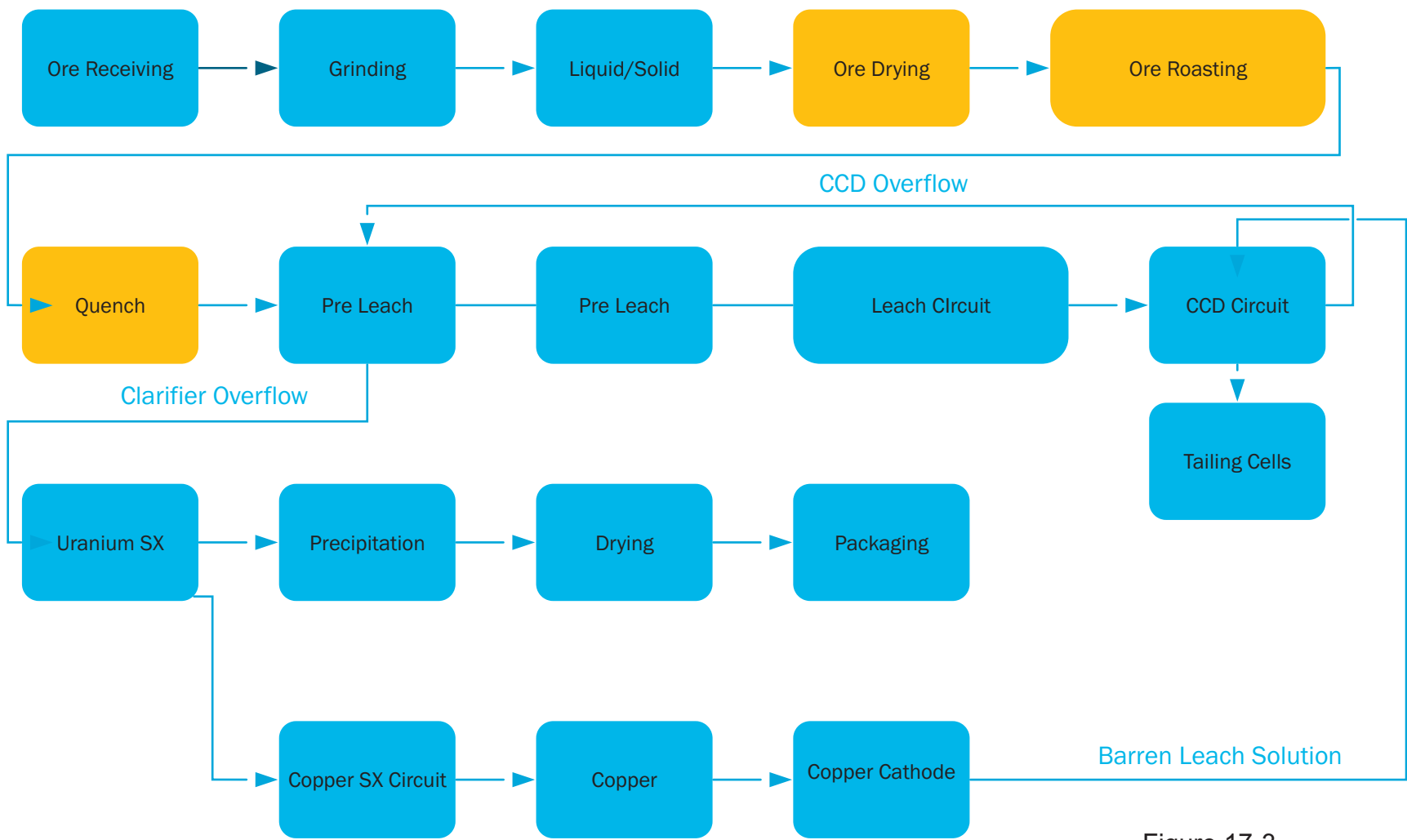


Figure 17-3

Energy Fuels Resources (USA) Inc.
Canyon Mine Project
Arizona, U.S.A.
White Mesa Mill
Block Diagram Flow Sheet

ORE RECEIVING

If the Canyon Mine is placed into operation, mineralized material will be hauled to the White Mesa Mill in 24-ton highway haul trucks. When trucks arrive at the White Mesa Mill, they are weighed and probed prior to stockpiling. Samples are collected to measure the dry weight, and to perform amenability testing for process control. Trucks are washed in a contained area, and scanned for alpha, beta, and gamma radiation prior to leaving the White Mesa Mill site.

GRINDING

A front-end loader will transfer the mineralized material from the stockpiles to the White Mesa Mill through the 20-in. stationary grizzly and into the ore receiving hopper. The mineralized material is then transferred to the 6 ft. by 18 ft. diameter semi-autogenous grinding (SAG) mill via a 54-in. wide conveyor belt. Water is added into the SAG mill where the grinding is accomplished. The SAG mill is operated in closed circuit with vibrating screens. The coarse material, P₈₀ +28 mesh (28 openings per linear inch) is returned to the SAG mill for additional grinding and the P₈₀ -28 mesh portion is pumped to the pulp (wet) storage tanks.

LIQUID SOLID SEPARATION

After grinding, it is envisioned that the slurry will be dewatered using a vacuum filter belt. Details are pending on additional liquid solids separation test work.

DRYING AND ROASTING

The proposed copper process includes roasting the mineralized material using a rotary kiln at a temperature of 650°C. Roasted material will be quenched using process solution before it is transferred to the pulp storage tanks before the leaching phase of the process.

LEACHING

From the pulp storage tanks, pre-leach and leaching are employed to dissolve the uranium and copper. A hot, strong acid treatment is utilized in the second stage to obtain adequate recoveries. This results in high concentrations of free acid in solution. Therefore, a first stage "acid kill" is employed, which is referred to as pre-leach. Mineralized material from the pulp

storage tanks is metered into the pre-leach tanks at the desired flow rate. The slurried ore from the pulp storage tanks will usually be about 50% solids. This slurry is mixed in the pre-leach tanks with a strong acid solution from the counter current decantation (CCD) circuit resulting in a density of approximately 22% solids. The pre-leach material is pumped to the pre-leach thickener. Here, flocculent is added and the solids are separated from the liquid. The underflow solids are pumped into the second stage leach circuit where acid, heat, and an oxidant (sodium chlorate) are added. After leaching, the leach slurry is then pumped to the CCD circuit for washing and solid liquid separation. The liquid or solution from the pre-leach thickener overflow is pumped first to the clarifier and then the SX feed tank.

COUNTER CURRENT DECANTATION

The CCD circuit consists of a series of thickeners in which the pulp (underflow) goes in one direction, while the uranium/copper bearing solution (overflow) goes in a counter current direction. Flocculant is added to the feed of each thickener which assists the solids to settle to the bottom of each thickener. As the pulp is pumped from one thickener to the next, it is washed of its uranium and copper values. When the pulp leaves the last thickener, it is essentially barren solids that is disposed of in the tailings cells.

TAILINGS MANAGEMENT

Tailings solutions (approximately 50% solids) are pumped to the tailings cells for permanent disposal. The sands are allowed to settle and the solutions are reused in the milling process. Additional details on the tailings cells and mill water balance are discussed in the White Mesa Mill portion of Section 18 - Project Infrastructure.

SOLVENT EXTRACTION

The primary purpose of the uranium SX circuit is to concentrate the uranium. First, the uranium is transferred from the aqueous acid solution to an immiscible organic liquid by ion exchange. Alamine 336 is a long chain tertiary amine that is used to extract the uranium compound. Then a reverse ion exchange process strips the uranium from the solvent, using aqueous sodium chloride. The uranium SX circuit is utilized to selectively remove the dissolved uranium from the clarified leach solution. Dissolved uranium is loaded on kerosene advancing counter currently to the leach solution. The uranium-loaded kerosene and leach solution are allowed

to settle where the loaded organic kerosene floats to the top allowing for separation. The uranium-loaded organic is transferred to the uranium stripping circuit where acidified brine (stripping solution) is added and strips the uranium from the kerosene. Within the SX circuit, the uranium concentrations increase by a factor of four when loading on the kerosene and again by a factor of ten when removed by the stripping solution.

The uranium-barren leach solution, still containing copper, will be transferred to the current vanadium SX circuit which will be converted to a copper SX circuit. The loaded copper strip solution will be transferred to a planned electro-winning circuit and copper will be produced as copper cathodes having a purity of 99.99% copper. The copper cathodes will be stripped from the cathode blanks, packaged and readied for shipment and sale. The final barren strip solution will be returned to the start of the copper SX circuit and recycled. The uranium/copper barren leach solution is pumped back to the CCD circuit to be used as wash water.

With respect to impurities removal, the uranium SX circuit of the White Mesa Mill is highly selective to uranium and consistently produces yellowcake in the 98% to 99% purity range. This includes ores that contain vanadium, arsenic, selenium, and copper which have shown to be problematic with other uranium recovery methods. Initial test work using high grade uranium and copper synthetic leach solutions indicates that the transfer of uranium during copper SX is minimal and following extraction of the uranium the levels should be below detection limits.

The White Mesa Mill has a vanadium recovery circuit, but it is only operated when the head grades are greater than 2 g/L vanadium. This high of a head grade is only expected when the vanadium to uranium ratio is greater than 3:1. Processing for Vanadium recovery is not anticipated from the Canyon Mine mineralized material based on the low vanadium content; therefore the vanadium SX circuit will be converted to a copper SX circuit simply by changing out the extractant.

PRECIPITATION, DRYING, AND PACKAGING

In the precipitation circuit, the uranium, which up to this point has been in solution, is caused to precipitate out of the solution. The addition of ammonia and heat to the precipitation circuit causes the uranium to become insoluble in the brine strip solution. During precipitation, the uranium solution is continuously agitated to keep the solid particles of uranium in suspension.

Leaving the precipitation circuit, the uranium, now a solid particle in suspension, is pumped to a two-stage thickener circuit where the solid uranium particles are allowed to settle. From the bottom of the thickener, the precipitated uranium in the form of a slurry at about 50% solids, is pumped to an acid dissolution tank and mixed with wash water. The solution is then precipitated again with ammonia and allowed to settle in the second thickener. The slurry from the second thickener is de-watered in a centrifuge. From this centrifuge, the solid uranium product is augered to the multiple hearth dryer and dried at approximately 1,400°F. From the dryer, the uranium oxide (U₃O₈) concentrated to +95%, is stored in a storage bin and packaged in 55-gallon drums. These drums are then labeled and readied for shipment.

PROCESS DESIGN CRITERIA

The principal design criteria selected are tabulated below in Table 17-1. The process operation parameters will be finalized following additional metallurgical testing of the uranium and copper SX process.

TABLE 17-1 PRINCIPAL PROCESS OPERATION CRITERIA
Energy Fuels Resources (USA) Inc. – Canyon Mine

General	Criteria
Processing rate	125,000 stpa 500 stpd
Feed grade	0.65 % uranium 9.0 % copper
Uranium circuit	
Final grind	100% passing 28 Mesh
Typical sulfuric acid consumption	350 lb/t
Product assay	97 % U ₃ O ₈
Recovery to final concentrate	95% uranium in feed
Copper Circuit	
Product Assay	99.99 % copper
Recovery to Cathode	90% copper in feed

18 PROJECT INFRASTRUCTURE

Infrastructure at the Canyon mine has been designed to accommodate all mining and transportation requirements. In addition to the mine shaft, existing mine infrastructure includes offices, mine dry, warehousing, stockpiles, standby generators, fuelling station, water well and tank, electrical power, rapid response services, explosive magazines, equipment utilities, and workshops.

The Canyon Mine is a developed site with gravel road access and facilities. The White Mesa Mill is an operating uranium mill, six miles from Blanding, Utah with good paved road access. The Canyon Mine layout is shown in Figure 4-2. The White Mesa Mill layout is shown in Figure 17-2. The haulage distance from Canyon to the White Mesa Mill in Blanding, Utah is 270 miles to 320 miles, depending on the route (Figure 18-1).

WHITE MESA MILL FACILITIES

There is office space for the administration, technical, mill and maintenance personnel in a central office location at the White Mesa Mill facility.

MILL POWER

Total online power for the White Mesa Mill is presented in Table 18-1. Electrical loads were inventoried from existing equipment. The majority of electrical components installed are low voltage 460 V. Medium voltage, 4,160 V, is used for the SAG mill.

**TABLE 18-1 WHITE MESA MILL PLANT ESTIMATED ELECTRICAL
LOAD
Energy Fuels Resources (USA) Inc. – Canyon Mine**

Connected Load Rating	hp	kW	kVA
SAG Mill	700	567	651
All Pumps	604	489	615
Conveyors/Feeders/Screens	94	76	95
Agitators/Settlers/Mixers	550	446	512
CCD	200	162	186
Presses/Flocculant	22	18	23
Fans/Scrubbers/Cranes	45	36	42
Bag House/Miscellaneous	91	65	81
Totals	2,306	1,859	2,205
Operating Load Rating			
SAG Mill	581	471	540
All Pumps	451	358	449
Conveyors/Feeders/Screens	71	55	68
Agitators/Settlers/Mixers	457	370	425
CCD	166	134	154
Presses/Flocculants	17	14	18
Fans/Scrubbers/Cranes	37	30	35
Bag House/Miscellaneous	58	48	60
Totals	1,838	1,480	1,749

MILL MAKEUP WATER

Fresh water to be used in the uranium leach plant is provided by four existing on site wells, or from the Recapture Reservoir when surface runoff water is available.

WHITE MESA TAILINGS MANAGEMENT

GENERAL

The White Mesa Mill is currently licensed to construct Cell 1, Cell 2, Cell 3, Cell 4A, and Cell 4B. Cell 1 is strictly an evaporation pond and will continue to be used as one. Cell 2 and Cell 3 have been used for tailings disposal over the life of the White Mesa Mill and are not available for any additional solids storage. Cell 4A is the current tailings disposal cell, it has 1.5 million tons of capacity remaining. Cells 1 and 4B are used solely for evaporation. Cell 4B has all of its original 2.0 million tons of capacity remaining as it has only been used as an evaporation pond. Cell 2 is currently in reclamation. The next two Cells to be installed have already been designed and will be permitted as needed. Tailing cell liner systems are installed to protect groundwater resources.

Cell 4B was constructed in 2011 at a cost of \$12 million. The estimated cost to reclaim Cell 4B is \$2.5 million. The tailing capacity replacement has been estimated at \$5/st of tailings.

The construction will be scheduled to ensure that there is always sufficient storage capacity available in the facility to avoid overtopping if a major storm event occurs. The embankment provides sufficient freeboard to safely accommodate the supernatant pond and Environmental Design Storm event, combined with wave run-up. A spillway is included to pass the Inflow Design Flood event.

TAILINGS WATER MANAGEMENT

Process solutions are stored in a combination of Cell 1, Cell 4A, and/or Cell 4B, depending on water storage and evaporation needs.

Water handling records are reported to the State of Utah quarterly to comply with the Groundwater Discharge permit (No. UGW37004).

TAILINGS DEWATERING

During tailings deposition in the tailings cells, solutions are drawn from the cell to maintain capacity for additional tailing solids. When the cells fill to capacity, reclamation is commenced and solutions are continued to be removed from the solids to further protect groundwater resources.

LAYOUT AND DESIGN

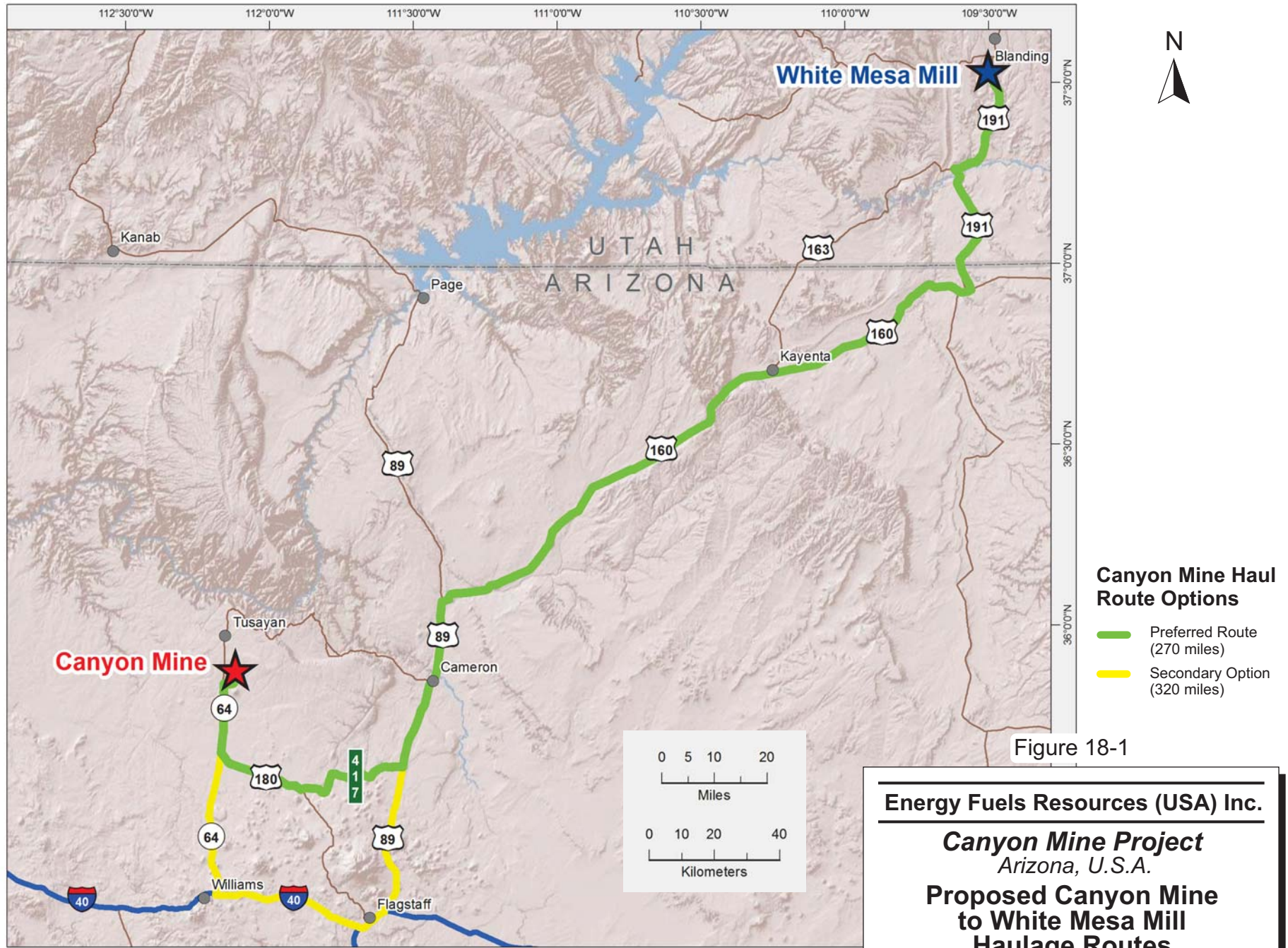
The White Mesa Mill site and tailings locations are shown on Figure 17-2. Cell 1, Cell 2, and Cell 3 were installed prior to 40 acre limit being imposed by the US EPA.

TAILINGS PROPERTIES

Mill tailings will be acidic with a pH ranging from one to three. Uranium grade in the tailings should average below 0.02% assuming a 95% recovery of uranium in the mill.

DIVERSION STRUCTURES

Three stormwater diversions currently protect the White Mesa Mill area and tailings cells from large storm events.



Canyon Mine Haul Route Options

- Preferred Route (270 miles)
- Secondary Option (320 miles)

Figure 18-1

Energy Fuels Resources (USA) Inc.

Canyon Mine Project
Arizona, U.S.A.

Proposed Canyon Mine to White Mesa Mill Haulage Routes

19 MARKET STUDIES AND CONTRACTS

This section is not applicable.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section provides a summary of environmental baseline studies associated with the project and requirements for operating plans, permitting, potential social or community commitments, and mine closure and reclamation.

ENVIRONMENTAL STUDIES

Environmental studies have been completed for the Canyon Mine as part of the permitting process through state and federal agencies. These studies include components such as land use, climate, geology and mineralization, seismicity, soils, vegetation, air quality, surface water, ground water, wildlife, radiological, and cultural and archaeological resources. As a result of these studies, there are no known environmental issues that could materially impact the ability to extract the mineral resource.

SOCIAL OR COMMUNITY REQUIREMENTS

While development and operation of the Mine requires limited surface disturbance (less than 20 acres) and has minimal environmental impact, the Mine has been particularly contentious among local communities due to factors such as (a) its proximity to Grand Canyon National Park (b) claims by the Havasupai Indian Tribe that the Mine site has significant religious value and (c) its location within the US Bureau of Land Management's (BLMs) 2009 mineral withdrawal of approximately one million acres of public lands around Grand Canyon National Park. A discussion of these issues is presented in more detail below as it relates to project permitting requirements.

PERMITTING

In October 1984, Energy Fuels Nuclear submitted a proposed Plan of Operations (PoO) to mine uranium from the Canyon claims, approximately 7 miles south of Tusayan, Arizona. The US Forest Service (USFS) completed an Environmental Impact Statement (EIS) to evaluate the Plan, including significant comment and input from federally recognized tribes. The final

EIS and Record of Decision (ROD) were issued on September 29, 1986, approving the PoO with modifications. Mine site surface preparation activities began in late 1986. Appeals of this decision were made to the Southwestern Regional Forester, and the Chief of the Forest Service, who both affirmed the Forest Supervisor's decision. The Havasupai Tribe and others then sued over this decision in the U.S. District Court for the District of Arizona. The District Court ruled for the USFS on all counts, and a subsequent appeal was filed with the U.S. Court of Appeals for the Ninth Circuit, which affirmed the District Court on August 16, 1991. In 1992, due to the economic downturn in the price of uranium, the Mine was put into standby status.

On September 13, 2011, Denison Mines informed the Kaibab Forest Supervisor they intended to resume operations at Canyon Mine under the existing PoO and ROD. On June 25, 2012, the USFS completed a review of the Canyon Mine PoO and associated approval documentation in anticipation of the resumption of operations. The USFS' review concluded that (a) no modification or amendment to the existing PoO was necessary, (b) no correction, supplementation, or revision to the environmental document was required and (c) that operations at the Canyon Mine could continue as a result of no further federal authorization being required.

In March, 2013, the Center for Biological Diversity, the Grand Canyon Trust, the Sierra Club and the Havasupai Tribe (the "Canyon Plaintiffs") filed a complaint in the U.S. District Court for the District of Arizona against the Forest Supervisor for the Kaibab National Forest and the USFS seeking an order (a) declaring that the USFS failed to comply with environmental, mining, public land, and historic preservation laws in relation to the Canyon Project, (b) setting aside any approvals regarding exploration and mining operations at the Canyon Project, and (c) directing operations to cease at the Canyon Project and enjoining the USFS from allowing any further exploration or mining-related activities at the Canyon Project until the USFS fully complies with all applicable laws. In April 2013, the Plaintiffs filed a Motion for Preliminary Injunction, which was denied by the District Court in September, 2013.

On April 7, 2015, the District Court issued its final ruling on the merits in favor of the Defendants and the Company and against the Canyon Plaintiffs on all counts. The Canyon Plaintiffs appealed the District Court's ruling on the merits to the Ninth Circuit Court of Appeals, and filed motions for an injunction pending appeal with the District Court. Those motions for an injunction pending appeal were denied by the District Court on May 26, 2015. Thereafter, Plaintiffs filed urgent motions for an injunction pending appeal with the Ninth Circuit Court of

Appeals, which were denied on June 30, 2015. The hearing on the merits at the Court of Appeals was held on December 15, 2016 and the parties are awaiting the Court's decision. If the Canyon Plaintiffs are successful on their appeal on the merits, the Company may be required to maintain the Canyon Project on standby pending resolution of the matter. Such a required prolonged stoppage of shaft sinking and mining activities could have a significant impact on future operations.

The status of current permitting and reclamation performance bond activities for the Canyon Mine includes:

- Affirmation of the validity of the original PoO, as approved by the USFS, and issuance of a reclamation performance bond in the amount of approximately \$460,000;
- Arizona Department of Environmental Quality (ADEQ) approval of the Aquifer Protection Permit (APP) for the Non-Stormwater Impoundment (i.e., holding pond) and issuance of a performance bond in the amount of \$30,000;
- ADEQ approval of APPs for the Intermediate Ore Stockpile and Development Rock Stockpile and issuance of a performance bond in the amount of approximately \$3,000;
- ADEQ approval of an Air Quality Control Permit;
- ADEQ authorization for coverage under the Storm Water Multi-Sector General Permit; and
- US Environmental Protection Agency (EPA) approval to Construct/Modify an Underground Uranium Mine pursuant to the National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 61).

MINERAL EXAMINATION

In July 2009, the BLM issued a Notice of Proposed Withdrawal (the 2009 Notice) under which it proposed that a total of approximately one million acres of public lands around the Grand Canyon National Park be withdrawn from location and entry under the Mining Law of 1872, subject to valid existing rights, for a period of two years. BLM stated that the purpose of the withdrawal, if determined to be appropriate, would be to protect the Grand Canyon watershed from any adverse effect of locatable hardrock mineral exploration and mining. This timeframe was extended an additional six months in July 21, 2011 to complete the EIS studies. In January 2012, the Secretary of the Interior implemented the withdrawal proposed in the 2009 Notice, subject to valid existing rights, for a 20-year period. Whether or not a mining claim is valid must be determined by a Mineral Examination conducted by BLM or the USFS. The

Mineral Examination for the Mine deposit was completed by the USFS on April 18, 2012, and determined that the Canyon Mine has valid existing rights.

MINE CLOSURE REMEDIATION AND RECLAMATION

The costs to reclaim the project to its pre-mining land use is estimated to be approximately US\$500,000. Reclamation performance bonds are in place with state and federal agencies in the amount of approximately \$500,000. At the conclusion of underground operations, mine openings will be sealed with development rock being used for backfill, infrastructure will be dismantled and removed, buildings demolished, and other surface features, such as roads and ponds, reclaimed in place. Areas of disturbance will be contoured to blend with the existing landscape and re-vegetated with a native seed mix.

TAILINGS DISPOSAL, SITE MONITORING AND WATER MANAGEMENT

The Canyon property has an existing evaporation pond and permitted rock stockpile areas. It is anticipated that mineralized and non-mineralized rock will be stored in the permitted stockpile areas. No process tailings will be stored at Canyon. During mine operations, it is expected that excess water will be stored in the evaporation pond, or in some cases it may be beneficially used as per Arizona state law.

After closure, the site will be monitored for reclamation performance by state and federal agencies until reclamation is deemed complete and the bond(s) are released.

21 CAPITAL AND OPERATING COSTS

This section is not applicable.

22 ECONOMIC ANALYSIS

This section is not applicable.

23 ADJACENT PROPERTIES

There are no properties adjacent to Canyon Mine.

24 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25 INTERPRETATION AND CONCLUSIONS

A Mineral Resource estimate for the Canyon Deposit, based on 130 diamond drill holes totalling 79,775 ft., was completed by Energy Fuels and audited by RPA. Mineral Resources are based on a \$60/lb uranium price at a equivalent uranium cut-off grade of 0.36% for zones (Main and Main-Lower) containing copper and 0.29% for the remaining zones.

For uranium, Measured Resources total 6,000 tons at an average grade of 0.43% U_3O_8 for a total of 56,000 lb U_3O_8 . Indicated Resources total 132,000 tons at an average grade of 0.90% U_3O_8 for a total of 2,378,000 lb U_3O_8 . Inferred Resources total 18,000 tons at an average grade of 0.38% U_3O_8 for a total of 134,000 lb U_3O_8 .

For copper, Measured Resources total 6,000 tons at an average grade of 9.29% Cu for a total of 1,203,000 lb Cu. Indicated Resources total 94,000 tons at an average grade of 5.70% Cu for a total of 10,736,000 lb Cu. Inferred Resources total 5,000 tons at an average grade of 5.90% Cu for a total of 570,000 lb Cu.

The effective date of the Mineral Resource estimate is June 17, 2017. Estimated block model uranium grades are based on chemical assay and radiometric probe grades. No Mineral Reserves have been estimated at the Property.

Sampling and assaying are adequately completed and have been carried out using industry standard QA/QC practices. These practices include, but are not limited to, sampling, assaying, chain of custody of the samples, sample storage, use of third-party laboratories, standards, blanks, and duplicates.

RPA considers the estimation procedures employed at Canyon Mine, including compositing, top-cutting, variography, block model construction, and interpolation to be reasonable and in line with industry standard practice.

RPA finds the classification criteria to be reasonable.

The metallurgical test results provided by White Mesa Mill Laboratory personnel indicated that metallurgical recoveries using optimum roasting and leach conditions will be approximately

96% for uranium and 90% for copper. The White Mesa Mill has a significant operating history for the uranium SX circuit which includes processing of relatively high copper content with no detrimental impact to the uranium recovery or product grade. Expected White Mesa Mill modifications to recover copper include utilizing the existing vanadium solvent extraction circuit for copper and the addition of an electro-winning circuit. Carry over of uranium to the copper electrolyte is not expected and will be verified by laboratory test work.

RISKS

In RPA's opinion, there are not any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information, mineral resource or mineral reserve estimates, or projected economic outcomes.

26 RECOMMENDATIONS

Drilling activities at the Canyon Mine have outlined the presence of significant additional U₃O₈ and copper mineralization which warrants further investigation.

Energy Fuels proposed Phase I budget of \$255,000 is for studies to support the completion of a Preliminary Economic Assessment (Table 26-1).

TABLE 26-1 PROPOSED BUDGET
Energy Fuels Resources (USA) Inc. – Canyon Mine

Item	US\$
Metallurgical test work	50,000
Mine planning study	30,000
Process engineering study and Preliminary Economic Assessment	150,000
Sub-total	230,000
Contingency	25,000
Total	255,000

RPA makes the following recommendations regarding the QA/QC data supporting the drill hole database at Canyon Mine:

- Submit field duplicates using two ½ core samples at a rate of one in 50.
- Continue to monitor for low-grade bias of copper and slight low-grade bias of U₃O₈ at White Mesa Mill.
- Continue to monitor for temporal trends (change in average grade of CRM data over time) observed at White Mesa Mill to ensure assay accuracy.
- Procure CRM made from Canyon Mine resource material (matrix matched), to obtain an improved understanding of laboratory performance as applied to Canyon Mine samples.
- Source three matrix matched or matrix-similar, certified reference materials for U₃O₈ that represent low, medium and high-grade ore at Canyon Mine. Incorporate the CRM in the sample stream sent to White Mesa Mill at a rate of one in 25. Ensure the certified values of these CRM are blind to the laboratory. Also submit these CRM to independent laboratories alongside check assays at a rate of one in ten to obtain a meaningful sample size for analysis.
- Implement a duplicate assay protocol for field, coarse and pulp samples that is blind to the laboratory, and that the rates of insertion for duplicate samples be approximately one in 50 for field duplicates, and one in 25 for coarse and pulp duplicate samples.

RPA recommends exploring the use of dynamic anisotropy for the interpolation of mineralization within the Main zone in future updates, where copper mineralization follows the contact of the breccia pipe with the country rock.

27 REFERENCES

ANSTO Minerals, 2017 Progress Note 1, Processing of Canyon Mine Ore, Dated May 16, 2017

ANSTO Minerals, 2017 Progress Note 2-Update on Batch Tests; Processing of Canyon Mine Ore, Dated June 14, 2017

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), 2014: CIM Definition Standards for Mineral Resources and Mineral Reserves, adopted by CIM Council on May 10, 2014.

Energy Fuels, 2016, Standard Operating Procedure: Core Handling, Sampling and QA/QC Protocols for Core Drilling at the Canyon Mine, internal report.

Pool, T.C., and Ross, D.A., 2012: Technical Report on the Arizona Strip Uranium Projects, Arizona, USA, RPA NI 43-101 Report prepared for Energy Fuels Inc.. (June 27,2012), available at www.sedar.com

Scott, J.H., 1962: GAMLOG A Computer Program for Interpreting Gamma-Ray Logs; United States Atomic Energy Commission, Grand Junction Office, Production Evaluation Division, Ore Reserves Branch, TM-179, September, 1962.

Shumway, L.,2017: Energy Fuels Nuclear, Inc. Internal Memorandum dated June 9, 2017

28 DATE AND SIGNATURE PAGE

This report titled “Technical Report on the Canyon Mine, Coconino County, Arizona, USA” and dated October 6, 2017 was prepared and signed by the following authors:

(Signed & Sealed) “Mark B. Mathisen”

Dated at Toronto, ON
October 6, 2017

Mark B. Mathisen, C.P.G
Principal Geologist

(Signed & Sealed) “Valerie Wilson”

Dated at Toronto, ON
October 6, 2017

Valerie Wilson, M.Sc., P.Geo
Senior Geologist

(Signed & Sealed) “Jeffrey L. Woods”

Dated at Toronto, ON
October 6, 2017

Jeffrey L. Woods, SME, QP MMSA.]
Associate Principal Metallurgist

29 CERTIFICATE OF QUALIFIED PERSON

MARK B. MATHISEN

I, Mark B. Mathisen, C.P.G., as an author of this report entitled “Technical Report on the Canyon Mine, Coconino County, Arizona, USA” prepared for Energy Fuels Resources (USA) Inc. and dated October 6, 2017, do hereby certify that:

1. I am Senior Geologist with RPA (USA) Ltd. of Suite 505, 143 Union Boulevard, Lakewood, Co., USA 80228.
2. I am a graduate of Colorado School of Mines in 1984 with a B.Sc. degree in Geophysical Engineering.
3. I am a Registered Professional Geologist in the State of Wyoming (No. PG-2821) and a Certified Professional Geologist with the American Institute of Professional Geologists (No. CPG-11648). I have worked as a geologist for a total of 20 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Mineral Resource estimation and preparation of NI 43-101 Technical Reports.
 - Director, Project Resources, with Denison Mines Corp., responsible for resource evaluation and reporting for uranium projects in the USA, Canada, Africa, and Mongolia.
 - Project Geologist with Energy Fuels Nuclear, Inc., responsible for planning and direction of field activities and project development for an in situ leach uranium project in the USA. Cost analysis software development.
 - Design and direction of geophysical programs for US and international base metal and gold exploration joint venture programs.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Canyon Mine on June 13 to 15, 2017.
6. I share responsibility for all sections of the Technical Report, excluding Section 13.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report, excluding Section 13, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 6th day of October, 2017

(Signed & Sealed) “Mark B. Mathisen”

Mark B. Mathisen, C.P.G.

VALERIE WILSON

I, Valerie Wilson, P.Geo., as an author of this report entitled "Technical Report on the Canyon Mine, Coconino County, Arizona, USA" prepared for Energy Fuels Resources (USA) Inc. and dated October 6, 2017, do hereby certify that:

1. I am Senior Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.
2. I am a graduate of the Camborne School of Mines, University of Exeter in 2010 with a master's degree in Mining Geology and a graduate of the University of Victoria in 2006 with a bachelor's degree in Geoscience.
3. I am registered as a Professional Geologist in the Province of Ontario (Reg. 2113). I have worked as a geologist for a total of ten years since graduation from my bachelor's degree. My relevant experience for the purpose of the Technical Report is:
 - a. Exploration geologist on a variety of gold and base metal projects in Canada, Norway, and Sweden.
 - b. Mineral Resource estimation work and reporting on numerous mining and exploration projects around the world.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I have not visited Canyon Mine.
6. I share responsibility for all sections of the Technical Report, excluding Section 13, 17, and 18.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report, excluding Sections 13, 17, and 18, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 6th day of October, 2017

(Signed & Sealed) "Valerie Wilson"

Valerie Wilson, P.Geo.

JEFFREY L. WOODS

I, Jeffrey L. Woods, QP MMSA., SME, as an author of this report entitled "Technical Report on the Canyon Mine, Coconino County, Arizona, USA" prepared for Energy Fuels Resources (USA) Inc. and dated October 6, 2017, do hereby certify that:

1. I am an Associate Principal Metallurgical Engineer with RPA (USA) Ltd. of 143 Union Boulevard, Suite 505, Lakewood, Colorado, USA 80228.
2. I am a graduate of Mackay School of Mines, University of Nevada, Reno, Nevada, U.S.A., in 1988 with a B.S. degree in Metallurgical Engineering.
3. I am a member of the Society for Mining, Metallurgy, and Exploration (SME) since 1983, and a Registered Member (#4018951) since September 2006. I am also a Registered Member of the Mining and Metallurgical Society of America. I have worked as a metallurgical engineer for a total of 29 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Review and report as a consultant on numerous exploration, development and production mining projects around the world for due diligence and regulatory requirements;
 - Metallurgical engineering, test work review and development, process operations and metallurgical process analyses, involving copper, gold, silver, nickel, cobalt, uranium, and base metals located in the United States, Canada, Mexico, Honduras, Nicaragua, Chile, Turkey, Cameroon, Peru, Argentina, and Colombia.
 - Sr. Process Engineer for a number of mining-related companies;
 - Manager and Business Development for a small, privately owned metallurgical testing laboratory in Plano, Texas, USA;
 - Vice President Process Engineering for at a large copper mining company in Sonora, Mexico;
 - Global Director Metallurgy and Processing Engineering for a mid-tier international mining company.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the White Mesa Mill facilities on August 17 to 18, 2017.
6. I am responsible for the for Section 13 of the Technical Report. I share responsibility with my co- authors for Sections 1, 25 and 26.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Section 13 for which I am responsible in the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 6th day of October, 2017

(Signed & Sealed) “Jeffrey L. Woods”

Jeffrey L. Woods, QP MMSA., SME