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File Code: 2810
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Date: APR 27 2012

Subject: Valid Existing Rights determination for mining claims at Canyon Mine

To: Forest Supervisor, Kaibab National Forest

Enclosed with this letter is a mineral validity report prepared by Forest Service certified mineral examiners; Michael Linden and Mike Doran, for the Canyon 74 and 75 mining claims. The conclusions of the report are that these mining claims (at the Canyon mine location) were valid at the time of the initial mineral segregation (withdrawal) date of July 21, 2009, and continue to be valid at the present time. If you have any questions, please contact Michael Linden, Regional Liaison for Minerals and Geology at (505) 842-3158.

Robert W. Cordts

ROBERT W. CORDTS
Director of Lands and Minerals

Enclosure

cc: Tracy Parker

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Southwestern Region
Albuquerque, New Mexico

MINERAL REPORT
(For Administrative Use Only)

2810 Lode Mining Claims
Kaibab National Forest
Canyon 74-75 Mining Claims

October 24-26, 2011
January 11, 2012
Dates of Examination

Name: Michael Linden, RCME # 24
Title: Salable Minerals Specialist, CNO
Date: 4/18/2012

Name: Mike Doran, RCME # 26
Title: Locatable Minerals Lead, CNO
Date: April 18, 2012

CATEGORY: Valid Existing Rights Determination

BLM STATE OFFICE: Arizona

CLAIM NAMES AND SERIAL NUMBERS:

Canyon 74	AMC 22643
Canyon 75	AMC 22644

BRIEF OF SUMMARY AND CONCLUSIONS: We conclude that a discovery of a valuable mineral deposit existed at the time of the segregated withdrawal on July 21, 2009 within the limits of lode claims; Canyon 74 and Canyon 75, as required under the 1872 Mining law (30 USC 21-54). Furthermore, under present economic conditions, the uranium deposit on the Canyon 74 and 75 claims could be mined, removed, transported, milled and marketed at a profit.

4/17/2012

FS TECHNICAL APPROVAL:
Name: Greg Visconty, RCME # 28
Title: Locatables Minerals Specialist, CNO

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I. Summary, Conclusions and Recommendations

This report documents the results of a validity examination of two unpatented lode mining claims known as the Canyon 74 and 75 claims, located within the Tusayan Ranger District, Kaibab National Forest. The area containing the claim block is within the Northern Arizona Mineral Withdrawal that was segregated from the Mining Law for two years by Secretary of Interior, Salazar, on July 21, 2009, for approximately 1 million acres surrounding the Grand Canyon National Park region, including BLM and FS lands. By Secretarial order on January 9, 2012, the entire 1 million acre area that was under consideration for withdrawal was withdrawn for a period of 20 years by the Secretary of Interior.

It is Forest Service policy (FSM 2803.5) to only allow operations on mining claims within a withdrawal that have valid existing rights (VER). Certified mineral examiners: Michael Linden and Mike Doran conducted the validity exam, which was prompted by a request to resume development and mining operations at Denison's Canyon Mine, within the Canyon mining claim block.

Over the course of several months this past fall and winter (2011), field visits were made by the examiners to the Canyon claims, the core shed at the Canyon Mine, Denison's offices in Fredonia, Arizona, Denison's Arizona One uranium mine on the BLM Arizona strip, and Denison's White Mesa Mill in Blanding, Utah.

The Canyon 74 and 75 claims overlie a breccia pipe uranium deposit, which has been called the Canyon Pipe. Drilling by various uranium companies over the years has confirmed the presence of a breccia pipe that contains approximately 84,207 tons of uranium ore grading at 0.97% U3O8. This equates to roughly 1,633,345 pounds of uranium oxide.

We conclude that a discovery of a valuable mineral deposit existed at the time of the segregated withdrawal on July 21, 2009 within the limits of lode claims; Canyon 74 and Canyon 75, as required under the 1872 Mining law (30 USC 21-54). Furthermore, under present economic conditions, the uranium deposit on the claims could be mined, removed, transported, milled and marketed at a profit. We conclude that the test for discovery of a valuable mineral, as set out under Castle v. Womble, 19 LD 455 (1894) has been met, . " ..where minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine, the requirements of the statute have been met". The Canyon 74 and Canyon 75 claims have valid existing rights that were established prior to the mineral withdrawal.

II. Introduction

A. Purpose and Scope

This report documents the results of a validity examination of two unpatented lode mining claims known as the Canyon 74 and 75 claims, located within the Tusayan Ranger District, Kaibab National Forest (figures 1 and 2). The area containing the claim block is within the Northern Arizona Mineral Withdrawal that was segregated from the Mining Law for two years by Secretary of Interior, Salazar, on July 21, 2009, for approximately 1 million acres surrounding the Grand Canyon National Park region, including BLM and FS lands. By Secretarial order on June 21, 2011, the area was declared an emergency withdrawal, to allow more time for the decision on the Draft Environmental Impact Statement (DEIS) for the proposal. A final decision was made by the Secretary of Interior on January 9, 2012. The preferred alternative in the DEIS was chosen and all of the lands under review (approximately 1 million acres) are now included in a 20-year withdrawal.

The purpose of this investigation is to conduct a valid existing rights determination on the subject claims. It is Forest Service policy (FSM 2803.5) to only allow operations on mining claims within a withdrawal that have valid existing rights (VER). This VER determination was prompted by a request to resume mining operations at Denison's Canyon Mine, within the Canyon 74-75 claim block. The subject claims are referred to collectively as the "Canyon claims" or the "Canyon deposit" in this report. The applicable dates to establish "validity' in this particular case are July 21, 2009 (the initial segregation date), and the date of the mineral exam, since there was no "gap' between the initial segregation date, the emergency withdrawal, and the Secretary's decision for a withdrawal.

The Canyon claims were originally staked in 1978 by Gulf Mineral Resources for uranium. Energy Fuels Nuclear, Inc. acquired the property from Gulf in 1982. Exploration drilling by Gulf, and then Energy Fuels in the time period 1978 – 1985 led to the discovery of a uranium-bearing breccia pipe at the Canyon claims. In 1997, the property was sold to Dension Mines Corp., the current owners.

A plan of operations for underground mining of the deposit was approved in 1986 after an EIS was completed. Following the approval, the Forest Service decision was appealed and litigated by local tribes and environmental groups. The decision to approve the plan was affirmed by the Federal District Court and also the 10th Circuit Court of Appeals. Due to a severe drop in uranium prices globally in the 1980's, the mine went into standby status and has been idled ever since. When the mine went into stand-by status, all surface facilities including access roads, electric utilities, shaft/hoist, storage buildings, sediment ponds, etc... had been built. Additionally, the vertical underground shaft development was started but it stopped at approximately 50 feet. A reclamation bond has been maintained on the property throughout this time period to the present. Recently Denison has informed the Kaibab NF that it wishes to resume operations at the Canyon mine as soon as possible, which has prompted this VER determination.

B. Methods of Investigation

We conducted a field examination of the subject claims during October 24-27, 2011. Part of the field work included verifying claim boundaries, documenting development activities at the claims, and observing drill core stored on-site. Our investigation also included reviews of land and mineral status documents including Master Title Plats (MTP), BLM Mining Claim Recordation files, and county recorded documents. We analyzed geological reports and maps from the USGS and the Arizona Geologic Survey, and others to obtain information regarding the geology and mineralization of the area. We reviewed case file documents from the FS Southwestern Regional Office and Kaibab

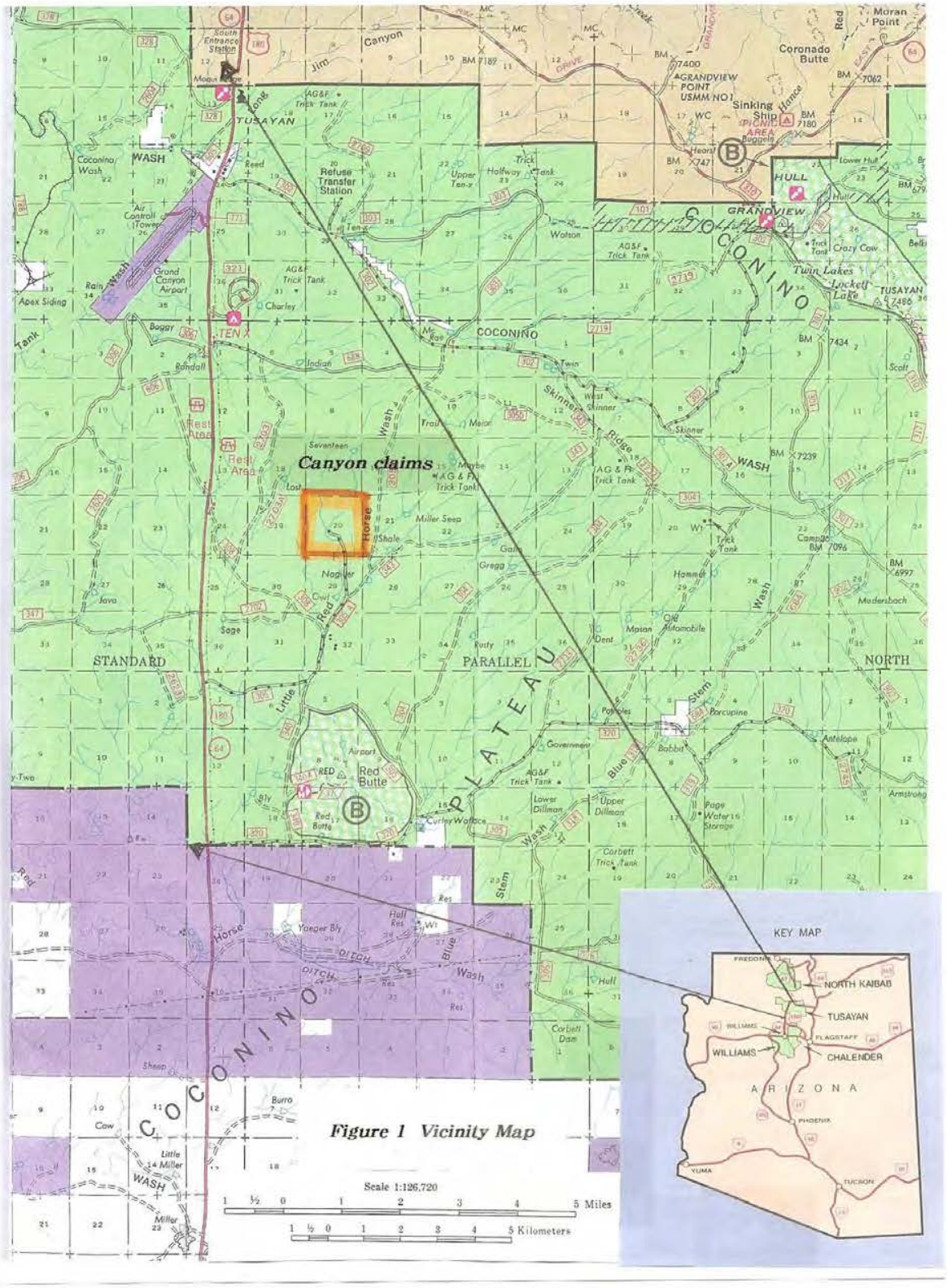


Figure 1 Vicinity Map

NF offices. We also reviewed Denison's records and data for the Canyon Mine and claims at their offices in Fredonia, AZ.

III. Land Status and Mining Claim Record Data

A. Lands Involved

The subject mining claims are located within the Kaibab National Forest, Tusayan Ranger District, Coconino County, AZ, (figures 1 –2). The legal description of the lands is as follows:

Gila and Salt River Principal Meridian, Arizona

T. 29 N., R.3 E., Sec. 20

B. Status of the Lands Involved

On July 21, 2009, the Secretary of Interior published a notice in the federal register announcing the 2-year segregation and proposed withdrawal for 633,547 acres of public land, and 360,002 acres of the Kaibab National Forest, including the entire Tusayn RD. The same lands were contained in an "emergency withdrawal" issued by the Secretary of Interior on June 21, 2011 for an additional six months for the purpose of allowing extra time for the EIS process on the withdrawal analysis to be completed and a decision to be made on the withdrawal. The Secretary issued his final decision on January 9, 2012 to withdraw all of the 1 million acres for a period of twenty years, including the 360,002 acres of the Kaibab NF.

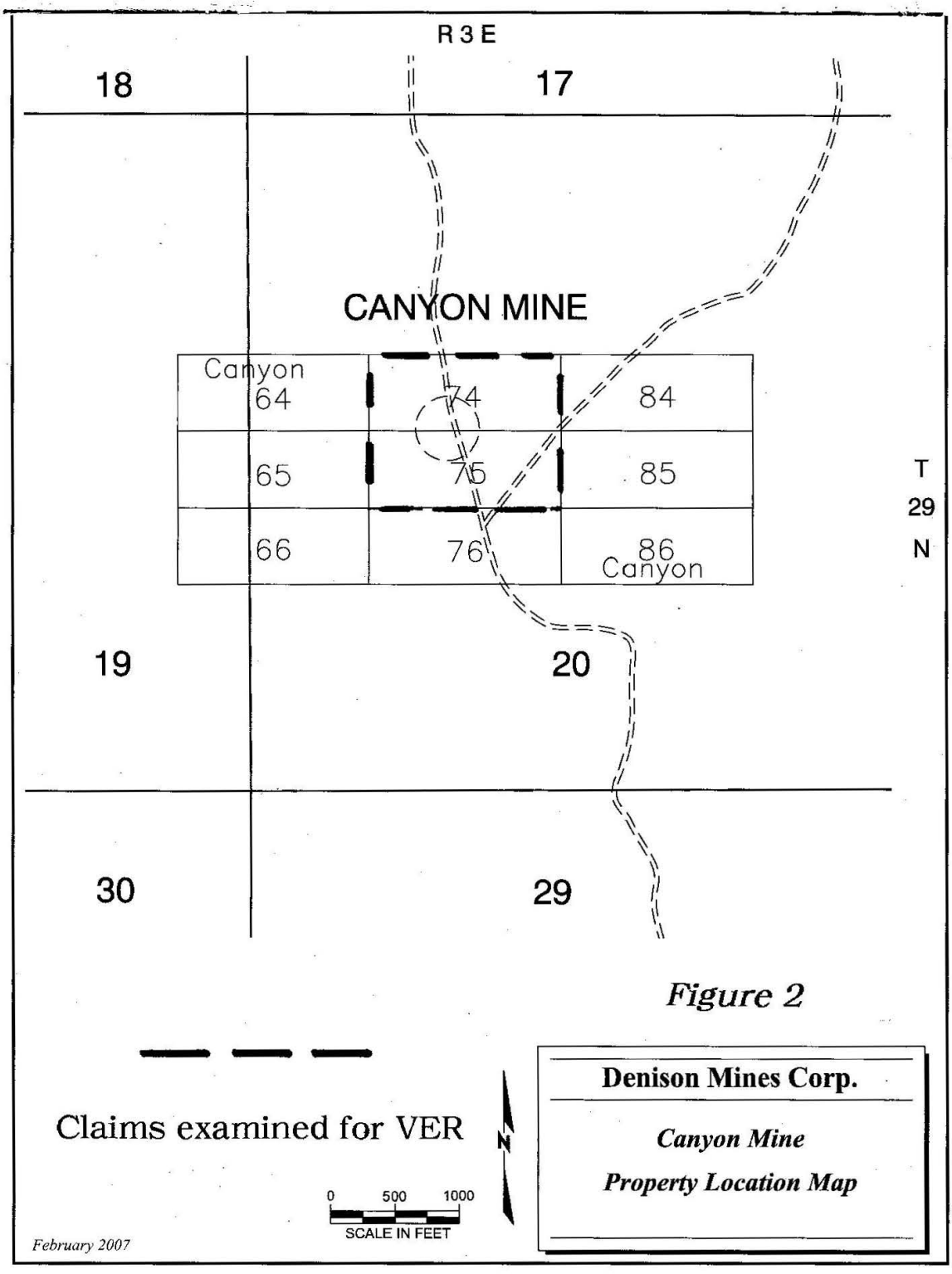
These actions described above withdrew the lands within the area from location under the general mining laws for twenty years. Prior to this, the subject lands were open to mineral entry and mining claims have been staked on portions of the Kaibab NF. Due to the withdrawal, all locatable operations within this area must have valid existing rights (VER) in order to be able to operate on these claims.

The BLM's automated case recordation data base, reviewed in October, 2011, shows there are no active leases, lease applications, or mineral materials permit on the Canyon claims.

C. Mining Claim Record Data

The subject lode mining claims were located on April 5, 1978 and are registered under Dension Arizona Strip LLC, an Arizona corporation. Only two of the 9 claims in the larger, adjacent claim block held by Denison were examined because the mine and associated surface facilities needed for the mine operations are contained on the subject claims. No other operations associated with the mine would occur on the other claims.

The claimants filed location notices with the Coconino County Recorder's Office shortly after location and with the BLM . Coconino County book and page numbers and BLM Mining Claim numbers are shown below in Table 1 and in Appendix A. Location notices, affidavits of assessment, and BLM and County records appear to be in order.


R 3 E
18
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CANYON MINE
Canyon
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Figure 2
Claims examined for VER
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500
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SCALE IN FEET
N
Denison Mines Corp.
Canyon Mine
Property Location Map
February 2007

TABLE 1

Mining Claim Recordation Information

Sources: BLM LR200 automated mining claim records

Name of Claim	BLM Serial Number	COUNTY Book	Page	Location Date
Canyon 74	AMC22643	673	593	April 5, 1978
Canyon 75	AMC22644	673	593	April 5, 1978

IV. Geology and Physiographic Data

A. Physiographic Province and Regional Geology

The general region is part of the Colorado Plateau physiographic province of northern Arizona. This area is best known for its prevalence of colorful exposures of sedimentary rock, incised canyons, occasional volcanic exposures and an abundance of erosional features such as mesas, escarpments and buttes. The Coconino Plateau, which is a more local geomorphic feature within the Colorado Plateau, south of the Grand Canyon, is characterized by predominantly sedimentary rocks and generally flat or gently dipping terrain. Elevations are in the 6,000 to 7,000 foot range and support pinyon-juniper and ponderosa pine forests. Major structural features within this plateau include the Grandview Monocline, East Kaibab Monocline, Cataract Syncline, and Bright Angel Fault (Cox and Schwab, 2010).

The Coconino Plateau and surrounding Grand Canyon region share the same overall stratigraphic setting and sequence, which is detailed in figure 3. The typical "layercake" geology of the Grand Canyon rock layers occurs in the subsurface of the adjoining Kaibab NF, including the subject lands. The uppermost beds that are exposed at the surface on the Coconino Plateau include the Triassic-aged Chinle and Moenkopi Formations and the Permian-aged Kaibab Formation. The Moenkopi and Kaibab units form the majority of the surface exposures in the Tusayan RD area. The Moenkopi Formation is a thin-bedded, find-grained, red sandstone, shale and mudstone. The Kaibab Formation is chiefly a grayish, thick bedded, sandy limestone, with interbeds of dolomitic limestone, dolostone, sandstone, evaporites and red beds (McKee, 1974). It is the rim-forming rock at the Grand Canyon on the south rim.

B. Breccia Pipes on the Colorado Plateau

The Colorado Plateau hosts many uranium-bearing breccias pipes and numerous studies have documented their importance as a source of uranium resources for the country (Bliss, 1993, Weinrich, 1985, 1992). Over 17 million pounds of uranium have been produced from breccia pipe deposits on the Colorado Plateau over the last 50 years or so. Figure 4 (Weinrich and others, 1986) provides a schematic cross-section of a typical breccia pipe in the region. It shows which stratigraphic units typically can contain uranium mineralization. Dension geologists state that the thicknesses of the Coconino Sandstone and Hermit Shale vary as you go from the north to the south on the Colorado Plateau, due to facies changes in the original sedimentary units. In the north, the Hermit Shale is much thicker and the Coconino is thinner, as compared to the same rocks south of the Grand Canyon. This difference influences where the mineralization occurs in these two different areas.

The pipes are vertically-oriented structures that formed as a result of chemical dissolution of the deep Mississippian Redwall Limestone during previous Karst (solution cavities) cycles when the Redwall was closer to the land surface and subject to groundwater influences. As younger strata were deposited upon these sediments, collapse structures from the voids originating in the Redwall began to propagate upwards through younger strata, in some cases reaching the surface. The resulting breccias and voids created by this process were later filled-in with cementing matrix materials by subsurface fluids, some occasionally including metal-sulfides and uranium-bearing minerals. Finch (1992) outlines the USGS deposit model for solution-collapse breccias pipe uranium deposits. These pipes can contain economic concentrations of copper, other metal sulphides and most importantly, uranium (typically in the form of uraninite) as evidenced by the many pipes that have been mined (Hack, Pinenut, Kaibab, Arizona 1, Hermit, and others) or in the process of mine development on the northern Arizona (BLM) strip, north of the Grand Canyon. Characteristic features for mineralized pipes include high-grade discontinuous pods in the core and in the annular ring fractures that accompany many of the deposits. Inwardly tilted beds, bleaching/alteration of host rocks, and supergene mineralization are common features in the mineralized pipes. At least nine pipes (including the Canyon pipe) with at least some showing of uranium are known on the Tusayan RD of the Kaibab NF from exploratory drilling, (Weinrich, 1992).

Surface expressions of these pipes include circular depression features that are up to roughly a hundred meters in diameter, tilted beds, and inward drainage. Geochemical anomalies for Cu, Pb, Zn, and Ag in rock and soil are also found at the sites of mineralized pipes. Some breccia pipes do not reach the surface and these are generally only identified in erosional canyon walls that expose these structures. One theory (Spiering, 2009) holds that many more “buried” undiscovered breccias pipes are present on the Colorado Plateau and that advances in exploration geophysical techniques are helping to find these hidden pipes.

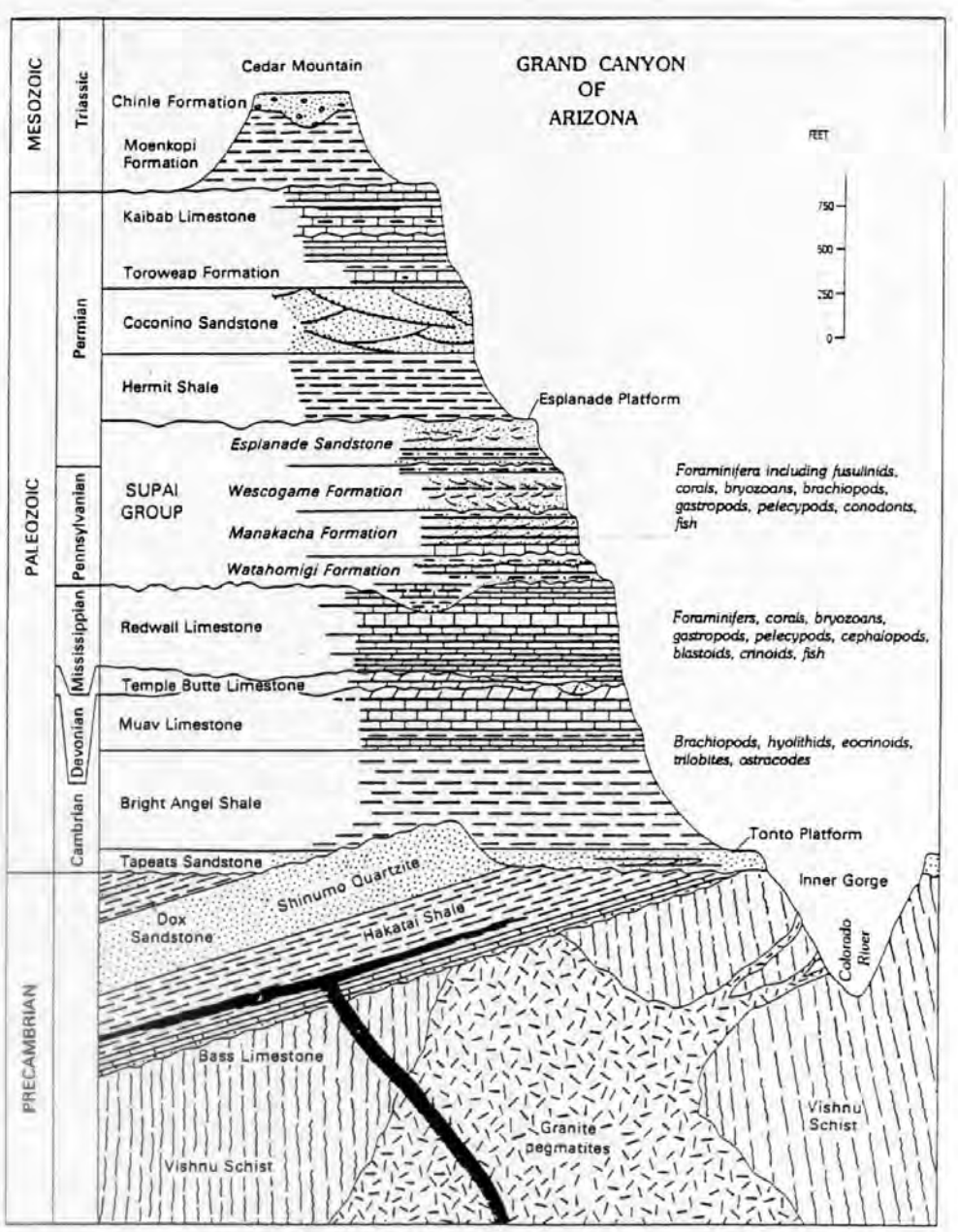

Figure 3. Stratigraphic column of the Grand Canyon and surrounding areas.

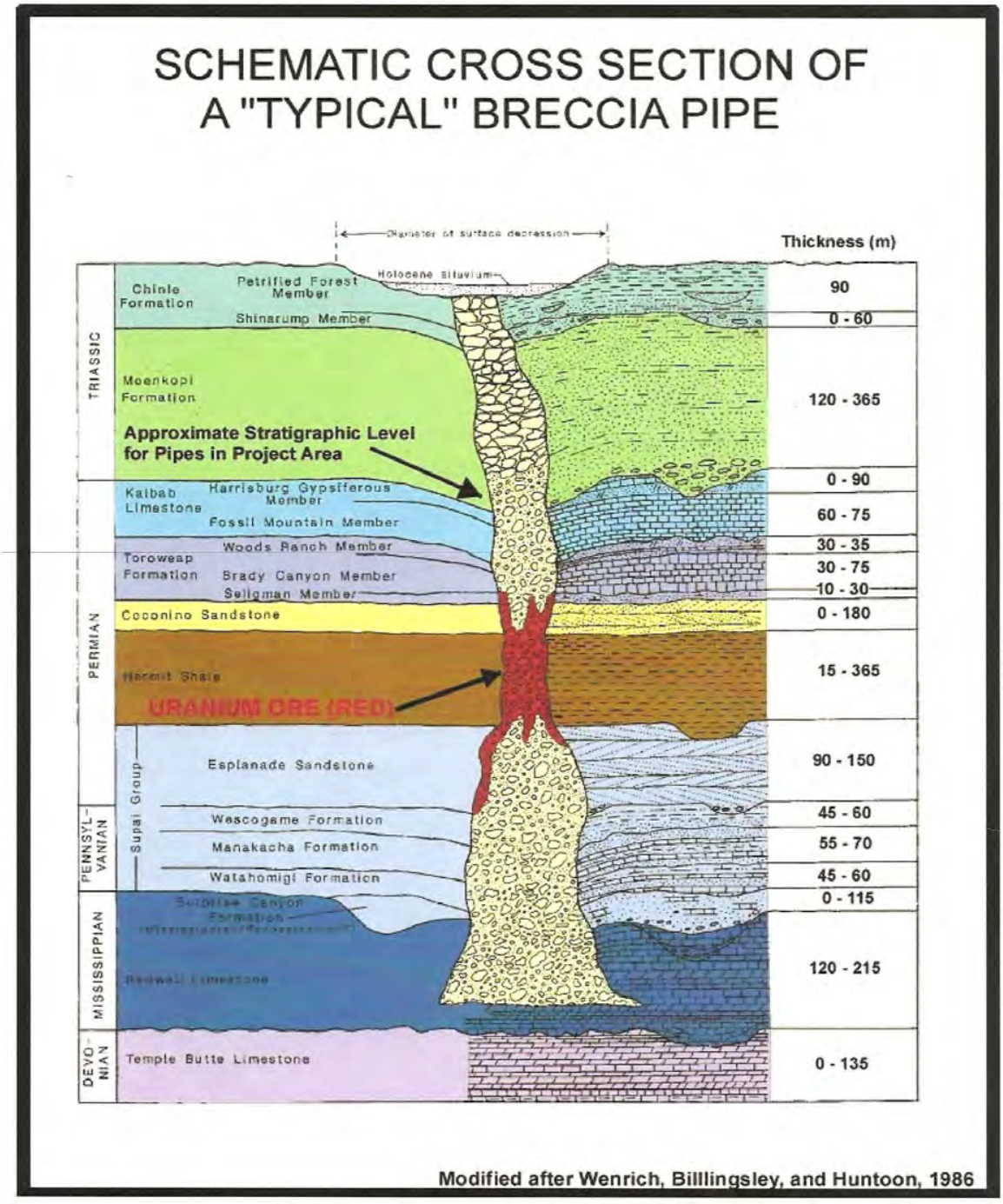

Figure 4. Schematic cross-section of a typical breccia pipe.

C. Site Geology

Topographically, the claims cover a natural, broad shallow depression, which is one of the indications of a breccias pipe in the subsurface. The subsurface geology of the subject claims is dominated by the same regional stratigraphic sequence that occurs in the Grand Canyon. Figure 3 is a representation of the rock units at depth. Table 2 describes the rock units penetrated in wells drilled into the breccia pipe at the subject claims. The formations of interest (from youngest to oldest) are the Moenkopi Formation, Kaibab Formation, Toroweap Formation, Coconino Sandstone, and Hermit Formation and Supai Group. These are the units that contain the breccia pipe structure at this location. The surface rocks exposed at the subject claims are part of the Moenkopi Formation. Drill logs for the Canyon mine show that the upper 10 feet of the surface contain the Moenkopi red sandstone and mudstones and then the Kaibab and older rock units are encountered at depth.

Table 2.

Rock Units Drilled at Depth on Canyon Claims

Geologic Unit	Depth and interval (feet below surface)	Thickness of unit (feet)
Moenkopi Formation	0-10	10
Kaibab Formation	10-340	330
Toroweap Formation	340-550	210
Coconino Sandstone	550-1,125	575
Hermit Shale	1,125 – 1,237	112
Supai Group (Esplande)	1,237 – 2,242	1,005
Redwall Limestone	2,242 – 2,670	428
Temple Butte Formation	2,670 – 2,780	110
Mauv Limestone	2,780 – 2,980	200
Bright Angel Shale	2,960 – 3,086	>126
Total Depth Drilled	3,086	

A good description of the Canyon breccia pipe is contained in the following excerpt from the NI-43-101 report (Pool and Ross, 2007) that was prepared.

> "Mineralization extends vertically both inside and outside the pipe over some 1,700 vertical feet, but ore grade mineralization has been found mainly in 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 (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 ore zone. The strongest mineralization appears to occur in the lower Hermit-upper Esplande horizons in an annular fracture zone."

V. Field Sampling and Analytical Work

On October 24, 2011 the examiners met at the subject claims with representatives from Denison Mines; Harold Roberts, Executive V.P. of U.S. Operations, Dave Lipkowitz, Mine Production Engineer, Dave Ryckman, Senior Development Geologist and John Stubblefield, Mine Foreman.

Jessica Lopez-Pearce, geologist on the Kaibab NF, also accompanied the group on this field visit. During the field visit, we walked the claim boundaries for Canyon claims #74 and 75, noting corner, side, and end monuments (see Photos). The claims were well marked with wooden posts in rock cairns. The discovery point for these claims is the breccia pipe drilling that was done for the two claims (see Appendix B).

Drill core from previous exploration drilling on the site is stored at the Canyon Mine facility. During our initial visit, we examined several of the more mineralized drill core intervals and compared lithologic descriptions, chemical assays and gamma ray readings with our visual observations and scintillometer readings. Generally there is agreement with very high gamma radiation, drill core descriptions, and chemical assay data for drill core intervals that was stored on-site for the Canyon mine.

Equilibrium studies that compare "closed can" radiometric readings in the lab with chemical assays have been done by Energy Fuels Nuclear (the previous mining company on the claims) and it has been demonstrated to industry standards that for the uranium breccia deposits on the Colorado Plateau (including the Canyon Mine), there is essentially a 1:1 ratio between radiometric values of uranium and its daughter products and the corresponding chemical assays for uranium in the deposit (Spiering, personal comm., 2012). This fact has also been confirmed though actual mining and milling of the Hack #1, Hack #2, Hack #3, Pigeon, Kanab North, Pinenut, and Hermit breccia deposits in the Colorado Plateau province over the last 40 years (Pool and Ross, 2007). Weinrich (1985) concludes that the age of the uranium mineralization is Mesozoic in these breccias, well beyond the one million years required for equilibrium to be reached with regard to uranium and its daughter products . U.S.G.S. uranium expert, Van Gosen (personal comm., 2012) agrees with this general assessment, although no formal radiometric studies have been documented. Based on this empirical evidence, we conclude that the mining companies have demonstrated the radiometric-chemical relationship through their production over the years.

On October 25, 2001, we visited the company's offices in Fredonia, Arizona to review company data for the Canyon mine. On the morning of October 26, we went underground for a tour at their active Arizona One uranium breccia pipe mine on the BLM's Arizona Strip. On October 27, we went to Denison's White Mesa processing mill at Blanding, Utah for a tour of that facility.

On December 15, 2011, we met with Mark Mathisen, senior development geologist/geophyiscist for Dension. He explained the geophysical logs for the drill holes and how various calculations are made to the raw data collected in the field, based on the specific parameters that apply, including geophysical instrument "dead time", the presence of water down hole, and if gamma ray readings are taken through steel pipe or within an open hole. All of these factors can influence how the counts per second are translated into percentage of uranium oxide. Mathisen provided us with the company's gamma ray logs for specific drill holes we requested to review.

On January 11, 2012, the mineral examiners revisited the core shed at the Canyon mine for the purpose of taking several core samples for chemical verification purposes. On that day, we met Dave Ryckman from Denison Mines at the mine. The examiners randomly chose 8 intervals from available drill cores to verify the accuracy of the data. For each interval that we sampled for verification, we 1) observed and compared the core log descriptions, 2) photographed the section and 3) then took the remaining split of the core, which was ½ of the core, for the selected intervals. We choose intervals of 2-4 feet in length for the verification assays. We chose intervals that were in the upper, middle, and lower stratigraphic sections of the Canyon deposit. The samples were packaged and handled solely by the mineral examiners for chain of custody purposes and shipped to ALS Minerals labs in Reno, Nevada for testing. Results of these analyses and the 1984 company assays of the same

intervals are reported in Appendix E. In general, the ALS assay results for the Canyon cores confirm the presence of uranium and certain other associated metals (arsenic, copper, iron, etc) in the drill core intervals and are very similar to assays that Energy Fuels Nuclear had done on these same cores in the 1980s

VI. Mineral Exploration and Development Work

The subject claims have been explored at various times since they were located in 1978. From the company's NI-43-101 report, the following outlines the drilling work that has been done (Pool and Ross, 2007).

> "Gulf Resources drilled eight exploration holes at the site from 1978-1982 but only found low-grade uranium in this pipe. Additional drilling completed by Energy Fuels in 1983 identified a major deposit. Energy Fuels Nuclear drilled a further 36 holes from May 1983-though April 1985 to delineate the uranium mineralization and to determine placement of the mine shaft and water supply well. Additional drilling of six holes was completed in 1994."

We observed drill hole collars on the site as well as drill core stored at the mine (Photos 5, 9-13). Appendix B includes a map showing the location and deviation of drill holes. As with other breccias pipe mines in the district, surface drilling is augmented by long- hole underground drilling once the shaft has been sunk to an appropriate level.

After the plan of operations for mine development was approved by the Forest Service in 1986, surface facilities for the mine were begun. A 100 foot head frame was installed and the main shaft was dug to a depth of approximately 50 feet before development operations ceased. All surface facilities to run the mine at that time were constructed, including sediment ponds and power lines to the site. (See Appendices B and D for a layout of the surface facilities and for photos of same).

VII. Reserves and Resources

Classification of the Canyon Mine uranium deposit as reserves follows definitions in the Bureau of Land Management's (BLM) Mineral Examiners Handbook, H-3890-1 (Haskins, et al, 1989). The handbook classifies "proven" reserves as ore blocked out in three dimensions by actual underground mining operations or by drilling (Haskins, et al, 1989). The claimant (Denison) has done this with their exploration drilling. The handbook also goes on to state that for a group of claims, once a physical exposure of a valuable mineral has been shown on each claim, the claims can be grouped together and treated as a single deposit for purposes of reserve and economic calculations (Haskins, et al, 1989). Since a physical exposure has been made on both claims through drilling, claims Canyon 74 and 75 will be treated as one deposit.

Even though Denison uses the term "resources" to describe what they classify as economic ore body, much of the Canyon Mine uranium mineral deposit can be reasonably classified as Proven and Probable reserves using SME (Society for Mining, Metallurgy, and Exploration) reserve definitions (SME, 1999). Exploration drilling has blocked out three different ore bodies in two or three dimensions.

Possible (or inferred) reserves are defined as a mineral deposit whose existence is a reasonable possibility, as based primarily upon the strength and continuity of geologic-mineralogical relationships and upon the extent of ore bodies already developed, and a measure of whose continuity is therefore available. Past mining experience by Energy Fuels Nuclear and Denison has shown that proven and probable reserves were usually underestimated. It is reasonable to expect that final reserve

tonnages at the Canyon Mine will be higher than estimated. Much of the possible reserves will likely be converted to proven and probable with additional development drilling and final mine production (Pool and Ross, 2007). Despite the likelihood of increasing proven and probable reserves from possible reserves, possible reserves are not used in this report's economic evaluation.

VIII. Mining and Milling Operations

A. Mining

The proposed mining method to be used for development of this breccia ore body is a combination of modified block-caving and shrink-stoping. The underground workings are to include the main shaft, an escape shaft (also providing an air-flow path), cross-cut levels, and a series of 'corkscrew" workings to follow the ore. Appendix D, photograph #15 is a sketch of the underground workings at Denison's Arizona One Mine on the BLM's Arizona Strip, which would be very similar to what is proposed at the Canyon mine. Breccia pipe mining in the district is similar for all of the deposits. The sketch shows the working levels, main shaft, escape shaft, and working drifts that follow the ore in a cork-screw fashion within the roughly circular breccia zone. Large volumes of fresh air are pumped through the mine to reduce the radon gas levels to MSHA safety standards.

According to Dave Ryckman, Denison's senior development geologist, the ore deposit is contained in three separate ore zones, the upper, middle, and lower zones. As is typical for these deposits, more uranium ore is anticipated to be delineated once the underground drilling program commences.

B. Milling

On October 27, 2011, we were given a tour of the uranium processing mill at White Mesa, near Blanding Utah. Mill manager, Dan Hillsten, gave the mineral examiners a tour of the facility and explained the process steps. The facility is reportedly one of the only currently operating, conventional uranium mills in North America. The mill is owned and operated by Denison Mines, the same company that holds the Canyon claims.

Uranium ore is transported in trucks to the mill. Each truck contains about 25 tons of material. Haulage distance from the subject claims to the mill would be about 330 miles, one way. Once ore arrives at the mill, it is weighed and stored on-site in separate stockpiles. From there, ore from specific stockpiles is fed through a hopper and grizzly to screen and remove the oversize material. It then goes into the SAG grinding circuit of the mill, which pulverizes the rock down to -10 mesh to expose the surface area of individual mineral grains. At this point, samples are taken to quantify the uranium content of the specific batch which will be run through the mill. From there the ore is transferred as a wet pulp to a series of storage tanks where the leaching process begins.

Pulped ore is fed to multi-stage leaching circuit (Uranium Producers of America, 2011). Here the pulp is typically heated to enhance chemical reactivity. Leaching is started with the addition of sulfuric acid and the ore passes through several stages as leaching agents and oxidizer concentrations are added to dissolve the uranium optimally. Next, the ore slurry passes to a solid/liquid circuit or CCD (counter-current decantation), which is a series of large vessels where the slurry is mixed with wash-water to remove as much uranium as possible and also to separate the uranium-rich liquor from the leached solids, which will be sent to the tailings disposal cells. At the end of the CCD circuit, approximately 99% of the original uranium is in solution.

The uranium-bearing solution then goes to a solvent extraction (SX-EW) process which selectively removes the uranium from the solution and is collected by an organic solvent (typically kerosene). The barren solution can then be returned to the processing circuit or disposed of in the tailings system. The uranium is then stripped from the SX solvent by a saline solution. Uranium is precipitated from this strip solution by adding ammonia which forms a yellow-cake slurry. The yellow-cake is then dried and stored in 55 gallon drums as a final product for sale to further uranium processing steps on its way to becoming fuel for nuclear power plants.

IX. Economic Evaluation

A. Tonnage and Grade

Denison developed tonnage and grade estimates for the Canyon Mine from the results of 45 surface holes totaling 61,400 ft. with an average depth of 1,364 ft. (Pool, 2007). The database derived from this drilling includes 37,442ft. of eU3O8 values with 0.5 ft. lengths totaling 18,721 ft. of values. The mineral deposit straddles Canyon 74 and Canyon 75 mining claims (Figure 2). Since a physical exposure of valuable mineral has been made on both claims, the claims can be grouped together and treated as a single deposit for purposes of economic and reserves calculations.

Two different resource calculations have been made for the Canyon uranium breccia deposit. Pool and Ross (2007), who authored the NI-43-101 report, calculate the resource totals for Canyon at 70,500 tons, grading 1.08% uranium oxide, with a cut-off grade of 0.2% eU3O8, for a total of 1,523,000 pounds of uranium oxide. High uranium grades were cut at 6% in this model.

The National Instrument (NI 43-101) report is a mineral resource classification scheme used for the public disclosure of mineral project information. It is a codified set of rules for reporting and displaying information related to mineral properties owned by, or explored by, companies which report these results on stock exchanges within Canada. Therefore Denison's numbers are reasonable and acceptable for the mineral examiners evaluation of these two claims.

Denison conducted its own internal resource estimate, using Vulcan 3-D mine modeling software and the same basic assumptions as the Pool and Ross tonnage calculations. Based on the same data set and the same cut-off grade of 0.2%, Denison estimates a minable reserve of 84,207 tons grading 0.970% U3O8 which would yield a total of 1,633,345 pounds U3O8. High U3O8 grades were cut at 10%.

Uranium mineralization within the Canyon deposit occurs at three distinct vertical intervals; an upper zone, a middle zone and lower zone. The following ore deposit description is taken from Denison's internal documentation for the Canyon Mine project. The upper zone is contained within a vertical interval of 220 ft. between the elevations of 5,630 ft. and 5,410 ft. and spans a horizontal distance at its widest 120 ft. in diameter. The middle zone occurs between the elevations of 5,260 ft. and 5,110 ft. and at its widest spans a horizontal distance of 164 ft. in diameter. The lower zone occurs between the elevations of 4,890 ft. and 4,560 ft. and takes on an oval shape, at its widest, 100 ft. in diameter, along its major axis and 54 ft. in diameter along its minor axis.

It should be noted that much more drilling will be completed once the shaft is sunk down to the first level of the proposed underground mine. At that point, many hundreds of holes will be drilled from that vantage point to refine the current reserve estimates. From experience gained from Dension's properties with the other Colorado Plateau breccias mines, and from experience learned in mining

older breccias deposits (Energy Fuels Nuclear), the ore tonnage estimates will likely go much higher once other "un-tested' portions of the breccias pipe are drilled. Presently, there are still some voids in the breccia deposit structure that have not yet been tested thru drilling efforts, so resource estimates are very likely to increase when these voids are sampled by drilling. Similar scenarios have been reported from the other uranium breccia deposits that were mined on the Arizona strip including the Hack #1, Hack #2, Hack #3, Kanab North, and Pigeon mines, where average grade and available resources mined were shown to be higher once the mining commenced (Pool and Ross, 2007).

B. Capital Costs

Capital and operating cost estimates for the Canyon Mine were derived from Denison's recent and on-going experience from their Arizona One Mine north of the Grand Canyon in a similar ore deposit, as well as the Canyon Mine project. Costs for the Canyon Mine are expected to be similar to the currently operating Arizona One Mine.

A review of the company's cost estimates found them to be reasonable and at an adequate level of detail to spot check specific operating costs. Labor costs and transportation costs were spot-checked and independently confirmed.

A mine plan and capital costs were developed for the Canyon deposit by Energy Fuels in 1985. The plan included the sinking of a 1,500 vertical shaft with development levels between 900 ft. and 1,500 ft. The development program was expected to require 3 years for completion. Mine production would be approximately 200 tons per day. The company plans to move much of the surface infrastructure to the Canyon Mine. Much of the Arizona 1 work force will also go to the Canyon Mine.

Much of the surface development is complete which includes the main head frame, hoist house, warehouse and shop, sediment ponds, and power lines. These costs are considered "sunk' costs since they were previously completed for mine development and are fixed assets on the claims. Most of the capital expenses are underground development costs.

Table 3 below summarizes the Canyon Mine Capital costs. See Appendix C for specific costs.

TABLE 3: Capital Cost Summary

Capital Development	
Permitting and Engineering	$218,000
Mobilize Project	$45,000
Surface Facilities, rehab, impoundment, ore pad	$508,000
Pre-sink setup	$232,000
Shaft Sinking	$7,100,000
Station Excavation	$835,824
Capital Drift Development	$1,170,000
Raises, Vent Shaft, Ore Pass Development	$1,167,000
Final Development to the Bore Hole	$272,500
Pre-production Incline/ Decline /Sublevel Development	$1,575,000
Pre-production Utilities	+ $335,000
Total Capital Development	$13,458,324

Capital Equipment		
Surface Mobile Fleet		$828,000
Surface Fixed Plant		$700,000
Underground Mobile Fleet		$1,882,000
Underground Fixed Plant		$713,000
Salvage Value	+	($618,450)
Total Capital Equipment		$3,504,550
Total Capital Development + Capital Equipment		$16,962,874
Contingency on Total capital Costs		$1,696,287
Reclamation	+	$450,000
Total capital Costs		**$19,109,161**

C. Operating Costs

1. Mining

Denison plans to mine the ore body with a combination of modified block-caving and shrink-stoping mining methods currently used in their Arizona 1 Mine. Daily production is expected to be 200 tons. Including development, the minimal mine life is approximately 5 years. Table 4 below summarizes the total operating costs.

Table 4: Annual Mine Production Summary

Tons Mined	35,287
Estimated lbs U3O8 mined	623,940
Grade	0.970%
Cost per Ton Mined	$354.02
Cost per pound U3O8 Mined	$17.36

2. Milling and Haulage

Denison plans to truck all the Canyon Mine uranium ore to Denison's White Mesa Mill at Blanding, Utah. The mill is designed to treat 2,000 tons per day and receives mill feed from Utah, Colorado and industrial recycling sources. Milling of the higher grade ores from Arizona required minor modifications to the leaching circuit. The basic mill process is a sulphuric acid leach with solvent

extraction recovery of uranium and vanadium. No vanadium is recovered from the Arizona ores. Mill recovery is approximately 95%.

Table 5: Operating Cost per Ton Summary

Direct Costs		
Mining and Site G&A		$110.42/T
Ore Haulage		$66.00/T
Milling		$141.04/T
Indirect Costs		$36.56/T
	Total	**$354.02/T**

Estimated mining costs for the Canyon Mine are $110.42 per ton. Haulage costs are estimated to be $66.00 per ton. Milling costs are estimated to be $141.04 per ton. Indirect costs are estimated to be $36.56 per ton. Total operating costs are $354.02 per ton.

D. Commodity Pricing

We used the BLM's guidance (2000) for pricing of mineral commodities. The BLM guidance for commodities such as uranium, indicates that the mineral examiner is to look at the current price of the commodity at specific dates that are connected with the project; such as the initial segregation/withdrawal date for the claims, and the date of the mineral exam. Prices for uranium are then calculated using the monthly spot price over a period of 37 months (= the current month and the past 36 months). If we use the initial mineral segregation date of June, 2009, when the lands were first withdrawn from location under the Mining Law, as the date at which to look back at the 3 prior years and average the price (Mundi, 2012) over those past 37 months, we arrive at an average spot market price of $70.79/lb of uranium oxide. The spot market price on July 20, 2009 was $49.70. Along those same lines of reasoning, if we use the month of January, 2012, (the exam date) and look back over those prior 3 years and average those uranium spot prices for the past 37 months we arrive at an average price of just under $50/lb uranium oxide ($49.69).

Figure 5 is 5-year look at uranium oxide spot prices. The chart shows that the spot price of uranium rose to a high price of $136.22 in the summer of 2007, as a result of several global factors influencing the price of uranium. That price however was not sustainable and the price came back down to lower levels shortly after that.

It is also important however to understand that most uranium producers are tied into long-term contracts for delivery of uranium and these long-term contracts are typically higher than the spot price. These long-term contracts include provisions for cost inflation, fuel surcharges and other factors. For a comparison, see Figure 6 where long-term prices are consistently higher than spot prices. Dension reports that they currently have long-term contracts for roughly 50% of their sales from their operating mine on the Arizona Strip. Long term contract prices for uranium oxide ranged from $57 to $61 /lb. in the period January, 2009-January, 2012. Contracts are usually for periods of

4-5 years. Short-term prices have recently been $52/lb. Assuming a 50/50 split between long-term and short-term contracts for most uranium producers, a price of $56/lb. would be a good average price to use in the economic evaluation to represent the current price for uranium oxide. It should be remembered that this is the lower price of the two time periods to consider, since the earlier time-frame of July 21, 2009 and 36 months prior to that, would yield significantly higher prices using the BLM guidance policy. For purposes of our cost models, we used a price of $56/lb.

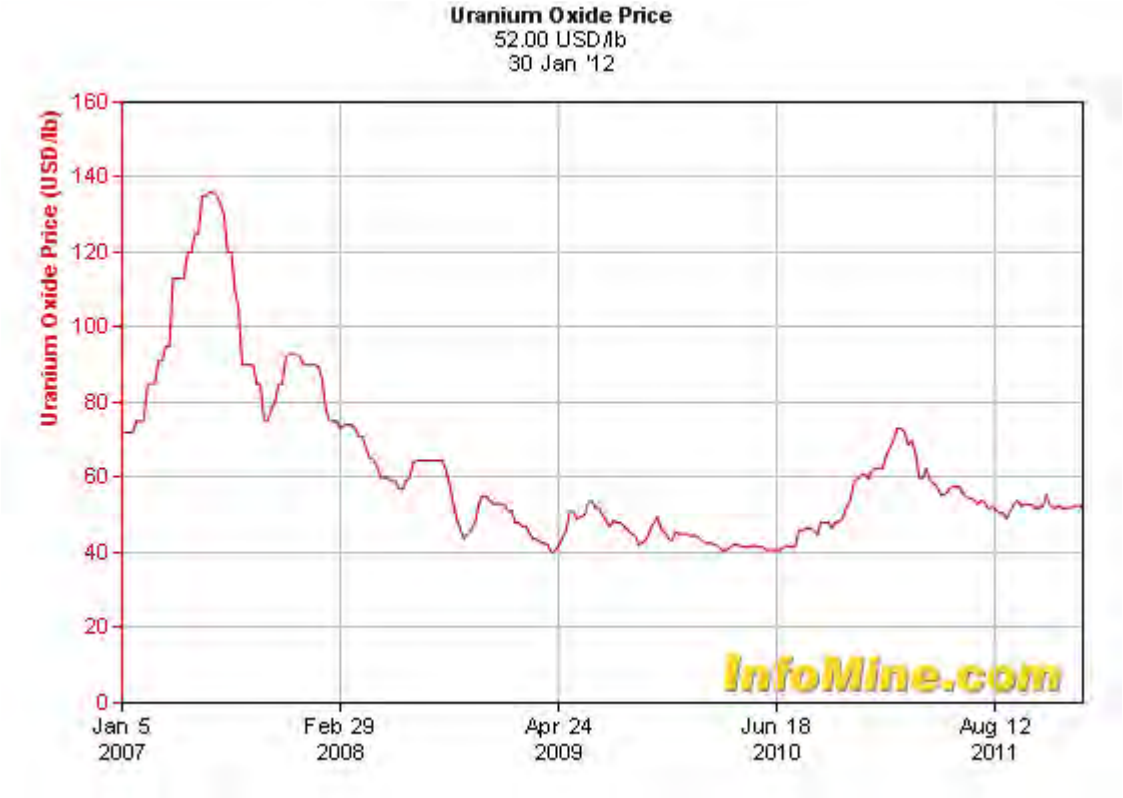

Figure 5. Spot price of uranium oxide from 2007 to 2012. Source: InfoMine.com.

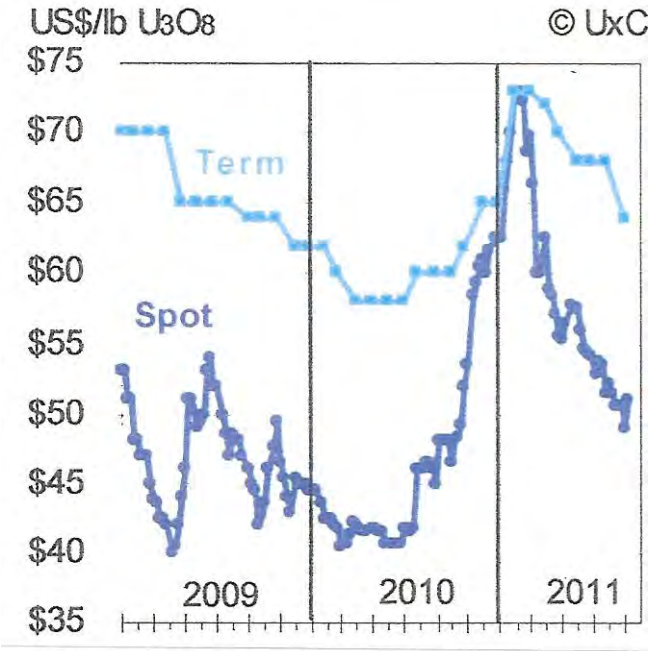

Figure 6. Long term and spot price for uranium oxide from 2009 to 2011. Source: UxConsulting

E. Confirmation of Company Costs

Specific labor and haulage costs were independently checked for accuracy. Denison pays it's underground miners an average of $22.87/hr. based on their experience. Independent data supplied by CostMine lists an average non-union rate for the western U.S mines is $26.67/hour (CostMine, 2011).

Denison's haulage costs are $57.00/ton. Independent data supplied by CostMine indicates that mining-related haulage costs in the western U.S. are between $46.20/ton and $62.04/ton (CostMine, 2011).

F. Feasibility Analysis

Using the company's capital and operating costs, we performed several independent discounted cash flow analyses using APEX (version 3.03, 2010), a computer software program specifically designed for the economic evaluation of mining projects. APEX software, with more than 150 users, is well-accepted as a reliable evaluation tool by the mining industry for a variety of commodities and mine designs. The data necessary to run APEX also includes reserve tonnages, production rates, ore grades, and commodity prices all of which have been described in previous sections. Applicable federal and state taxes were factored into the analyses (Appendix F- Cash Flow Schedule).

Basically, the discounted cash flow analysis procedure consists of the following sections: Revenue from production and sale of a product is determined for each year, from which is deducted the cash operating costs of mining, milling, transportation and administration. Other costs such as property taxes, production taxes, depreciation, and depletion are deducted to determine the net income before taxes. Income taxes are then deducted to determine net income after taxes. Capital investment for the year is then deducted. The result, commonly called cash flow or net cash flow is the stream of income generated by the project as a function of time. The sum of cash flows shows whether the proposed mining operation would result in a profit or a loss. The cash flow is then discounted at a specific discount rate to determine the net present value (NPV). The discount rate that exactly balances the NPV of expenditures against the NPV of receipts is called the internal rate of return (IROR) or return on the investment. The IROR is also used as a measure of the economic viability of the project.

A cash flow scenario was constructed using cost and commodity value data provided by Denison. The results of the APEX discounted cash flow analysis, with costs, production and value data as described above are shown in Table 6. Complete printouts of the APEX input data and results are provided in Appendix F (Cash Flow Summary).

Table 6 – Results of Cash Flow Analysis
(Results of analysis using APEX computer software Ver. 3.03, 2010)

Product Value	**$56.00 /lb. U3O8**
Net Sum of Cash Flows	**$29,350,736**
Net Present Value (NPV)	
@10% discount rate **@15% discount rate** **@20% discount rate**	**$22,250,758** **$19,336,119** **$16,755,429**
Internal Rate of Return (IROR)	**78%**
Payback Period	**1.08 years**

At a uranium (U3O8) price of $56/ lb., the proposed Canyon Mine would have an internal rate of return (IROR) of 78%. and a payback period of approximately one year. A sensitivity analysis using a lower uranium price was done using the same APEX software. Even at a lower price of $ 42.00 per lb. U3O8, mining would still be profitable with a rate of return of 36% (Appendix F-Sensitivity Analysis). The minimum rate of return for the mining industry is approximately 12% (Bhappu and Guzman, 1995).

X. Conclusions

We conclude that a discovery of a valuable mineral deposit existed at the time of the segregated withdrawal on July 21, 2009 within the limits of lode claims; Canyon 74 and Canyon 75, as required under the 1872 Mining law (30 USC 21-54). Furthermore, the company has shown that on July 21, 2009 and under present economic conditions, the uranium deposit on the claims could be mined, removed, transported, milled and marketed at a profit. We conclude that the test for discovery of a valuable mineral, as set out under Castle v. Womble, 19 LD 455 (1894) has been met, . " ..where minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine, the requirements of the statute have been met". The Canyon 74 and Canyon 75 claims have valid existing rights that were established prior to the mineral withdrawal.

XI. References

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Photo 1. FS-CME Mike Doran at SE corner post for Canyon #74, NE corner of Canyon #75. Access road to the Canyon mine in background. Photo taken by M. Linden, 10-24-11.

Photo 2. FS-CME Michael Linden and Dave Lipkowitz of Denison Mines at SW corner of Canyon #74. Photo taken by M. Doran, 10-24-11.

Photo 3. Kaibab NF geologist, Jessica Lopez-Pearce, FS-CME Mike Doran and Dave Lipkowitz of Dension Mines at SW corner of Canyon #75. Photo taken by M. Linden, 10-24-11.

Photo 4. SE corner monument of Canyon #75. Note headframe and rock berm in background to the north. Photo taken by M. Linden, 10-24-11.

Photo 5. Drill hole brass cap for drill hole CYN #22 drill hole. Photo was taken in open meadow within fenced area for mine. Photo taken by M. Linden 10-24-11.

Photo 6. Headframe for shaft, dry house (at rear-left) and warehouse/shop (on right). Photo taken towards the north by M. Linden on 10-24-11.

Photo 7. Water tanks along edge of fenced area for mine. Photo taken by M. Linden, 10-24-11.

Photo 8. Plastic liner on water retention pond on west side of fenced area for mine. Photo taken by M. Linden, 10-24-11.

Photo 9. FS-CME Mike Doran examining core boxes with Dave Lipkowitz of Dension Mines. Note scintillomter meter on table. Photo taken by M. Linden, 10-24-11.

Photo 10. High-grade uranium ore (dark stringers and veins) in drill core from Canyon claims. Mike Doran holding specimen. Photo taken by M. Linden, 10-24-11.

Photo 11. Headframe at operating Arizona No. 1 uranium mine, owned by Dension Mines on BLM's Arizona Strip . Photo taken by M. Linden, 10-26-11.

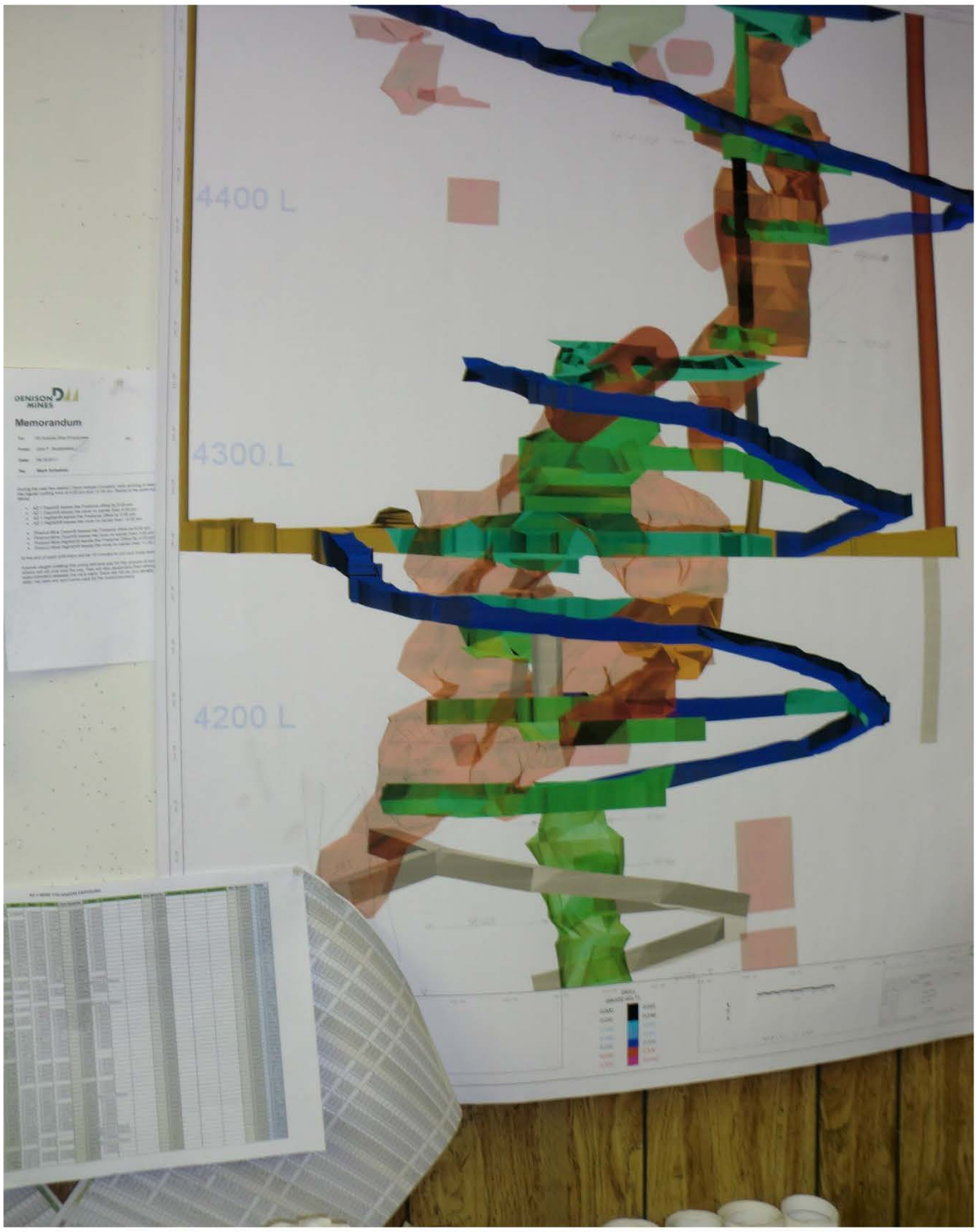

Photo 12. Drawing in mine office of underground breccia pipe mine workings at Arizona No. 1 mine. Straight, brown, vertical lines on each side are main and escape shafts, with horizontal drift. Blues and greens are drifts, spiral passageways, and stopes. Photo taken by M. Linden, 10-26-11. .

Photo 13. Sharp contact between bleached Hermit Shale host rock (below) and breccia (above) in underground workings at Arizona 1 mine. Photo taken by M. Linden, 10-26-11.

Photo 14. Uranium-bearing breccias underground at Arizona No. 1 mine.

Photo taken by M. Linden, 10-26-11.

Photo 15. Sharp contact between bleached (weakly mineralized) and unbleached Hermit Shale underground at Arizona No. 1 Mine. Photo taken by M. Doran, 10-26-11.

Photo 16. View of a portion of Dension's White Mesa mill in Blanding, Utah, where uranium ores are processed into yellowcake for the next step in nuclear fuel cycle. Photo taken by M. Linden, 10-27-11.

Photo 17. White Mesa mill manager Dan Hillsten (left) and Mike Doran walk past separate uranium ore piles ready to begin the mill cycle. Photo taken by M. Linden, 10-27-11.

Photo 18. SAG mill in the crushing/grinding circuit for the mill. Photo taken by M. Linden, 10-26-11.

Photo 19. Thickening tanks and mill process ponds used in the uranium mill cycle. Photo taken by M. Linden, 10-27-11.

Photo 20. View inside the main solution leaching building. Walkways are over large leaching vessels and tanks. Photo taken by M. Linden, 10-27-11.