



CONTACT INFORMATION

Mining Records Curator
Arizona Geological Survey
1520 West Adams St.
Phoenix, AZ 85007
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

The following file is part of the

Arizona Department of Mines and Mineral Resources Mining Collection

ACCESS STATEMENT

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

QUALITY STATEMENT

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

PRINTED: 11-14-2006

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: IRLE CLAIMS

ALTERNATE NAMES:

EXCALIBUR
CACTUS WREN
PORTER CLAIMS

YAVAPAI COUNTY MILS NUMBER: 781A

LOCATION: TOWNSHIP 10 N RANGE 1 E SECTION 1 QUARTER N2
LATITUDE: N 34DEG 14MIN 30SEC LONGITUDE: W 112DEG 12MIN 35SEC
TOPO MAP NAME: BUMBLE BEE - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:

LEAD
SILVER
COPPER
BARIUM

BIBLIOGRAPHY:

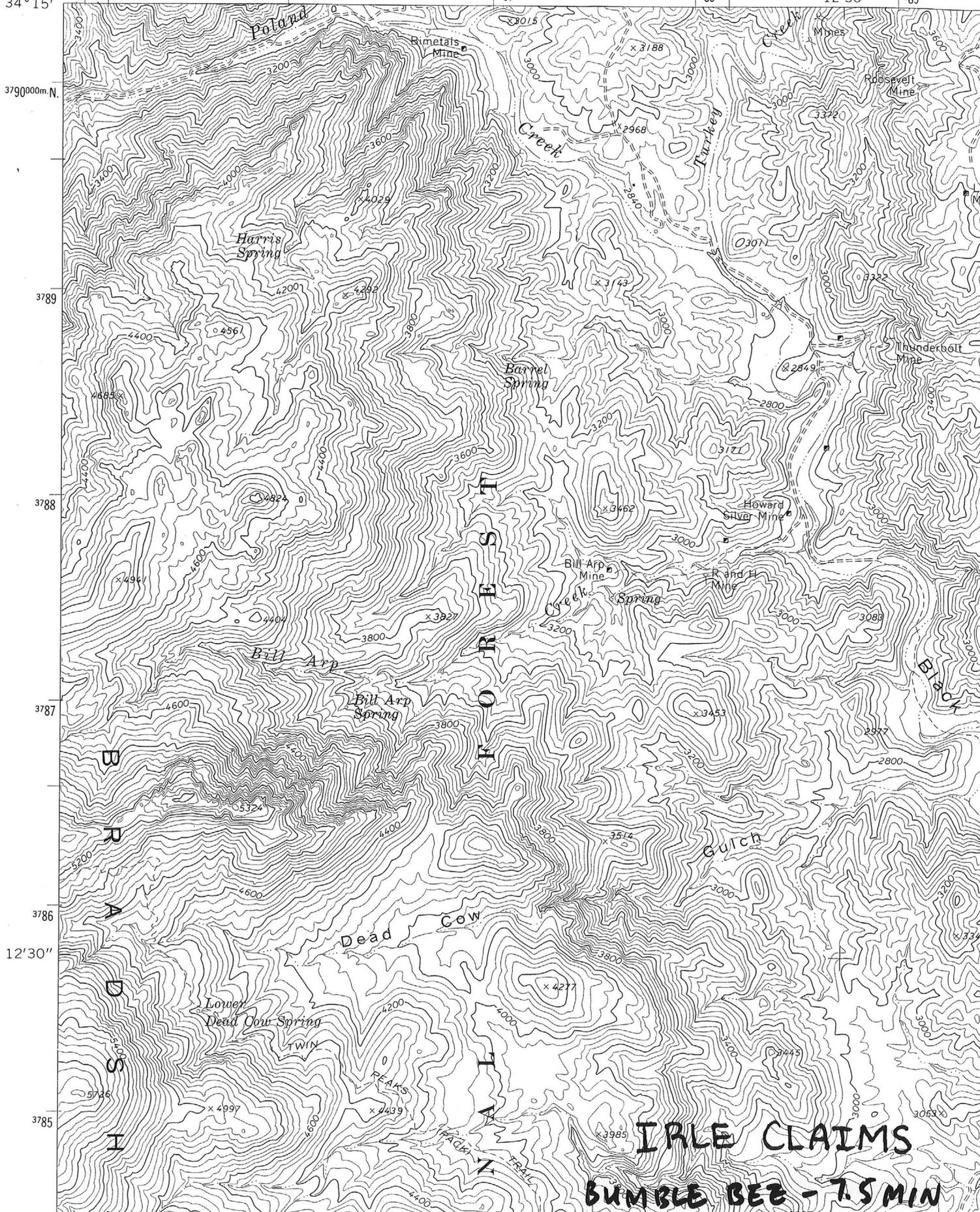
ADMMR IRLE CLAIMS FILE
USAEC PRELIM RECON REPT YAVAPAI CTY FILE
A-103 1956 P 21
BLM AMC FILE 58076

3552 IV SE
(BATTLE FLAT)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BUMBLE BEE - 7.5 MIN

112° 15' 34° 15' 386000m.E 387 388 12' 30" 389



BATTLE FLAT

IRLE CLAIMS
BUMBLE BEE - 7.5 MIN

IRLE CLAIMS

YAVAPAI COUNTY
BLACK CANYON DIST.

Mr. Irle sunk a 50-foot diamond drill hole on a shear that passes through his shaft on his claims near Cleator (4 miles S). The bit size is $\frac{1}{2}$ inch. The

hole passed through quartz-mica schist for 49 feet then passed into 1 foot of hornblende schist. The material from 45 feet to 50 feet showed increasing alteration, whereas, above this, the rock show little alteration other than some limonite on the jointing planes and schist laminae. The last foot showed chlorite, quartz and calcite veinlets and was considerably firmer. Disseminated iron sulphide (pyrrhofite or "white" pyrite) was beginning to appear along with more numerous specks of limonite derived from the iron sulphide. No sulphide of similar proportions was observed above this. A greenish mineral, in specks, may be epidote. The hornblende and biotite mica showed increased alteration along their borders in the last 3 feet. A band of breccia was cut just prior to the beginning of noteable alteration, or $1\frac{1}{2}$ to 2 feet above the hole bottom. Calculations seem to indicate that the hanging wall of the shear was hit at about this position. Mr. Irle said that the ground was becoming more difficult to core. Since the area has had gold values, although somewhat sporadic, it was suggested that the last 1 foot of core be assayed for gold and silver. Should this show appreciable values, it then would be advisable to continue deeper in the hole, if practicable.

Interview with Charles Irle, 3-14-63

MEMO LEWIS A. SMITH

Interviewed Chas. Irle at his claims and examined cuttings from shallow (20') holes.

FTJ WR 1/23/70

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Irle Claims

Date February 25, 1963

District Black Canyon District, Yavapai County

Engineer Lewis A. Smith

Subject: Mine visit with Charles Irle (owner).

Location: S. 24, T. 10 N., R. 1 E.

The mine workings lie in a narrow, precipitous walled canyon along a generally north-east to north trending branch wash off of Black Canyon Creek. The wash, from its confluence with Black Canyon Creek, extends in a generally straight, but locally weaving line for about 1/4 mile, then turns abruptly eastward for 500 or more feet, thence turns abruptly north again, and then extends northward out of the claims. A 22 foot shaft, and a 30 foot adit, both lie in a transverse E-W trending combination shear and fault zone that crosses the wash at 90 degrees to the wash trend. This zone has 1-2 feet of fault breccia on the hangingwall but has an indefinite footwall. The schist is intimately sheared out from the footwall for 6-10 feet. This is typical of other zones that cross the area. The 22 foot shaft is situated in the east bank of the wash and the 40 foot adit was driven into the west bank, both on the shear-fault zone. Lead-silver mineralization was found in a narrow lense that lies along the hangingwall. The adit showed little other than strong iron oxides which also impregnated northward from the shear-fault for several feet along the laminae of the quartz-sericite schist. Quartz, in elongated lenses, veinlets and narrow stringers, was seen for considerable distance northward from the shear-fault. It is oriented to the schist laminae and is said to locally contain a little gold in pockets.

One hundred fifty feet, or more, north from the 22 foot shaft, where the wash makes the first right angle turn, a second strong shear-fault, trending about E-W, crosses the area. This shear fault offsets a flat contact zone between the quartz-mica schist and the underlying dense black hornblende rich schist. This contact dips 10 to 15 degrees to the west. The flat contact is apparently a thrust. This contact is evident along the west bank of the south portion of the north trending wash. It can be seen for at least 1/2 mile to the south and across Black Canyon Wash where it splits into two parallel gullies that are some 50 feet apart. Where this contact, or "thrust," intersects, two old stopes approximately 12 x 15 feet in diameter were worked. The stopes are about 30 feet apart, are not connected, and open out into the north wall of the wash where it turns E-W in trend. The stopes appear to be in the flat contact zone which varies from a foot to several feet thick. The stope floors are even with the bottom of the wash. Some lead-silver ore fragments were found on the floor of the stopes. The contact could not be traced past a silicified, hornblende hornblendite dike-like tabular body that trends nearly N-S, crossing the wash near the middle of the E-W wash segment. This "dike"-like body outcrops prominently above the quartz-mica schist mass. It roughly parallels the schist laminae and its prominence may be caused by the preferential silicification of the hornblendite. A similar "dike"-like mass of hornblendite, also trending with the quartz-mica schist laminae forms a portion of the ridge that forms the west bank of the south segment of the wash. These silicified hornblendites may represent metamorphosed igneous dikes or sills or flows that are intercalated with the quartz-mica schists, since they have the same altitude and strike as that of the quartz-mica schists. Both formations dip from 75 degrees west to nearly vertical and the average strike would approximate N 10 degrees W. If the flat contact zone is a thrust fault, it probably would have cut the hornblendite dike-like beds off some place in depth and would have moved

Irle Claims (continued)

the upper block to the eastward prior to the east-west shearing, but before valuable mineralization occurred. This would account for the hornblendite that forms the wash bed locally between the two dike-like beds of hornblendite. Exposures, east of the eastmost hornblendite band, were too meager to tell definitely whether the flat contact continues to the east or not. Farther east where the wash makes its second right angle bend and in the east bank of the second north trending wash segment are two open cuts that once contained pockets of lead-silver ore. These workings lie in the east west shear zone that determines the wash course along its E-W segment. At this point shear veers northward to a course of approximately N 70 degrees E. This portion of the shear is wider than where it crosses the two hornblendite bands to the west. It offsets two more silicified hornblendite bands that, due to their hardness, more or less determine the crest position of the main frontal range to the east. These "dikes" or bands both have very prominent outcrops, that rise from a few feet to 100 feet above the surrounding quartz-mica schist. The westmost of these dikes is narrow, ranging from 10 to possibly 30 feet in width. It forms an outstanding topographic feature for several miles along or near the crest of the frontal range. The eastmost band is much wider but has less prominent outcrops although prominent. The west or narrow "dike" is locally known as the "Black Dike," and is intensely silicified by white to buff colored dense quartz stringers, blebs and elongated masses. These two bands also conform roughly to the schistosity of the quartz-mica schist. Some of the better mines of the area, such as the Thunderbolt, Golden Belt, Golden Turkey etc., lie east of these black bands. West of them the mineralization thus far discovered is more sporadic.

There are at least two epochs of shearing or faulting, not including the possible flat "thrust," all being affiliated with the strong compressive stresses attendant to the development of the large regional of the overturned fold when the great mass of Cleator or Bradshaw Granite was intruded into sediments and intercalated igneous rocks. These sediments appear to have been argillites which during this deformation, were converted to quartz-mica schists and hornblendite schist respectively. Drag folding of the quartz-mica schists on the north side of the two shears crossing the claims, is probably due to powerful forces that shoved the schist southward and also probably in part initiated the two E-W shears. Due to the complex structural pattern it is probable that the evident cleavage and jointing, seen frequently in the area, is probably not related only to the same stresses of the regional overturning and shearing, but rather also to later stresses associated with the push of the schist belt to the southward and even later fracturing. It is quite evident, from the alignment of the schist laminae to the rather obvious east border of the Bradshaw or Cleator Granite mass. Black Canyon Creek follows this contact for a considerable distance. Some shears appear to have been operative in more than one epoch.

It was suggested that an angle hole be drilled near the 22 foot shaft with the view to intersecting the fault shear that the shaft is in, at least 100 feet below the shaft collar. This has two objectives: (1) to determine if the shear could have some copper mineralization which is indicated by part of the limonite and locally a little azurite that appear in the shear outcrop, and (2) as to whether the flat sheared zone is a thrust or a formation contact and if this zone is mineralized here as it was farther north.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Irle Claims Date February 11, 1963
District Black Canyon District, Yavapai Co. Engineer Lewis A. Smith
Subject: Interview with C.E. Irle, 8502 N. Central Ave., Phoenix (owner)

Property: 4 unpatented lode claims

Location: 4 miles S of Cleator on Black Canyon Creek

Metals: Lead, silver, copper and barite.

Work: 4 location pits (about 10 feet deep), a 22 foot shaft, and 2 short adits (20 and 30 feet long, respectively), the latter in the "Iron" dike.

Equipment: R.D. 8 cat, wagon drill and compressor (both Denver Equipment) and considerable steel. The Denver drill is capable of drilling 200 feet in depth.

Geology: The ore consists of Yavapai schists that locally trend in various directions, but generally trend N 20 degrees W to N. The laminae in most less disrupted areas dip 75 degrees W. Local blocks of schist even trend EW. The schist is cut by the prominent "Iron" dike which trends N 10 degrees W, dips near to vertically, and is continuously traceable for several miles. The upper part of the "dike" is heavily stained by iron oxides, hence its name. The iron oxides locally at least contain relic pyrite and chalcopyrite. The "dike" forms the crest of a sharp ridge. Irle plans to crosscut the dike with a flat drill hole and to try to cross it at a depth of 100 to 125 feet below the surface. He thinks the "dike" may be composed of porphyry in depth. The "dike" has been disrupted, but little offset where Black Canyon Creek crosses it at right angles to the "dike" trend.

The specimens of gossan indicate copper and iron. Other minor faults have crossed the dike without much offset being evident at least near the surface. West of the dike three parallel structures trend EW and as far as is now known, butt against the dike near the base of the ridge in the south trending canyon of Black Canyon Creek. These structures, if present on the east side of the dike, are not evident due to overlying detritus. The north EW structure is a crushed zone, about 5 feet wide, and this contains some quartz that is lead-silver bearing. The middle structure, about 6 feet wide, is a shear zone that has so far shown more mineralization, by lead and silver, than the other two. On this structure, about 150 feet west of the "dike" is a 22 foot shaft which exposed $1\frac{1}{2}$ to 2 feet that carries argentiferous galena in a predominantly barite gangue with some bluish quartz. This type of mineralogy is common in the Silver Mountain District, farther south. This shear zone dips about 75 degrees S. It appears to persist to the dike and for $\frac{1}{2}$ mile west of the shaft (intermittently exposed). The third structure is occupied by a diorite dike, about 5 feet wide, ~~which also is occupied by a diorite dike, about 5 feet wide,~~ which also is fairly well exposed for $\frac{1}{2}$ mile west of the dike but has thus far shown little mineralization. The middle structure is cut by a flat fault, as exposed in the shaft. The character of this fault is not yet known, but evidence of a fault is seen at a few places for several hundred feet south of the shaft in the west bank of the creek. This outcrop trends N. On the east side of the dike and N of the 3 W structures, a vertical fault, trending north and following the creek, cuts the schist. This stops abruptly opposite

Irle Claims (continued)

the disrupted portion of the "dike." A shear trending east of this fault for a short distance, also contains lead-silver mineralization. This may indicate a transverse E-W fault, which is as yet hidden, but which would offset the fault and disrupt the "dike." The creek makes a right angle bend across the dike at the zone of disruption. It is not known whether the two N trending faults are the same structure. However, the evidence so far disclosed, is too meager to make any structural determination at all certain, but it is evident that notable disruption is present and that this occurred in two, or more, periods of structural deformation. (see sketch).

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine **Excalibur**

Date **4-7-58**

District **Squaw Creek , Yavapai County**

Engineer **Lee Hammons**

Subject: **Preliminary Examination**

Owner: **Excalibur Mining and Development Corp.**

Operator: **Charles Irle, 8502 N. Central, Phoenix, Arizona**

Location: **4 miles south of Cleator in Black Canyon.**

Status: **Active, a limited diamond drilling program is being carried out.**

Development: **One shaft 22' deep, one tunnel in about 20'.**

Equipment: **One portable diamond core drill, hand tools.**

Geology and Mineralization: **A shear zone 4' - 8' wide, runs east and west across a narrow, steep-walled canyon. The canyon is apparently a topographical expression of a fault which runs along its length N 14°E and intersects the shear. It continues at least as far as the "big iron dike" that forms a prominent feature in this area. The country rock is schist containing many small quartz stringers.**

The quartz in places, contains native silver, lead, zinc, and copper sulphides, and manganese and iron oxides. One core hole drilled into the shear showed some pyrite and galena.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Cactus Wren Group

Date Dec. 30, 1957

District Black Canyon Dist. Yavapai Co.

Engineer Lewis A. Smith

Subject: Owners Report

Location: Sec. 14, T 10N, R 1 E, $\frac{1}{2}$ mile west of Thunderbolt Mine (old)
($\frac{1}{4}$ miles south of Cleater)

Owner: C. W. Erle 8502 North Central Ave.

Work: 3 Drill holes of 125' depth, an adit and some surface cuts.

Geology: The aerial geology consists of an east-west shear which ends against an iron-capped dike on the east, and which cuts off a vein, on the west, which is in turn off-set by two faults. The first of these faults strikes N 40 E and dips flatly to the northwest. The second strikes east-west and dips vertically. The two combine to produce a V-shaped wedge which has been thrown eastward about 40-50 feet. The off-set vein consists of blue quartz which is iron stained and contains galena, massicot, and shows a few "hot" spots which assay about 0.5% to 2.0% of U_3O_8 . Three, 125-foot flat diamond drill holes cut the vein near the east-west off-set fault (North One), in between the faults, and south of the northwest striking off-set fault. The north most hole showed good results in lead and U_3O_8 , the middle hole showed lead but no uranium, while the south hole again showed good lead and some uranium.

The east-west shear shows iron stained bands, on each side, which carry lead and silver values, The iron dike has not been explored to date.

The country rocks are quartz-mica schist alternating sericite schist, and both schists have been intruded by granitic rocks (possibly diorite-porphyry). The schists show galena and copper-indicating limonites.

Plans: The owner plans to drill the shear and the iron "dike" in the near future.

