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04/23/91

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: RARE METALS

ALTERNATE NAMES:

WALDREN MINING CO

MOHAVE COUNTY MILS NUMBER: 489B

LOCATION: TOWNSHIP 17 N RANGE 12 W SECTION 23 QUARTER NE
LATITUDE: N 34DEG 50MIN 39SEC LONGITUDE: W 113DEG 30MIN 39SEC
TOPO MAP NAME: TULE WASH - 7.5 MIN

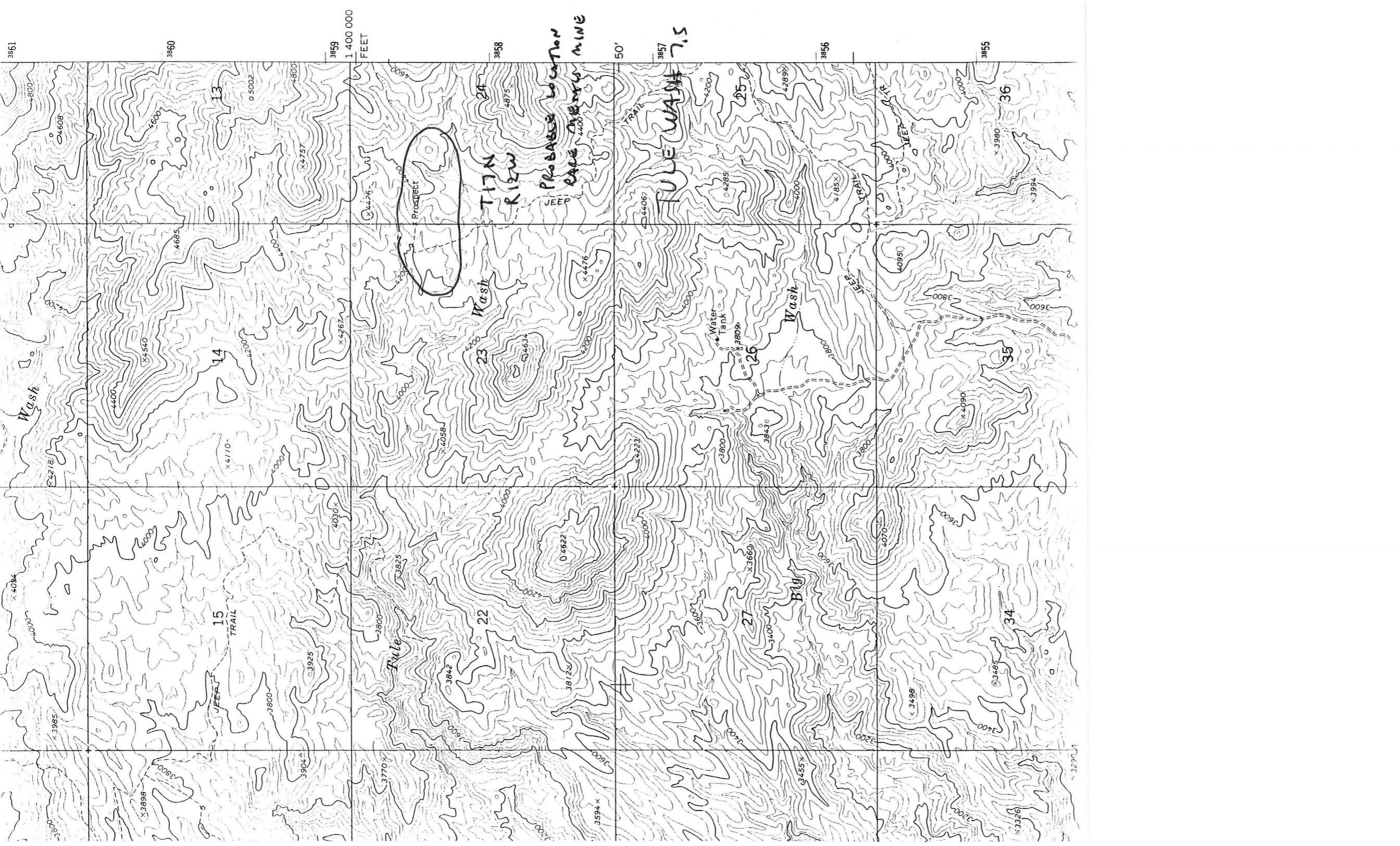
CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

BERYLLIUM
GEMSTONE
FELDSPAR
MICA
FLUORINE
BISMUTH

BIBLIOGRAPHY:

ADMMR RARE METALS MINE FILE
ADMMR IND. MIN. RPT. NO. 2, P. 41
MEEVES, H.C. ET AL "RECONN. OF BERYL-BRNG PEG
MATITE DPSTS IN AZ" USBM IC 8298 P. 20; 1966
HESS, F.L. "MOLY DPSTS" USGS BULL 761, P 15
KEITH, S.B. "MIN. & WTR RES. OF AZ" AZBM BULL
180, P. 247, 346; 1969
WEED'S MINES HNDBK, P. 494; 1925
HEINRICH, W.E. RARE - EARTH MINERAL DEPOSITS
IN MOHAVE CO. AZBM BULL 167 P. 15 1960
CONFLICTING LOC. INFO: SEC 21-T17N-R12W -
MOST LIKELY IN SEC. 23 NE CORRECTION NOTED
IN USBM IC 8298 WHICH HAD WRONG TOWNSHIPS



RARE METALS MINE

MOHAVE COUNTY

NJN WR 4/15/83: Visited F. J. "Dusty" Denton in Wickieup. When asked about the location of the Rare Metals Mine he reported that it was close to the Williams Tungsten Deposit (T16½N R11W, Sec. 30) in the area of the Aquarius Cliffs.

RRB WR 6/10/83: With Nyal Niemuth a valiant effort was made to confirm the location of the Rare Metals Mine in Mohave County. A longer day and tougher feet will be required.

SUSPECTED LOCATION T16N R12W Sec 1

NJN WR 6/10/83: With Dick Beard an unsuccessful attempt was made to visit a possible location for the Rare Metals Mine in Mohave County. The road up Black Canyon is washed out the last couple of miles below the prospect symbols on the map. A dirt bike or ATC would be useful in reaching the prospects.

T16N R12W Sec 1

NJN WR 6/22/84: Hal Perry (c) reported he made an aerial pegmatite prospecting trip over the Hualapai and Acquarius Mountains of Mohave last weekend. I had alerted him to the uncertain location of the Rare Metals Mine (file). From his aerial reconnaissance combined with reference to the area's topographic map and BGMT Bulletin #167 he reported the Rare Metal's Mine to be at the prospect shown on the section line between Secs. 23 and 24, T17N R12W of the Tule Wash 7½ topo. Additionally, the general area around the mine was the best for pegmatites he had ever seen in his many years of flying.

NJN WR 7/27/84: Henry Gonzales reported that keys to the locked gate between Secs. 29 and 30 T16½N R12W are held by the Wikieup area fish and game officer, Ken Fox, Big Sandy area well manager for Cyprus Bagdad, and personnel of the Bogle (sp?) Ranch. This gate controls road access to the Rare Metals Mine (f) Drill Rig Mine (f) and Coon Tail Mine (f) which are all on the west slope of the Aquarius Mts. of Mohave County.

Arizona Department of Mines and Mineral Resources

INFORMATION FROM MINE CARDS IN MUSEUM

ARIZONA

MM 1567 Beryl

MOHAVE COUNTY

McDONALD & KENNEDY MINE

MILS # 489B

1-AKA

RARE METALS (file)

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Rare Metals Mine

Date April 15, 1983

District Mohave County

Engineer Nyal J. Niemuth
Richard R. Beard

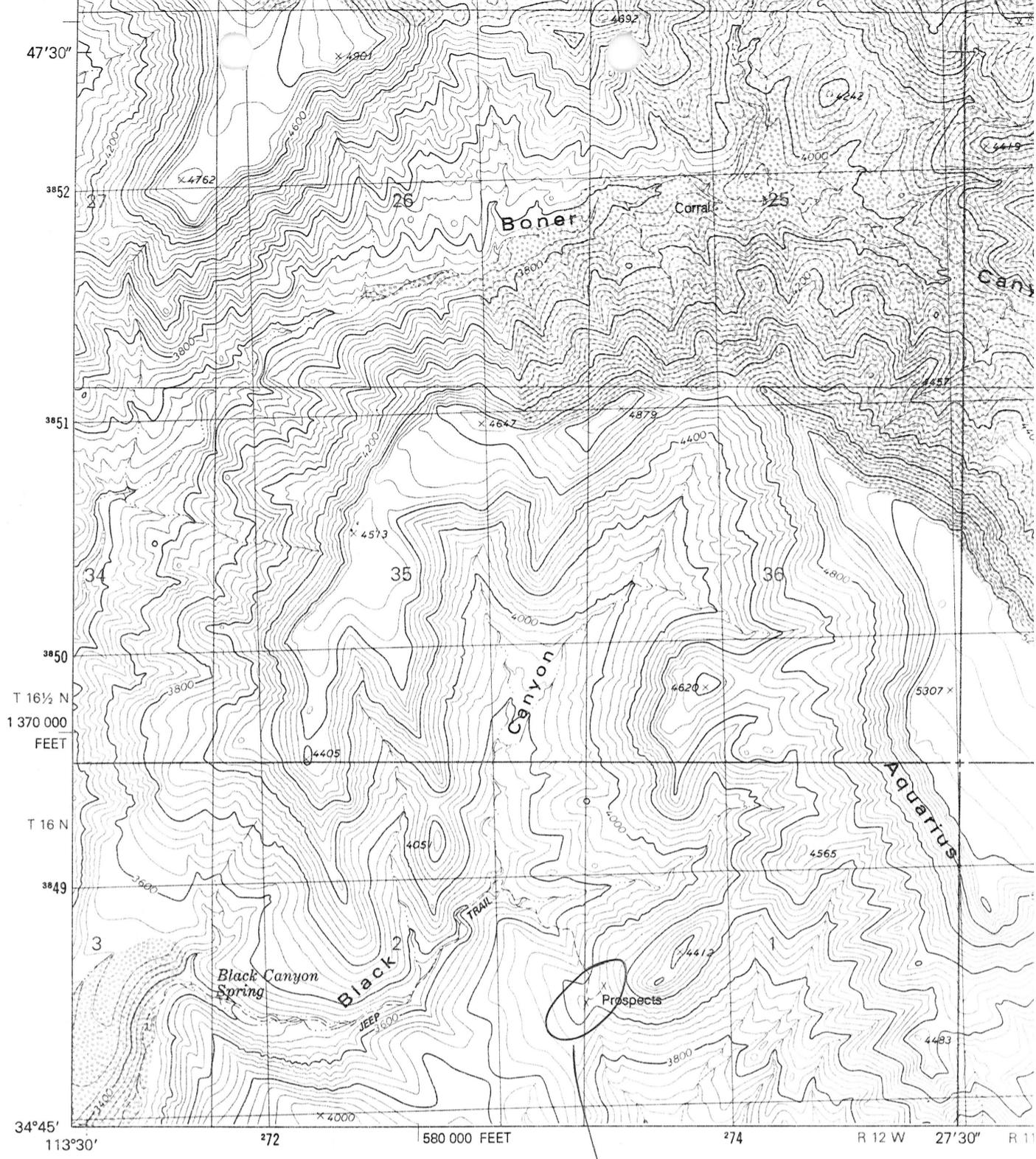
Subject: Field Interview with Keith Gunnett

On the road to Oatman from Kingman, (via State Route) we stopped at Ed's Camp where we met Keith Gunnett, Box 900 OSR, Oatman, Arizona 86433, Ph: 565-3472 or 565-4881.

Ed Edgerton (deceased) who discovered the Rare Metals Mine, was Mr. Gunnett's father-in law. Mr. Gunnett was asked if he had ever been to the Rare Metals Mine, (Mohave County MILS #489B). He responded that he had. As our file data did not contain the location of the mine we asked him to show us (on a map) how to get to the mine. From that, it appears that the Rare Metals Mine would be located in T16N, R12W, Sec. 1W² Sec. 2E². Access would be east out of Wickieup through the Bogle Ranch (map attached). The actual road was reported as washed out often the last few miles before the mine.

Mr. Gunnett requested that he be notified when someone from the department wants to visit the mine and he would be glad to meet an engineer in Wickieup and accompany him to, and show him the mine.

Of current interest were beryl crystals on display at Ed's Camp purported as mined from the Rare Metals Mine about 20 years ago. One crystal displayed weighed in excess of forty pounds.



(WIKIEUP)
3253 II NE

Mapped, edited, and published by the Geological Survey
 Control by USGS and NOS/NOAA
 Topography by photogrammetric methods from aerial
 photographs taken 1973. Field checked 1975. Map edited 1980
 Projection and 10,000-foot grid ticks: Arizona coordinate
 system, west zone (transverse Mercator)
 1000-meter Universal Transverse Mercator grid, zone 12
 1927 North American Datum
 To place on the predicted North American Datum 1983
 move the projection lines 1 meter north and
 70 meters east as shown by dashed corner ticks
 Fine red dashed lines indicate selected fence and field lines where
 generally visible on aerial photographs. This information is unchecked

POSSIBLE LOCATION OF
 RARE MEMU
 PER MR. GUMMETT
 GN
 MN
 14°
 249 MILS
 4-15-83

UTM GRID AND 1980 MAGNETIC NORTH
 DECLINATION AT CENTER OF SHEET

CEDAR BASIN 7 1/2"

monazite, allanite, biotite, beryl, lithium minerals, and rare-earth minerals.

In Arizona samarskite has been found in pegmatites in the Aquarius Range, Mohave County, associated with allanite, and has been reported as occurring in the Black Hills near Jerome, Yavapai County. Masses of euxinite weighing up to 50 pounds have been found in the Kingman Feldspar mine, Cerbat Range, Mohave County.

A small quantity of fergusonite has been produced by L. L. Edgerton from a group of two claims in the Aquarius Range, Mohave County. In October, 1951 Eldred D. Wilson of the Arizona Bureau of Mines, visited the claims with Mr. Edgerton and reported as follows:

These claims are accessible by 9 miles of unimproved road which crosses Big Sandy Wash at a point on the Kingman-Congress Junction Highway approximately 50 miles from Kingman.

Edgerton stated that he has held the claims for several years and has been working them intermittently for the past two years. He stated that his production has amounted to approximately 3 tons of fergusonite concentrates; 5¼ tons of beryl; some oxidized bismuth minerals and a little monazite.

In this vicinity the prevailing rock is pink aplitic granite which forms dikes a few feet to several tens of feet thick as well as larger masses of undetermined extent.

The aplitic granite shows a pronounced lineation which trends approximately east-west. At the mine workings, this lineation dips northward at medium to low angles; about 500 feet further south, its dip rolls southward, suggestive of an anticlinal structure. Irregular dike-like bodies of pegmatite and quartz trend subparallel to the prevailing structure of the aplite.

The mine workings consist of a bench cut about 200 feet long on the north side of a sharp gulch and connecting with a northwesterly open cut about 50 feet long. These are all in a pegmatite dike which dips 15 to 20 degrees northward. It shows a maximum thickness of approximately 100 feet but thins within a few hundred feet east and west.

According to Mr. Edgerton, the northwesterly cut was productive mainly of beryl, although it yielded also one body of fergusonite. Most of his fergusonite production came from the bench cut.

The fergusonite occurs as irregular, isolated bodies, principally associated with altered coarse grayish-black mica and local films of specularite. Commonly these bodies are surrounded by crumbly pinkish-white feldspar, in contact with or near veins of glassy bluish-gray quartz.

Although the physical features which determined the localization of the fergusonite are not readily apparent, the mineral is radio-active. Mr. Edgerton states that his prospecting is guided by a Geiger Counter. He drilled and blasted two holes while we were there, and these holes provided us with samples of the ore.

PRICES AND PRODUCERS

Special domestic purchase prices have been established by the Defense Materials Procurement Agency for columbium-tantalum ores delivered f.o.b. depots in North Carolina, New Hampshire, and South Dakota. In January, 1954, the price was \$1.70 (plus a 100 per cent bonus) per pound of contained columbium oxide-tantalum oxide (Cb_2O_5 - Ta_2O_5) for material containing

AZ BUREAU OF MINES BULL. #163

THE RARE METALS MINE, AQUARIUS RANGE

LOCATION

The Rare Metals pegmatite Mine, owned and intermittently operated by L. L. Edgerton, is about 55 miles by road southeast of Kingman, on the west side of the Aquarius Range. As located by Mr. Edgerton, the deposit is in sec. 21, R. 12 W. T. 17 N., 5th Standard Parallel North. The Aquarius Range is a north-south trending range that lies on the east side of Big Sandy Wash, along the eastern edge of Mohave County. The deposit lies at an elevation of about 4000 feet. Mr. Edgerton has held the property under claim for about 10 years.

UNLIKELY

GEOLOGY

The western flanks of the Aquarius Range in the vicinity of the Rare Metals pegmatite are underlain by pre-Cambrian granite which is cut by exceedingly numerous parallel to subparallel pegmatites, ranging from about a foot to 40 feet thick. Many are about 6-10 feet across.

The Rare Metals pegmatite, which crops out along the north side of a west-trending tributary to Big Sandy Wash, is about 600 feet long along its explored length, strikes N. 85° E., and dips 30-40° NE. It ranges in thickness from a few feet near its western end to about 40 feet in the main workings. Numerous other parallel pegmatites crop out on the hillside above and below the Rare Metals pegmatite (Figure 4).

The deposit is well-zoned with a conspicuous quartz core pod as much as 20 feet thick and about 60 feet long. Some masses of microcline occur marginally in this core. Both east and west of this main core pod, the dike contains other core units of massive quartz and flesh-colored block microcline, 3-6 feet thick. The contacts with the granite are poorly exposed, but the main outer unit of the dike is a wall zone consisting of a medium-grained aggregate of quartz, feldspar, muscovite and garnet. This zone is as much as 12 feet thick in the thickest part of the pegmatite. Marginal to both sides of the core are pods of muscovite in 1-4 inch flakes and scattered beryl crystals.

The main workings consist of an eastern cut across the pegmatite (No. 2) 40 feet long, 8–10 feet wide and 25 feet high at the face and a closely adjacent western longitudinal open cut (No. 1), 60 feet long, along the pegmatite (Figure 5). This has been extended as a shallow incline beneath the quartz core. Several prospect pits dot the dike west of these main workings, and about 50 feet east of the main cuts another small pit (Number 3) is in pegmatite. The discovery cut (No. 4), which is east of the boundary fence and probably in the same pegmatite, was made for bismuth minerals and antedates Mr. Edgerton's work.

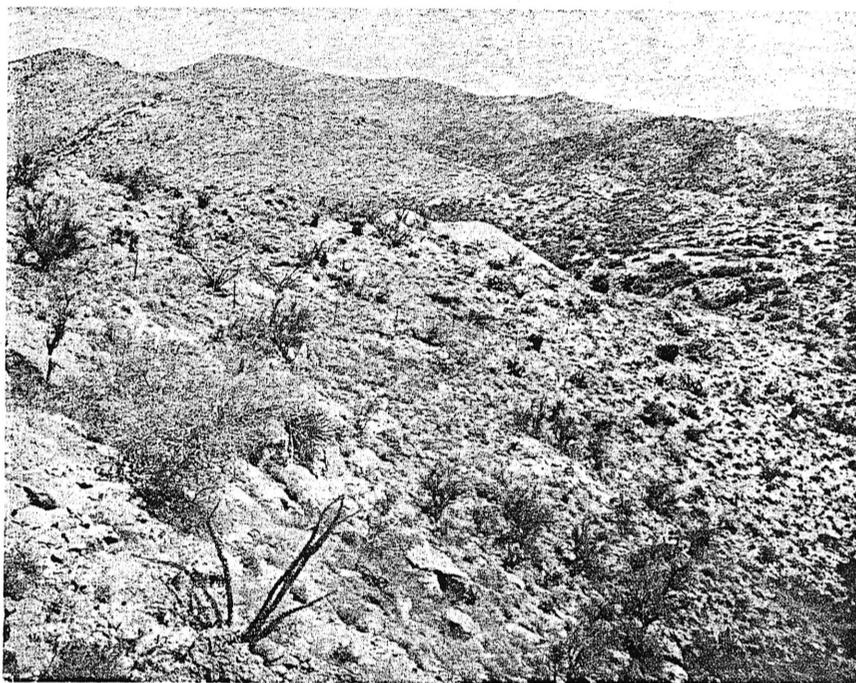


Figure 4. General eastward view of western side of Aquarius Range, Arizona, showing Rare Metals pegmatite (left center, extending to dump in center) and other parallel dikes (right center).

Although where the granite-pegmatite contacts are exposed no significant reaction between the rocks is visible, the pegmatite locally was found to contain a few blocky xenoliths of altered granite, several inches to eight inches across. These rocks are granular aggregates containing chiefly gray-green muscovite (about 70 per cent) in one-eighth inch, randomly oriented flakes, quartz, feldspar, and minute grains of purple fluorite. Conspicuous are minute vugs containing muscovite platelets and in a few cases also some purple fluorite grains.

Handwritten J. M. & L. L. Johnson, N.H.

Rare Metals Mine

15 miles north east of Wickup in the Aquarius Mts.

Here large silica dikes, contact coarse grained fegmatite areas alongside of microcline masses.

Minerals common to this mine

Beryl - white, green, yellow, blue XLS also massive. XLS as much as 1650# have been removed here. One precious beryl - green emerald value \$500 - HEX - $1\frac{1}{4} \times \frac{3}{8}$ found here.

Edgertonite - a ythro tantalite - (one mass 450# 44% H₂O, 37% comb. tantalum + columbium oxides + H₂ + Th. and many other rare earths.

Monazite - red, brown, yellow, grey XLS and masses - one mass 22 X 4 X 8 in in feldspar many small flat XLS.

Gasparite - black, vitreous, adhering to XLS of Edgertonite - masses flat slightly curved 1#.

Allanite black to slate color XLS and massive.

Samaraskite - highly radioactive. This is a rare type contains rhodium + ruthenium of the PA group.

Cuxenite - brown to black masses up to 1# in weight in soft feldspar.

Bismuth - minerals in silica dikes oxide and metallic also in Feldspar + altered quartz. One mass very pure over 250#. Over

Columbite - black massive & grains
Tantalite grey - black massive grains
Tungsten wolframite black
Tin - cassiterite black small XLS
white rhombic stibnite small grains
found in concentrating, "edgertonite".
Mnarnophane in small pieces & film on
mica and edgertonite.

Tithioophylite - green - brown XLS also
massive in silica dikes close to beryl.
Triphylite - green to brownish ~~to~~ masses
in silica.

A number of radio active minerals of
non crystalline nature not classified as
yet have been found.

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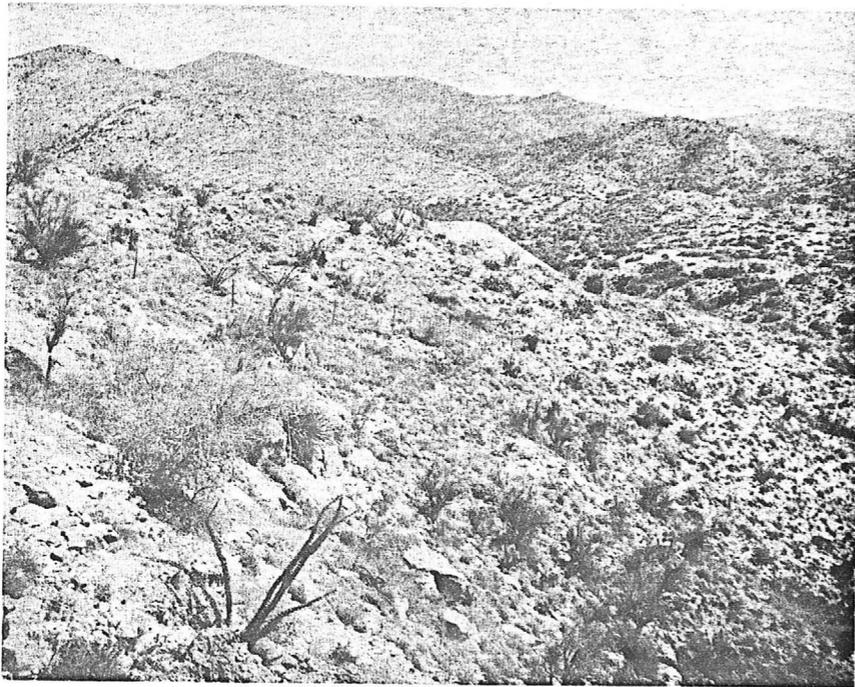


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Gadolinite black, vitreous, adhering to XLS of Edgertonite - massess flat slightly curved 18#.

Allanite black to slate color xls and massess.

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Cuxenite brown to black massess up to 1# in weight in soft feldspar.

Bismuth - minerals in silica dikes oxide and metallic also in Feldspar + altered

quartz. One mass very fine over 250#.

Over

Columbite - black massive & grains
Tantalite grey-black massive grains.
Jungster wolframite black.

Iron - cassiterite black small XLS
white silicate stibnite small grains

found in concentrating, "edgertonite".

thranophane in small pieces & film on
mica and edgertonite.

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