**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

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Arizona Department of Mines and Mineral Resources Mining Collection

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11/29/85

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: ELZA

ALTERNATE NAMES:
ELZO NO. 4
SAN JOSE

PIMA COUNTY MILS NUMBER: 435

LOCATION: TOWNSHIP 21 S RANGE 10 E SECTION 8 QTR. NW
LATITUDE:N 31DEG 36MIN 58SEC LONGITUDE:W 111DEG 20MIN 30SEC
TOPO MAP NAME: ARIVACA - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
GOLD-(M)LODE-PRIMARY
LEAD-PRIMARY
SILVER-BYPRODUCT
COPPER-BYPRODUCT

BIBLIOGRAPHY:
AZBM FILE DATA
ADMMR ELZA FILE

Elgin Mining Group

January 29, 1947

Mr. C. B. Ruggles
Arivaca, Arizona

Dear Mr. Ruggles:

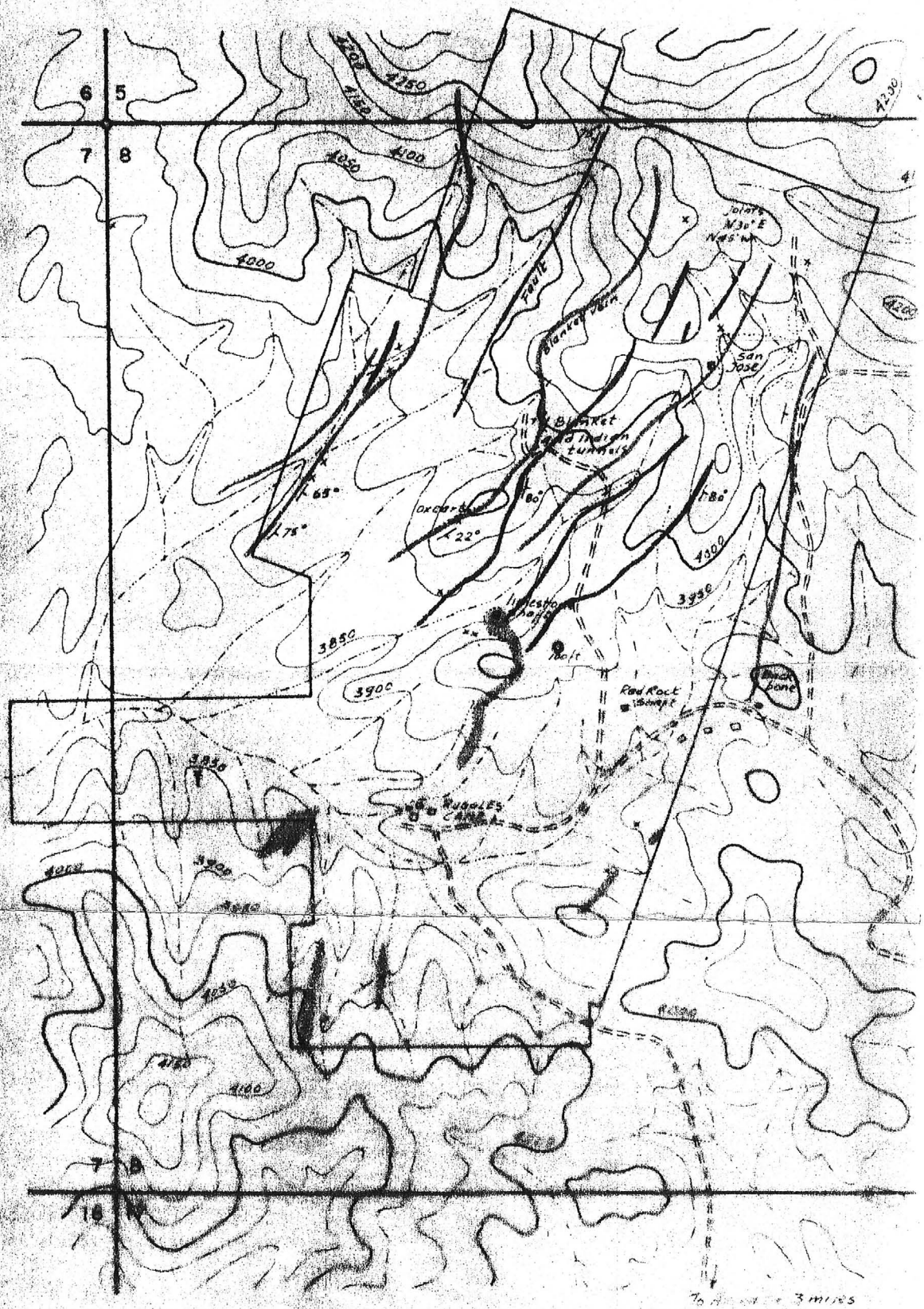
Attached herewith is copy of report on your mining claims, which you requested upon my recent visit to Arivaca.

Yours very truly,

Roger I. C. Manning
Field Engineer

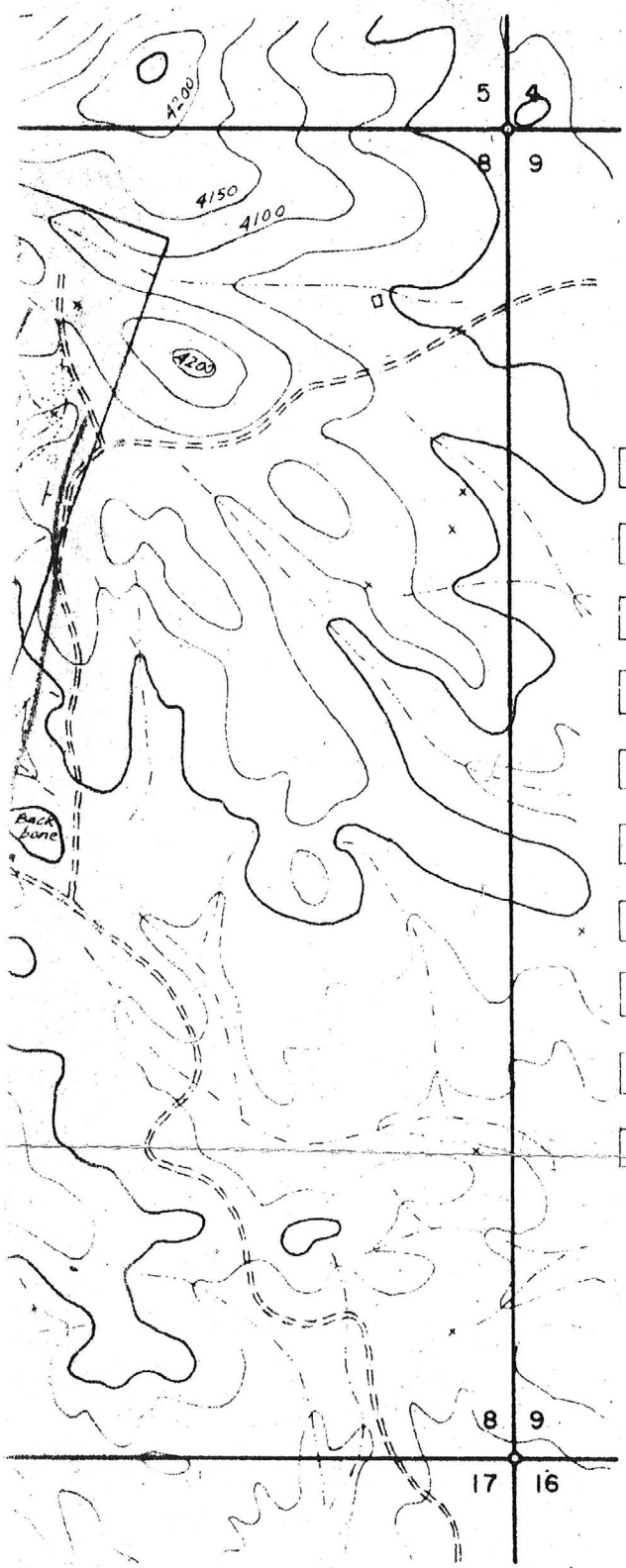
RICM:LP
Enc.

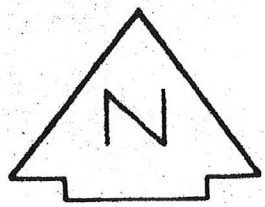
HARLEY B. SHAMBAUGH, FEDERAL LODE CL
SECTION 8, T21S, R10E, PIMA COUNTY, A




ENLARGED FROM ARIVACA QUADRANGLE

# LODE CLAIMS
# OUNTY, ARIZ




DECLINATION APPROX 14°

SCALE 1" = 600 FT

CONTOUR INTERVAL 50 FT

DIRTROAD AND BUILDING

ARROYO OR DRY WASH

SHAFT, PROSPECT, DRIFT

SECTION CORNER IN

WIND MILL ON WATER WELL

PROPERTY BOUNDARY

QUARTZ AND IRONSTAINED VEINS

MARBLEIZED LIMESTONE

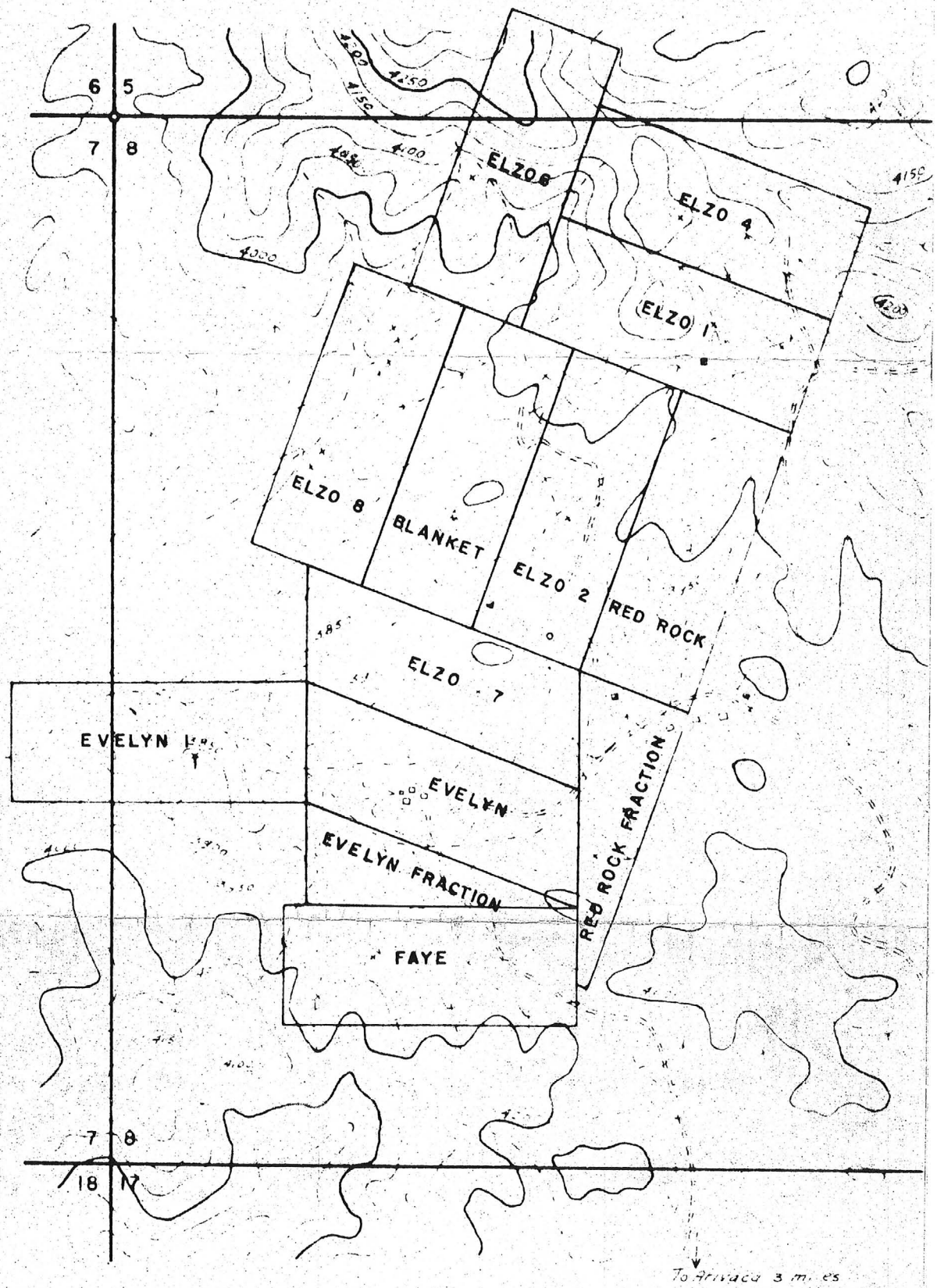
CHURN DRILL HOLE

GEOLOGY NOT COMPLETED

ADRANGLE

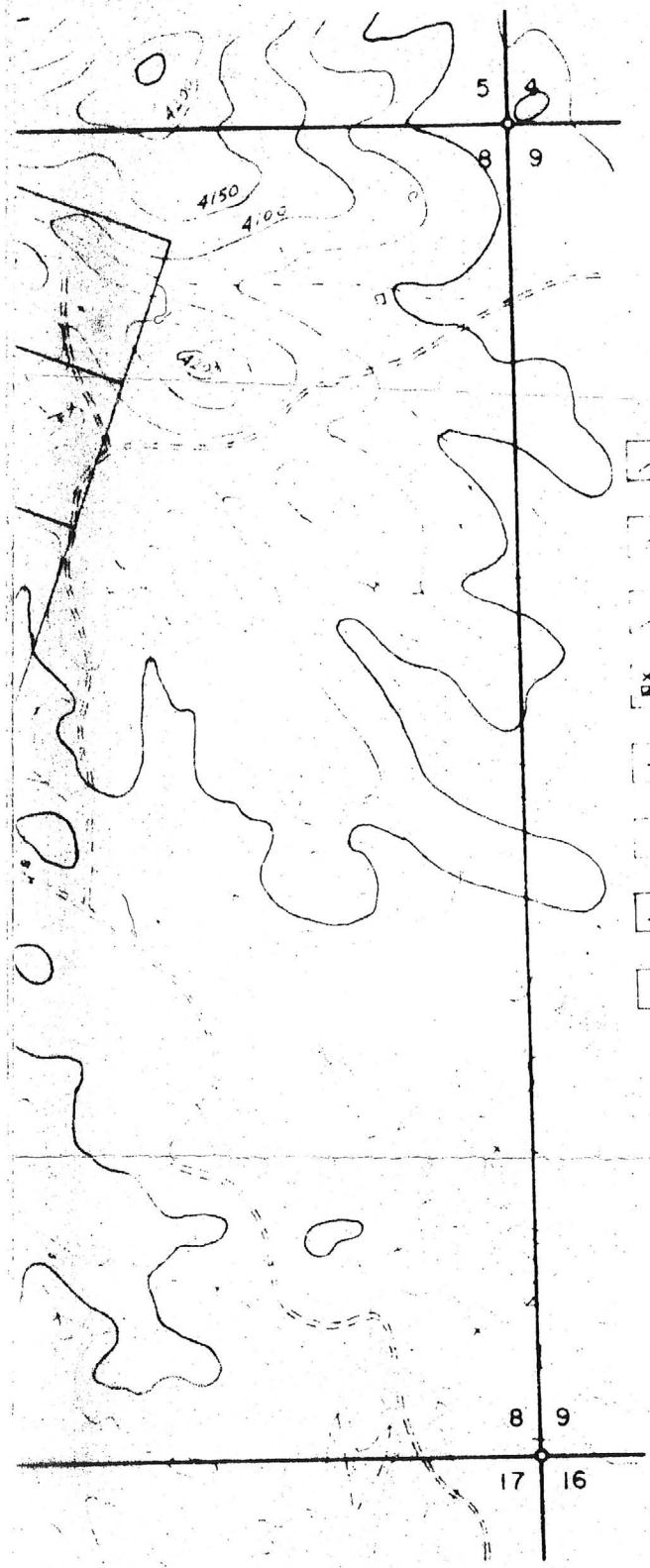
By: Dirk den Baars
Consulting Geologist

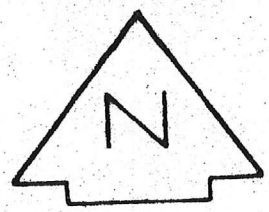
HARLEY B. SHAMBAUGH, FEDERAL LODE CLA
SECTION 8, T21S, R10E, PIMA COUNTY, ARI




ENLARGED FROM ARIVACA QUADRANGLE

# LODE CLAIMS
.OUNTY, ARIZ.




DECLINATION APPROX 14°

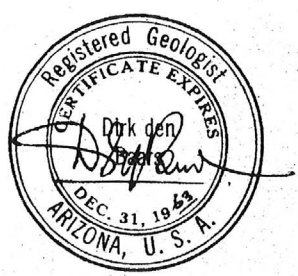
SCALE 1" = 600 FT

**CLAIM MAP**

- CONTOUR INTERVAL 50 FT
- DIRTROAD AND BUILDING
- ARROYO OR DRY WASH
- SHAFT, PROSPECT, DRIFT
- SECTION CORNER IN
- WIND MILL ON WATER WELL
- CLAIM BOUNDARY
- CHURN DRILL HOLE

...ace 3 miles

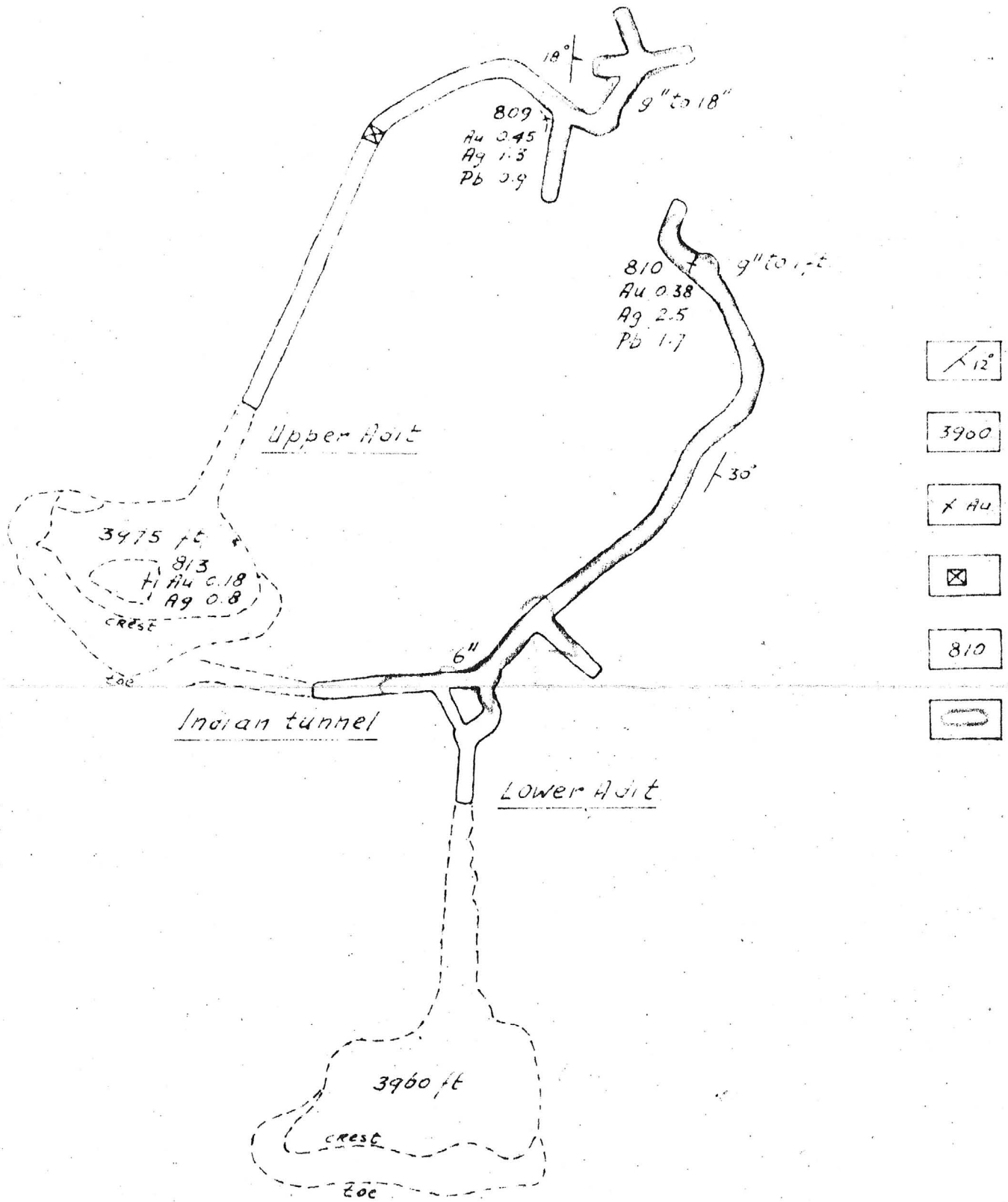
QUADRANGLE




By: Dirk den Baars
Consulting Geologist

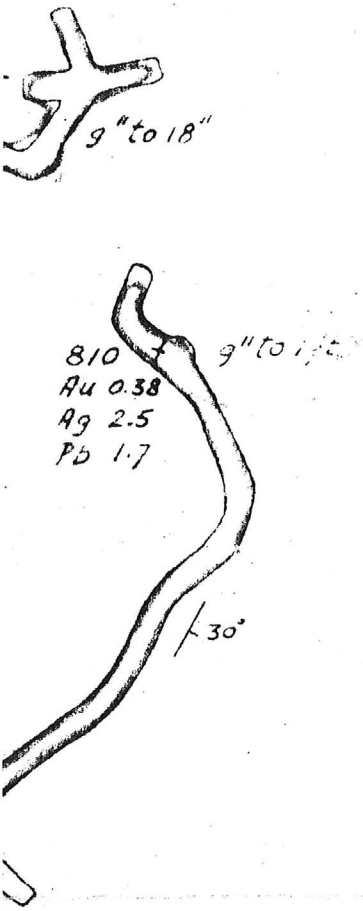
UNDERGROUND WORKINGS ON BLANKET VEIN, ON BLA

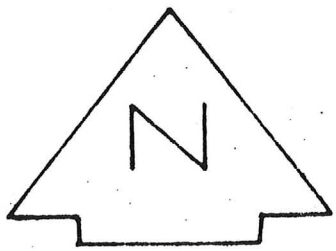
BRUNTON AND TAPE SURVEY BY: DIRK DEN BAA



S ON BLANKET VEIN, ON BLANKET CLAIM

APE SURVEY BY: DIRK DEN BAARS.




DECLINATION APPROX 14°

SCALE 1" = 40 FT.

| | |
|---|---|
| 12° | STRIKE AND DIP OF VEIN |
| 3900 | APPROXIMATE ELEVATION |
| Au | SAMPLE LOCATION AND ASSAY |
| | RAISE OR SHAFT |
| 810 | SAMPLE NUMBER |
| | QUARTZ VEIN AND WIDTH |

Registered Geologist
CERTIFICATE EXPIRES
Dirk den Baars
DEC. 31, 1963
ARIZONA, U. S. A.

AUGUST 1963

ELZO MINING GROUP PIMA COUNTY

Harley Shambaugh, Rte. #3, Box 733, Tucson - Discussion of Elzo Group purchased from Mrs. Etta Ruggles, Arivaca.

A L JOHNSON
WR
6-27-59

---

Field Interview with Mr. Harley Shambaugh regarding the Ruggles Mine , nath of Arivaca that they own. Only activity at present is assessment work.

GWI WR 8/30/65

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DEN BAARS & ASSOCIATES
MINERAL EXPLORATION AND RESEARCH CONSULTANTS

DRS. DIRK DEN BAARS
CONSULTING GEOLOGIST
ARIZONA REG. 4032

6318 EAST HAYNE STREET
TUCSON, ARIZONA
AXTEL 8-3551

October 30th, 1963

# PRELIMINARY REPORT ON THE BLANKET, ELZO AND SAN JOSE PROSPECTS NEAR ARIVACA, PIMA COUNTY, ARIZ.

General Information: At the request of Mr. Harley B. Shambaugh of Tucson, Ariz., the writer made a perfunctory examination of a group of thirteen lode claims in the Arivaca district. There are eleven whole claims and two fractional claims, all located in section 8, T 21 S, R 10 E. ( See claim map.) The property was worked of and on for gold, silver and lead, and was variously known as the San Jose, Elzo camp and Ruggles camp.

Numerous small shafts and diggings were observed on the property. Small shipments of gold, silver, lead ores were made from the quartz veins and from pockets along the limestone contacts. The oldest workings are undoubtedly those of the San Jose. The mine workings are completely caved and could not be examined. An old arrastra indicates the place where the ore was milled and gold and silver recovered through amalgamation. The first activities in the area probably took place before the turn of the century.

Location: The claims are located on public domain of the U.S. in section 8, T 21 S, R 10 E, in the Las Guijas Mountain range and about 3.5 miles north of Arivaca, which old mining town is located about 60 miles south of Tucson, Arizona.

The property can be reached in about 1 hour 45 minutes by car following U.S. 89 to Arivaca Junction at Kinsley's ranch and from here going in a south-westerly direction to Arivaca over a good graded dirt road that is partly paved. From Arivaca, a dirtroad leads to the property which is located about 3 miles north of Arivaca.

Regional Geology: The Las Guijas Mountains are a generally NW to SE trending range, about nine miles long by 3 to 4 miles wide, varying in altitude from 3500 to 4600 ft. The principal rocks are granite and diorite porphyry of Laramide age, with flows, dikes and plugs of andesitic to rhyolitic composition in the southern part of the mountain. There has been some assimilation of limestone and other Cretaceous rocks along the base of the mountain with lenses and roof pendants of marbleized limestone observed on the southern part of the property described in this report. More than one hundred prospects and old mines were located and worked at one time, around the lowerslopes of the mountain range. These were mostly prospects for gold, silver, lead, zinc and copper.

Local Structure and Geology:

The area of Mr. Shambaugh's claims is located in the southeastern part of the Las Guijas Mountains, where the granite and diorite porphyry seem to be considerably faulted along the contacts with the Cretaceous series of rocks. Alteration is most severe in the cross fractured northern part of the claims, around the old San Jose mine, where a few diorite and

lamprophyre dikes and plugs can be observed of younger age. Two old shafts are located on the property from which reportedly ore shipments were made. The limestone shaft and the Red Rock shaft. None of these workings could be examined and little is known about the nature and width of the ore. Judging by the amount of mine dump at the shafts, neither appears to have more than 150 ft. of vertical or lateral workings.

Some of the faulting and fracturing is obviously of post mineral age, since it cuts of and displaces some of the earlier veins, as indicated by a brown color on the map. There are at least four of these earlier veins, variously called iron veins or gossan veins. The matrix of these veins is strongly fractured and jointed quartz, stained brown by iron oxide minerals. These veins are narrow, up to 12 inches in width, with relatively low values in gold and silver. ( Sample 814, Gold $ 5.25 and Silver 0.6 ounce.) Along the outcrops, several of these gossan veins can be traced for about 1500 ft, folded and faulted along their strike.

A second and probably younger series of quartz veins can be observed with generally the same strike as the gossan veins but with a flatter dip. At least five of these younger quartz veins were observed, striking North to N 45° E and dipping from 18° SE on the Blanket vein to about 75° E on the western most vein. The Blanket vein is the most prominent of these, and can be traced for about 2000 ft. along the strike.

There has been some folding of these younger quartz veins but fracturing is much less pronounced than on the older gossan veins. On the average, the white quartz veins are not much wider, they vary in width from 6 inches up to two feet, with much less iron stain. Most of the exploration work observed, was done on the flat dipping Blanket vein. ( See underground map attached.) From the few samples taken, it seems that the average grade of ore from this vein would run about $ 14.00 worth of gold and $ 2.00 worth of silver per ton, which is below the economic limit under present circumstances.

Hand sorting of this ore would yield a shipable product of around $ 30.00 value per ton or more. The quartz lodes in this area are known for encounters of high grade pockets of ore yielding sometimes values of close to $ 80.00 per ton of ore in place.

The workings in the upper, lower and Indian tunnels on the blanket vein are all in the oxide zone, the gold is mostly free with some values in the pyrites, while gold and silver is also present in the galena. The veins have a white quartz matrix, stained to some extent by iron and manganese oxide minerals. The quartz has tints of grey and green and generally has a high lustre except for some of the milky white quartz, which has a dull appearance. Folds and flexures along the strike of the vein are the common loci for the higher grade ores. ( See assays taken by Mr. Shambough in these locations.)

A second type of ore deposition occurs on the southern part of the property, where elongated lenses of limestone marble show mineralization along the contacts with the diorite. The limestone shaft was sunk prior to 1936 on the north end of one of the marble lenses. This shaft was reported on by Henry M. Crowther, Mining Engineer around the year 1936 and reports this shaft to be 50 ft. deep with a 60 ft. drift cross cutting an ore occurence from which 110 tons of ore was mined with an average value of $ 21.00 per ton with Gold valued at $ 20.00 per Troy ounce.

Recommendation:

The presence of two intersecting vein systems with approximately parallel strikes, all dipping to the E and SE, from 20° to 80°, is an interesting point that needs further exploration. There is a chance that some of the veins are conjugated at depth, forming one or two heavier and wider veins.

In order to explore this possibility, a diamond drill hole should be sunk just west of the intersection of roads at the old San Jose, to a depth of about 800 ft.

This hole will show the width and ore values of the vein intersects and will determine whether further exploratory drilling is justified.

Respectfully submitted,

Dirk den Baars.

Consulting Geologist.

30 So. Main St.
P. O. Box 1889

# J. OBS ASSAY OFFICE

PHONE MA 2-0813

## REGISTERED ASSAYERS

Tucson, Arizona, Mar 19th, 1958

Sample Submitted by Mr. Harley Shambaugh

| Sample Marked | GOLD Ozs. per ton ore | GOLD Value per ton ore * $ | SILVER Ozs. per ton ore | COPPER Per cent Wet Assay | LEAD Per cent Wet Assay | Per Cent Wet Assay | Per Cent Wet Assay | Per Cent Wet Assay |
|---|---|---|---|---|---|---|---|---|
| #1 | 0.39 | 13.65 | 0 5/10 | — | — | Both Tests | | |
| 2 | 1.31 | 45.80 | 1 2/10 | — | 1 2/10 | Low Grade | | |

30 So. Main St.
P. O. Box 1889

JACOBS ASSAY OFFICE

PHONE MA 2-0813

REGISTERED ASSAYERS

Tucson, Arizona, Feb 28th, 1957

Sample Submitted by Mr. Howard Wolfe

| Sample Marked | GOLD Ozs. per ton ore | GOLD Value per ton ore * $ | SILVER Ozs. per ton ore | COPPER Per cent Wet Assay | LEAD Per cent Wet Assay | Per Cent Wet Assay | Per Cent Wet Assay | Per Cent Wet Assay |
|---|---|---|---|---|---|---|---|---|
| X | 1.00 | 35.00 | 1 8/10 | — | 5 3/10 | — | — | — |
| | | | Filter | | | | | |

* Gold Figured $35.00 per oz. Troy

Charges $ 3.00

Very respectfully,

Ben W Jacobs

$4.50

30 So. Main St.
P. O. Box 1699

Tucson, Arizona, Aug 14th 19

Certificate No. 56264

Sample Submitted by Dick Van Baair

| SAMPLE MARKED | | | | | |
|---|---|---|---|---|---|
| | | | X | X | X |
| #809 | 0.45 | 15.75 | 1 3/10 | — | 0 9/10 |
| 810 | 0.38 | 13.30 | 2 5/10 | — | 1 7/10 |
| 811 | 0.03 | 1.05 | 1/10 | — | — |
| 812 | 0.06 | 2.10 | 0 6/10 | — | — |
| 813 | 0.18 | 6.30 | 0 8/10 | — | — |
| 814 | 0.15 | 5.25 | 0 6/10 | — | — |

30 So. Main St.
P. O. Box 1399

JACOBS

PHONE MA 2-0813

REGISTERED ASSAYERS

Certificate No. ——

Tucson, Arizona, June 25th 1959

Sample Submitted by Mr. Harley Shambaugh

| SERIAL | SAMPLE MARKED | GOLD Ozs. per ton ore | GOLD Value per ton ore * | SILVER Ozs. per ton ore | COPPER Per cent Wet Assay | LEAD Per cent Wet Assay | Per cent Wet Assay |
|---|---|---|---|---|---|---|---|
| | X / | 1.00 | $35.00 | 1 2/10 | | | |

Shaft West of San Jose intersect

ELIO #1

* Gold Figured $35.00 per oz. Troy

Charges $ 2.00 Paid

Very respectfully,
Ben P. Jacobs

San Jose
Arasta

# Miller's Assay Office

233 Grand Ave. — ASSAYERS — Nogales, Arizona

BUYER OF GOLD, SILVER, COPPER OR LEAD ORES
Established 1913
HUGO W. MILLER, Registered Engineer & Assayer, Owner

Date Aug. 23. 1940
Lab. No. 72867
Class Gold ore

Settlement for Crude Ore in bulk, Or .....

Purchased from C. B. Rugales owner of Elzo Nol 1. Mine,
Arivaca District, Santa Cruz County, Arizona

**WEIGHTS:—**

| | | |
|---|---|---|
| Gross weight of shipment as delivered | 1837 | lbs. |
| Less tare or empty sacks | | lbs. |
| Net weight of shipment | 1837 | lbs. |
| MOISTURE % (minimum 1%) | 18 | lbs. |
| Net Dry Weight of Shipment | 1815 | lbs. |
| NET DRY TONS | 0.9075 | |

ASSAYS AND PAYMENTS (Prevailing Smelter Schedule on Carload Lots) **Per Ton Ore**

| | | | |
|---|---|---|---|
| Gold | 2.19 ozs. @ $32.32 per oz. | $ 70.78 | |
| Silver | 2.2 ozs. less 0.5 ozs. @ 95% of 71.1c less 1.5 c | $ 1.12 | |
| Lead | 2.6 % less 1.5 % @ 90% of c less c | $ | |
| Copper | % less % @ 95% of c less c | $ | |
| Total payments Per Ton of Dry Ore | | | $ 71.90 |

**DEDUCTIONS:**—($2.50 Minimum Plus 10% of value over $15.00 per ton) **Per Ton Ore**

| | | |
|---|---|---|
| Treatment or smelting charges | $ 8.19 | |
| Copper Deficiency | $ | |
| Penalty on Sulphur in lead ore:— % @ per unit | $ | |
| Penalty on Insolubles in lead ore:— % @ per unit | $ | |
| Penalty on Zinc, Arsenic, Antimony, Bismuth, etc:— ..... % @ c per unit | $ | |
| Total deductions per ton dry ore | | $ 8.19 |

| | |
|---|---|
| NET SMELTER VALUE PER TON ORE | $ 63.71 |
| Less our 10% margin of purchase | $ 6.37 |
| Value per ton, f. o. b. shipping point | $ 57.34 |
| Less Freight to smelter | $ 4.80 |
| Net payment to shipper per ton dry ore | $ 52.54 |

**LIQUIDATION ON SHIPMENTS:—**

| | |
|---|---|
| Total value of 0.9075 tons @ $52.54 per ton | $ 47.68 |
| Less our sampling charge $..... and assaying $..... Weighing $..... Affidavits $0.25 | $ 5.00 |
| Balance due shipper | $ 42.68 |

Remarks:—

MILLER'S ASSAY OFFICE

HUGO W. MILLER

Cam

Keldon
research corporation
BOX 2555 TERMINAL ANNEX, LOS ANGELES 54, CALIF., LU 5335

# LABORATORY CERTIFICATE

*Submitted By*

Mr. George F. Hill
8300 Monogram Ave.
Sepulveda, Calif.

*Date* March 13, 1954

*Reference*
"Red Rock Claim"

| | |
|---|---|
| Lab. No. | 2971-1 |
| Marking | Ore |
| Gold | 1.70 ounces per ton |
| | $60.20 value per ton |
| Silver | 9.72 ounces per ton |
| | $8.75 value per ton |
| Total value per ton | $68.95 |

KEIDON RESEARCH CORPORATION
Thomas J. Rollins
Thomas J. Rollins

TJR/t

Excerpt from a repo... by Engineer Mr. Henry M. ...owthers. on Elzo Mining Group

"The Blanket Vein as exposed in some 2,000 feet of prominent exposure or outcrop on the surface is from 3 to 6 feet in width, but there is indication that with depth an extra width of mill ore mineralization extending into the porphyry walls will be found. This vein proper is highly mineralized white quartz, containing oxides of iron and manganese, and showing small amountsof galena, with rare discolorization by copper minerals. However, as the vein is being approached in the tunnel now being driven, mineralized porphyry on the foot-wall side was encountered carrying several per cent of copper in clean chalcopyrite, with $4,00 to $5.00 in gold and six ounces of silver. "It is estimaited from assaying and development so far done that the milling ore average of the Blanket Vein ores will be from $14.00 to $18.00 per ton, of which the gold values predominate. However, it may be anticipated that richer ores will be encountered with more depth, and in certain shoots of more concentrated values.

"There is now snowfall that lays more than a few hours, and at the general altitude of 4.000 feet the summer nights are cool, though the days are hot in the summer sun, but taken as a whole climate conditions are delightful.

"There is unlimited water available at the stream at Arivaca which would entail pumping with a lift of only some 300 feet in the event of large milling operations in the future being conducted. Howevere, there can be collected from several places on the property and further developed water enough to mill at least 5o tons daily, and with depth gained in mining sufficient water will be encountered to increase this existing supply as needed , as water occurs in the shafts of the region and on the property in adequate quantity for all ordinary milling purposes, especially in employing pond settling and re-use, as is usually practised in Arizona. Water supply conditions are far more favorable than most mines have in arid sections. Good domestic water for camp purposes has been obtained in a 30 foot well sunk at the camp site, in fact, water can be had at any part of the group by sinking shallow wells.

"Of greatest mining interest in the property, in my opinion, is an outcrop of highly mineralized limestone dipping 45 degrees to west, with a strike of North-South magnetic , and outcropping for a mile in length in the property, except where covered with wash and gravel, soil and igneous flow.

"It is my opinion that the development of this very fine and extensive mineralized lime belt will certainly result in a mine of major value and large tonnage. "With the work expedited with air drills hoisting facilities, and modern equipment, commercial ores should be rapidly developed in quantity. "I fully anticipate these several veins and ore channels will ultimately be productive of several millin dollars in metal values when fully exploited, having everyb geological and ore occurence condition to warrant the outlook.

"I strongly endorce the Elzo Mines property as unusually promising, and, in my opinion, a mining enterprise that with required development will result in the opening up of a very large tonnage of profitable ores."

C B Pugsley
Arivaca Ariz.

# DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Elzo Mining Group  Date March 13, 1956

District Arivaca District, Pima County  Engineer Axel L. Johnson

Subject: Present Status.

Location Drive NW from Arivaca on the Arivaca-Sasabe road ~~fxm~~ for about 1/4 mile. Turn right and drive about 3 1/2 miles north on dirt road to the camp and mine.

Number of Claims 13 unpatented claims.

Owner ✓C. B. Ruggles, Arivaca, Ariz.

Operator Not in operation.

Principal Minerals ✓Gold and Silver.

Remarks Information from C. B. Ruggles, Owner.

RJ

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA

# OWNERS MINE REPORT

Date Feb. 25th, 1941

1. Mine Elzo Mining Group (Eleven Unpatented Claims).
2. Mining District & County Arivaca Mining District, Pima Co., Ariz.
3. Former name A Spanish worked tunnel was called the San Jose
4. Location Arivaca, Arizona
5. Owner C. B. Ruggles
6. Address (Owner) Arivaca, Arizona
7. Operator
8. Address (Operator)
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals Gold and Silver
14. Men Employed
15. Production Rate
16. Mill: Type & Cap.
17. Power: Amt. & Type
18. Operations: Present

19. Operations Planned Sinking a new shaft on No. 7 and drifting in where seven veins come together like the spokes of a wheel, in a big lime dike. Sinking the winze in the Blanket Claim tunnel where assays show values from $16.00 to $200.00. Completing a shaft on Claim No. 1 where I sold one load of ore from a open cut that ran as follows: GOLD 2.19 ozs. SILVER 212 ozs. LEAD 2.6%.

20. Number Claims, Title, etc.

Eleven unpatented claims
P Clear Title

21. Description: Topography & Geography Mr. Henry M. Crowthers report states: "Practically the entire area is composed of igneous flows, intrusive and extrusive, consisting in the main of granodiorite, ryolite, quartz-porphyry and trach teporphyry. Much of which is highly mineralized with iron oxides, manganese oxides, quartz veins and veinlets over extensive areas.

22. Mine Workings: Amt. & Condition The 'reef' or 'dike' of highly mineralized lime shows for more than a mile in length, and shows definite indications of increasing in area at lower depths. This should be productive of a large tonnage of ore of commercial values. The quartz veins in the porphyry are fracture fillings, shear zone veins, and contact shrinkage fillings. The ores of which, while showing some free gold at surface and at shallow depth, turn into clean sulphide ores at as little depth as 50 ft.

(over)

23. Geology & Mineralization Look on additional sheet.

24. Ore: Positive & Probable, Ore Dumps, Tailings

24-A Vein Width, Length, Value, etc.

25. Mine, Mill Equipment & Flow Sheet

26. Road Conditions, Route Come to Arivaca and in the west edge of town take dim road to the right (North) and go two miles where there is two signs. Elzo Mine Camp left Two miles more.

27. Water Supply See extra sheet.

28. Brief History

29. Special Problems, Reports Filed

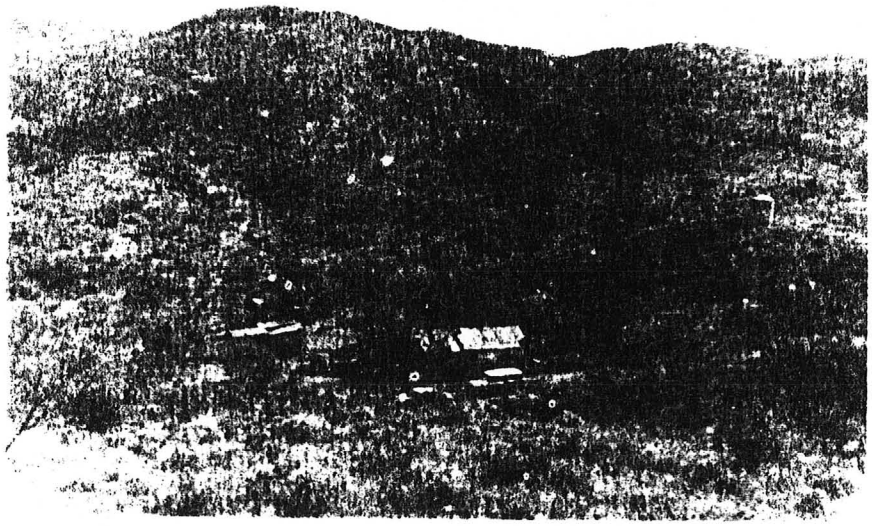
30. Remarks

31. If property for sale: Price, terms and address to negotiate.

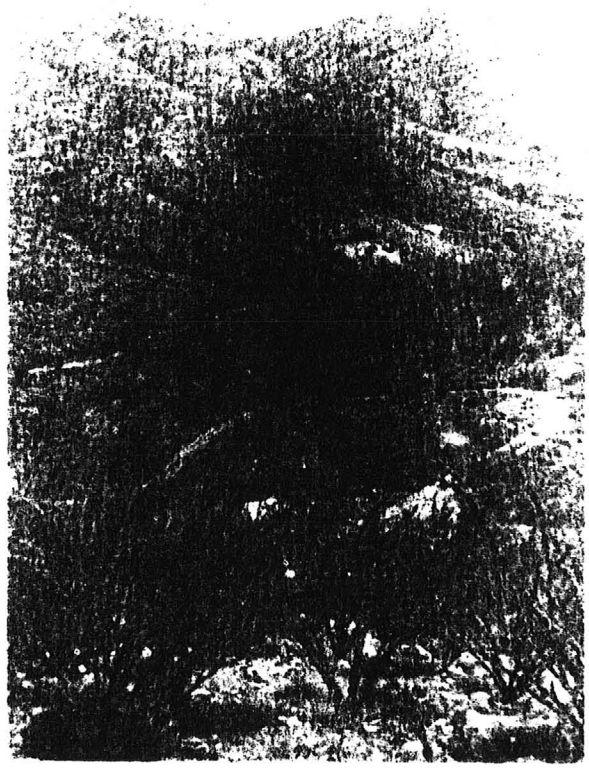
For sale at $30,000. Reasonable terms.

32. Signed.....

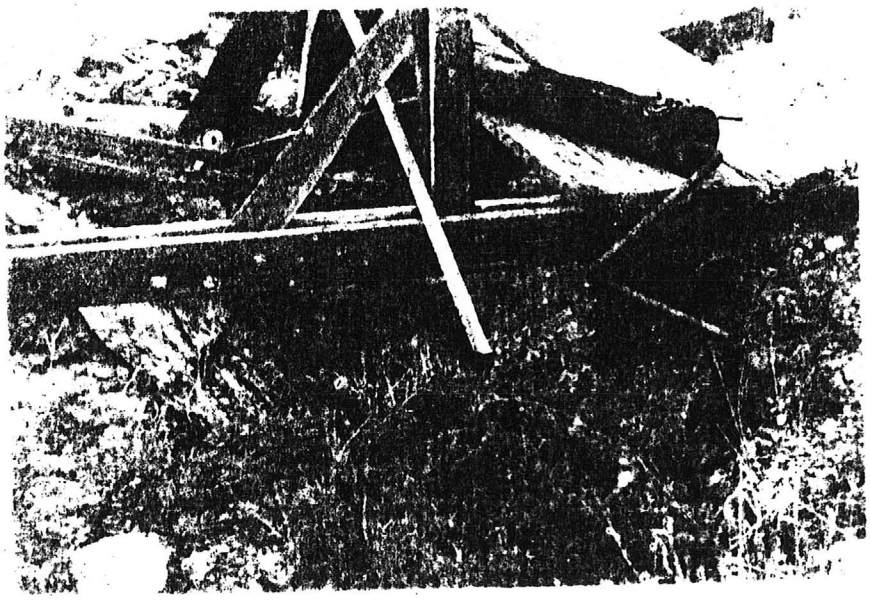
33. Use additional sheets if necessary.



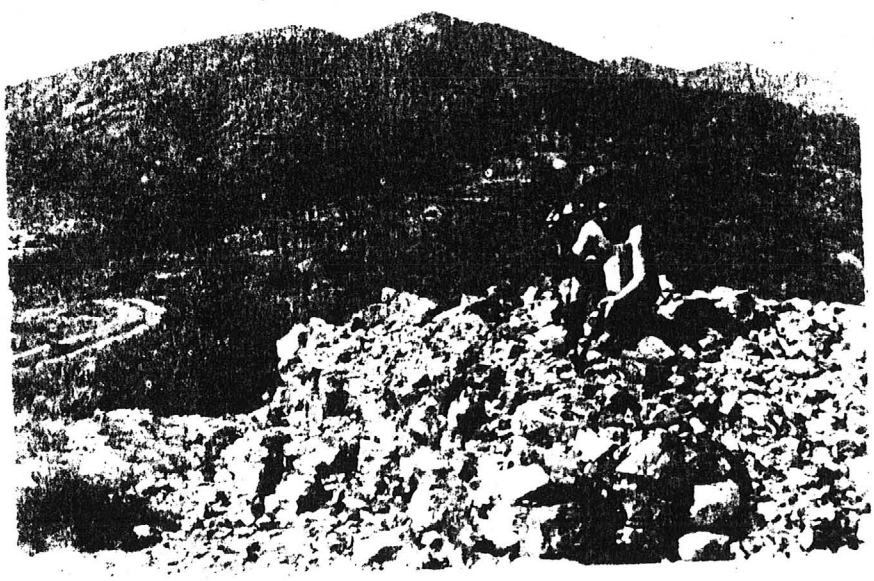
[illegible] looking north.



From Blanket tunnels looking south to Limestone shaft.



Prospect shaft showing rail



Upper Blanket dump looking S.

Richard Brown and Harley Chambau[illegible] at Oxcart out.

Husky miners at work on Blanket vein dump.

**DEPARTMENT OF MINERAL RESOURCES**
**State of Arizona**
**MINE OWNER'S REPORT**

Date October 13, 1965

1. Mine: Elzo Mining Group
2. Location: Sec. 8 Twp. 21 Range 10E Nearest Town Arivaca Distance 3
   Direction North Nearest R.R. Amado Distance
   Road Conditions 3 miles Narrow Mine rest gravel & Paved
3. Mining District and County: Arivaca Pima Co.
4. Former Name of Mine: Elzo Mining Group
5. Owner: Homer R. Shambaugh
   Address: Route 3 Box 733
6. Operator: Not in operation
   Address:
7. Principal Minerals: Gold, Silver & Lead
8. Number of Claims: Lode 13 Patented Unpatented 13
   Placer Patented Unpatented
9. Type of Surrounding Terrain: Mountainous

10. Geology and Mineralization:

11. Dimension and Value of Ore Body:

Please give as complete information as possible and attach copies of engineer's reports, shipment returns, maps, etc. if you wish to have them available in this Department's files for inspection by prospective leasors or buyers.

(over)

* * * * *

1. Elzo Property
2. Pima County, Arizona
3. A. C. Stoneman
4. W. R. Jones
5. Visited June 3 and 4, 1948
6. Gold and lead
7. "It is my opinion that this property is of no interest to The Eagle-Picher Company. The veins are too narrow for the value contained."
8. _____

* * * * *

Excerpt from a report by Engineer Mr. Henry M. Crowthers on Elzo Mining Group.

"The Blanket Vein as exposed in some 2,000 feet of prominent exposure or outcrop on the surface is from 3 to 6 feet in width, but there is indication that with depth an extra width of mill ore mineralization extending into the porphyry walls will be found. This vein proper is highly mineralized white quartz, containing oxides of iron and manganese, and showing small amounts of galena, with rare discolorization by copper minerals. However, as the vein is being approached, in the tunnel now being driven, mineralized porphyry on the foot-wall side was encountered carrying several percent of copper in clean chalcopyrite, with $4.00 to $5.00 in gold and six ounces of silver. "It is estimated from assaying and development so far done that the milling ore average of the Blanket Vein ores will be from $14.00 to $18.00 per ton, of which the gold values predominate. However, it may be anticipated that richer ores will be encountered with more depth, and in certain shoots of more concentrated values.

"There is now snowfall that lays more than a few hours and at the general altitude of 4,000 feet the summer nights are cool, though the days are hot in the summer sun, but taken as a whole climate conditions are delightful.

"There is unlimited water available at the stream at Arivaca which would entail pumping with a lift of only some 300 feet in the event of large milling operations in the future being conducted. However, there can be collected from several places on the property and further developed water enough to mill at least 50 tons daily, and with depth gained in mining sufficient water will be encountered to increase this existing supply as needed, as water occurs in the shafts of the region and on the property in adequate quantity for all ordinary milling purposes, especially in employing pond settling and re-use, as is usually practised in Arizona. Water supply conditions are far more favorable than most mines have in arid sections. Good domestic water for camp purposes has been obtained in a 30 foot well sunk at the camp site, in fact, water can be had at any part of the group by sinking shallow wells.

"Of greatest mining interest in the property, in my opinion, is an outcrop of highly mineralized limestone dipping 45 degrees to west, with a strike of North-South magnetic, and outcropping for a mile in length in the property, except where covered with wash and gravel, soil and igneous flow.

"It is my opinion that the development of this very fine and extensive mineralized lime belt will certainly result in a mine of major value and large tonnage. "With the work expedited with air drills, hoisting facilities, modern equipment, commercial ores should be rapidly developed in quantity. "I fully anticipate these several veins and ore channels will ultimately be productive of several million dollars in metal values when fully exploited, having every geological and ore occurrence condition to warrant the outlook.

"I strongly endorse the Elzo Mines property as unusually promising, and, in my opinion, a mining enterprise that with required development will result in the opening up of a very large tonnage of profitable ores."

Signed: C. B. Ruggles
Arivaca, Arizona

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA

# OWNERS MINE REPORT

Date Feb. 25th, 1941

1. Mine Elzo Mining Group (Eleven Unpatented Claims).
2. Mining District & County Arivaca Mining District, Pima Co., Ariz.
3. Former name A Spanish worked tunnel was called the San Jose
4. Location Arivaca, Arizona
5. Owner C. B. Ruggles
6. Address (Owner) Arivaca, Arizona
7. Operator
8. Address (Operator)
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals Gold and Silver
14. Men Employed
15. Production Rate
16. Mill: Type & Cap.
17. Power: Amt. & Type
18. Operations: Present

19. Operations Planned Sinking a new shaft on No. 7 and drifting in where seven veins come together like the spokes of a wheel, in a big lime dike. Sinking the winze in the Blanket Claim tunnel where assays show values from $16.00 to $200.00. Completing a shaft on Claim No. 1 where I sold one load of ore from a open cut that ran as follows: GOLD 2.19 ozs. SILVER 212 ozs. LEAD 2.6%.

20. Number Claims, Title, etc.

Eleven unpatented claims
P Clear Title

21. Description: Topography & Geography Mr. Henry M. Crowthers report states: "Practically the entire area is composed of igneous flows, intrusive and extrusive, consisting in the main of granodiorite, ryolite, quartz-porphyry and trach teporphyry. Much of which is highly mineralized with iron oxides, manganese oxides, quartz veins and veinlets over extensive areas.

22. Mine Workings: Amt. & Condition The 'reef' or 'dike' of highly mineralized lime shows for more than a mile in length, and shows definite indications of increasing in area at lower depths. This should be productive of a large tonnage of ore of commercial values. The quartz veins in the porphyry are fracture fillings, shear zone veins, and contact shrinkage fillings. The ores of which, while showing some free gold at surface and at shallow depth, turn into clean sulphide ores at as little depth as 50 ft.

(over)

DEPT. MINERAL RESOURCES
RECEIVED
FEB 27 1941
PHOENIX, ARIZONA

# DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
## MINE OWNER'S REPORT

Date Feb. 25th. -- 1941

1. Mine ✓Elzo Mining Group, Elevin unpatened claims.
2. Location Arivaca Ariz.
3. Mining District & County Arivaca Mining District, Pima Co. Ariz.
4. Former name A Spanish worked tunnel Was called the San Jose.
5. Owner ✓C.B.Ruggles Arivaca Ariz.
6. Address (Owner) C.B.Ruggles Arivaca Ariz.
7. Operator
8. Address (Operator)
9. President, Owning Co.
9A. President, Operating Co.
10. Gen. Mgr.
14. Principal Minerals Gold and Silver
11. Mine Supt.
15. Production Rate
12. Mill Supt.
16. Mill: Type & Cap.
13. Men Employed
17. Power: Amt. & Type
18. Operations: Present

19. Operations: Planned Sinking a new shaft on No.7 and drifting in where seven veins come togather like the spokes of a wheel, in a big lime dike. Sinking the winze in the Blanket Claim tunnel where assays show values from $16.00 to $200.00
Completing a shaft on Claim No. 1 where I sold one load of ore from a open cut that ran as followsGOLD 2.19 ozs.Silver 2.2 ozs. lead 2.6 % .

20. Number Claims, Title, etc.

Eleven unpatened claims
Clear Title

21. Description: Topography & Geography Mr. Henry M. Crowthers report states " Practlly the entire area is composed of igneous flows, intrusive and extrusive, consisting in the main of grano-diorite, ryolite, quartz-porphyry and trachyteporphyry. much of which is highly mineralized with iron oxides, manganese oxides, quartz veins and veinlets over extensive areas.
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This should be productive of a large tonnage of ore of commercial values.
The quartz veins in the porphyry are fracture fillings, shear zone veins, and contact srinkage fillings the ores of which, while showing some free gold at surface and at shallow depth, turn into clean sulphide ores at as little depth as 5o f feet.

22. Mine Condition

23. Geology & Mineralization Look on additional sheet.

24. Ore: Positive & Probable, Ore Dumps, Tailings

24A. Dimensions and Value of Ore body

25. Mine, Mill Equipment & Flow-Sheet

26. Road Conditions, Route Come to Arivaca and in the west edge of town take dim road to the right (North) and go two miles where there is two signs. Elzo Mine Camp left Two more miles.

27. Water Supply See extra sheet

28. Brief History

29. Special Problems, Reports Filed

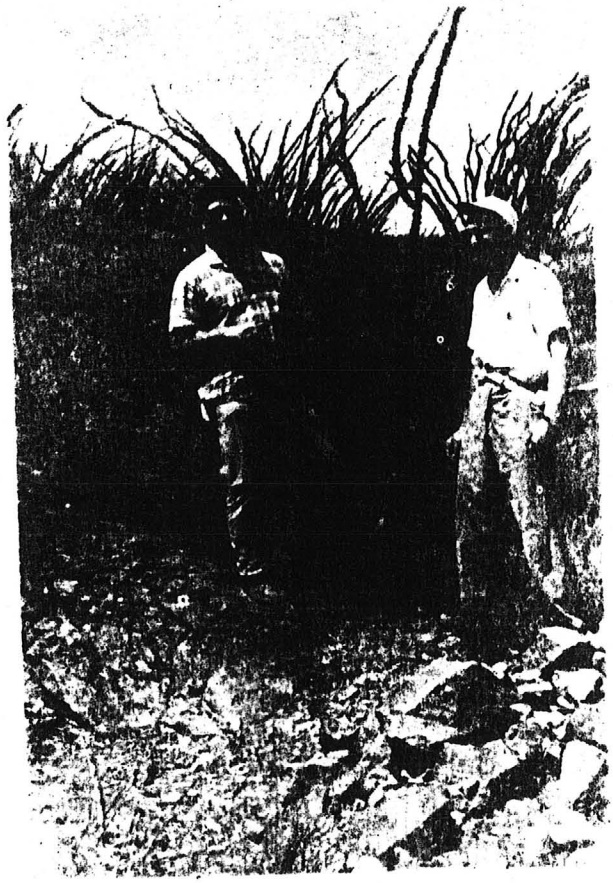
30. Remarks

31. If property for sale: Price, terms and address to negotiate.

For sale at $30.000. Reasonable terms

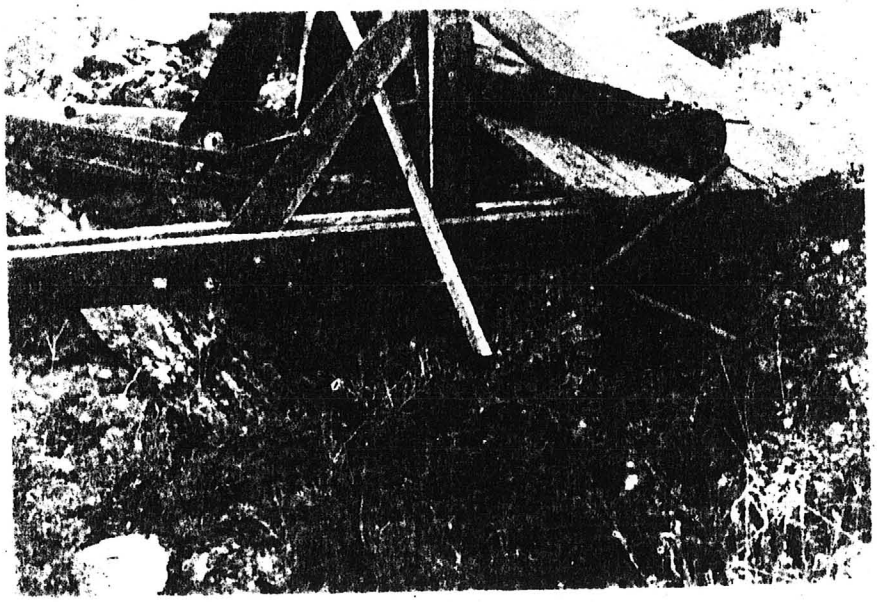
32. Signature C. B. Pugglee

33. Use additional sheets if necessary.



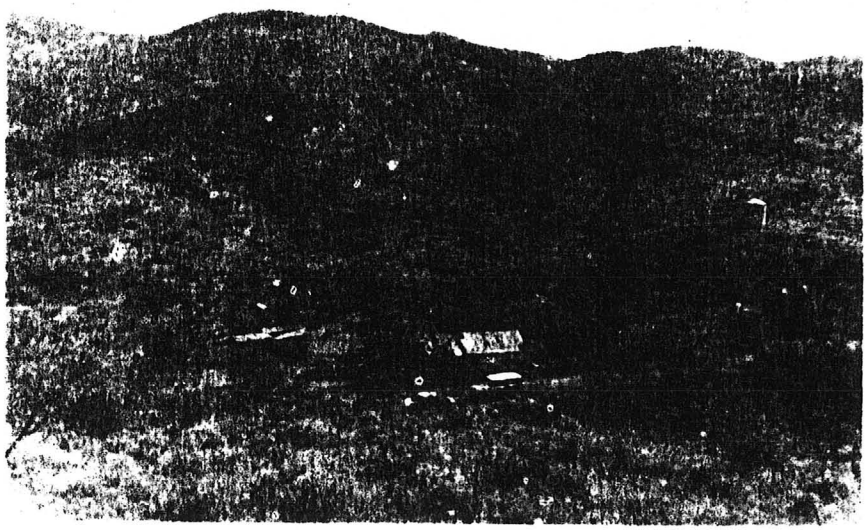
Richard Brown and Harley Chambaut at Excart [illegible].

Husky miners at work on Blanket vein dump.

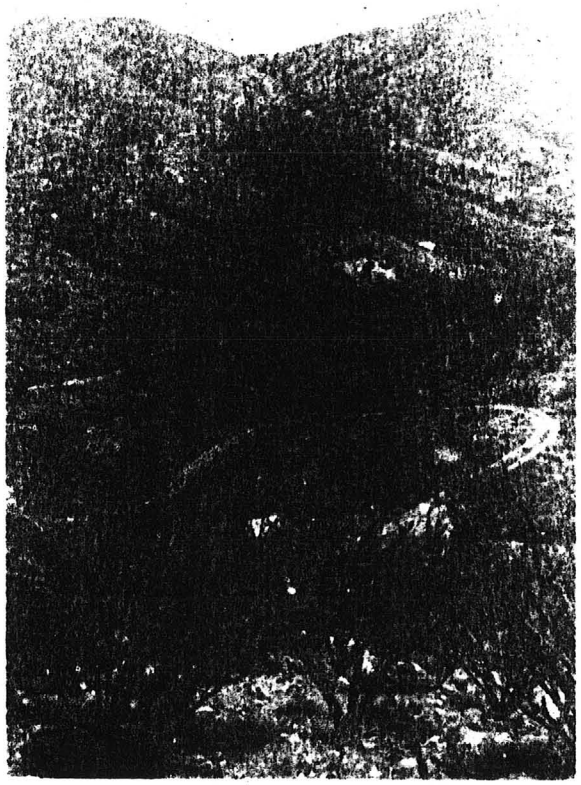


Prospect shaft showing vein.

Upper Blanket dump looking SW.

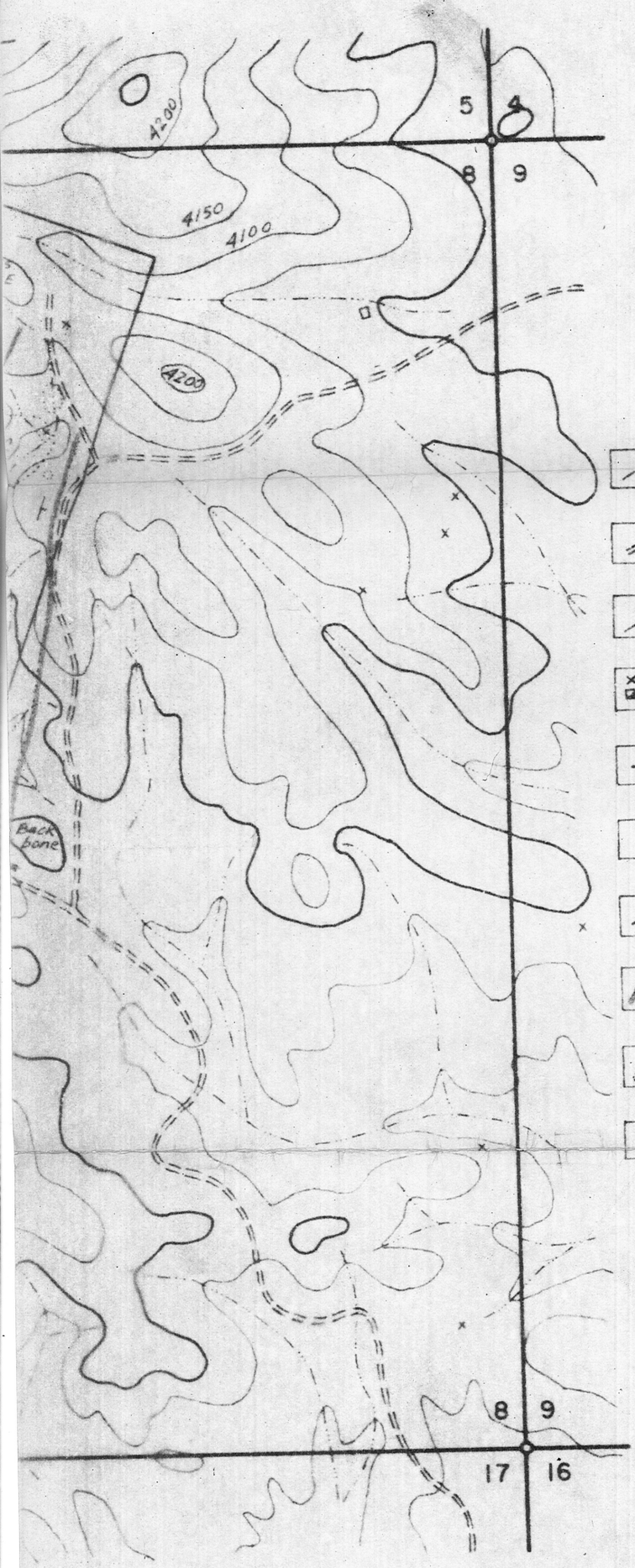


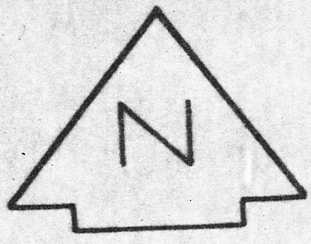
Buggles camp looking north.



From Blanket tunnels looking south to Limestone shaft.

LODE CLAIMS
COUNTY, ARIZ.




DECLINATION APPROX. 14°

SCALE 1" = 600 FT.

CONTOUR INTERVAL 50 FT.

DIRTROAD AND BUILDING

ARROYO OR DRY WASH

SHAFT, PROSPECT, DRIFT

SECTION CORNER IN

WIND MILL ON WATER WELL

PROPERTY BOUNDARY

QUARTZ AND IRONSTAINED VEINS

MARBLEIZED LIMESTONE

CHURN DRILL HOLE

GEOLOGY NOT COMPLETED

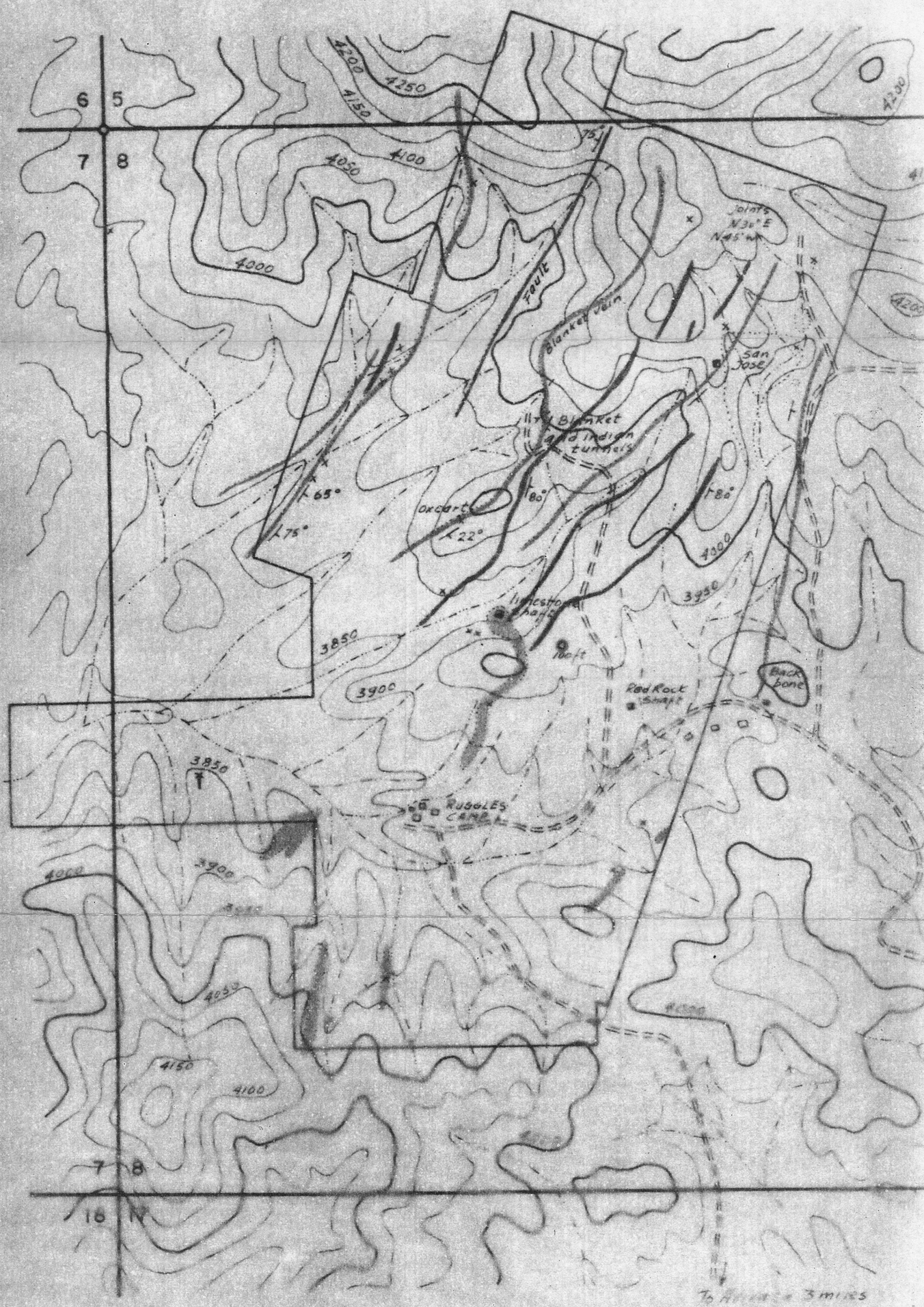
ca 3 miles

ADRANGLE

Registered Geologist
CERTIFICATE EXPIRES
Dirk den Baars
DEC. 31, 1963
ARIZONA, U.S.A.

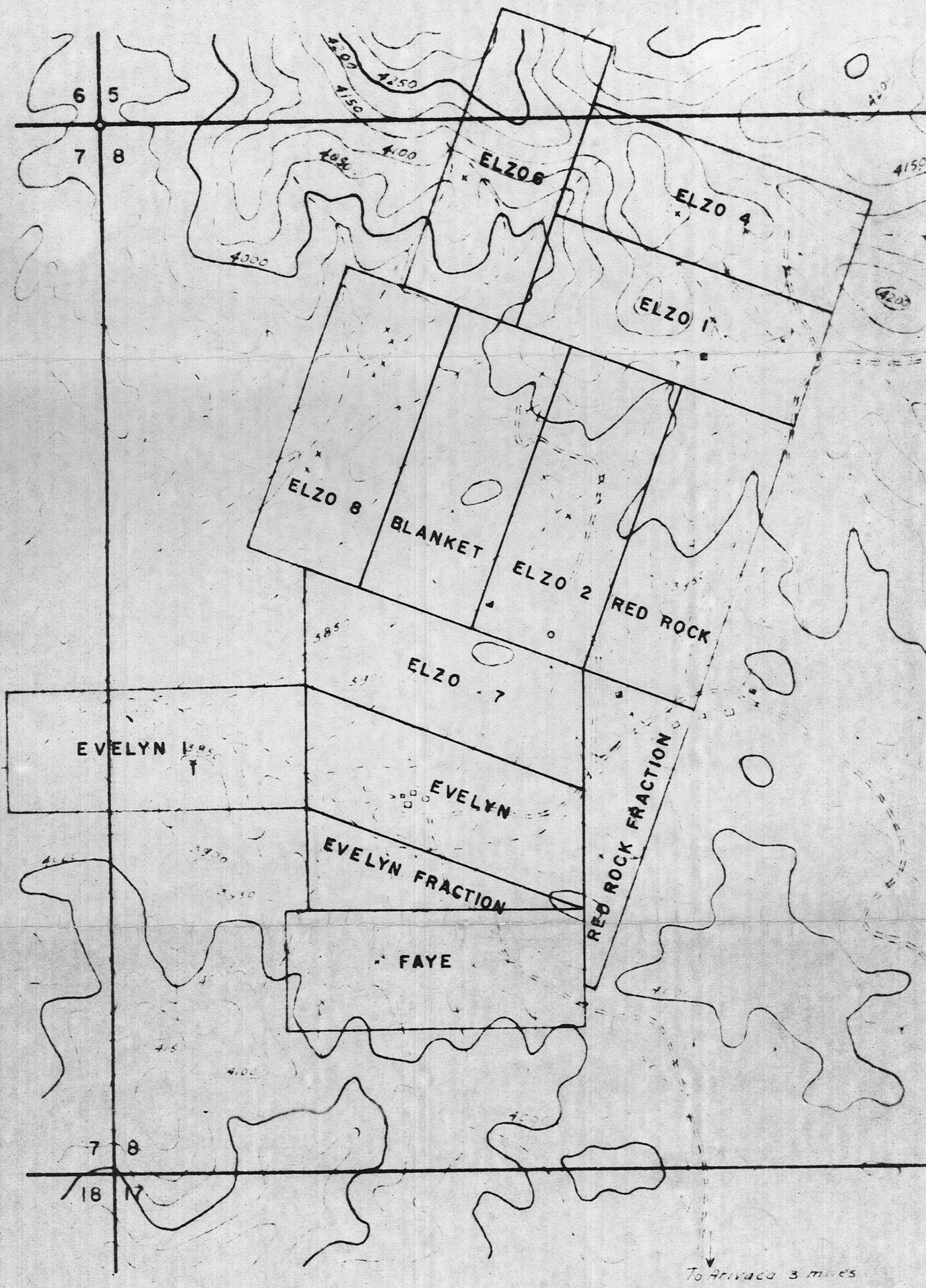
By: Dirk den Baars
Consulting Geologist

# HARLEY B. SHAMBAUGH, FEDERAL LODE CL
## SECTION 8, T21S, R10E, PIMA COUNTY, A



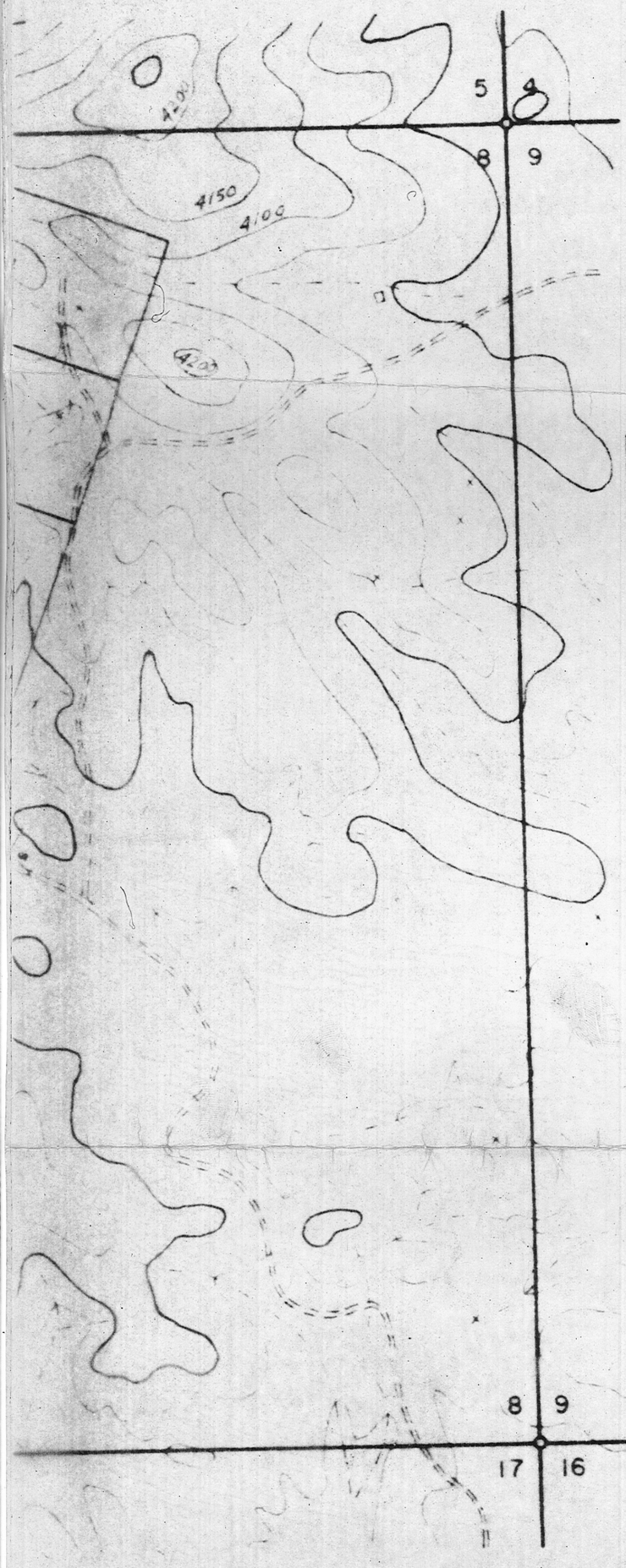

ENLARGED FROM ARIVACA QUADRANGLE

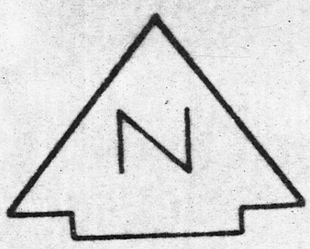
# HARLEY B. SHAMBAUGH, FEDERAL LODE CLA
## SECTION 8, T21S, R10E, PIMA COUNTY, AR




ENLARGED FROM ARIVACA QUADRANGLE

LODE CLAIMS
OUNTY, ARIZ




DECLINATION APPROX 14°

SCALE 1" = 600 FT

**CLAIM MAP**

CONTOUR INTERVAL 50 FT

DIRTROAD AND BUILDING

ARROYO OR DRY WASH

SHAFT, PROSPECT, DRIFT

SECTION CORNER IN

WIND MILL ON WATER WELL

CLAIM BOUNDARY

CHURN DRILL HOLE

aca 3 miles

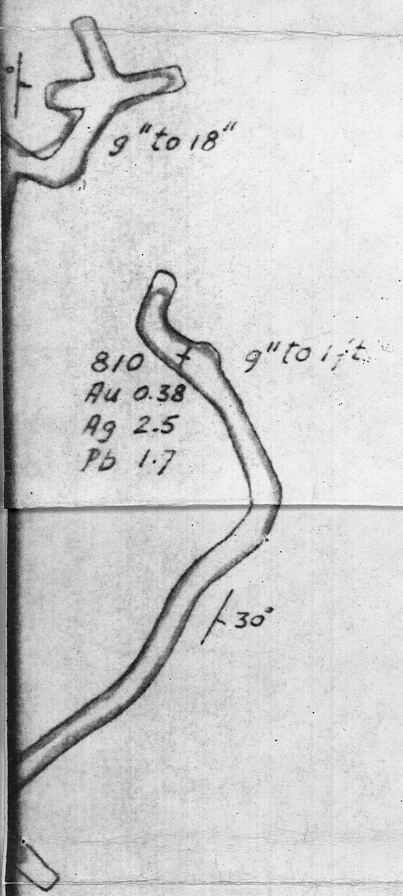
UADRANGLE

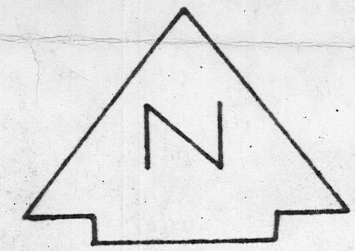
Registered Geologist
CERTIFICATE EXPIRES
Dirk den Baars
DEC. 31, 1963
ARIZONA, U.S.A.

By: Dirk den Baars
Consulting Geologist

GS ON BLANKET VEIN, ON BLANKET CLAIM

TAPE SURVEY BY: DIRK DEN BAARS.



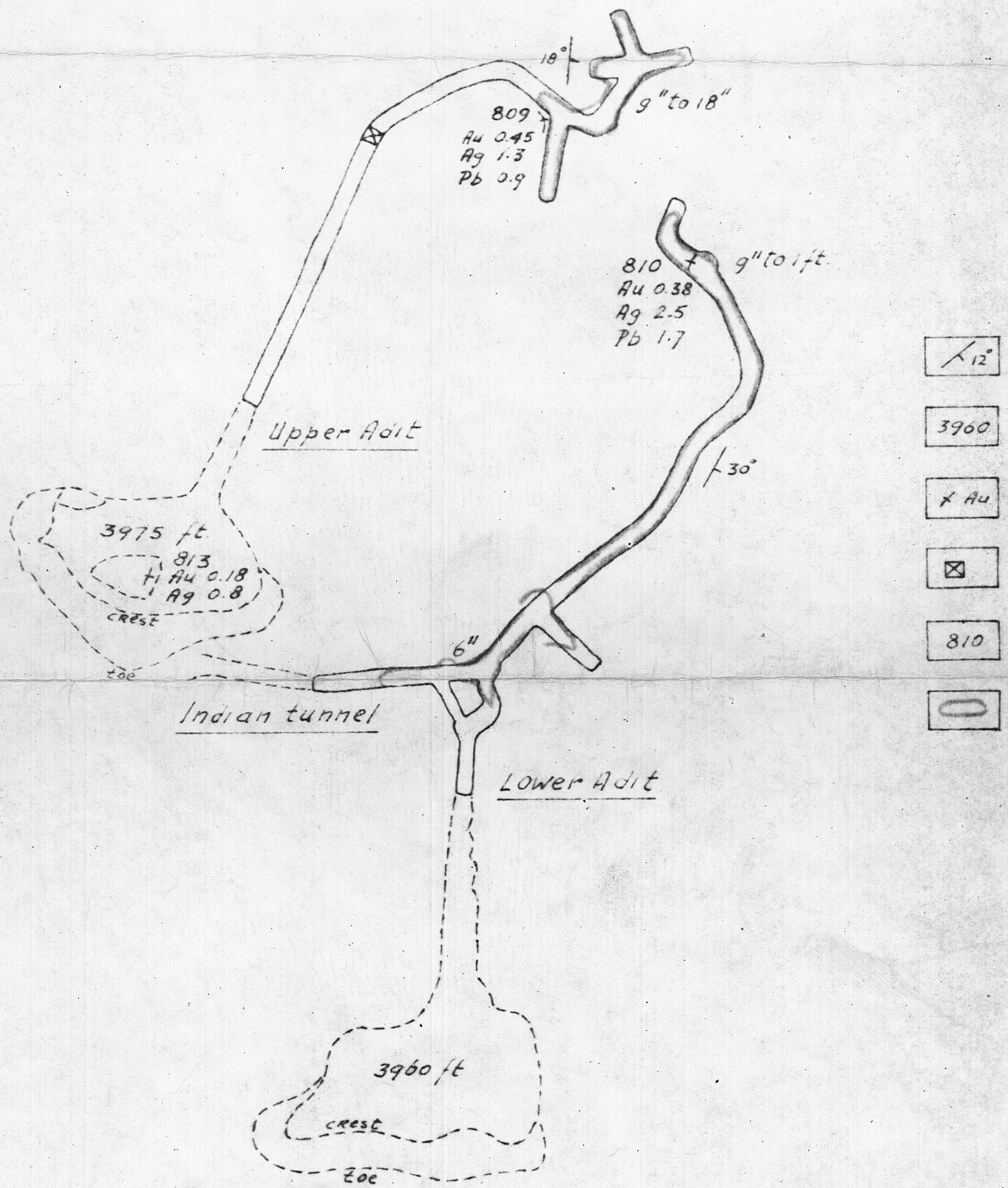

DECLINATION APPROX 14°

SCALE 1" = 40 FT.

| | |
|---|---|
| 12° | STRIKE AND DIP OF VEIN |
| 3960 | APPROXIMATE ELEVATION |
| Au | SAMPLE LOCATION AND ASSAY |
| | RAISE OR SHAFT |
| 810 | SAMPLE NUMBER |
| | QUARTZ VEIN AND WIDTH |

Registered Geologist
CERTIFICATE EXPIRES
Dirk den Baars
DEC. 31, 1963
ARIZONA, U. S. A.

AUGUST 1963

UNDERGROUND WORKINGS ON BLANKET VEIN, ON BLA

BRUNTON AND TAPE SURVEY BY: DIRK DEN BAA