



CONTACT INFORMATION

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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: EDWARDS MINE

ALTERNATE NAMES:

MOTHER LODE
GOLDEN EAGLE GROUP

PIMA COUNTY MILS NUMBER: 42

LOCATION: TOWNSHIP 22 S RANGE 10 E SECTION 8 QUARTER NW
LATITUDE: N 31DEG 32MIN 07SEC LONGITUDE: W 111DEG 20MIN 33SEC
TOPO MAP NAME: ARIVACA - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD LODE
SILVER
COPPER
LEAD
ZINC

BIBLIOGRAPHY:

S.B. KEITH, AZBM BULL. 189, P. 105, 1974
ADMMR EDWARD'S MINE FILE

13 January 1942

Mr. H. P. Edwards,
Arivaca, Arizona.

My dear ~~Mr.~~ Edwards:

I am enclosing herewith a copy of the last report on the MOTHER LODE GROUP in Pima County, which has been placed in our files. I shall be glad to submit a copy of this report to anyone making inquiry for a property such as yours.

Assuring you of my desire to be helpful, and with kindest personal regards, I am

Yours very truly,

Charles F. Willis,
Chairman, Board of Governors

CFW-jrf
encl.

January 12, 1942

Mr. H. T. Edwards,
Arivaca, Arizona.

Dear Mr. Edwards:

I have your letter of January 5 and am mighty sorry that you have been down with pneumonia. I surely hope you are on your feet again by this time.

I want to thank you for the information you sent regarding your Mother Lode group. We are putting it into our files and will see that attention is called to it when anyone is seeking this type of property.

I particularly note your postscript relative to the government wanting barium. What they would prefer to get if they can is the barium carbonate, witherite. If they cannot get that they are interested in Barium sulphide, barite. Either of these can be used in making barium nitrate which is what they are after, but the witherite is the best. Barite has to be almost pure to be of any commercial value.

I want to tell you what a "kick" I got out of your very clever Christmas card. I had a lot of fun handing it to people and seeing them open the many envelopes.

With kindest personal regards, I am

Yours very truly,

CHARLES F. WILLIS,
State Secretary

CFW:MH

Arivaca, Arizona.
January 5, 1942.

Mr. Charles F. Willis,
Phoenix, Arizona.

Dear Mr. Willis:

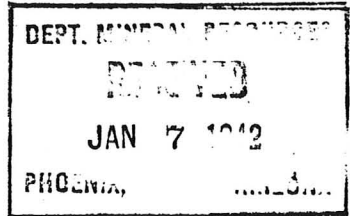
I filled in the report as best I could and am sending a crudely drawn map of the property that shows the locations of some of the work done which I believe will explain it as well as if I had written it all in the report.

I was taken ill with a light case of pneumonia and had to go to bed so will send it as it is. I am also including an engineer's report which was made in 1930 that may give you more additional information or at least another man's opinion.

Written per Mrs. Edwards

Sincerely,

H. F. Edwards
H. F. Edwards.



P.S I Notice from your last bulletin that the Government wants barium, if so what grade? I have a deposit 1400 feet long and 40 feet wide in the middle. The test I had made on it run 83% barium sulphate. Anyone who wants to work it can have it almost on their own terms. If opened up it might be much better. It is a nice white barium.

PROPERTY OLD EDWARDS MINE

PROJECT NO. 301

LOCATION Arivaca Mining District, Pima County, Arizona.
Approximately 5 miles south-west of Arivaca.

ACREAGE 454.22 Acres

LAND STATUS 22 Unpatented Mining Claims

OWNERSHIP Lease purchase option - Charter Mining, Inc.

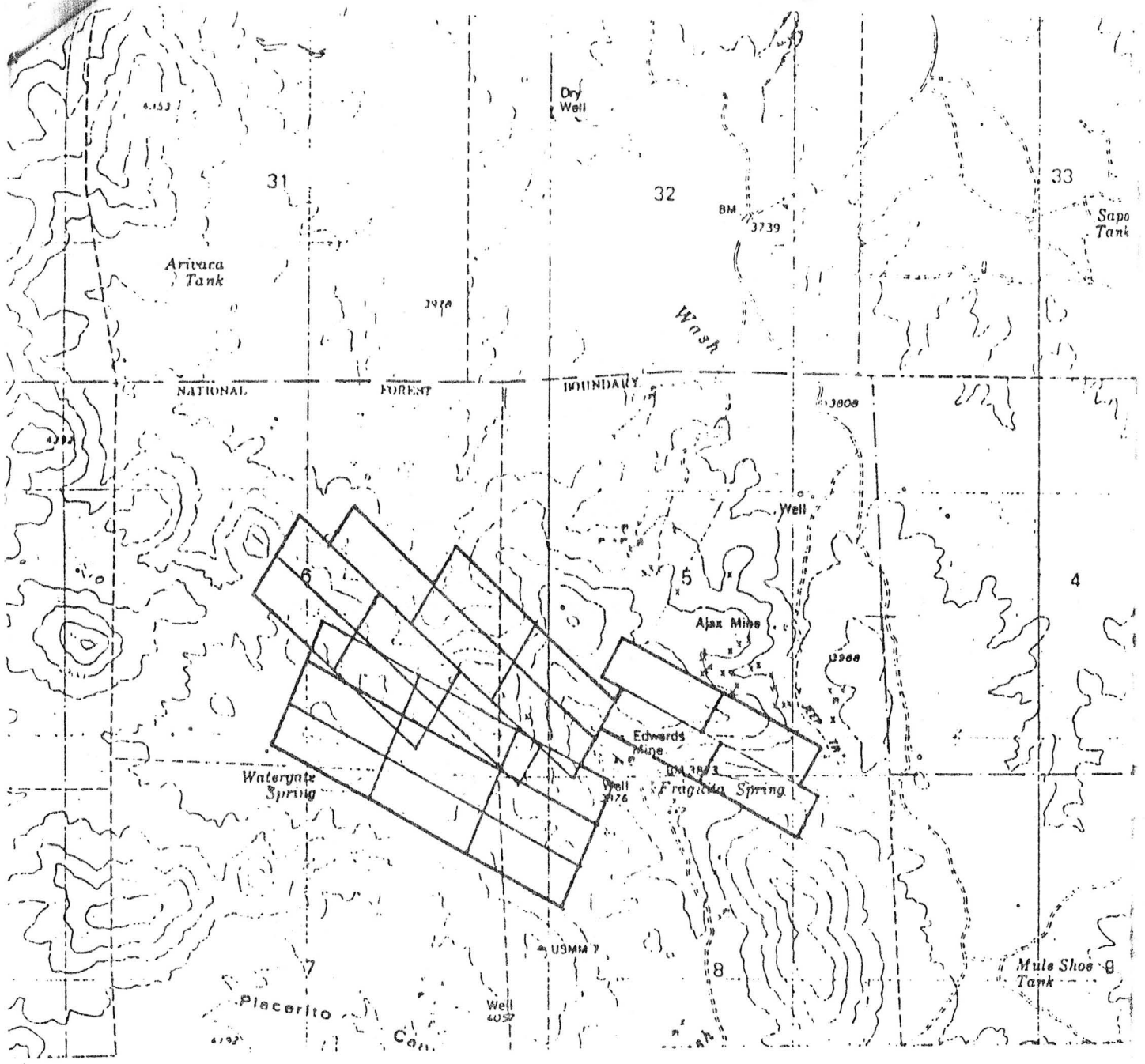
CURRENT ACTIVITIES Exploration

COMMODITIES Gold, silver and lead

RESERVES 50,000 tons (inferred)

VALUE \$1,000,000.00

COMMENTS.



EDWARDS MINE

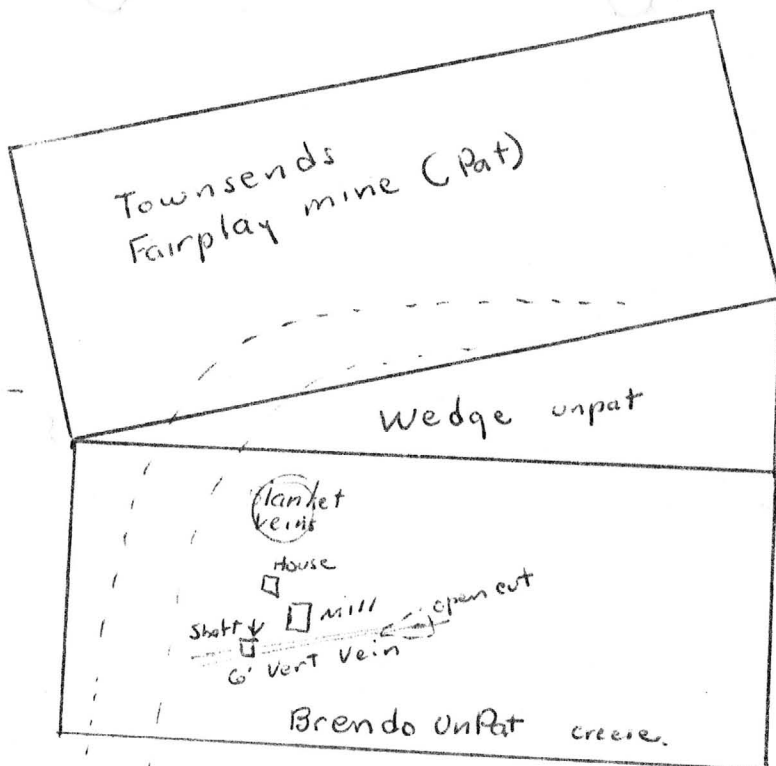
ARIVACA MINING DISTRICT
Pima County, Arizona



N
↑

SECS
SECS

Edwards Property



Ted Burr's
"Long Shot" mine

Goldsmith mine

RIO L. T. 25

AJAX

ARIVACA 3 MILES

EDWARD'S
MINE

6 5 AREA

7 8 UP

FAIR PLAY
HACK TOWNSEND

PAT

CREESE
MINE & MILL
UP

GOLDSMITH
MINE & MILL
UP

TED BURRIS
OF
OLD FULLERTON

MILL HOUSE
& MINE
O.P. →

5 4

8 9

To Arivaca

ROAD

7 8

18 17

8 9

17 16

Las Jarillas Ranch

SKETCH SHOWING
RELATIONSHIP OF
FOUR PROPERTIES

G.T. JAN 28, 1966

ARIVACA
QUADRANGLE

OLD EDWARDS MINE

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Report dated May 13, 1980 by Larry Kersey

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Reconnaissance and Sampling Survey, Dated July 21, 1980
by Larry Kersey, including sketches of claims.

Section 4:

Letter from Larry Kersey to Lloyd Boulden, dated
January 26, 1981

SECTION 1
SUMMARY SHEETS AND MAPS

PROPERTY OLD EDWARDS MINE

PROJECT NO. 301

LOCATION Arivaca Mining District, Pima County, Arizona.

Approximately 5 Miles south-west of Arivaca.

Acreage 454.22 Acres

LAND STATUS 22 Unpatented Mining Claims

OWNERSHIP Lease Purchase Option - Chrter Mining Corporation

CURRENT ACTIVITIES Explration

COMMODITIES Gold, Silver and Lead

OLD EDWARDS MINE

The Old Edwards Property is located in the Arivaca Mining District, Pima County, Arizona. The property is accessible by gravel road approximately 5 miles south of Arivaca, Arizona.

The 22 unpatented mining claims are located on Federal Land, managed by the U.S. Forest Service.

The property is under lease, with option to purchase to Charter Mining Corporation.

The property, prior to the present owners, had been operated for many years by Edwards, who had mined gold till his death. No records of production are available.

Recent work undertaken by Charter Mining Corporation, has resulted in limited exploration targets.

The mineralization previously mined and recently sampled indicates gold and silver values associated with lead, occurring in quartz vein systems at zones of intersect.

The property is scheduled for full geological evaluation after rehabilitation of existing workings.

REQUESTED MAPS AND FURTHER INFORMATION ON AREA

AND HOW CLAIMS WERE LAYED OUT FROM

CLARE RICHARDSON & LLOYD BOULDER

Ref: Sampling and Brief Survey Trip to Arivaca, Arizona, May 13, 1980.

The area of mines, trenches and prospect holes is located some 5 miles Southwest of Arivaca, Arizona. All workings are easily accessible by car.

Upon investigation of the workings, 11 individual shafts, trenches and drifts were observed. The area is covered by ²²21 claims, of which, upon walking the surrounding area, no claim posts or markers were observed.

The major workings upon the property consist of a drift driven into a mountain for a distance of 459 feet, following a series of faults. Please observe Sketch #1 in referring to this drift and area in which samples were taken. There are seven workings, all of which are located on a major fault system, striking N. 60° W. to E. 75° W. and dipping from 65° Easterly to a verticle dip. Minor parallelling faults were observed in the area.

Approximately 1/4 mile South of the 459 foot drift are additional workings consisting of 2 drifts and 1 open trench. Sample #8 was taken across a 1 1/2 foot fault in the open trench.

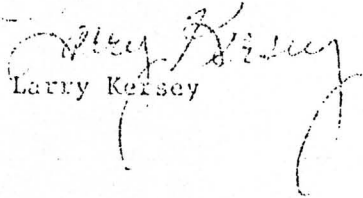
The trip was devoted mainly to taking of samples where it could be done and be representative. The Geological aspect of the trip was very

SECTION 2

REPORT BY LARRY KERSEY

general. If samples prove to be of good assay results, further and more in depth mapping and sampling should be done.

Respectfully submitted,


Larry Kersey

LK/tis
enclosure

SECTION 3

RECONNAISSANCE SURVEY AND SKETCHES OF CLAIMS

By Larry Kersey

~~CONFIDENTIAL~~

P. O. Box 5843, Tucson, Arizona 85703

(602) 808-5242

January 26, 1981

Lloyd Boulden
1915 West Root Lane
Tucson, Arizona 85705

Dear Lloyd:

Enclosed you will find a copy of the most recent work done in the Old Edwards Mine area. In reviewing the assay results, the Government Working is looking encouraging, especially the dump.

The thrust in the area now will be towards possibly obtaining access to the Government Workings and do some detailed mapping and sampling. Some in-depth cross cutting and sampling should be done of the Government Workings dump.

We have completed two Induced Polarization lines (11-17-1980) across the Old Edwards Drift structure, one to the top of the ridge and another just North of the Old Edwards Shaft, which is located above the adit. The Induced Polarization work accomplished to date is inconclusive, even though subtle anomalies were indicated. More intricate Induced Polarization work, possibly along the strike length of the structure, will have to be undertaken.

If you have any further questions, please contact me.

Sincerely,

Larry Kersey
Staff Geologist
Alanco Ltd.

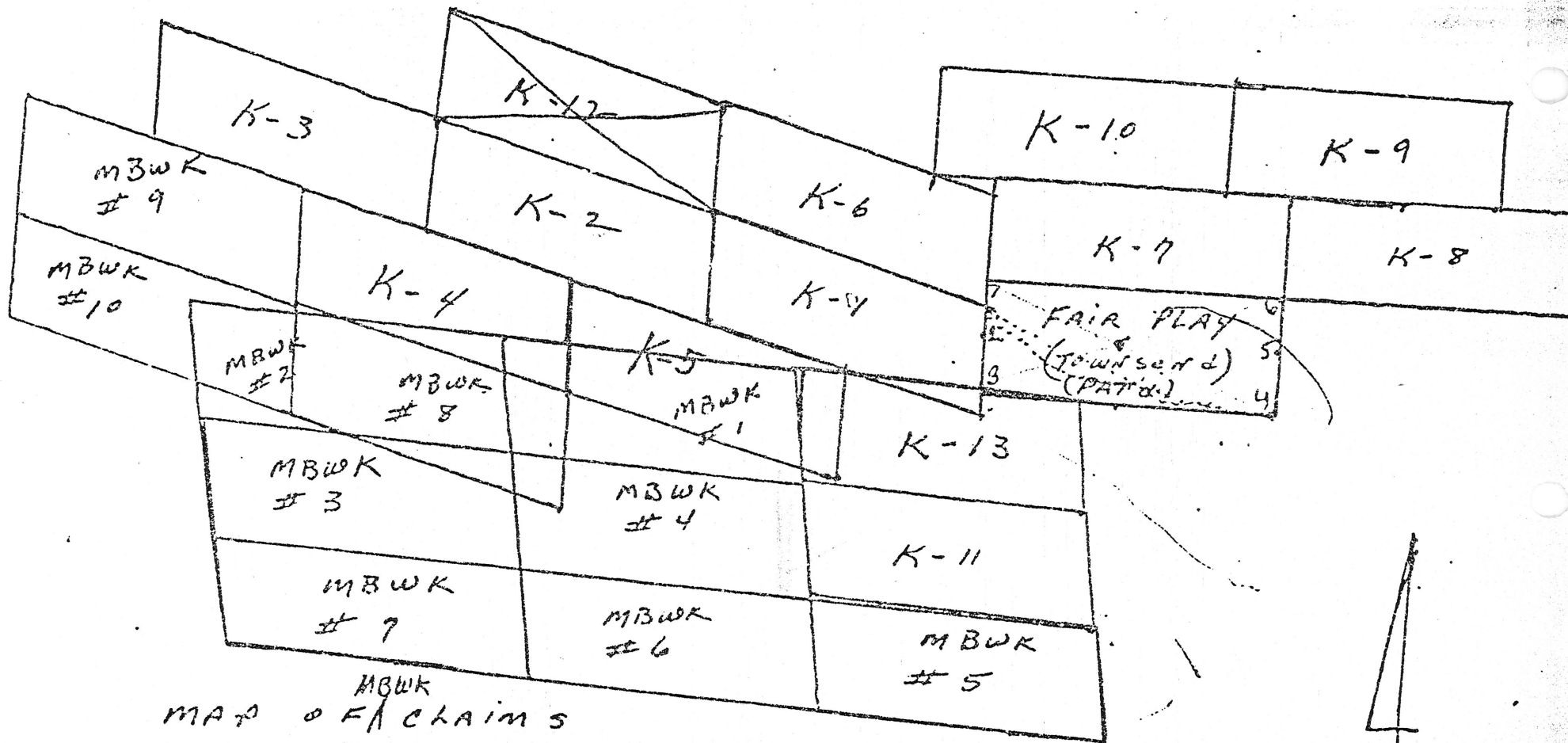
LK/tis

SECTION 4

LETTER TO LLOYD BOULDEN

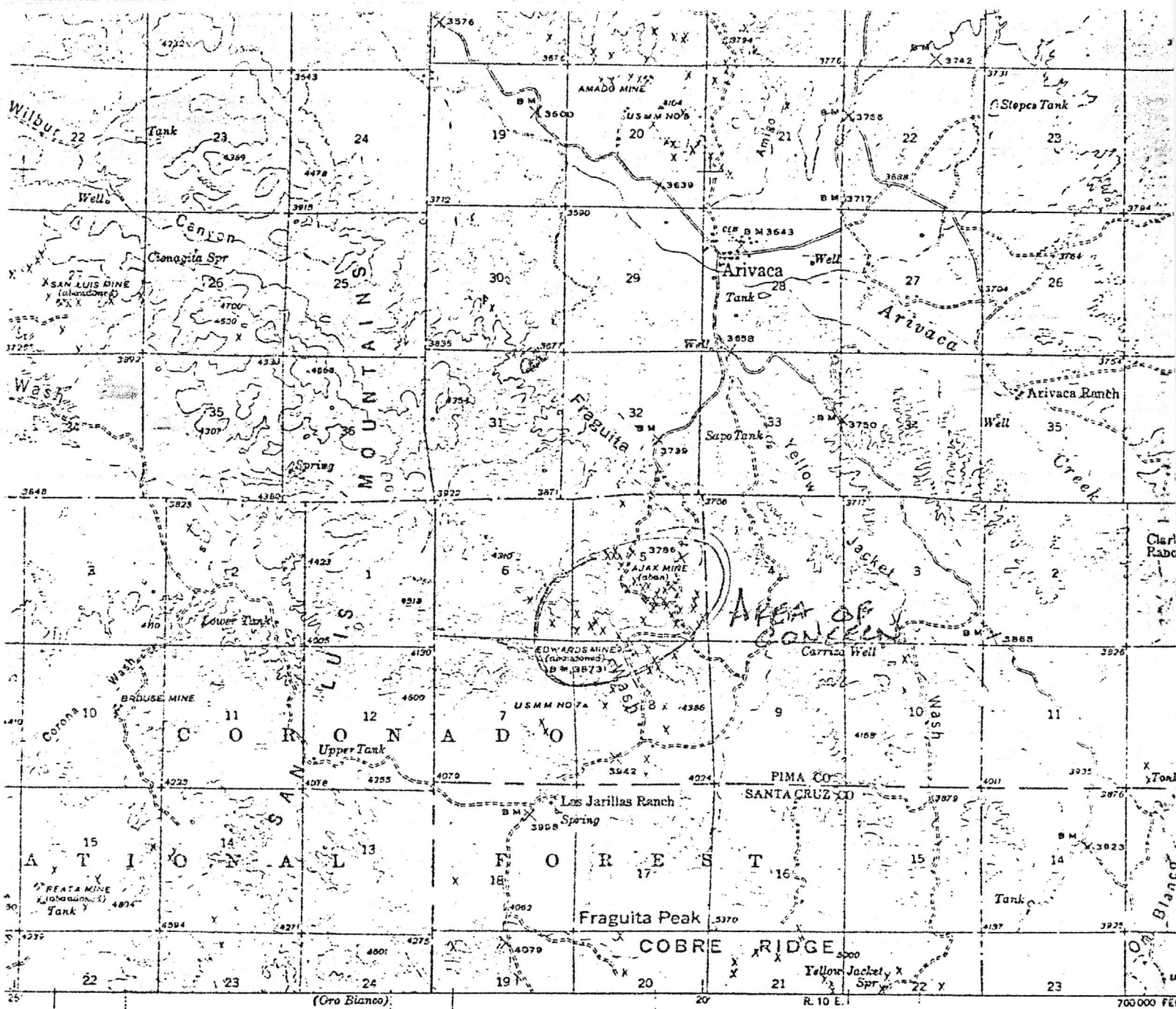
FORM: LARRY KERSEY

KATIE
 MAP OF CLAIMS
 LOCATED IN PORTIONS OF
 SECTIONS 5, 6, 7, & 8
 T-22-S R-10-E
 ARIZONA MINING DISTRICT
 PIMA COUNTY, ARIZONA.



MAP OF CLAIMS
 LOCATED IN PORTIONS OF
 SECTION 6, 7, 8 -
 T-22-S R-10-E.
 ARIZONA MINING DISTRICT
 PIMA COUNTY ARIZONA.

SCALE: " = 200

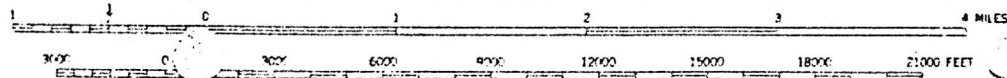


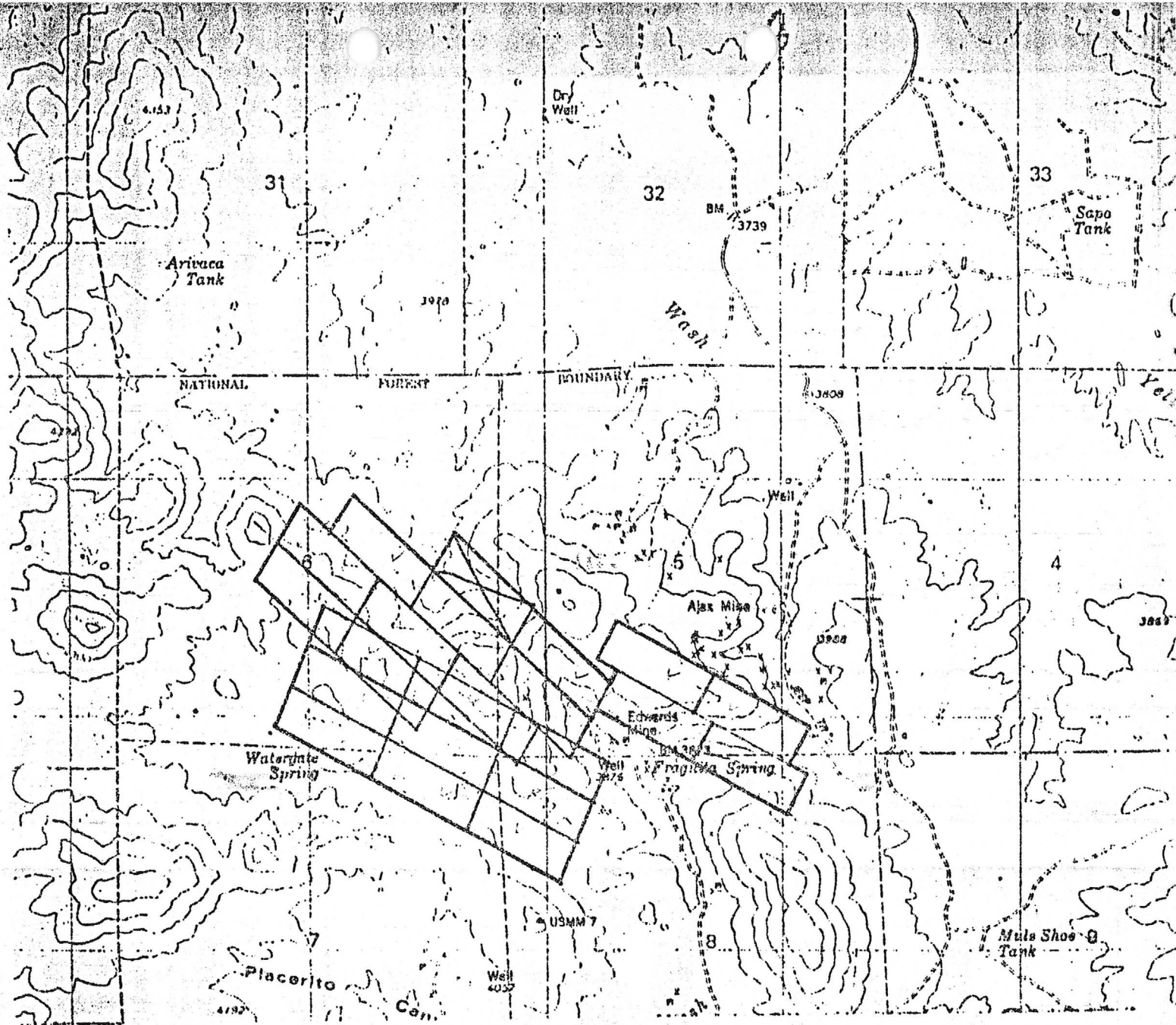
SCALE 1:62500

● INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C. — 1909

Sections lines in T. 22 S., R. 11 E.
are omitted because of insufficient
data

Polyconic
5000 yard
10000 foot
rectangular





EDWARDS MINE

ARIVACA MINING DISTRICT
Pima County, Arizona



RECONNAISSANCE & SURVEY AND SAMPLING OF

OLD EDWARDS MINE
Arivaca, Arizona

Sections 5, 6, 7 & 8, T. 22 S., R. 10 E.

July 21, 1930

The Old Edwards Workings

These workings consist of approximately 680 feet of drifts and minor stoping. The Old Edwards Mine workings are attacked initially by a drift driven on a North $61^{\circ} 30'$ West heading for a distance of 210 feet. There is a small drift 20 feet in from the portal, which has been driven for a distance of 35 feet on a South 61° West heading. The drift is essentially barren of any mineralization and subsequent faulting is not going with the strike of the drift. The fault in the first little drift to the South-West has a structure which has no mineralization but slickensides are observed in the structure. From this South-West drift, going down the drift wall the Writer has identified ten minor fault structures going against the drift of which they are striking anywhere from a South 40° West strike to a West striking fault anywhere from a 23° dip to the North-West to a $65-85^{\circ}$ dip to the South. At the 200 foot mark, which would be the station No. 11 in the Survey, a drift has been driven on a South 26° West heading for a distance of approximately 28 feet at which you are at Station Number 12. From this station you go on a drift that has been driven to the South-West for a distance of 14 feet to where you come to Station Number 13.

From Station Number 13, the main drift has been driven for a distance of 300 feet along a general North 62° West striking fault. From this position, or Station Number 13, you begin to come into an area that has a fair amount of iron oxide and manganese oxide staining. The first real abundance of mineralization located in the workings is approximately 75 feet from this Station 13, in which a small stope of 14 feet up in a fault structure striking South 30° to the West and dipping 55° to the North-West in which an

abundance of iron oxide and some copper staining have been observed.

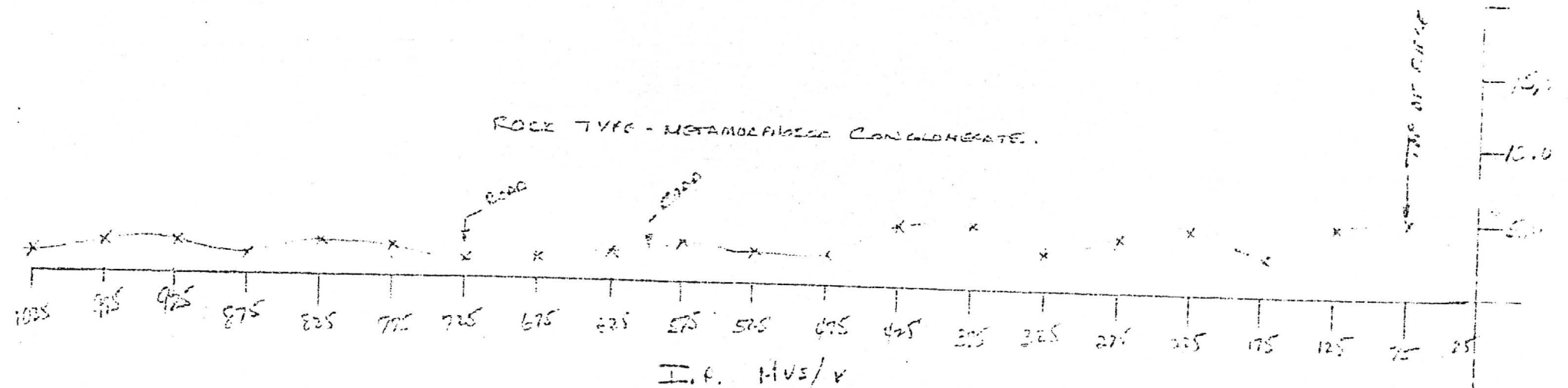
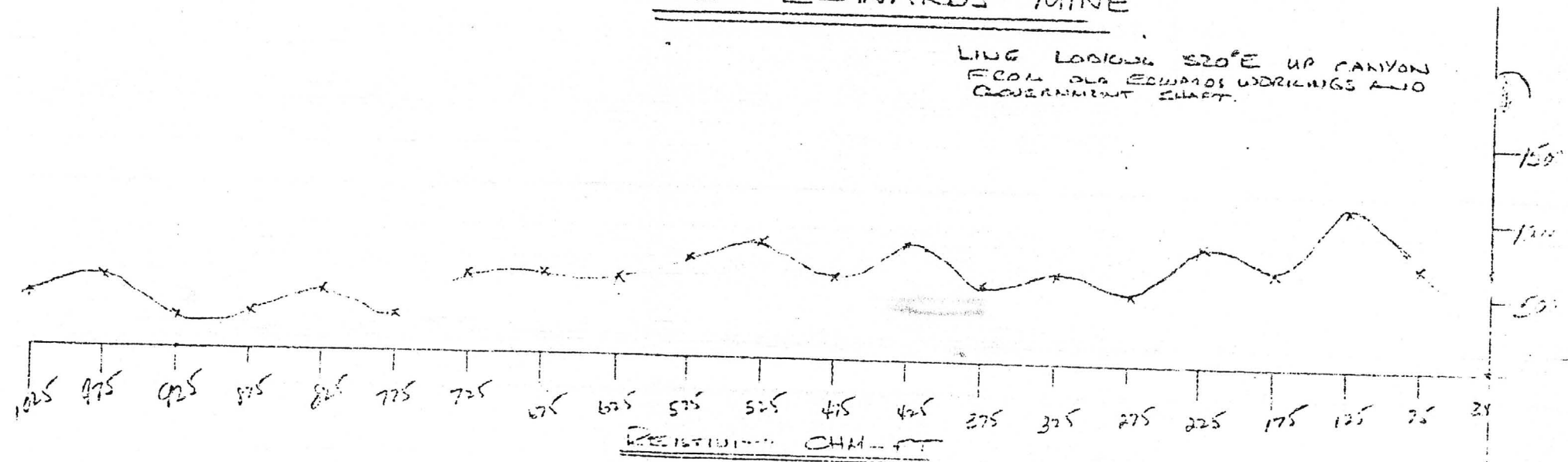
This is the first location in which Sample Number 1 was taken across a 2 foot face. Values for this sample were 0.023 in gold and 3.34 in silver. Continuing from this location for ANOTHER 100 FEET TO WHERE YOU COME TO A STATION, Number 17, there is a drift driven to the North on a North 10° East heading, of which the Writer did not observe any appreciable amount of mineralization or faulting in the drift. Continuing from Station Number 17, the drift has been observed to be considerably caved at this position for a distance of 60 feet, continuing down on this North 62° West general strike. Samples were taken from the back along this 60 foot area on which the assays ran from 0.002 to 0.037 ounces per ton of gold and very little silver. Up to this point from Station Number 17 to the end of the drift, the drift follows a very pronounced fault structure, which is striking this North 62° West strike length, of which it varies anywhere from 2 feet to 4 feet wide with the slickensides going vertical to the strike length of the fault. There is considerable amount of clay or fault gouge associated with the fault and also the Writer has observed laminated pockets associated with the fault gouge. There are subsequent quartz veinlets paralleling the fault system in which there is a considerable amount of limonite staining and some copper staining have been observed. The fault itself is very wet and considerable amount of the clay is more of a mud filling between the fault walls. From Station Number 20, the drift is relatively free of caving and continues for another 100 feet at which point another smaller drift has been driven on a South 45° West heading for a distance of 40 feet.

The country rock in which the Edwards workings are associated are with the conglomerates and some local limestones, which have been metamorphosed with the rhyolitic or andesitic intrusive dikes cutting the country. This is of Cretaceous age.

In reviewing the assay results of the Old Edwards workings, the low ounce per ton of gold was 0.02 and the high was 0.058. The silver at a low of 0.15 and a high of 3.34 ounce of silver per ton.

OLD EDWARDS MINE

LINE LOGGING S20°E UP CANYON
FROM OLD EDWARDS WORKINGS AND
GOVERNMENT SHAFT.



I.P. LINE 2 50' ARRAY

SCALE 1"=100'

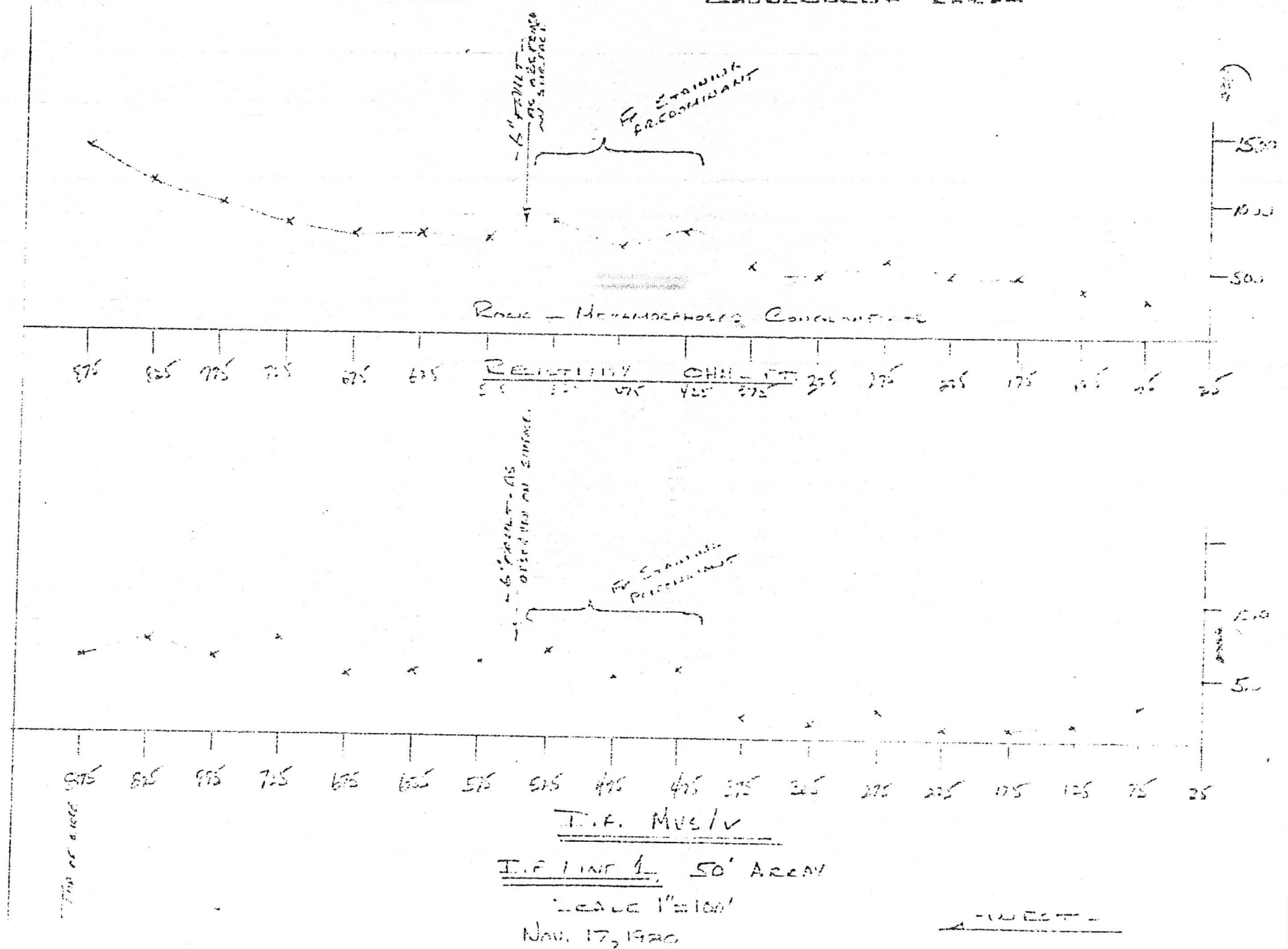
NOV. 17, 1985

EAST

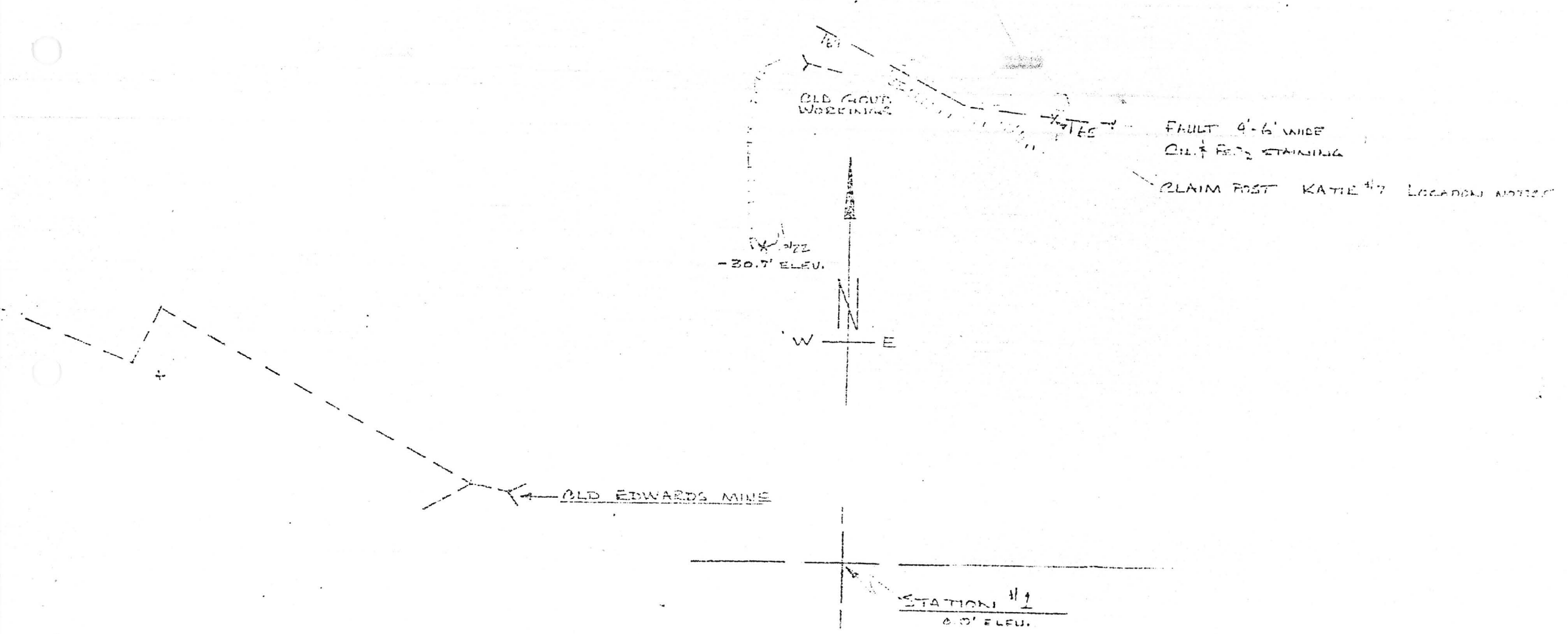
LINE #2 IS 2" SPACED 0.500' SE OF LINE #1 - THE 25' STATION IS LOCATED
APPROX. 100' N. OF GOVERNMENT SHAFT

OLD EDWARDS MINE

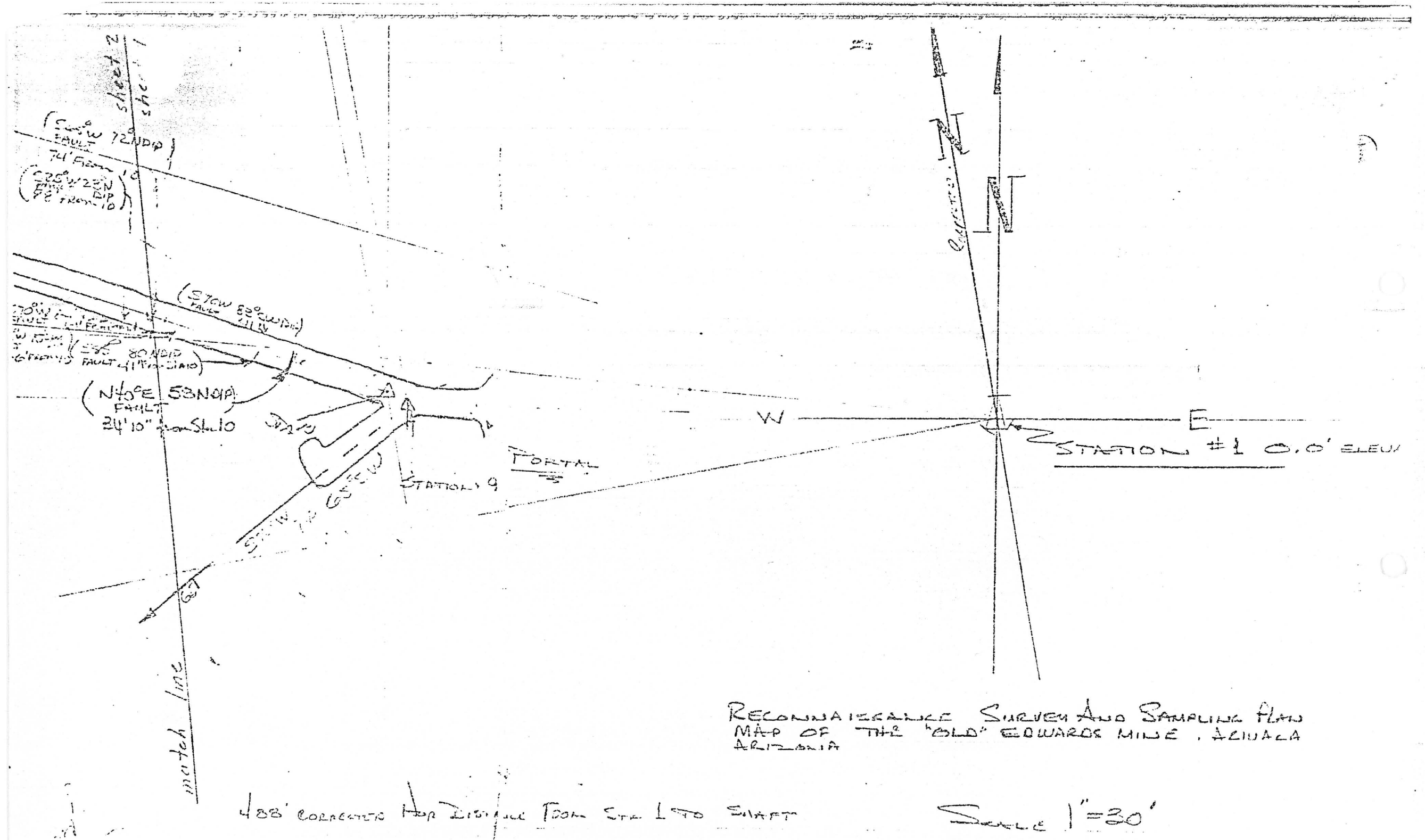
LINE - LOOKING NORTH 20° W UP
CANYON FROM OLD EDWARDS WORKING AND
GOVERNMENT EX-AM



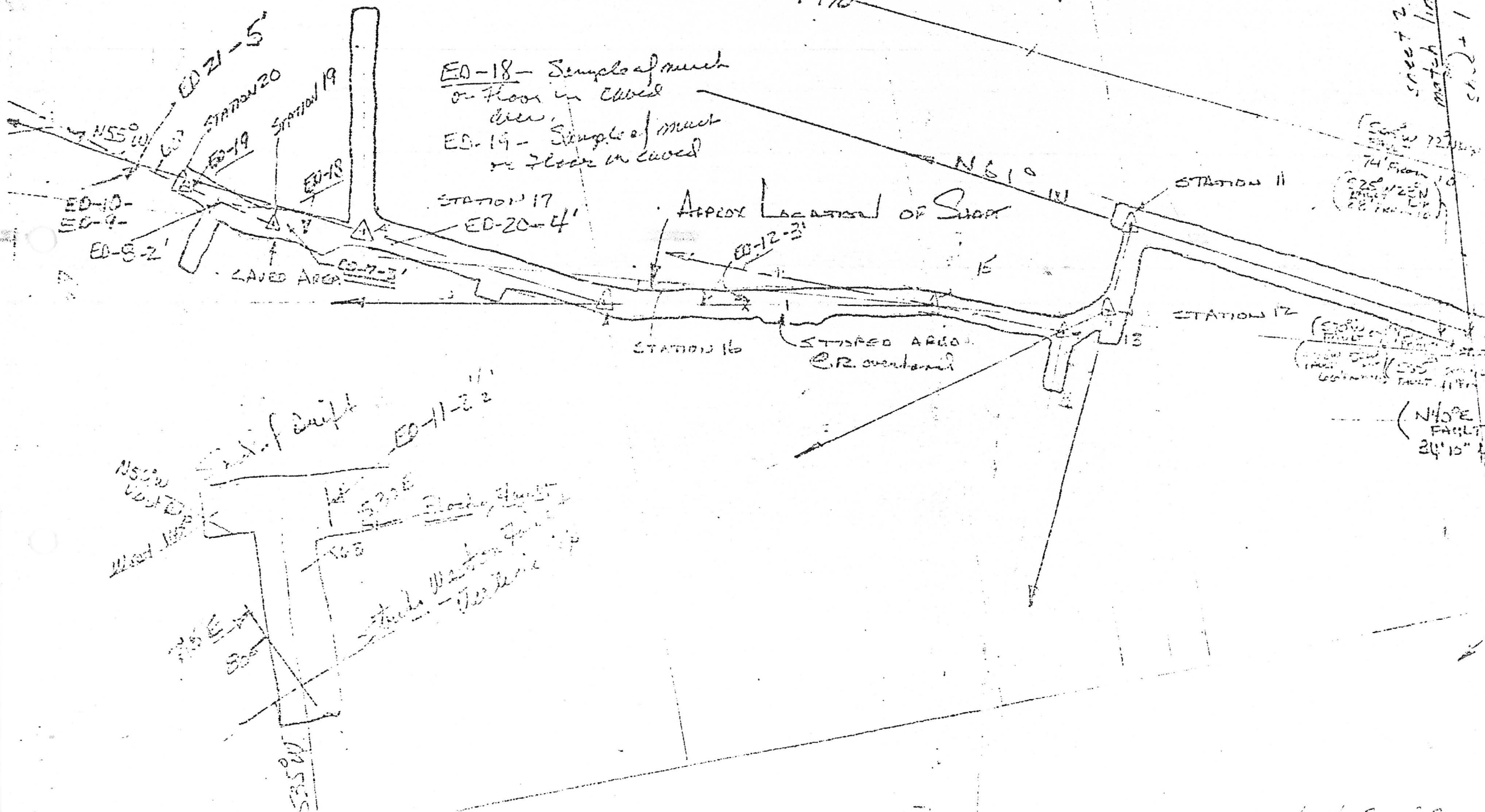
426



SCALE 1"=60'



sheet 2
match line
1 + 2



GOLDEN EAGLE

PIMA CO.

MG/WR 10/20/78 - Visited the Edwards mine or the (Golden Eagle); Mr. David Gratz, 2852 W. Vermont, Tucson, is working the property; said Messrs. L.A. Miller and L.A. Boulden still own the claims; Mr. Gratz and three other men are processing (sluicing) dump material, the good rock is melted down and poured into a mold, beads of gold and silver are supposed to settle out at the bottom, whole procedure is very crude and they are not having much success.
1/19/79 ap

MG/WR 11/24/78 - Mr. Gratz reports that he will begin milling his ore from the Edwards Mine soon in the mill located on the Brendo Property. Said he mined about one ton of rock from the patented Fairplay claim by mistake and the owner, Mr. Hack Townsend, has sued him for \$30,000. I suggested he contact Mr. Townsend personally and try to explain the mistake - and try to get Townsend to drop the suit before everything gets out of hand.
1/22/79 a.p.

GOLDEN EAGLE GROUP

Art Studley of Arivaca Minado, Inc. called to report that Gil Matthews, F.S. Mining Engineer, Norman Curran, Nogales District Ranger, and other foresters visited the old Edwards property south of Arivaca on Thursday, January 15, 1976. Studley reported that the visitation was harmonious and Matthews advised the District Ranger that Arivaca Minado had a legal right to perform certain mining functions without harrassment. VBD WR 1/19/76

GOLDEN EAGLE GROUP

PIMA COUNTY

Mrs. Harvey T. Edwards, 1960 W. Calle Armenta, Tucson, says her Golden Eagle Group is leased out but lessee lost her backer and needs \$6000 to proceed. Wanted names of possible persons who might be interested in lease. Some names were supplied. ALJ WR 2-4-64

Mrs. Lois (Harvey) Edwards, 4119 E. 27th St., Tucson, informed me that she wants to sell her Golden Eagle Group of Claims (11 unpatented claims) for \$250,000. ALJ WR 1-30-65

No activity. GWI WR 9-13-65

The old Golden Eagle Mine in the Arivaca District is again receiving considerable attention. It was quite a producer from 1903 until shut down in 1942 by Presidential dictate.

Western Prospector
& Miner, Jan. '75

Ray Wallace came in regarding deal he was trying to make at the Edwards mine near Arivaca. GWI WR 12/31/74

Kenneth Bacon, et al, are on the old Harvey Edwards property south of Arivaca. We have had no reports as to any progress on the diggings.

Western Prospector &
Miner, March, 1975

Eugene Caldwell of Los Angeles, Calif., is on the old Edwards property in the Arivaca District and expects to mill gold from the diggings at that site. West. Prop. & Miner 4/75

Art Stockley and a man named Russell who represents a California corporation of about ten individuals who are heavy construction contractors, have purchased the old Edwards mine south of Arizona. They say they are going to move in a 20 ton mill and use an acid leach method to recover gold. VBD WR 6/17/75

There's considerable activity around the old Edwards property west of Arivaca but no one seems to be willing to disclose just what is going on.
West. Prop. & Miner 10/75

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA FIELD ENGINEERS REPORT

Mine Golden Eagle Group (formerly known as
Mother Lode)

Date April 9, 1963

District Arivaca District, Pima Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from Lloyd Boulden and personal visit.

Location: Within Sections 5, 6 & 8 - T. 22 S. - R. 10 E. Take the Los Jarillas Ranch road straight south from Arivaca (not the Ruby road) for a distance of 4.4 miles. Turn right and drive 0.8 miles to the mine.

Number of Claims: 11 unpatented claims (see map accompanying this report).

Owner: Mrs. Harvey T. Edwards, 1960 W. Calle Armenta, Tucson, Ariz. (Tel. MA 2-3036)
Owner was represented by Lloyd Boulden, 1916 W. Root Lane, Tucson, Ariz. - Tel MA 3-4054, who showed engineer the property.

Principal Minerals: Copper, silver, gold.

Present Mining Activity: None

Geology: See following geology reports accompanying this report, viz:

- (1) Report by C.K. Tibbotts, E.M. - Dec. 9, 1930.
- (2) Report by Dave Tuberville, Geological Engineer, Feb. 15, 1955.
- (3) Report by R.O. Bellsmith, Registered Mining Engineer, July 20, 1956.

Ore Values: Neither the owner or her agent, Mr. Boulden, had any assay reports of ore samples on the property. Mr. Boulden stated that the 55 ft. vertical shaft was sampled by Dave Tuberville. These samples he said ran very high but the assay sheets were stolen when some one broke into the cabin at the mine. Mr. Tuberville, however, in his report on the property, does not mention that the shaft was sampled, merely stating that "mineralization was good in the shaft, but does not seem to be as rich in the adit," and later he recommends that the adit "should be sampled every 10 feet throughout."

Both Mr. Tuberville and R.O. Bellsmith in their respective reports quote 7 settlement sheets (from Sept. 4, 1934 to Dec. 30, 1940) showing shipments of a total of 19.24 tons with an average value of \$68.01 per ton. This ore, according to Mr. Boulden, was mined by hand drilling, hoisting up the vertical shaft by a hand winch, and was transported to the bottom of the hill by burros. Some of the wooden ore boxes, which were strapped on the burros, are still lying next to the mine cabin.

The vertical shaft in question is still open, but is not equipped with a shaft collar, timbering and ladders, and, consequently, the engineer was unable to examine the shaft. Judging by the settlement sheets, some pockets of high grade ore was mined from the shaft, which was most likely well sorted to save transportation costs. A small amount of ore also appears to have been taken out from the adit.

Past History: See report of C.K. Tibbotts, E.M. - Dec. 9, 1930, p 1, and report of R.O. Bellsmith - July 20, 1956, p 1.

Old Mine Workings:

- (1) 1 vertical shaft - 55 ft. deep.
- (2) 1 adit - 650 ft. long, driven below the 55 ft. shaft.
- (3) Several shallow shafts, from 10 to 25 ft. in depth sunk on the outcrops.

Golden Eagle Group (formerly known as Mother Lode) (cont.)

Old Mine Workings (cont.)

- (4) Several location shafts and open cuts (see map accompanying this report).

The 650 ft. long adit was examined by the engineer. Part of the drift was driven along a fault, and contained fault gouge with a small amount of copper & lead mineralization. How much gold and silver could not be determined.

Proposed Plans: Mrs. Edwards, the owner states that she wishes to sell the property. She did not inform the field engineer how much she wants for the property or the terms of sale. No doubt, she would accept a lease with option to buy at a specified price.

Recommendations by Field Engineer: Field engineer recommended to both Mrs. Edwards, the owner and Mr. Boulden, her agent.

- (1) That the 650 ft. adit be sampled, taking samples every 10 ft. (Note: - this was also recommended by Mr. Tuberville in his report).
- (2) That the 55 ft. vertical shaft be sampled. Other workings on the different veins and outcrops should also be sampled.

Following this exploration and development work should be done to determine the amount and grade of the ore.

Phoenix, Arizona.
December 9, 1930.

Mr. H.T. Edwards,
Arivaca, Arizona.

Dear Sir:

The following is a brief outline of the conditions in the Arivaca Cro Blanca District, Pima County, Arizona, with particular reference to the group of claims owned by you in the Fraguita section.

Mining in this district dates back to the earliest white settlements in this country and was carried on by the Spanish Fathers who founded the Missions of Del Bac and Tubac in about 1530. Evidences of even earlier placer workings by the Aztecs are to be found in many places. The ruins of over 70 ancient arasters and several mud smelters are scattered over the area within the limits of 15 miles in length and from 2 to 5 miles in width. The later Stamp-mill period opened several of the most promising veins to depths of 200 to 400 feet to the point of change to sulphide or base ores that could not be worked by that method. During recent years the district has been overlooked in the rapid and extensive development of other fields in Arizona, and little if any development or production made with the exception of the Montana Mine at Ruby. This property has been worked by shaft to the 800 foot level and Diamond drilled on to the 2000 foot mark and proved the extension of the ore bodies to this depth. It is equipped with a 300-ton concentrator in which a very satisfactory recovery of the metals was made.

The geology of the district has been fairly well covered by the U.S. Geological Survey and their map shows the various formations in this quadrangle, placing the rocks in the series of older lavas with an area of granite lying to the west of the district. The principal rocks include an extensive flow of Andesite with areas of andesite braccia in places and intrusions of rhyolite, dacite and latite in the vicinity of which ore fissures and vein-dykes occur. To the south in the Black Diamond Tres Amigos section several dykes of a dark blue and gray limestone were noted along the contacts of which are to be found lead-silver ore bodies with some sills of banded aplite in the vicinity of several cross fissures that are heavily capped by a silicious gossen of iron and maganese. In the Fraguita section is shown a small section of a hard black fine-grained formation containing white to gray phenocrysts. No classification is at hand of this rock but it is perhaps a plutonic phase of the Andesite.

The property known as the Edwards Mine consists of seven full claims all in one compact contiguous group. The group covers a series or system of more or less parallel veins and an outcrop of a soft white sericitic formation that appears to be a Shearzone of considerable extent. This is opened up by surface cuts and trenches for a width of some 30 feet and to a depth of 50 feet. Assays up to \$ 12.00 per ton in gold are shown in this material over widths of several feet.

Through the crest of the hill above the Shearzone is the large perpendicular vein known as the Mother Lode. This fissure is covered 4500 feet by the three Mother Lode Claims and has been exposed in several places showing a width of 18 feet and at one place in the fissure an old shaft was sunk about 40 feet. Assays from this shaft for 4 feet in width show values up to \$ 65.00 per ton in gold and silver. The Side Line Claim joining the Mother Lode on the east contains a favorable site for a tunnel into the Shearzone and also the Mother Lode fissure, through which

a depth of some 800 feet can be had in about 1200 feet of drifting mostly along the fissure. The Side Line Claim has a tunnel driven along a 3 foot vein and reaching a depth of about 60 feet from the surface. A shaft from the surface extended down through this tunnel and for some 40 feet below shows a 2 to 3 foot fissure with 12 to 24 inches of ore all the way down to water level, about 10 feet under the tunnel. Ore from the bottom of this shaft is said to have been shipped to Yuma in the early days by teams. 50 feet of the ore shoot in the tunnel shows about 18 inches of ore ranging from \$ 7.20 to \$ 16.80 gold; 16 to 23 oz. silver; 13.1 to 30.1 per cent lead and 3.6 to 6.5 per cent copper. The rest of the tunnel shows about 2 feet of \$ 20.00 ore.

The South Side Claims Nos. 1 and 2 join the Mother Lode on the west and cover 3000 feet of a 4 to 5 foot fissure. Only discovery work has been done at this point and the assay list that contained the samples has been lost.

To the east is the 4 Metals Claim showing two parallel veins converging at face of cut with widths of 12 inches and 3 feet respectively. A sample here showed \$35.00 gold and 23 ozs. silver.

These claims are only 3 miles off the main highway, a good road and about 30 miles to rail at the station of Amado on the Tucson-Nogales branch of the S.P. Fragueta Canyon has a considerable flow of water throughout the year.

This group of claims contains many shoots of ore that are exceptional in value at the several exposures and a considerable proportion could be sorted out for direct shipment to outside smelters. A reasonable amount of development through the tunnelsite into the Mother Lode Shearzone area with a shaft under the crest of the hill from the tunnel floor should be put through. The character, value and quantity of ore blocked out in this work would determine the size and flow sheet of a plant to get the values in marketable shape.

The conditions here present an attractive opportunity for development beginning in a small way that should eventually expand into one of the large producers of the southwest.

Yours very truly,

Copy of report made by C. K. Tibbets, E. M.

Note since this report was made a lot of the ore he speaks of has been stopped out and a lot more work done.

February 15, 1955

REPORT AND EXAMINATION OF H. T. EDWARDS MINING PROPERTY

Property known as the Golden Eagle Mine, located several miles south-westerly direction out of Arivaca, Arizona. The property consists of six mining claims in a continuous group. Claims cover 4500 feet alongstrike of ore bearing outcrops.

The above mentioned claims cover a series or system of parallel veins striking N 70 W degrees W with a vertical dip or nearly so. Outcrops are quartz and white sericitic material. These veins have been subjected to shearing forces quite extensively. Developing a shearzone which is more prominent in some of the outcrop than others. The wall rock appears to be of volcanic origin on the S. W. and also volcanic on the N. E. Thickness of the vein vary from about two feet wide to 18 feet wide. Prospecting has been done on most of these outcrops. Covering this formation is a cap rock believed to be a volcanic breccia only exposing outcrops in spots. Several shafts about 35 to 40 feet deep have been sunk on the exposed veins. Ores of Au, Ag, Pb, & Cu were extracted of economic value. There are assay and smelter returns to substantiate the values of these ores.

The nature of this mineral as it occurs in the veins or formation is as follows: The AU can be found as free Gold throughout the quartz, also concentration in the oxide of Fe and CU along the fissures and pockets. The AG is also found in the quartz and concentrated in the oxide. The copper is mostly oxide (Malicite, Azurite and Chryscolla). Small amounts of Chalcopyrite and Chalcocite have been found as the sulphide. The Pb occurs as the sulphide in small quantities.

Structural features seem to influence the mineralization along the intersection of fractures and fissure. Mineralization is greater along where structural weakness occur. Pockets of high value ore are found. There should be more work done on the structure of this area to explain and clarify the effect these fractures have on the mineralization. The ore appears to form in pockets of high value but some mineralization is found consistently through the vein.

PROSPECTING AND DEVELOPMENT WORK DONE:

Location pits and several shafts around 30 feet deep sunk on the outcrops.

An addit was driven roughly along the strike of what is believed to be the main vein around 500 feet long into the mountain. The opening started several feet from the stream bed up the hill and about 162 feet lower than a 55 foot shaft sunk on the main vein. The face of this addit is about 50 feet further into the mountain than the shaft is projected down. Mineralization was good in the shaft but does not seem to be as rich in the addit.

There has been no geologic mapping done at present. Just reconnaissance work done on the above mentioned claims.

There is some geophysical preliminary work being done at present. Expect this work to help locate the ore body more definitely.

POSSIBILITY OF MINING THE ABOVE MENTIONED PROPERTY:

Evidence that ore body exists. Ore that has been shipped from various out cropping.

The fact that the ore of these out cropping at depth has not been investigated.

The main vein has been cut by an addit around 162 feet below a shaft sunk on the outcrop.

Mineralization of economic value is evident in shaft and addit.

VALUES AND TONNAGE OF SHIPPED ORE FROM OUTCROPS:

	Net Dry Weight	Net Value/Ton
Sept. 4, 1934	5,381	\$ 43.27
Dec. 7, 1934	8,993	13.33
May 23, 1936	2,289	42.22
June 26, 1936	2,565	34.40
June 7, 1937	2,900	43.52
Feb. 5, 1935	12,766	257.50
Dec. 30, 1940	3,564	41.89

19.24 Tons	Avg	\$ 68.01/ Ton
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DIFFICULTIES INVOLVED:

Mine area has running water about eight months out of the year. Water for mine use available all year round.

Mine would be operated from drifts eliminating hoisting for the time being. Small ore bin could be constructed without too much effort.

Some road work would have to be done to make hauling easier. Probably several days for a dozer. Most of the road is in good shape to smelter and would be open the year round.

Power source would have to be gasoling or diesel, as power lines are several miles away at Arivaca, Arizona. This will bring up the power cost on the operation.

There are two mining methods applicable to this type of ore body.

1. Stulled stopes.
2. Shrinkage stopes.

Both of the above methods can be used on this ore body as the ore body has strong walls and fairly strong ore zone. Also the veins are narrow, less than 10 feet wide average. The dip of the ore is vertical or nearly so.

Stulled Stopes

Advantages:

1. Small amount of capital to put mine in production.
2. Short period of time to produce.
3. High grade can be sorted in stopes.

Disadvantages:

1. Production per man shift is low.
2. A large amount of timber is necessary.

Shrinkages Stopes

Advantages:

1. Lower cost of mining.
2. Small amount of timber used.

3. High production per man shift.

Disadvantages:

1. Two-thirds of ore remains in stope until stope is completed.
2. Considerable capital is tied up in broken ore.
3. No sorting of waste from ore in stopes.

TENTATIVE DIRECT COST ESTIMATION

	Cost Per Ton
1. Breaking, mucking, tramming, explosived, general supplies and labor	\$ 1.90
2. Timbering and labor	0.79
3. Power	1.26
4. Mine shop, general supplies and labor	0.50
5. Engineering, Surveying, maintenance, pumping Superintendence, pipe fittings, general supplies, labor & Miscellaneous	0.50
Approximate cost per ton	\$ 4.96

The above cost estimation refers to the cost per ton of ore as an operating mine. This does not cover the overhead cost of equipment to begin mining.

To truck from mine to smelter at Ajo, Arizona \$0.10/per ton per mile. From mine site to Ajo is approximately 100 miles, @ \$0.10/per mile it would cost about \$10.00 per ton of ore shipped. The above figure is a little high, that would depend upon the agreement between the company and contractor.

The possibility of a cheaper shipping rate is being investigated by trucking from mine to Amado, Arizona and shipping by rail to Ajo Arizona.

Smelter charges are about \$7.50/ton. With a S I 02 contract with smelter the charge can be dropped around \$1.50 per ton provided the S I 02 content is above 80%.

SURFACE PLANT

1. Air compressor 200-220
2. Air legs & hammer (")
3. Water reservoir
4. Rail #20-18" gage
5. Air hose
6. Water hose
7. Small water pump
8. Drill steel
9. Axes, picks, shovels and double jacks
10. Pipe 2" and $\frac{1}{2}$ "

The above is just a rough list of surface gear.

It will take around \$5,000.00 to start the operation. That will cover equipping and operation expense until shipping starts.

The value of rock per ton will have to be \$35.00 for the mine to operate.

Cost per ton to mine	\$	4.96	
Trucking to smelter		10.00	
Smelter charge with SiO_2 contract		7.00	
	\$	21.96	
Overhead		2.50	
	\$	24.46	Cost per ton

These costs are liberal in some cases.

RECOMMENDATION

That the property be subjected to an exploration and development program to block out this ore body. There is not enough information yet to outline a definite ore body. Information at hand only proves that high grade pockets have been worked, but no continuous body, practically all of the rock in these veins carry some gold and silver although it has to be high enough to run \$35.00/ton. In some places this is true but there is need to block out more of this.

The addit mentioned in early part of report should be sampld every 10 feet throughout. If this proves economical you have a nice block of ore outlined.

The geophysical work done so far looks favorable. There should be more done, in connection with magnometer work.

The exploration program can be carried along with the mining. The tonnages would be small at first until more ore was blocked out.

With the information we have, there is an ore body, how big, how rich and how best to mine it, has to be determined. That is why I suggest an exploration program.

The two programs can be carried out together easily because of low cost of mining these parallel veins. Drifts should be driven along these veins and stoped out as ore is blocked out, using one of the two methods suggested early in report.

Examination carried out and report submitted by:

DT/rt

S/ Dave Tuberville
Geological Engineer

Tuberville

*D.O. Tuberville is
S.M.E. - S.M.E. Association
Chairman - Geo. Eng. Soc.*

REPORT ON A PRELIMINARY EXAMINATION OF THE EDWARDS MINE LOCATED IN
ARIVACA DISTRICT, PIMA COUNTY

By
R. O. BELLSMITH
Registered Mining Engineer

CLAIMS

The property comprises ten full size (600 x 1500 ft.) mining locations in two groups, all contiguous.

The first group consisting of the Golden Eagle Nos. one to six inclusive. The second group consisting of Ridge Runner, Ridge Runner #2, Ridge Runner #3, and Outlet, recorded in the county court house at Tucson.

LOCATION

The property is situated within sections 5, 6, and 8, T 22 S. R 10 E. Arizona Rectangular Coordinate System, and lies approximately 55 miles (air Line) in a southwesterly direction from the city of Tucson.

ACCESSIBILITY

From Tucson the property is reached by proceeding South on U. S. Highway 89, to the town of Kingsley, a distance of approximately 37 miles, thence westerly 22 southwesterly over a good county highway to the town of Arivaca, then south $3\frac{1}{2}$ miles via a graded road to the property. The last $\frac{3}{4}$ mile of this road is along the Fraguita wash and will require some work to place it in serviceable condition.

The nearest railroad shipping point is the station of Amado on the S. P. about 2 miles from Kingsleys. At this point car loading facilities are available for ore shipment, in the form of truck ramps. The total hauling distance from the property to shipping point is approximately 29 miles.

HISTORY

The History of the property is somewhat obscure although it is authoritatively reported that at least one shaft was sunk before the Civil War (under guard of soldiers to prevent Indian raids) and the ore hauled to Yuma by team and wagon for shipment to Wales. When the soldiers were withdrawn for war duty the shaft was bulk headed at 100 ft. and filled up to prevent pilfering.

GEOLOGY

The topography may be described as quite rugged. The country is unquestionably of plutonic origin and consists principally of Andesite. The mineralization consists of two or more nearly parallel veins with a strike of N.70 de. W. and nearly vertical dip.

These veins vary in width from 4 to 20 feet and are traceable on the surface for a length of about 9000 ft. The vein filling is principally a blue quartz, carrying values in Gold, Silver, Copper and in some places lead. The copper is in the form of both sulphide (Chalcopyrite) and a carbonate (Malachite).

The area around the middle portion of these claims, shows some indication of a Seismic disturbance with consequent faulting or folding.

DEVELOPMENT

The Development consists of a number of shallow shafts pits and open cuts along the outcrop of the veins. The rims and collars of some of these workings have sluffed off and caved in and the veins in places are not all accessible to examination, however the comparatively small amount of dump rock at these workings indicate that the major portion of the ore taken has been shipped.

The shallowness of these workings is accounted for by the fact that all work performed heretofore has been done by hand drilling and hoisting by hand winch.

The most extensive workings consist of an adit approximately 650 feet in length various open cuts to 20 ft. deep, with several shafts from 12 to 50 ft. deep.

PRODUCTION

Some values and tonnages shipped from 1934 to 1940 are quoted from settlement sheets.

<u>Net Dry Weight</u>	<u>Net value per ton</u>
	\$
5,381	43.27
8,993	13.33
2,289	42.22
2,900	43.52
12,786	257.50
3,564	41.89
<u>19.24 tons ave.</u>	<u>\$ 68.01/Ton</u>

WATER

Fraguita wash crosses 3 of these claims and is said to flow on the surface about 9 months of the year, though it is possible there is sub-surface flow the year round. A well dug on one of claims would provide domestic water for camp use.

SURFACE IMPROVEMENTS

The only improvements are 3 one room frame cabins and one tool house.

EQUIPMENT

There is at present no mining equipment on this property except mine car and rails in the big tunnel.

ADJACENT PROPERTY

Lying to the north of and adjoining this property is the Ajax mine now inactive. From a CURSORY OBSERVATION this Ajax has been extensively worked through 5 to 9 parallel veins the course of which is approximately N. 65 dr.E. and if projected would intersect the Ridge Runner at an angle of approximately 45 degrees. Insufficient time was available to make a detailed study of the formation in this area to determine the relationship between these formations, but ores from each seem to be very much the same character.

SUGGESTION

It is suggested that a working plan be adopted with the initial objective of mining and shipping the crude ore direct to one of several smelters. Plans should contemplate an output of at least 50 to 100 tons per day with provisions for expansion as the mine is opened up.

Signed

July 20, 1956

COPY

R. O. BELL SMITH
Registered Mining Engineer.

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

Date: January 1, 1942.

1. Mine: MOTHER LODE GROUP
2. Location: $3\frac{1}{2}$ miles South of Arivaca, Arizona.
3. Mining District & County: Arivaca Mining District, Pima County
4. Former Name: Not known.
5. Owner: H. T. Edwards
6. Address (Owner): Arivaca, Arizona.
7. Operator: Same.
8. Address (Operator):
9. President, Owning Co:
- 9A. President, Operating Co:
10. Gen. Mgr:
14. Principal Minerals: Gold, Silver, Copper and some lead in places.
11. Mine Supt:
15. Production Rate:
12. Mill Supt:
16. Mill - Type & Cap:
13. Men Employed: None.
17. Power - Amt. & Type:
18. Operations - Present: Just finished 400 ft. cross cut and am now drifting on the vein.
19. Operations - Planned: Want to continue drifting if able to finance.
20. Number Claims, Title, etc: Seven. By right of location. Title clear.
21. Description - Topography & Geography: The property is 4,000 feet elevation. The claims are mostly steep and rugged; the tunnel mentioned above would have 500 feet of backs if drifting is continued under the crest of hill; vein crops 18 ft. wide in places and shows more than 15 ft. wide in tunnel now. Fragueta Creek crosses the lower end of the claims and flows most of the year.
22. Mine Workings - Amt. & Condition: There are seven shafts approximating 300 feet; four tunnels totaling about 850 feet with numerous open cuts (see drawing for location and depth of each).

some 40 feet below shows a 2 to 3 foot fissure with 12 to 24 inches of ore all the way down to water level, about 10 feet under the tunnel. Ore from the bottom of this shaft is said to have been shipped to Yuma in the early days by teams. 50 feet of the ore shoot in the tunnel shows about 18 inches of ore ranging from \$7.20 to \$16.80 gold; 16 to 23 oz. silver; 13.1 to 30.1 per cent lead and 3.6 to 6.5 per cent copper. The rest of the tunnel shows about 2 feet of \$20.00 ore.

The South Side Claims Nos. 1 and 2 join the Mother Lode on the west and cover 3,000 feet of a 4 to 5 foot fissure. Only discovery work has been done at this point and the assay list that contained the samples has been lost.

To the east in the 4 Metals Claim showing two parallel veins converging at face of cut with widths of 12 inches and 3 feet respectively a sample showed \$35.00 gold and 23 ozs. silver.

These claims are only 3 miles off the main highway, a good road and about 30 miles to rail at the station of Amado on the Tucson-Nogales branch of the S. P. Fragueta Canyon has a considerable flow of water throughout the year.

This group of claims contains many shoots of ore that are exceptional in value at the several exposures and a considerable proportion could be sorted out for direct shipment to outside smelters. A reasonable amount of development through the tunnel site into the Mother Lode Shearzone area with a shaft under the crest of the hill from the tunnel floor should be put through. The character, value and quantity of ore blocked out in this work would determine the size and flow sheet of a plant to get the values in marketable shape.

The conditions here present an attractive opportunity for development beginning in a small way that should eventually expand into one of the large producers of the southwest.

Yours very truly,

Capt of Report made by C. K. TIBBETS, E. M.

NOTE: Since this report was made a lot of the ore he speaks of has been stoped out and a lot more work done.

MM-57

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date August 30, 1940

Mine Mother Lode Group

Mining District & County - Arivaca Dist.
Pima County

Location - 3 miles from Arivaca

Former Name

Owner - H. T. Edwards

Address - Arivaca, Arizona

Operator

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals - Gold

Men Employed

Production Rate - All you want

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present

Operations Planned

Number Claims, Title, etc. - Owner by location

Description: Topography & Geography - 4000 ft. elevation, steep rugged hills.
This deposit is about 1200 ft. from the
main wash on steep hillside.

Mine Workings: Amt. & Condition

Geology & Mineralization - No two engineers agree on what this deposit is. Some say chimney, others a pre-mineralized fault, a deposit or vein. All the material is ground or broken fine, mostly a crushed quartz.

Ore: Positive & Probable, Ore Dumps, Tailings

Vein Width, Length, Value, etc. - Exposed over 200 ft. wide, 450 ft. long, Estimated million tons in sight, assays \$2.80 to \$12.00 gold with some lead and silver.

Mine, Mill Equipment & Flow Sheet - None

Road Conditions, Route - County highway to within $1\frac{1}{2}$ miles of property, balance to be improved soon.

Water Supply - Plenty - flowing stream.

Brief History - This deposit is part of three claims on a group of seven. Opened only by opencuts and tunnel. A pre-mineralized fault that can be worked by power shovel about one-third will pass a 10 mesh screen. Tests show about $\frac{3}{5}$ of the gold is free without grinding or about \$4.50 per yard could be recovered as placer.

Special Problems, Reports Filed

Remarks

If property for sale: Price, terms and address to negotiate - Will lease on 10% royalty of net smelter or mint returns.
(no sale)

SIGNED - H. T. Edwards

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

H.T. EDWARDS

Date 11-1-39

Mine Mother Lode Group

District Ari Vaca - OYO BLANCO.

Location

Former name Same.

Owner HT EDWARDS

Address Ari Vaca

Operator Same.

Address

President -

Gen. Mgr.

Mine Supt. -

Mill Supt.

Principal Metals Gold - Silver. Copper Lead.

Men Employed

Production Rate -

Mill: Type & Cap.

Power: Amt. & Type -

Operations: Present -

Operations Planned

Number Claims, Title, etc. 7 -

Description: Topog. & Geog.

COUNTRY ROCK. (andesites & Conglomerates)

Mine Workings: Amt. & Condition

4 shafts - 4 Tunnels

Geology & Mineralization —

Ore: Positive & Probable, Ore Dumps, Tailings

Assay - E A Jacobs. 9/21-40.

Av. 03 - \$4.05

Mine, Mill Equipment & Flow Sheet —

Road Conditions, Route 3 MI FM ARRIVACA.

Water Supply - Plenty For Milling.

Brief History

Special Problems, Reports Filed - Rep by. C K Tibbets, 12-9-30- atchd.

Remarks

If property for sale: Price, terms and address to negotiate. open For Proposition.

Signed.....

Use additional sheets if necessary.

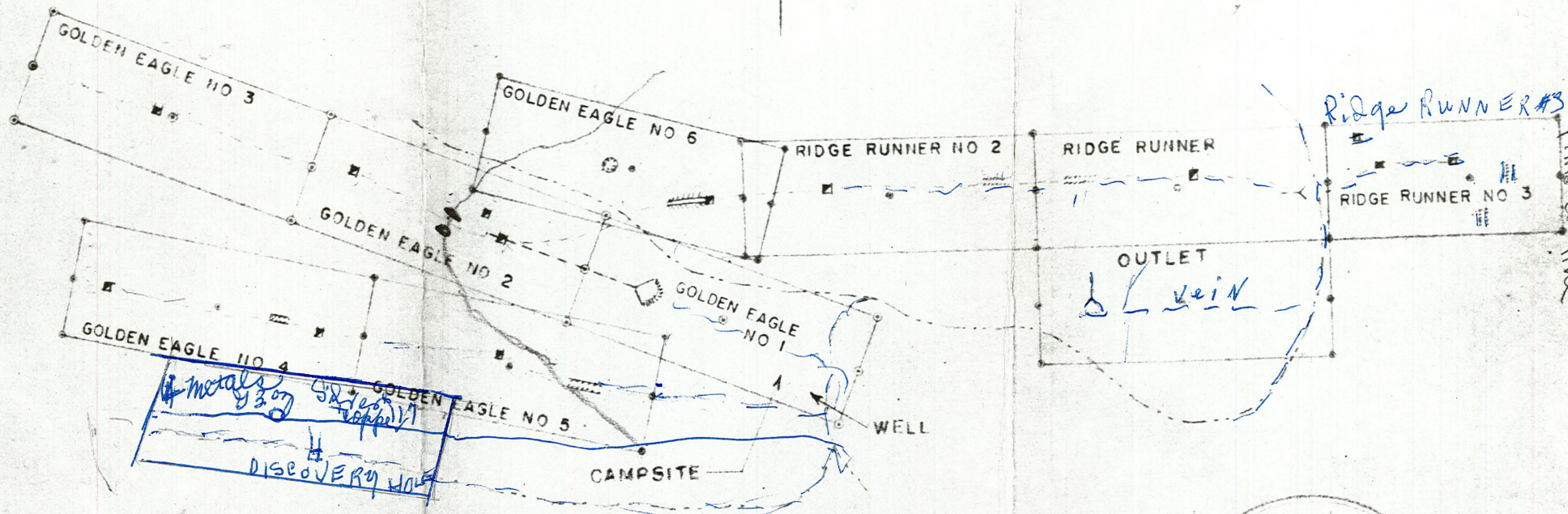
NW

av. across 70 ft - 5⁰⁰

Kinsley services
station.
arrivaca petm
anado. -

SKETCH MAP OF CLAIMS EDWARDS MINE

ARIVACA ARIZONA



SCALE 1 IN = 800 FT

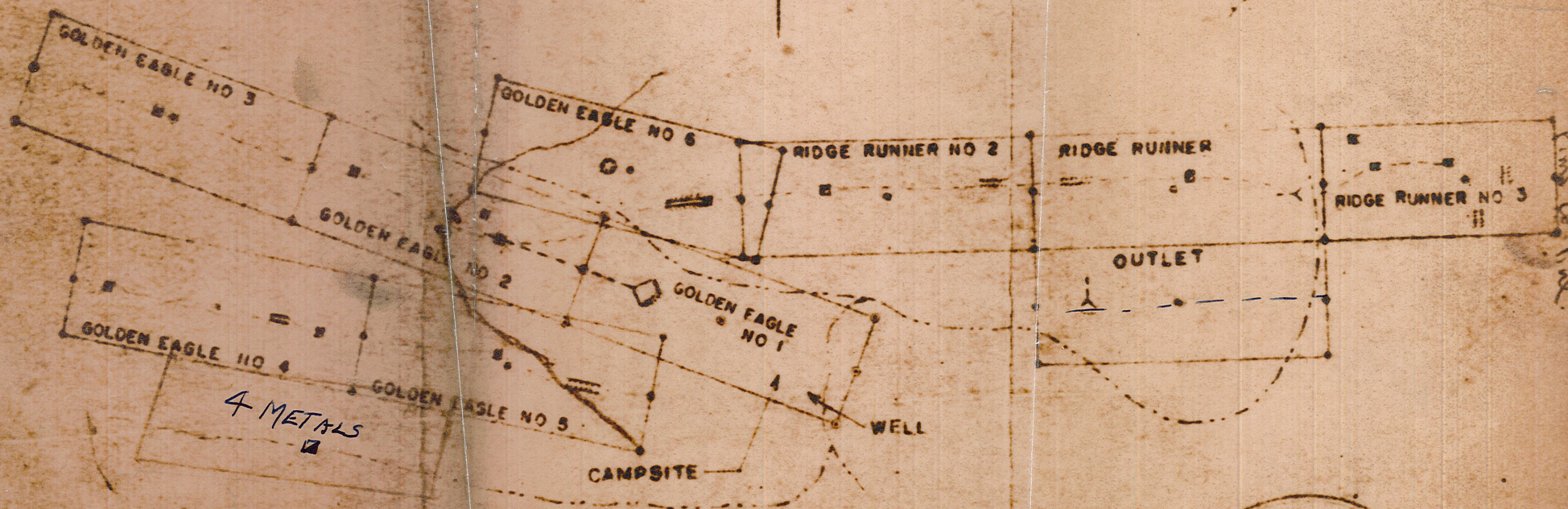
- LEGEND
- ADIT
 - SHAFT
 - OPEN CUT
 - MONUMENT
 - VEIN OUTCROP
 - WASH



10-14-55

SKETCH MAP OF CLAIMS
EDWARDS MINE

ARIVACA ARIZONA



SCALE 1 IN = 800 FT

LEGEND

ADIT
SHAFT
OPEN CUT
MONUMENT
VEIN OUTCROP
WASH

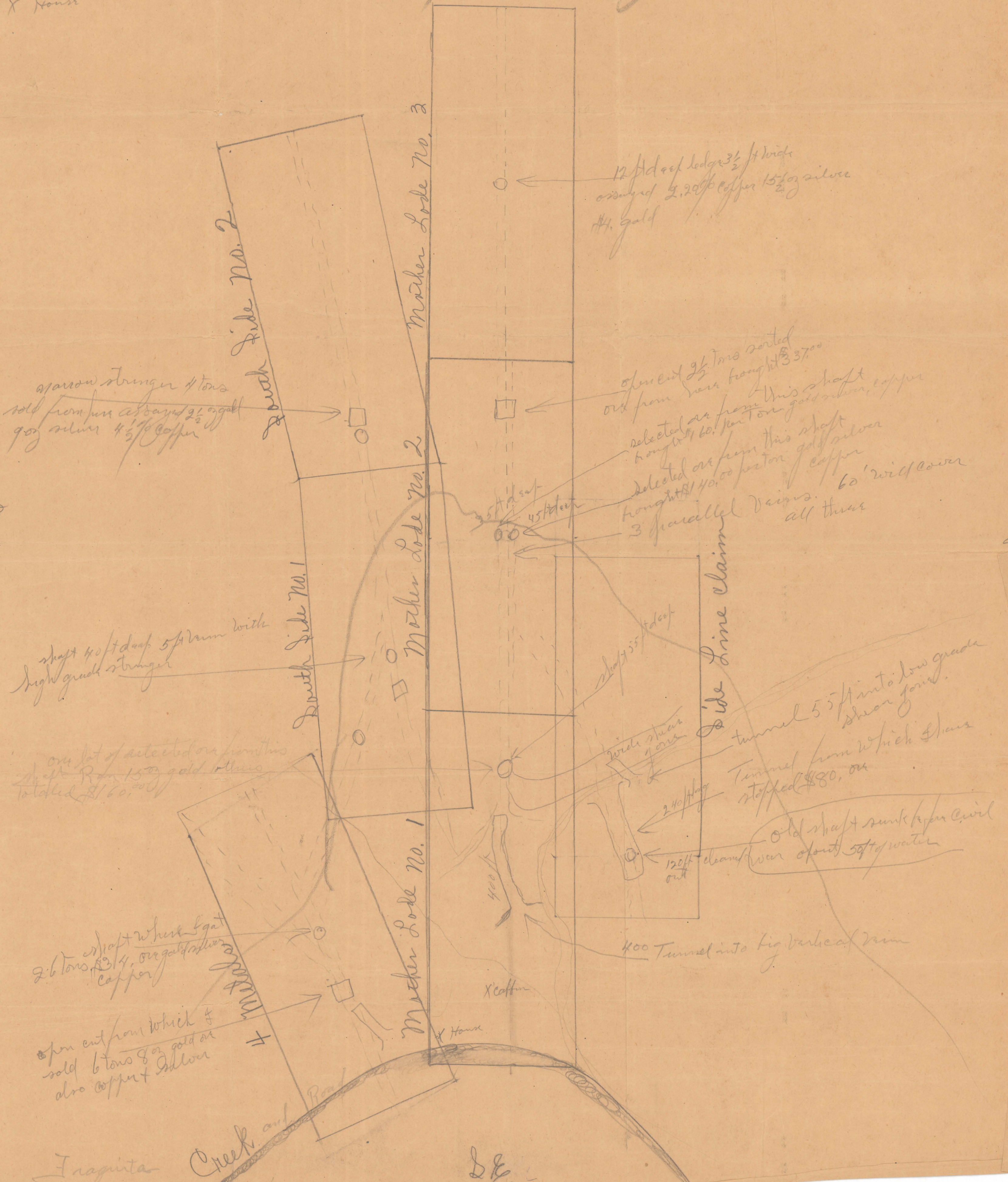
10-14-55



○ indicate shaft
 □ " open cut
 [] Tunnel
 X House

N W

H.T. Edwards Mather Lode Reef



S E