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The following file is part of the John E. Kinnison mining collection

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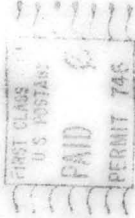
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Allstate®

17272 Bernardo Center Drive
San Diego, California 92128

Vin Dodd



100,000
1500 Non
5000 Ninety day interest
34rs
up to 1/2 stake

Renewed
Feb 26 - Aug 26
incl h's name & VW
check against renewed
policy?

Work

800-223-7748

39 E 72nd ST Apt 5 NY NY 10021

Called

John Cutler

2/13/81

Re Harry & Margaret

Newark
Dear W. H. H.
8/18/82
800-221-3033

John Cutler

Eric Escopete

2 clumps south of Mason
30 miles south

Mont. H. H. B. H. Hart (Ed. too Hyman)

Dec 14-18

inspected and got samples
french -

Mr. Joe Lynn

will call Sunday or Monday
Morn. - plan Tuesday.

~~293-3347~~

NY information
1-212-555-1212

8/18/82
Per
524-2222
Hedgecroft
Dear W. H. H. NY
39 E 72nd St
NY 10021

Mine 15 miles from
Search lit.

George Jewett
near Vegas —

702 - 898 - 1376

Coll and discuss
Search lit deposit
with him. Dump
or mine both. Not
a large dump (probably)

Called John Cutler

8/18/82

at Dean W. Hor in N. Y. City
time 12⁰⁸~~00~~ - 12²² pm (212) 524-2222
~~(212) 555-1212~~

14 minutes -

He is out of metals but because he could not get enough material for a 1-2 yr supply.

Believes the psychology for most metal is off and will ~~never~~ not return in the next ten years - believes next inflation will also send interest rates back up to level of the past 6 mo (20-21%) and if not higher, and will keep investment stifled out. As such, industrial demand will not keep up growth and ~~psych~~ psychology for metals investment, incl. Au/Ag will not return to the 1980 climate. Therefore

Ag he thinks will not reach \$20, say, in any predictable future. Same for gold.

Office toll free - 800-221-3033
~~(212) 988-4417~~

home 39 E 72nd Apt 5 NYC NY
(212) 988-4417 10021

will be moving to Dallas this fall: ~~at~~ with some Company (Dean W. Hor) and can be found by calling NY office.

THE EITHER ORE COMPANY
39 East 72nd St.
New York, N.Y. 10021

January 23, 1981

Mr. John Kinnison
5115 No. Oracle Rd.
Tucson, Arizona 85704

Dear Mr. Kinnison,

These are the papers Mr. Hart sent me on the Mary G. As you indicated there may well be problems with the volcanic host rock distorting the readings. Please feel free to call Ed Heylmun (325-7028) on this. Bill Hart told him to expect your call.

I appreciate your help on this and look forward to speaking with you.

Best regards,

A handwritten signature in cursive script that reads "John W. Cutler". The signature is fluid and extends to the right.

John W. Cutler
President

(602) 325-7028

8 Jan 1981

Dear Bill:

The expense check from Sandra arrived today, just in time to avert a momentary problem.

Enclosed is the completed magnetometer survey at Mary G. This survey was conducted with a Geometrics UniMag G-836 Proton Precession Magnetometer, an instrument which costs \$2,100.00. It measures, to the nearest 10 gammas, the total magnetic field of the Earth at any given spot. As perhaps you know, the Earth's magnetic field is directly affected by ore bodies that contain iron-bearing sulfide minerals. The important copper, lead, and silver ores are sulfides. The instrument gives an exact digital readout so that there is no mistake as to the correct reading. I think it is one of the most remarkable geophysical instruments that I've ever used, and certainly a must in mineral exploration.

There are a number of magnetic anomalies under the mineral lease at Mary G. The most obvious, and certainly the most important, is the pronounced anomaly that I've colored in red. The anomaly lies about 100 feet south-east of the No. 1 shaft, in the bed of the dry wash. The anomaly, as plotted, is about 250 feet long and 100 feet wide, though if surveyed in extreme detail, might have slightly different dimensions. It lies along the mineralized northeast-southwest fault that is believed to be the main mineralized zone, and is most pronounced where that fault crosses the main dry wash. This is logical, and is where I had ascertained the main mineralized area to be on the basis of surface geology. It is also where the original Spanish diggings were located, and is where Worsley had found high-grade ruby silver ore in outcrops in the bed of the wash.

In an earlier letter to you, I said that the ore body, if present, probably laid between 130 and 150 in depth. Upon further calculations of the magnetic information, it appears that the body, if present, could lie as shallow as 30 feet, and go as deep as 150 feet. Let me emphasize again that this does not prove the existence of a commercial ore body. It merely indicates conditions that could be very favorable for ore bodies.

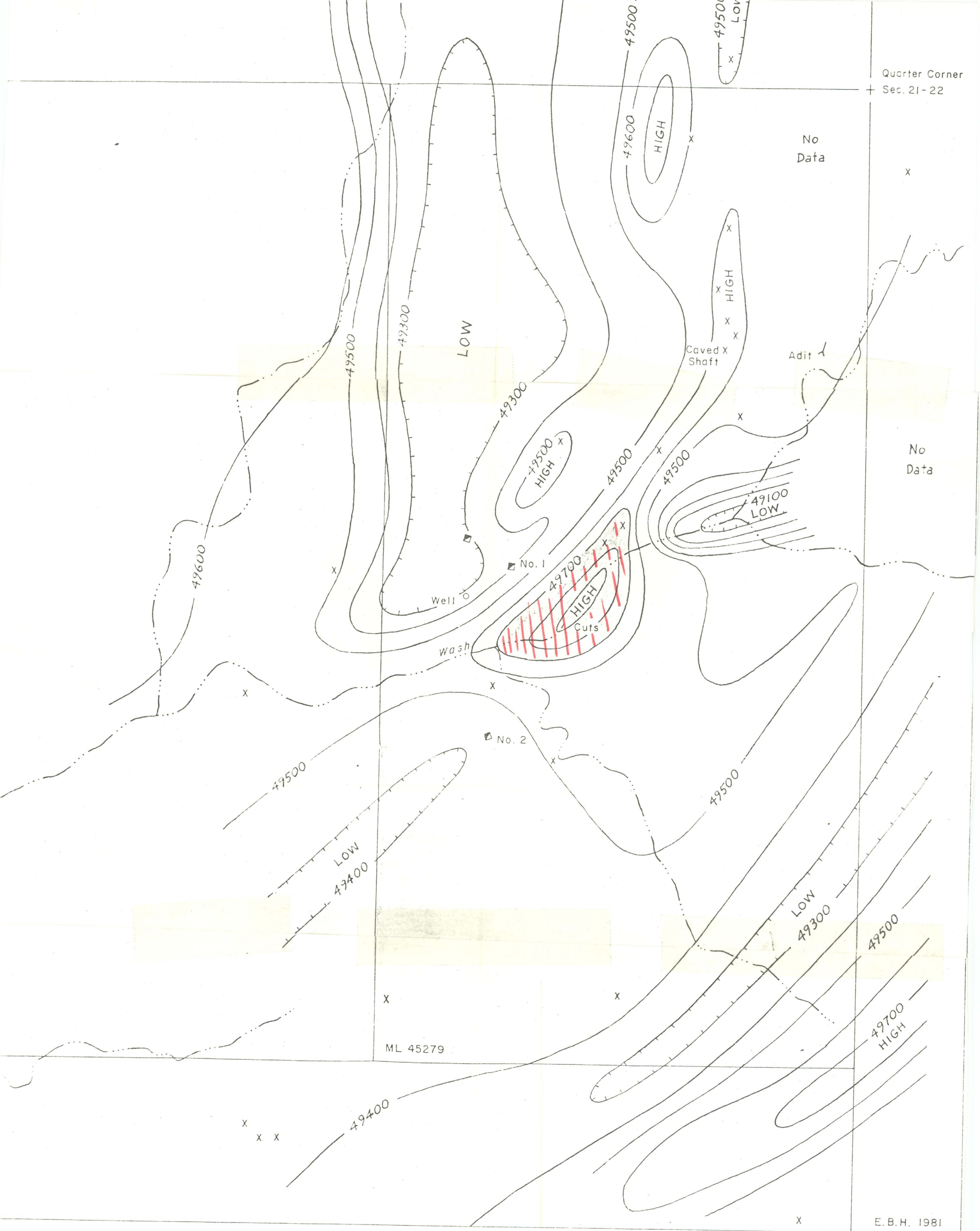
According to my information on the underground workings of the Mary G mine, the extreme southwest tip of this potential ore body was entered, but there is no evidence that they ever penetrated the main mass. There could be a major ore body lying untouched. The next step is to drill this body out. As you know, such drilling is costly, but there is no alternative.

You will note also, on the map, a very low magnetic zone. This is due to extensive leaching of the shear zone in the main dry wash, upstream from the zone of high magnetic readings. The intense leaching is evident on the surface.

This map should be most useful, and should certainly create interest.

Sincerely,

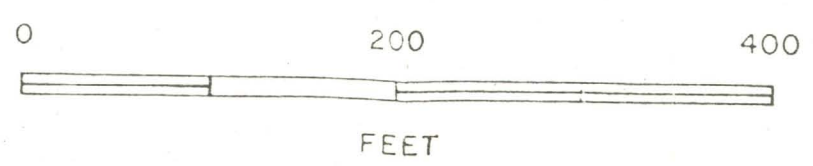




MAGNETIC MAP
MARY G MINE AREA

Sec. 21, T. 20 S., R. 10 E.
PIMA COUNTY, ARIZONA

Total magnetic intensity
Magnetic Survey by E. B. Heylman
December 1980
Interval 100 gammas
Instrument: UniMag G-836
Proton Magnetometer



Call to Geo Jewett 12/18

11⁰⁶ am Busy.

11⁴⁹ Busy

1200 Noon Busy

130 pm - 2⁴⁵ p

Reported to John Cullen

2⁴⁵ - 3⁰⁰ p

Crescent Ave ~~Min~~ Dist.

Between Searchlight & Good Springs

10-12 Miles out of Searchlight.

Col. Larkin
Crescent Ave
Searchlight
12 mi.
N. 11⁰⁰ N
50 Side Rd.

See 20 T 205 R 61E

old tunnel and
see

Searchlight Mining District.

Nevada Terr Min

Book 62 - Cont of

Work Co.

28 claims 560 Acres, 2 mi. 11⁰⁰ N

See Claims 1-28. No History

[Quartz Mill 2.8 mill 1902-1921 - Main Mine in district]

Mostly Au.

Assays 1931 - .10% - .65% Au Ore. (26 assays)

Brecciated Qtz - 5, 10' beds of Qtz

12 prospects in a row

16 small claims on same property.

Owners want to work on property. Open to royalty with
no front money.

Jewett — have - grade open pit - 0.10% - use 4000 tons in Continuous
pod - each 1 month $\frac{166}{1000}$ tons/week - 5 days @ 200 tpd.

Ore is different in different spots - Jewett - No head frames
or adits. Quarry claims some runs 6' wide. All old assays show Au,
including one dump. Mill in 1930's, 250 ton mill "across the street".
Water would come from shaft on property. Not know where other
mills get water.

Described mechanics of very escapable system on tailings
in Tombstone and the old Grand Central (by Fairbanks). 4-9 O₃Ag
in Grand Central Tailings + 1½ - 2% of Ag in Au (or 6Au 503 Ag) 4 grs -
1 yr ago. 100 ton Morrey mill for regrind.

28 claims - over the area of prospects. One assayer (Fire) in
Las Vegas with 1 day turnaround. May 31 1931 - Searchlight
Gold Corp Assay Certificate - Mostly in cuts - should sample of much.
etc - 18 + 10 or 12 26 assays - Not known where these

$$\begin{array}{r} 18 \\ 12 \\ \hline 26 \end{array}$$

Specific cuts are with respect to property. Range .1 - 2 oz.
will send assays and assay 7 submissions District.

Claims taken in good shape - 79 (March) No adverse
claims.

Discussion w/ Ed Heglman 12/17 Wed

Mary G -

Mining Potential - Several thousand if drilling program could outline right places.

Dumps - never been measured for tonnage. Mostly waste rock with some rich ore left near collar of shaft. No milling or cyanide tests have been made.

Snyder Hill - observations -

prospects are inclined diggings on small schistified zones in ls, with bedding control. Heglman believes a roll, sleeping on east side, controls these pods, and thinks pods connect at depth. Unknown wrong. No indication of other than separate pods about the size of the workings. N. Side of hill, adjacent to a fault mapped by Heglman, residual of ore pit with typical (of this prospect) waxy qtz w/ pyrite coats, and qtz soaked with jarosite yellow - this dump has hand selected ^{Higdon's} ^{ore} ^{array} of 130 oz Ag/ton.

Mary G again -

Heglman showed the place where hauler were - they are now back-filled for safety?

Dump at Shaft No 1 could be 3000 tons - Got samples up to 150 oz Ag (Heglman)
Dump at " 2 " " ± 2500 tons. Heglman arrays this dump
are nil - all waste

The Dump in Gully between No 1 & 2 is elongate, cut by washes and bulldozer trenches on sides - could be 1000 tons.

12/18/80 Thurs 9:00 am

Verbal Report given - Tom Larson - Cat for call to me
Asked for brief report for read. (later Report).

Also asked to call Switzer in Las Vegas Re Esan possibilities in Searchlight, to do or not.

MOKI MINERALS

(AN ARIZONA CORPORATION)

EDGAR B. HEYLMUN, GEOLOGIST

4215 EAST FAIRMOUNT
TUCSON, ARIZONA 85712

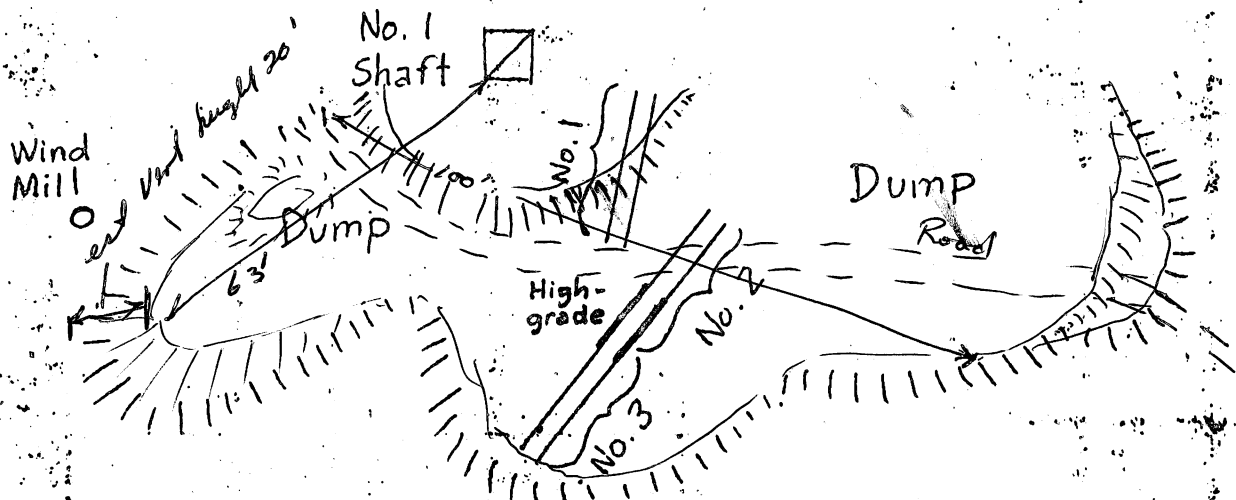
1 Dec 1978

Dear Bill:

I'm convinced that it takes mail an extra day or two to go from Hartford to Lakeville. With the Christmas rush coming on, I hope you took the letter re the prospecting permit directly to Hartford for mailing, as it must be on the desk of the State Land Dept. by 5 PM, Dec. 7, or the permit becomes void.

With the firing of Andrew Bettwy, and pending investigation of Bettwy and the State Land Dept., a lot of dirt will be uncovered. Governor Babbitt (because of several poignant letters on my own letterhead) has asked if I'd be willing to attend a hearing. I replied that I had absolutely no firm evidence of any illegal wrongdoing, but I'd be willing to attend if need be. They've apparently got Bettwy, Duncan, and that bunch racked-up bad. If Moki could hold off a few months until the State Land Dept. gets going again with honest administration, you might find that they will handle Worsley, Deas, et al, for you, and give Moki a clean right to Mary G. If you were willing, I might be able to pursue it for you through Senator Farr and the governor, although I think we should give them a chance to reorganize the land department.

I thought the dump at Mary G looked like 95% waste rock when Luckow cut the trenches, but the assays don't bear me out. The trenches cut were as follows:



I cut a series of channel samples at regular intervals throughout the trenches, and each bag of samples represents a composite of those channels. Each bag weighed 10-15 pounds, so the sampling should be representative. Bag No. 2 contained channel samples taken through lighter-colored material, so that no doubt is in an area of high-grade ore. In all channels, I was careful to collect all the fine material as well as coarse. I really doubt if Bag No. 2 is representative of the entire dump. I think the trench went through a zone of high-grade in that area. If the dump does have values like that throughout, then the dump should be shipped, not leached. There isn't enough total material in the dump to warrant a leaching operation anyhow. As you can see from the assays you've obtained by now, the three bags of samples average 12.4 oz/ton, which might be sufficient to ship.

More trenches are needed to ascertain the overall value of the dump.

Sincerely,

Ed

Mary G.
MOKI MINERALS

(AN ARIZONA CORPORATION)

EDGAR B. HEYLMUN, GEOLOGIST

4215 EAST FAIRMOUNT
TUCSON, ARIZONA 85712

9 Dec 1978

Dear Bill:

Received the check today in payment of the assessment work at Mary G. Thanks.

I wonder if the hiring of a registered mining engineer would be the wise course of action in regard to Mary G. First off, no mining engineer or mining geologist that I know would answer his phone for less than \$200, and none would report on Mary G, I don't believe, for much under \$1,000. I feel virtually certain that all would report the same thing - that the property is too small to warrant mining under the present economic conditions. There are numerous silver mines in Arizona, many that are bigger and richer than Mary G, which remain inactive simply because of economics. I think you'd merely spend \$1,000 or more to receive a negative report, or else they'd outline a megabuck drilling program designed to find more ore, a program Moki could never afford.

You have a number of attractive assays, plus records of rich shipments. The last assays, cut from a number of channels in the trenches dug by Luckow, are nothing short of astounding. Remember, those are composite samples of all the dump material, and each sample weighed 10-15 pounds. They are not selected pieces. To get assays that high from a dump is incredible, as dumps are supposed to be waste rock and sub-commercial stuff. The highest dump assay we got at Junetta was around 10 oz/ton, which is very good. So the Mary G dump has streaks of very rich ore. This kind of information might be enough to sell Mary G, outright, to a buyer. Perhaps Moki might be wiser to spend its efforts trying to sell the property, rather than paying professionals to give you an answer I can almost predict.

However, you might prefer to drop Redington, Cañada del Oro, and Snyder Hill, and concentrate all further efforts on Pipe Valley, Mary G, and Junetta. That's up to you. But I do know that the cost of mining is prohibitive, and competent labor is sky-high and hard to find. Insurance alone is enough to kill many mining operations.

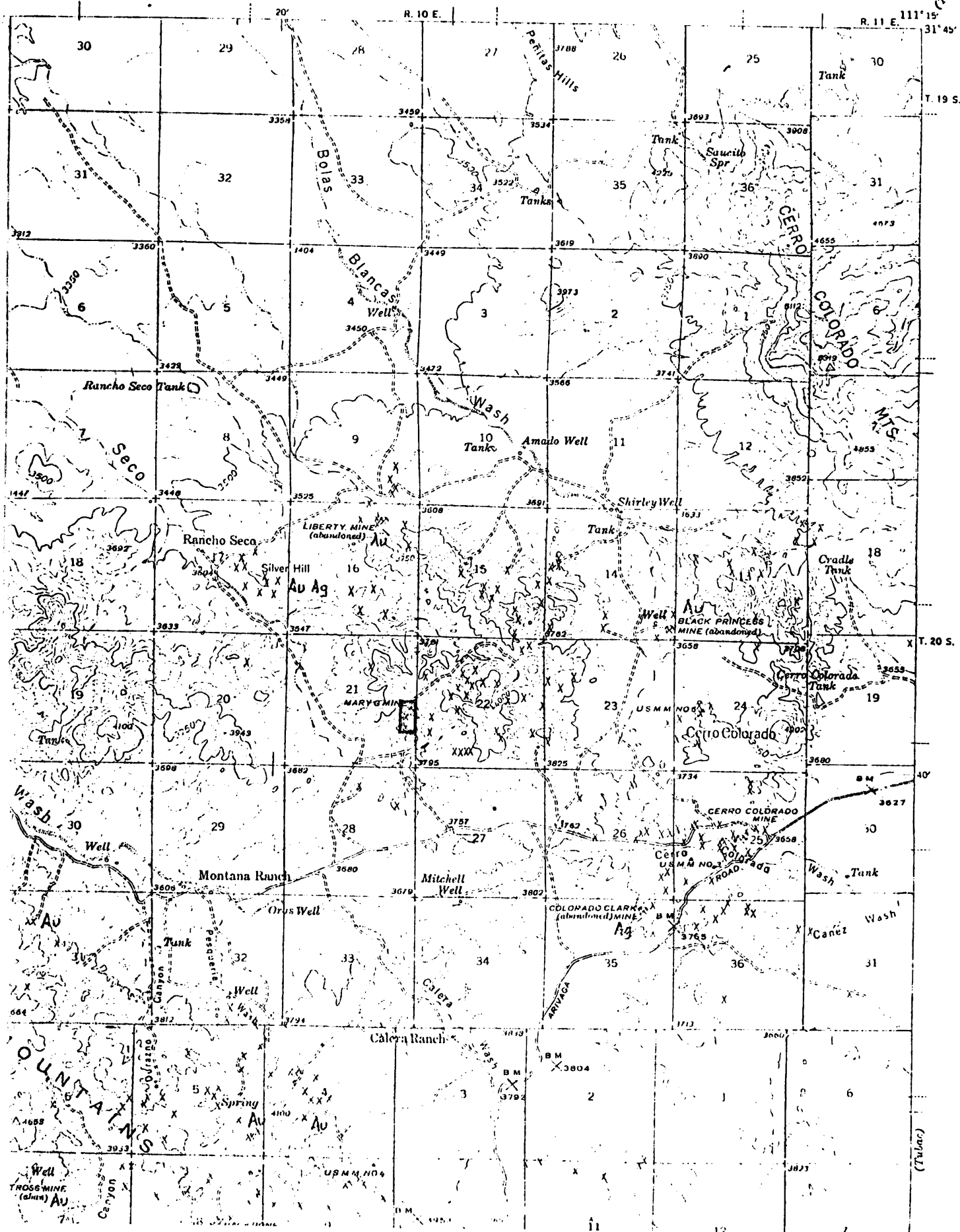
You might be interested in knowing that the widow of the man who found the Half Moon Uranium Claims (Moki's Redington Prospect) called last week. She had discovered that we now hold the area, and was curious what we were doing. She said he discovered the area from an airplane, using a scintillometer, in 1955. She says he spent a ton of money, bulldozing trails and drilling a deep (several hundred foot) test hole which was negative. He had about concluded that the area didn't have enough tonnage (our same conclusion) when he was killed in a plane crash. Apparently, though, she was curious what we were doing, what with the present uranium interest. I merely said we were still looking and testing, without really saying anything.

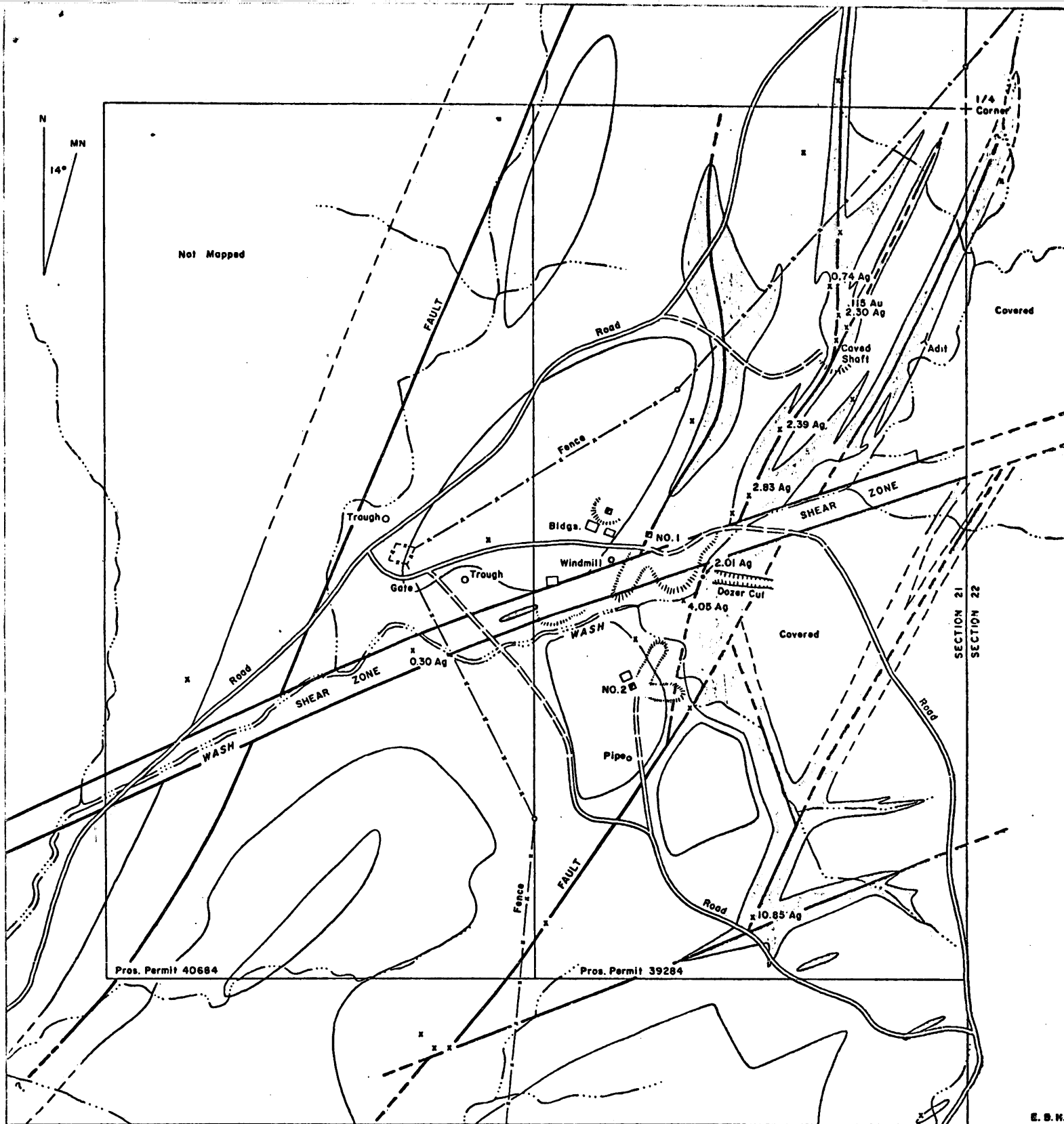
Enclosed are photos showing Fred Luckow and helper working at Mary G, cutting trenches and repairing the road. Keep these for possible legal reasons. I think you can see that a legitimate amount of work was done.

Sincerely,

EH

(Twin Buttes)





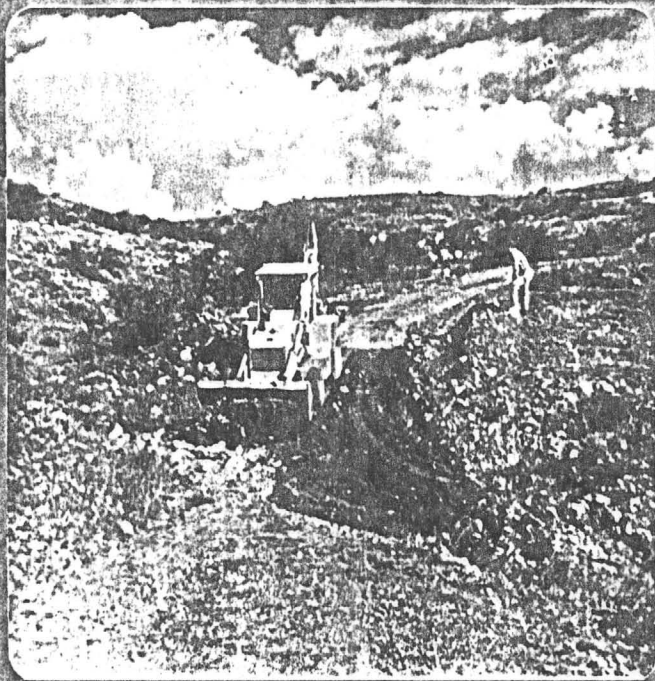
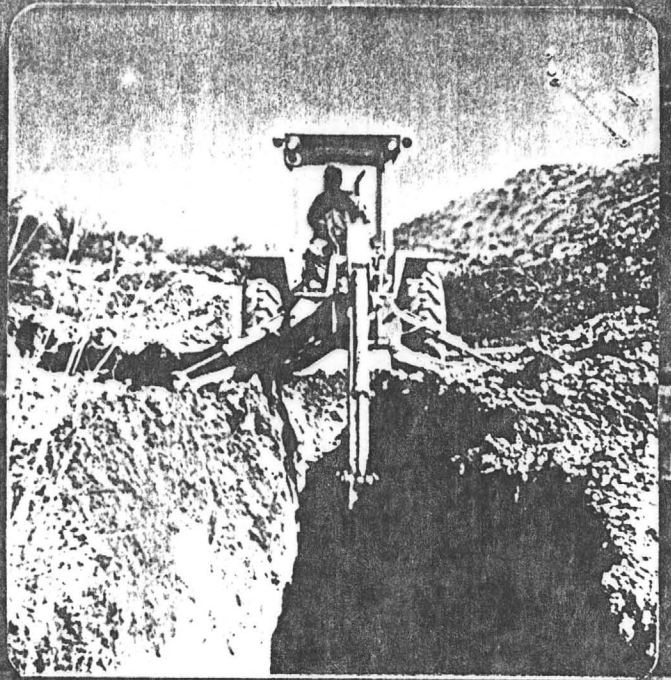
- MINE SHAFT
- x PROSPECT PIT
Values in ounces per ton
- FAULTS and OTHER FRACTURES

ROCK ALTERATION MAP
MARY G MINE AREA
 CERRO COLORADO MINING DISTRICT
 Sec. 21, T. 20 S., R. 10 E.
 PIMA COUNTY, ARIZONA

0 200 400
 FEET

GEOLOGY BY EDGAR B. HEYLMAN, PhD
 MARCH 1977

- LARAMIDE ANDESITE PORPHYRY
Variable alteration
- PROPYLITIC ALTERATION
- HEMATITIC ALTERATION
Derived from sulfide mineralization



REGISTERED ASSAYERS
P. O. BOX 7517
TUCSON, ARIZONA 85725

710 E. EVANS BLVD.
PHONE 602-884-5811
884-5812

WIL WRIGHT
ARIZONA REG. NO. 8875

DNYANENDRA A. SHAH
ARIZONA REG. NO. 8888

Moki Minerals
Box 553
Lakeville, Conn. 06039

JOB # 023904
RECEIVED 1-24-80
REPORTED 2-12-80

CC: E. B. Heylman

| CC: E. B. Heylmun | | | | | | |
|-------------------|--------------|----------------|-----------|-------------|-----------|-----------------|
| SAMPLE NUMBER | GOLD OZ.* | SILVER OZ.* | LEAD % | COPPER % | ZINC % | MOLYBDENUM % |
| Mary G. Dump: | | | | | | |
| 1-1980- | | | | | | |
| 1 | Nil | 6.15 | | | | |
| 2 | Nil | 1.30 | | | | |
| 3 | Nil | 12.75 | | | | |
| 4 | Nil | 37.80 | | | | |
| 5 | Nil | 2.60 | | | | |
| 6 | Nil | .15 | | | | |
| 7 | Nil | .55 | | | | |
| 8 | Nil | 1.40 | | | | |
| 9 | Nil | .10 | | | | |
| 10 | Nil | Trace | | | | |
| 11 | Nil | .10 | | | | |
| 12 | Nil | .25 | | | | |

REGISTERED ASSAYER
CERTIFICATE NO.
8838
Dnyanendra
Amrutlal S.
SIGNED
2-12-80

100% - 100%

1 troy oz./ton 3.1286 ppm

1 ppm = 0.0292 Troy oz./ton

002

1.5 lb. per 100 gal. of water, or 1.5 lb. per 2,000 lb. ton.

Gold and Silver reported in Troy oz. per 2,000 lbs. run.

| | | | |
|--------------------------|-------|--------------------|-------|
| | | | |
| ANALYTICAL CHARGES | | OTHER CHARGES | |
| | | ANALYTICAL CHARGES | |
| TOTAL ANALYTICAL CHARGES | 21.00 | PAY THIS AMOUNT | 21.00 |

Thank You

• LESS 3% DISCOUNT NET TEN DAYS

SOUTHWESTERN ASSAYERS & CHEMISTS, INC.

REGISTERED ASSAYERS
P. O. BOX 7517
TUCSON, ARIZONA 85725

710 E. EVANS BLVD.
PHONE 602-884-5811
884-5812

WIL WRIGHT
ARIZONA REG. NO. 5875

DNYANENDRA A. SHAH
ARIZONA REG. NO. 6888

Moki Minerals
Box 553
Lakeville, Conn. 06039

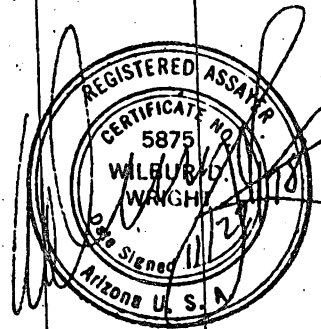
Mary G.

JOB # 022409
RECEIVED 11-27-78
REPORTED 11-29-78

CC: E. B. Heylmun

| SAMPLE NUMBER | GOLD OZ.* | SILVER OZ.* | LEAD % | COPPER % | ZINC % | MOLYBDENUM % |
|------------------|--------------|----------------|-----------|-------------|-----------|-----------------|
| 1 | .006 | .12 | | | | |
| 2 | .009 | 33.54 | | | | |
| 3 | .004 | 3.56 | | | | |

equal ave 12.4oz



1 ppm = 0.0001% 1 troy oz./ton = 34.286 ppm 1 ppm = 0.0292 troy oz./ton
* Gold and Silver reported in troy oz. per 2,000 lb. ton.

002

| | | | | | |
|--------------------------|--|--|--------------------|-----------------|-------|
| | | | | | |
| ANALYTICAL CHARGES | | | OTHER CHARGES | | |
| | | | ANALYTICAL CHARGES | | |
| TOTAL ANALYTICAL CHARGES | | | 21.00 | PAY THIS AMOUNT | 21.00 |

Thank You

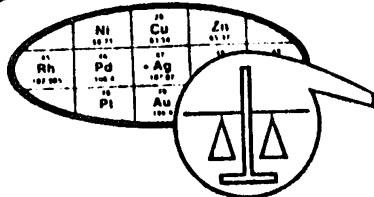
Wil Wright

* LESS 3% DISCOUNT NET TEN DAYS

001

SKYLINE LABS, INC.
P.O. Box 50106 • 1700 West Grant Road
Tucson, Arizona 85703
(602) 622-4836

Charles E. Thompson
Arizona Registered Assayer No. 11122
William L. Lehmbeck
Arizona Registered Assayer No. 0421
James A. Martin
Arizona Registered Assayer No. 11122



CERTIFICATE OF ANALYSIS

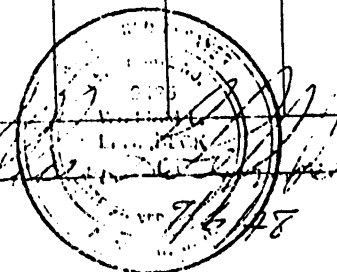
| ITEM NO. | SAMPLE IDENTIFICATION | Au oz/ton | Ag oz/ton | Au * oz/ton | Ag * oz/ton | Cu % | Pb % | Mo % | W % |
|----------|-----------------------------|--------------|--------------|----------------|----------------|---------|---------|---------|--------|
| | <u>Mary G</u> No. 1 Dump | >0.10 | >10 | 0.100 | 215.32 | 1.72 | 7.65 | 0.017 | 0.0005 |

TO: MOKI MINERALS
P. O. Box 553
Lakeville, Conn 06039
cc: E. B. Heylman
3660 E. 3rd St. #B-3
Tucson, Arizona 85716

REMARKS:

*Single fire assay

CERTIFIED BY



DATE REC'D:

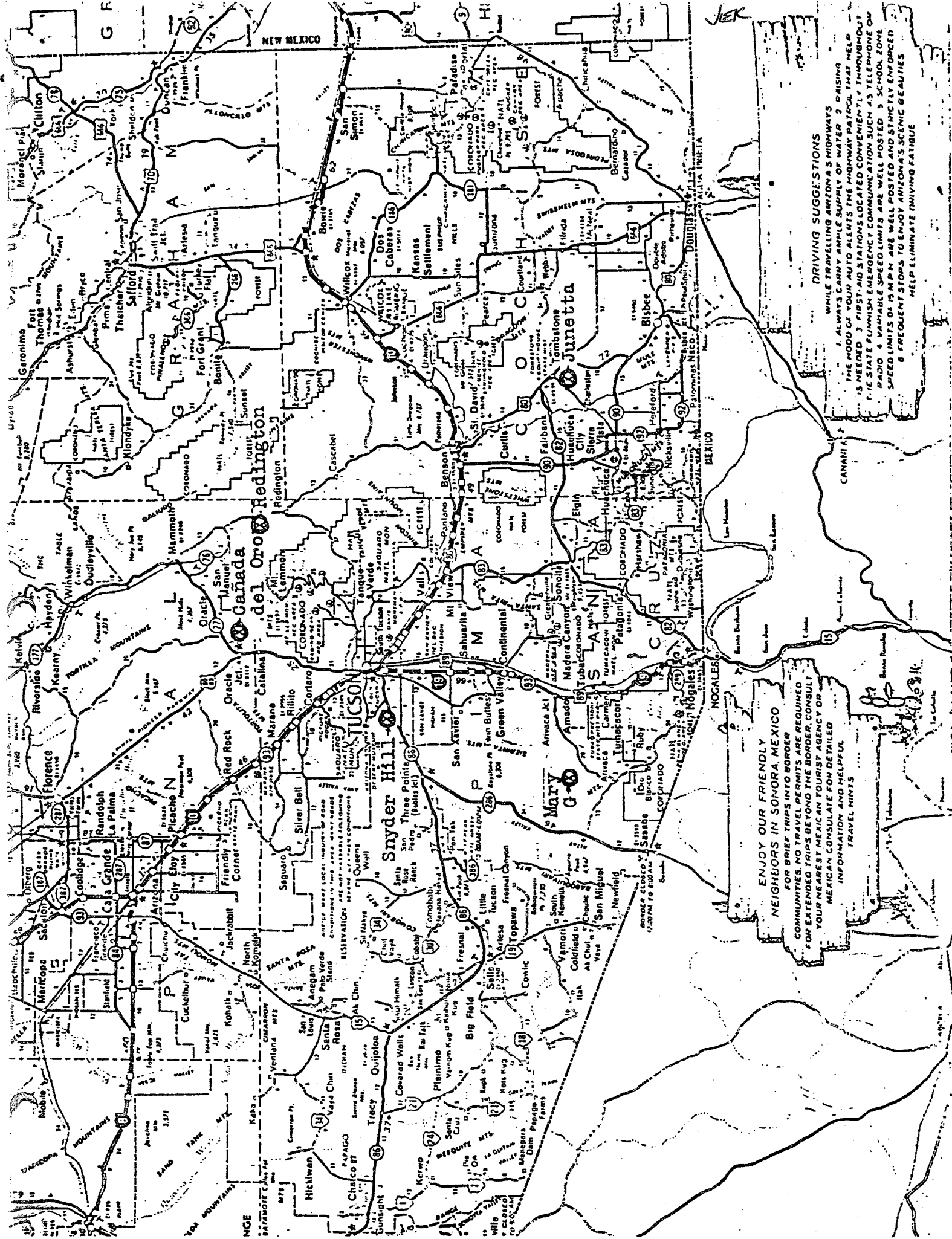
8/14/78

DATE COMPL:

9/6/78

JOB NUMBER

TOT 003



ENJOY OUR FRIENDLY
NEIGHBORS IN SONORA, MEXICO
FOR BRIEF TRIPS INTO BORDER
COMMUNITIES NO TRAVEL PERMITS ARE REQUIRED
FOR EXTENDED TRIPS BEYOND THE BORDER CONSULT
YOUR NEAREST MEXICAN TOURIST AGENCY OR
MEXICAN CONSULATE FOR DETAILED
TRAVEL HINTS

DRIVING SUGGESTIONS

1. ALWAYS CARRY AMPLI SUPPLY OF WATER 2. RAISING THE HOOD OF YOUR AUTO ALERTS THE HIGHWAY PATROL THAT HELP
3. THE NEAREST 3 FIRST-AID STATIONS LOCATED CONVENIENTLY THROUGHOUT
4. THE STATE FURNISHES EMERGENCY COMMUNICATION SUCH AS TELEPHONE OR RADIO 4. VARIABLE SPEED LIMITS ARE WELL POSTED 5. SCHOOL ZONE SPEED LIMITS OF 15 MPH ARE WELL POSTED AND STRICTLY ENFORCED
6. FREQUENT STOPS TO ENJOY ARIZONA'S SCENIC BEAUTIES HELP ELIMINATE DRIVING FATIGUE

SNYDER HILL SILVER PROSPECT
Pima County, Arizona

LOCATION: Located along State Highway 86, 10 miles southwest of Tucson, in sections 3 and 4, T. 15 S., R. 12 E., Pima County, Arizona. The prospect is covered by three lode claims and one placer claim, all on federally-owned land.

GEOGRAPHY: Snyder Hill is a low hill which rises out of Avra Valley, on the west side of the Tucson Mountains. It is easily accessible.

STRATIGRAPHY: Permian limestone and dolomitic limestone make up the bulk of the hill. It is locally silicified and mineralized, but the majority of the exposed rock is suitable for crushed rock used for aggregate, ballast, and road metal, and has been quarried for those purposes. Much of the rock might also be suitable as cement rock. The CaO content is 46.1%, and CaCO_3 runs 76.8%.

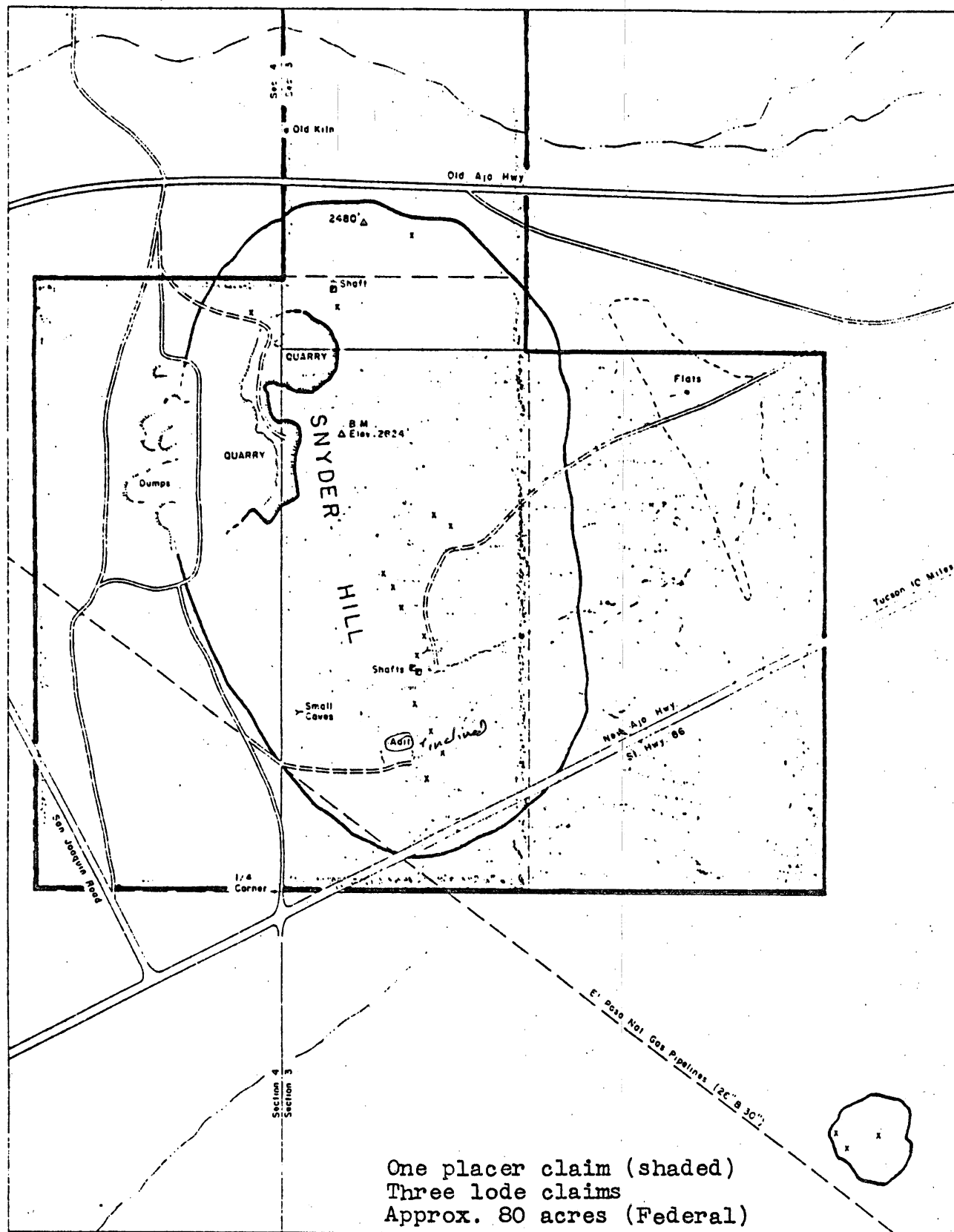
STRUCTURE: The beds at Snyder Hill dip about 15° to the east, with local structural "rolls" which appear to play a part in ore deposition. The "rolls" appear to parallel the strike of the Permian limestone. There appears to be a northeast-striking fault at the north end of the hill which controls ore deposition in that area, but elsewhere on the hill, faulting and jointing of rocks is not significant, although the limestone is too fractured to be used as dimension stone.

MINERAL DEPOSITS: Mineralization is confined to small, irregular pods or lenses which appear to be controlled by structural "rolls" in the limestone and dolomitic limestone. Where the "rolls" occur, bedding planes have "opened-up," thus providing cavities for ore deposits. Considerable replacement of limestone has also occurred, although contact metamorphism and alteration of the host rock is minimal. There is no skarn development such as would be expected near hydrothermal vein deposits. It appears that at Snyder Hill, ore-bearing solutions traveled along bedding planes rather than fracture zones. However, at the north end of the hill, at a pit where dump material assays over 50 ounces of silver per ton, a north-east striking fault appears to aid in ore control.

A detailed study of existing dump material was conducted by Alanco, Ltd., in early 1978. It was calculated that 11,310 ounces of silver exist on the dumps sampled, with a value of approximately \$56,000 on today's silver market. Some of the ore shipped from Snyder Hill in the past averaged over 300 ounces of silver per ton. There are also lead values.

The minerals visible on the dumps include calcite, barite, quartz, limonite, cerussite, anglesite, and cerargyrite. No primary sulfides are in evidence.

RECOMMENDATIONS: It does not appear that sufficient dump material exists to attempt heap leaching operations. Drilling should be conducted in favorable areas in an attempt to find additional rich silver bodies at depth. Additional uses might be found for the limestone.



Map by Edgar B. Heylman
May 1976

SNYDER HILL
S. 3, T. 15 S., R. 12 E., GSRB&M
Pima County, Ariz.

0 330 660 Feet
Scale

MOKI MINERALS

(AN ARIZONA CORPORATION)

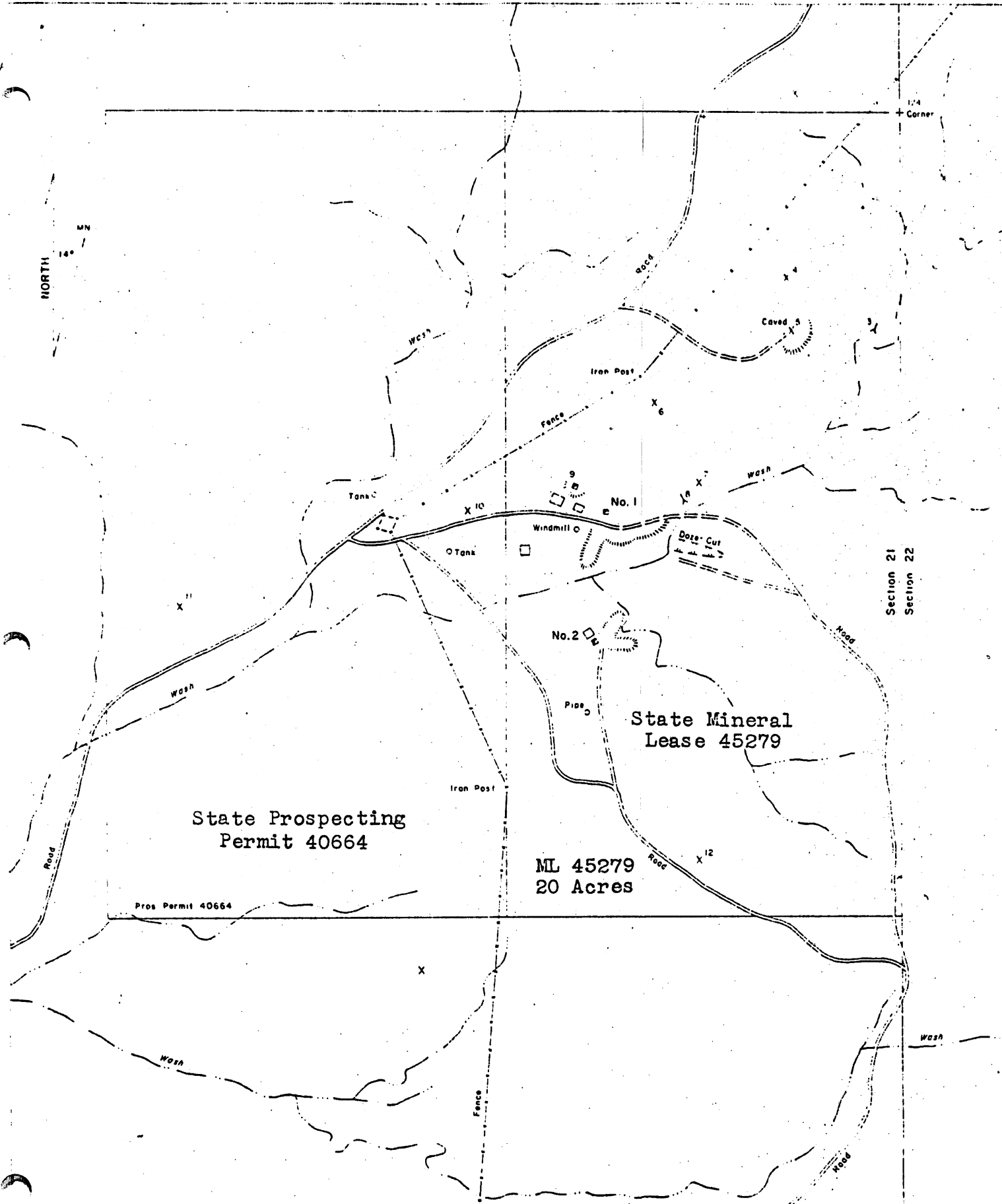
EDGAR B. HEYLMUN, GEOLOGIST

1 November 1976

P.O. BOX 4806
TUCSON, ARIZONA 85717

MARY G MINE

- Location:** In the NE/4 SE/4 of section 21, T. 20 S., R. 10 E., Pima County, Arizona. Situated in the Cerro Colorado (Silver Hill) Mining District, 55 miles by road southwest of Tucson, and 13 miles by road north of Arivaca. All but last four miles are paved.
- Topography:** In low hill country at an average elevation of 3,750 feet. It is an active cattle range with typical desert vegetation.
- Surface Rocks:** Early Tertiary latite and andesite porphyry, locally altered and mineralized.
- Structure:** Minor north and northeast trending faults and fissures, with a shear zone trending N. 75-85° E. under the main wash.
- Mineralization:** Strong wall-rock alteration along the shear zone, with lesser alteration elsewhere in the area. Most mining to date has been on the north and northeast trending faults and fissures, but important ore bodies, largely unmined, may exist in the shear zone underlying the main wash. Ore is found in quartz stringers, shoots, and lenses ranging from a few inches to over two feet in width along faults, fissures, and shear zones, especially where they intersect. Silver is the principal metal of commercial importance, associated with argentiferous cerussite, barite, and manganese oxide in the zone of oxidation. At depth, primary silver ores occur, and include argentite, galena, and argentiferous tetrahedrite. Enriched silver values occur in the zone of oxidation, and in the vicinity of the water-table. Other metals found include lead, copper, zinc, mercury, and gold.
- Assays:** Rich streaks of silver ore were encountered in past mining operations. Ore shipped in the past was reported to have averaged 60 ounces of silver per ton. A random sample was collected by Moki Minerals from the dump at the No. 1 shaft, and it assayed 141.54 ounces of silver per ton.
- Development:** There are four old shafts, one of which is completely caved. The other three are in various states of repair. No. 1 shaft, through which most ore has been produced, is in bad condition, and is blocked by caving at a depth of 30 feet. Originally, the No. 1 shaft went to a depth of 200 feet, with workings at the 136 and 186-foot levels. No. 2 shaft, 240 feet to the south, was sunk in 1950-1952 to a depth of 135 feet, with workings at the 130 foot level. The shaft is timbered and lagged and in fair condition, although it is flooded, with the water-level standing 56 feet from the surface. There is another shaft, near No. 1, which is not deep, and is of little consequence.
- Past Production:** Spaniards found rich silver ore in the area, around 1750, and Anglos prospected the area as early as 1855. The Mary G Mine did not go into production until 1890, and most ore was shipped between 1890 and 1942. Approximately 800 tons were shipped, worth about \$200,000 on today's market. Some rich ore may have been shipped before records were kept.
- Recommended Work:** Drill holes between 100 and 150 feet deep should be sunk in the mineralized shear zone along the main wash. No. 2 shaft should be dewatered, repaired, and the workings on the 130-foot level extended to the mineralized shear zone under the main wash. No. 1 shaft should be re-established, repaired, and the workings connected with those of the No. 2 shaft. Drilling might establish need for more workings at shallow depths, in the zone of oxidation.

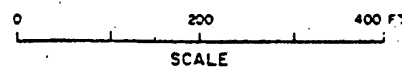


Edgar B. Heylmun
December 1976
Tucson, Arizona

**Cerro Colorado
Mining District**

MARY G MINE

Sec. 21, T. 20 S., R. 10 E.
PIMA COUNTY, ARIZONA



MARY G MINE
GERRC COLORADO DISTRICT
Near Arivaca, Pima Co., Arizona

SUMMARY OF SHIPMENTS AS TAKEN FROM SETTLEMENT SHEETS

Shipped to Phelps Dodge Corp., Douglas, by J.S. Ayres

| Date | Tons | Oz./ton | | Per cent: | | Ins. | Fe | Net # Proceeds |
|---------|-------|---------|--------|-----------|--------|------|-----|-------------------|
| | | Gold | Silver | Lead | Copper | | | |
| 3/28/29 | 26.0 | -- | 112.0 | -- | 1.0 | 69 | 2.8 | \$1410.96 |
| 6/19/29 | 29.2 | .03 | 144. | | 1.5 | 65 | 2.0 | 1990.14 |
| 8/17/29 | 31.4 | | 89.4 | | .93 | 71 | 2.9 | 1236.45 |
| 8/30/29 | 36.3 | | 67.2 | | .88 | 73 | 2.4 | 1007.64 |
| 9/16/29 | 35.0 | | 66. | | .7 | 74 | 2.4 | 953.83 |
| | 157.9 | | | | | | | \$6599.02 |

Shipped to A.S.&R.Co., Hayden, by J.S. Ayres

| | | | | | | | | |
|----------|--------|--|------|--|-----|--|--|-----------|
| 5/1/29 | 30.19 | | 77.7 | | .9 | | | 1070.36 |
| 5/24/29 | 25.61 | | 79 | | .9 | | | 874.13 |
| 11/27/29 | 33.53 | | 55.5 | | .58 | | | 710.71 |
| 12/23/29 | 27.31 | | 47.4 | | .57 | | | 478.47 |
| | 116.64 | | | | | | | \$3133.67 |

Shipped to A.S.&R.Co., Hayden, by Virgil Bledsoe, Lessee

| | | | | | | | | |
|----------|-----|------|-------|-----|------|----|------|----------------|
| 11/7/40 | 5. | .05 | 335.3 | 9.2 | 3.32 | 61 | 7.8 | 832.69 (Truck) |
| 11/16/42 | 24. | .005 | 16.3 | | | 74 | 10.5 | 85.63 |
| | 29 | | | | | | | 918.32 |

Shipped to El Paso Smelting Works by Virgil Bledsoe

| | | | | | | | | |
|---------|------|-----|------|-----|-----|----|-----|---------|
| 8/11/42 | 38.2 | .01 | 50.8 | 1.2 | .55 | 76 | 7.9 | 1008.89 |
|---------|------|-----|------|-----|-----|----|-----|---------|

Shipped to Hugo Miller, Nogales (Trucked to Nogales)

| | | | | | | | | |
|---------|------|-----|-----|------|-----|--|--|----------|
| 6/20/42 | 0.26 | .05 | 436 | 19.5 | 3.4 | | | 57.08 |
| 6/27/42 | .25 | .06 | 456 | 20.5 | 7.8 | | | 61.65 |
| 7/3/42 | .17 | .05 | 402 | 23.5 | 3.4 | | | 32.70 |
| 7/18/42 | .26 | .05 | 304 | 10.2 | 2.1 | | | 38.50 |
| 7/25/42 | .21 | .05 | 562 | 7.0 | 5.1 | | | 58.30 |
| 8/1/42 | .31 | .04 | 578 | 7.0 | 5.2 | | | 91.00 |
| 8/7/42 | .23 | .06 | 555 | 9.5 | 6.2 | | | 65.88 |
| 8/15/42 | .22 | .04 | 514 | 11.5 | 5.8 | | | 58.80 |
| 8/22/42 | .27 | .05 | 405 | 11.5 | 4.2 | | | 56.40 |
| | 2.17 | | | | | | | \$520.31 |

Shipped to El Paso Smelting Works by Ayres-Herron & Williams

| | | | | | | | | |
|-----------|------|-----|----|-----|-----|----|--|--|
| Feb. 1929 | 29.0 | .02 | 98 | 4.8 | .98 | 70 | | |
|-----------|------|-----|----|-----|-----|----|--|--|

#Net Proceeds--Net paid shipper after deducting freight and smelting charge on lots delivered by truck, net after treatment charges.

Tucson, Arizona
October 11, 1943

BRENT N. RICKARD

12,180.31
05

#609.01

ALANCO

LTD.

P. O. BOX 5843
TUCSON, ARIZONA 85703
~~802-824-0244~~
888-5248

REPORT ON DUMP SAMPLING AND TESTS

SNYDER HILL PROJECT

AMOLE MINING DISTRICT

Pima County, Arizona

Introduction

A series of mine dumps were surveyed, measured and sampled at the request of Moki Minerals. The old dumps are located some 12 miles West of Tucson, adjacent to State Highway 86. More specifically, the claims are located in Sections 3 and 4, T. 15 S., R. 12 E., G&SRB&M.

The purpose of the sampling program was to ascertain tonnage and grade of reported silver values. Previous "grab" samples indicated commercial values on some of the dumps.

Systems Employed

1) Sampling

A series of trenches were hand dug to a depth at respective locations on the various dumps to take representative materials throughout the dumps. This representation was verified by digging shallow pits on the top of the dumps to bedrock and comparing rock types encountered to those exposed in trenches.

The samples taken from the trenches were quartered to sample lots of 500 pounds.

2) Screen Analysis and Sample Preparation

The quartered samples were screened through the following mesh sizes:

+ 6"
 - 6" + 3"
 - 3" + 2"
 - 2" + 1"
 - 1"

A chip sample was taken of the plus 6" material and assayed. All other samples were submitted directly to assay after weighing and moisture checked.

In addition, the weights of the dump material was ascertained by filling and semi-compacting by impact, a 1 cubic foot container and weighing the contents. Total weight equates to 14.7 cu. ft. per ton. Allowing for natural compaction, density of 14 cu. ft. per ton was used in all computations.

Surveying and Tonnage Calculation

The dumps sampled were identified after Helymun. Each dump sampled was surveyed by stadia and chain as applicable. The upper surface crest elevations, together with the lower toe elevations at ten feet intervals or where significant variances occurred, were surveyed. The contact of bedrock to dump were noted and plotted.

All elevational control was established from one base survey station on Dump No. 4.

After elevational control was established, each dump was sectioned and tonnage calculations computed, according to the following tables. Assays of each mesh size, together with total silver content is included in these tables.

Dump #2 - Total Tonnage 193.0 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 15% | 28.95 | 3.80 | 110.01 |
| - 6" + 3" | 15.5% | 29.92 | 4.45 | 133.14 |
| - 3" + 2" | 9.4% | 18.14 | 3.15 | 57.14 |
| - 2" + 1" | 11.7% | 22.58 | 5.40 | 121.93 |
| + 1" | 48.4% | 93.41 | 7.075 | 660.88 |
| | 100.0% | 193.0 | | 1,083.10 |

Dump #3 - Total Tonnage - 92.5 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 15% | 13.88 | 3.15 | 43.72 |
| - 6" + 3" | 20.4 % | 18.87 | 2.15 | 40.57 |
| - 3" + 2" | 9.7% | 8.97 | 5.80 | 52.30 |
| - 2" + 1" | 14.1% | 13.04 | 4.20 | 54.77 |
| - 1" | <u>40.8%</u> | <u>37.74</u> | 6.80 | <u>256.63</u> |
| | 100.0% | 92.5 | | 447.72 |

Dump #4 - Total Tonnage - 1,319.7 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 20.0% | 263.94 | 5.40 | 1,425.28 |
| - 6" + 3" | 20.6% | 271.86 | 2.55 | 693.24 |
| - 3" + 2" | 10.0% | 131.97 | 1.40 | 184.76 |
| - 2" + 1" | 15.5% | 204.55 | 2.55 | 521.60 |
| - 1" | <u>33.9%</u> | <u>447.38</u> | 8.30 | <u>3,713.25</u> |
| | 100.0% | 1,319.7 | | 6,538.13 |

Limestone Dump - Total Tonnage - 439.9 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 20% | 87.98 | 0.20 | 17.60 |
| - 6" + 3" | 0% | 0.00 | 0 | 0 |
| - 3" + 2" | 10.5% | 46.19 | 0.20 | 9.24 |
| - 2" + 1" | 12.6% | 55.43 | 0.20 | 11.09 |
| - 1" | <u>56.9%</u> | <u>250.30</u> | 1.60 | <u>400.48</u> |
| | 100.0% | 439.90 | | 438.41 |

Dumps #5 and #6 - Total Tonnage - 572.9 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|------------------------|------------------------|--------------|-----------------------------|
| + 6" | 20% | 114.58 | 9.45 | 1,082.78 |
| - 6" + 3" | 13.1% | 75.05 | 0.70 | 52.54 |
| - 3" + 2" | 5.2% | 29.79 | 0.55 | 16.38 |
| - 2" + 1" | 10.7% | 61.30 | 1.60 | 98.08 |
| - 1" | <u>51.0%</u> 100.0% | <u>291.18</u> 572.9 | <u>4.25</u> | <u>1,241.77</u> 2,491.55 |

Shaft Dump - Total Tonnage - 60.7 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|------------------------|----------------------|--------------|-------------------------|
| + 6" | 5.0% | 3.04 | 4.00 Est. | 12.16 est. |
| - 6" + 3" | 5.8% | 3.52 | 4.20 | 14.78 |
| - 3" + 2" | 10.4% | 6.31 | 5.60 | 35.34 |
| - 2" + 1" | 23.5% | 14.26 | 4.20 | 59.89 |
| - 1" | <u>55.3%</u> 100.0% | <u>33.57</u> 60.7 | 5.63 | <u>189.00</u> 311.17 |

Sample Identification is Represented by the Following

| <u>Sample No.</u> | <u>Location</u> | <u>Mesh</u> |
|-------------------|-----------------|---------------------------|
| 2-1 | Dump #2 | Minus 6 inch plus 3 inch |
| 2-2 | Dump #2 | Minus 3 inch plus 2 inch |
| 2-3 | Dump #2 | Minus 2 inch plus 1 inch |
| 2-4 | Dump #2 | Minus 1 inch |
| 2-5 | Dump #2 | Chip Sample plus 6 inch |
| 3-1 | Dump #3 | Minus 6 inch plus 3 inch |
| 3-2 | Dump #3 | Minus 3 inch plus 2 inch |
| 3-3 | Dump #3 | Minus 2 inch plus 1 inch |
| 3-4 | Dump #3 | Minus 1 inch |
| 3-5 | Dump #3 | Chip Sample plus 6 inch |
| 4-1 | Dump #4 | Plus 3 inch |
| 4-2 | Dump #4 | Minus 3 inch plus 2 inch |
| 4-3 | Dump #4 | Minus 2 inch plus 1 inch |
| 4-4 | Dump #4 | Minus 1 inch |
| 4-5 | Dump #4 | Chip Sample plus 6 inches |

| <u>Sample No.</u> | <u>Location</u> | <u>Mesh</u> |
|-------------------|-------------------|--------------------------|
| 4-7 | Limestone Dump #4 | Plus 2 inch |
| 4-8 | Limestone Dump #4 | Minus 2 inch plus 1 inch |
| 4-9 | Limestone Dump #4 | Minus 1 inch |
| 5-1 | Dumps #5 & #6 | Minus 6 inch plus 3 inch |
| 5-2 | Dumps #5 & #6 | Minus 3 inch Plus 2 inch |
| 5-3 | Dumps #5 & #6 | Minus 2 inch plus 1 inch |
| 5-4 | Dumps #5 & #6 | Minus 1 inch |
| 5-5 | Dumps #5 & #6 | Chip Sample plus 6 inch |
| 6-1 | Shaft Dump | Minus 6 inch plus 3 inch |
| 6-2 | Shaft Dump | Minus 3 inch plus 2 inch |
| 6-3 | Shaft Dump | Minus 2 inch plus 1 inch |
| 6-4 | Shaft Dump | Minus 1 inch |

Summary

The total dumps sampled and assayed represents a total of 2,678.7 tons, containing a total of 11,309.9 ounces of silver, representing an average of 4.22 ounces of silver per ton.

The screen analysis completed reflects the bulk of the silver values are contained in the minus 1 inch material, although significant values are contained in all dump material. The only exception being the "Limestone" portion of Dump No. 4.

The minus 1 inch material represents a total of 1,154.5 tons containing a total of 6,461.7 ounces of silver, representing an average of 5.59 ounces of silver per ton, or an increase of 32.4%.

Total values contained represents the following, based on published price of silver at \$4.949.

- 1) Total Dumps = \$55,972.69
- 2) Minus 1" material = \$31,978.95

The minus 1 inch material contained within the dumps represents 57.13% of the total values in 43% of the total material

Examination of the dump material indicated that the mineralization occurs both

as quartz vein systems and replacement of bedding plane fault zones. The gangue is basically barite-fluorite-quartz and limestone quartz.

The mineralization is associated with iron manganese containing minor amounts of lead, copper and zinc.

In view of the limited tonnage of dump material, cyanide tests were not undertaken. However, gravity concentration tests were completed on the minus one half inch material by jigging techniques and on minus 10 inch material by table concentration. The ore is amenable to gravity concentration as reflected by the upgrading of the ore to .14 oz. Au. and 18.70 oz. Ag. Recovery factors should represent 65% plus.

Conclusions

- 1) There is insufficient dump material to consider cyanide "heap leach".
- 2) Grade of dump material is not sufficient to plan on agitated cyanide leach circuit (Lane System).
- 3) Gross calculated values are not sufficient to allow adequate amortization of plant costs to upgrade dump values to saleable values.

Recommendations

In order to justify an operation on the Snyder Hill Project, the following aspects warrant consideration:

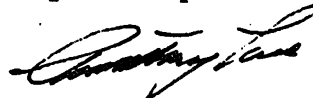
- a) Open existing workings, possibly on an open cut basis to develop sufficient ore to justify a continuing program for at least one year of a minimum of 50 tons per day.
- b) Undertake a combined milling program on existing dumps with a portable milling unit, wherein the capital investment could be prorated over several projects other than Snyder Hill over an adequate time period. Estimated costs of such a portable unit is \$65,000.00

In view of the analysis of the dumps from which the higher grade material has been removed, and considering the volume of material that these dumps represent (normal mining widths being mined from previous operations), the first program suggested is recommended.

Open cut mining systems followed by gravity milling with sale to smelter or by further refinement by hydrometallurgy, represents a total estimated costs per ton based on 50 tons per day operation, of \$35.00 per ton or a minimum grade of 7.07 Oz. of silver, disregarding any gold values, although these represent \$24.00 per ton on gravity concentration.

The minimum grades or increased tonnage would control the feasibility of such a program.

Respectfully submitted,



ALANCO LTD.
Anthony Lane

JEK

~~P.O. BOX 1069~~
~~300 NORTH 1ST ST.~~



Jacobs Assay Office

PHONE ~~MA 2-0043~~

Registered Assayers

TUCSON, ARIZONA. 15 Feb. 1978

Sample Submitted by Mr.

F. Lane

| SAMPLE MARKED | X | Ag OZ/TON | X | SAMPLE MARKED | X | Ag OZ/TON | X |
|----------------------|---|--------------|---|----------------------|---|--------------|---|
| 2-1 -6"+3" | | 4.45 | | 4-5 +8" | | 5.40 | |
| 2-2 -3"+2" | | 3.15 | | 4-7 +2" | | 0.20 | |
| 2-3 -2"+1" | | 5.40 | | 4-8 -2"+1" | | 0.20 | |
| 2-4 ^⓪ -1" | | 5.15 | | 4-4 -1" | | 1.60 | |
| 2-4 ^⓪ -1" | | 9.00 | | 5-1 -6"+3" | | 0.70 | |
| 2-5 +6" | | 3.80 | | 5-2 -3"+2" | | 0.55 | |
| 3-1 -6"+3" | | 2.15 | | 5-3 -2"+1" | | 1.60 | |
| 3-2 -3"+2" | | 5.80 | | 5-4 -1" | | 4.75 | |
| 3-3 -2"+1" | | 4.20 | | 5-5 chip | | 9.45 | |
| 3-4 -1" | | 6.80 | | 6-1 -6"+3" | | 4.20 | |
| 3-5 +6" | | 3.15 | | 6-2 -3"+2" | | 5.60 | |
| 4-1 +3" | | 2.55 | | 6-3 -2"+1" | | 4.20 | |
| 4-2 -3"+2" | | 1.40 | | 6-4 ^⓪ -1" | | 5.40 | |
| 4-3 -2"+1" | | 2.55 | | 6-4 ^⓪ -1" | | 5.85 | |
| 4-4 -1" | | 8.30 | | | | | |

Very respectfully,

Charges \$ *116⁰⁰*

78

Ben D. Jacobs

1435 SOUTH 10TH AVENUE
TUCSON, ARIZONA 85713

Tucson Assay Office

Registered Assayers



PHONE 622-0813

Tucson, Arizona,

3 March 1975

Sample Submitted by Mr.

J. Lane

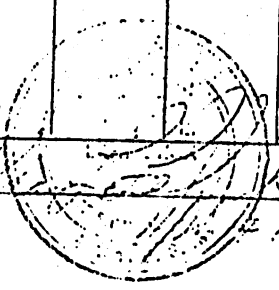
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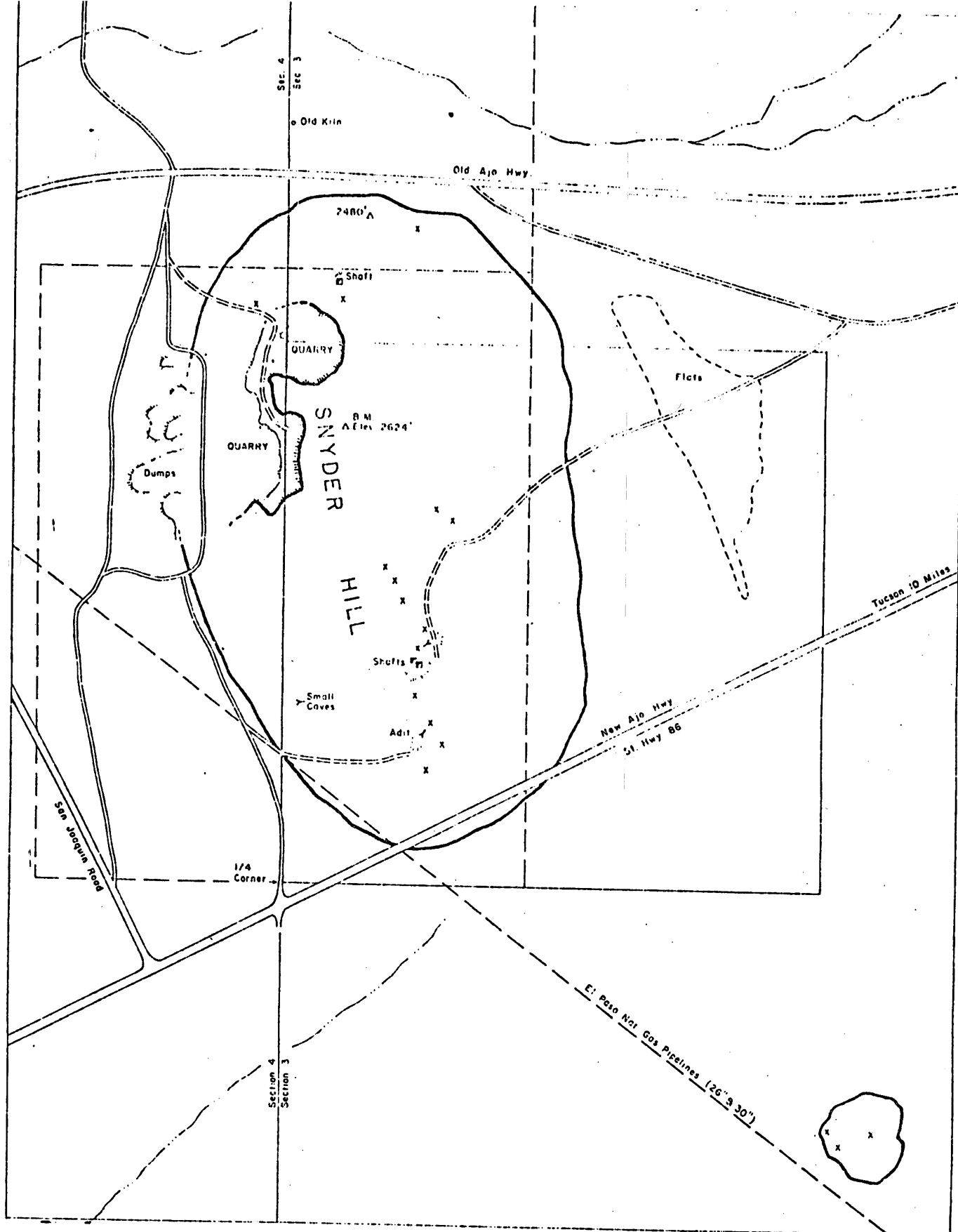
| Sample Marked | GOLD Ozs. per ton ore | | GOLD Value per ton ore* | | SILVER Ozs. per ton ore | | COPPER Per cent Wet Assay | | LEAD Per cent Wet Assay | | Per Cent Wet Assay | | Per Cent Wet Assay | | Per Cent Wet Assay | |
|------------------|-----------------------------|--|-------------------------------|--|-------------------------------|--|--|--|--|--|-----------------------------------|--|-----------------------------------|--|-----------------------------------|--|
| Sydney Hill | 0.14 | | 14.00 | | 18.72 | | | | | | | | | | | |
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Charles E. Thompson
Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 9425

CERTIFICATE OF ANALYSIS

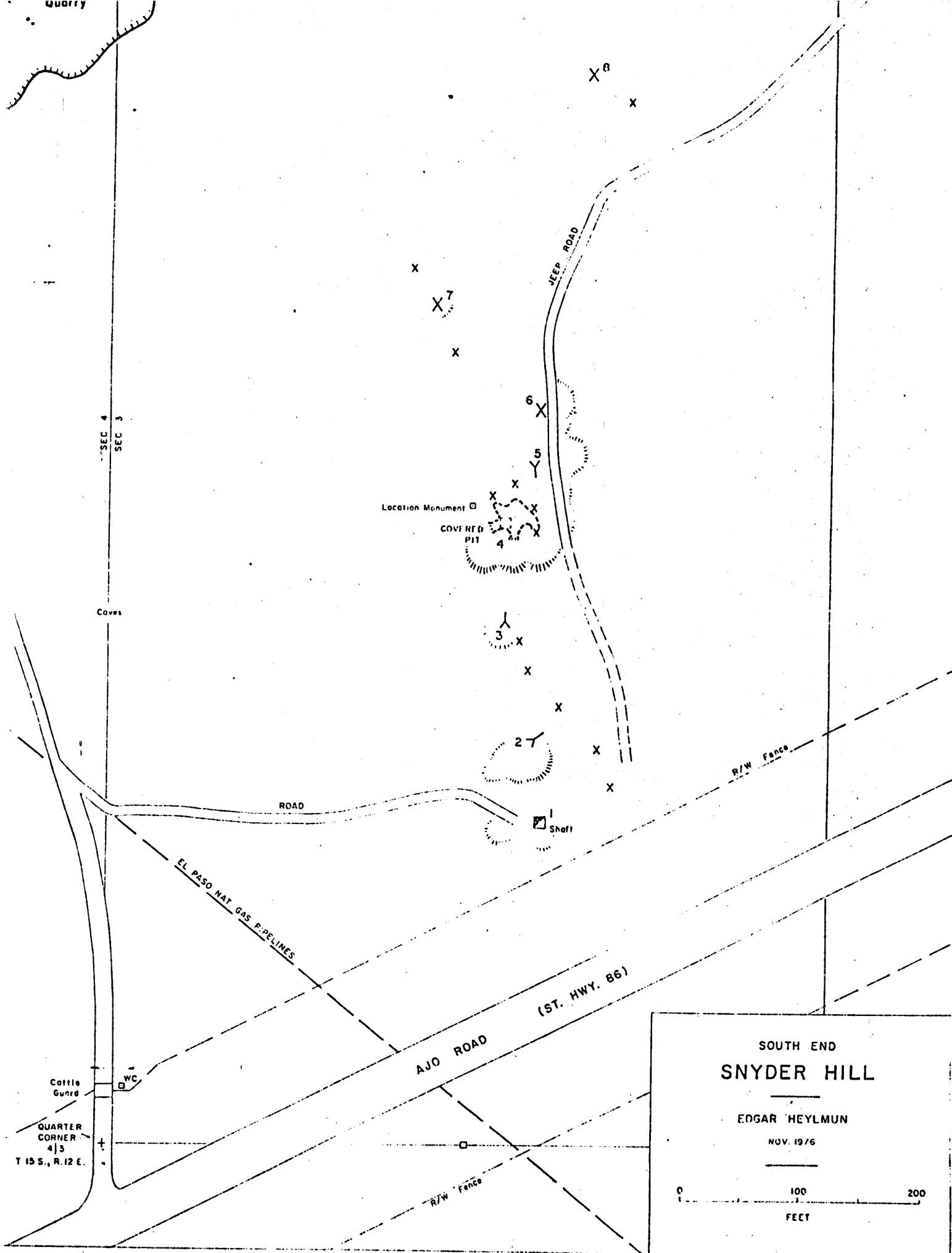
| ITEM NO. | SAMPLE IDENTIFICATION | Au oz/ton | Ag oz/ton | | | | | | | |
|---|-------------------------|---------------------------------|--------------|---|--|--|--|--|--|--|
| | <u>MARGI'S PARADISE</u> | | | | | | | | | |
| 1 | No. 1 Dump | 0.020 | 2.70 | | | | | | | |
| 2 | No. 2 Dump | 0.020 | 14.98 | | | | | | | |
| 3 | No. 7 Dump | 0.020 | 12.96 | | | | | | | |
| TO: MOKI MINERALS P.O. Box 4806 Tucson, Arizona 85717 | | REMARKS: Single Analysis | | CERTIFIED BY:  | | | | | | |
| DATE REC'D. 11/8/76 | | DATE COMPL. 11/16/76 | | JOB NUMBER: 762281 | | | | | | |



Map by Edgar B. Heylman
 May 1976

SNYDER HILL
 S. 3, T. 15 S., R. 12 E., GSRB&M
 Pima County, Ariz.

0 330 660 FT.
 Scale

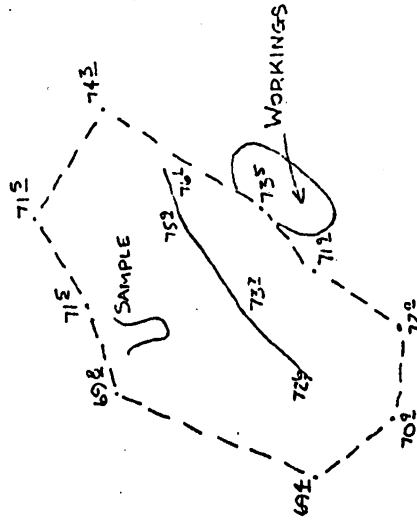
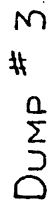


SOUTH END
SNYDER HILL

EDGAR HEYLMUN

NOV. 1976





DUMP CONFIGURATION

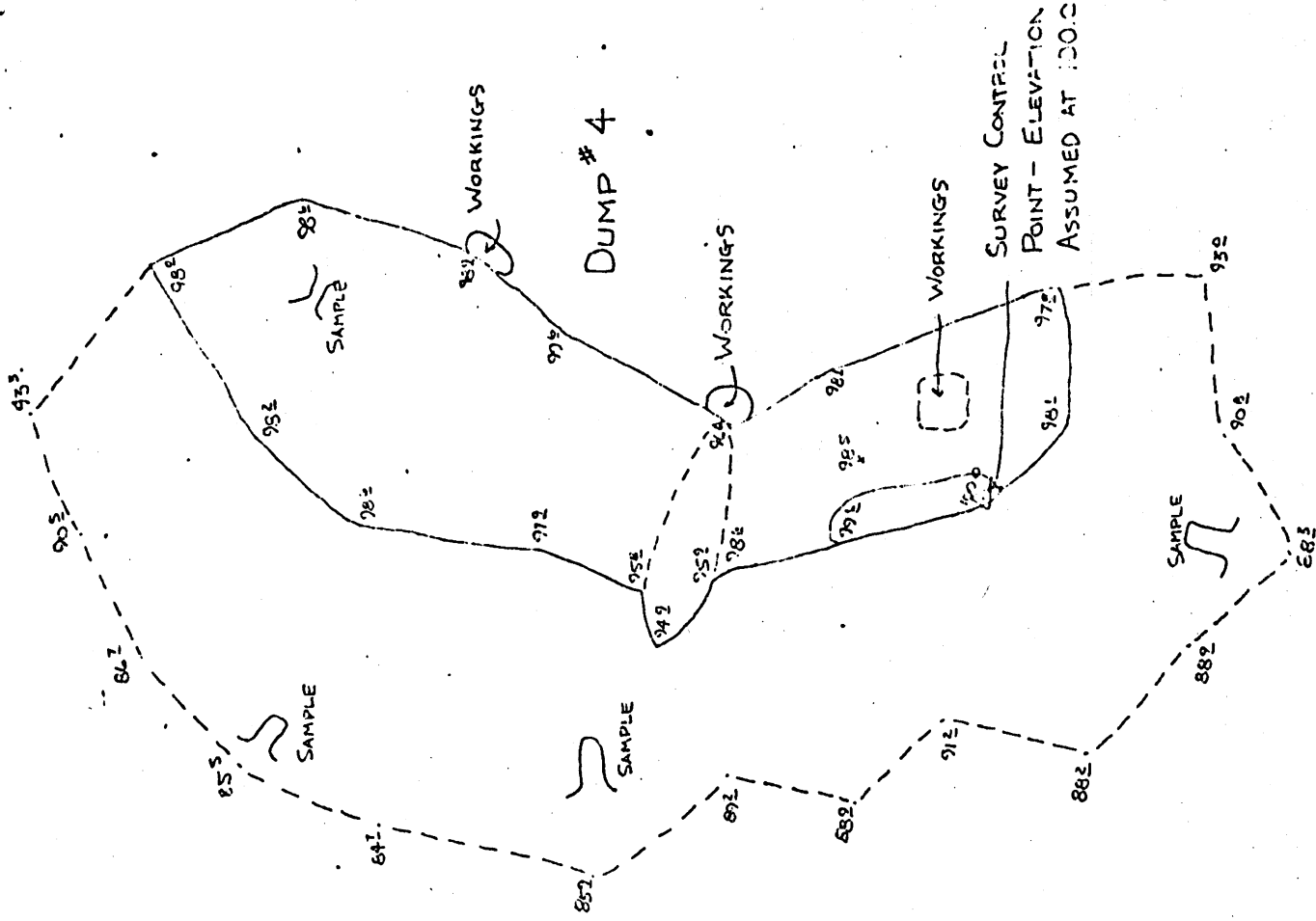
SNYDER HILL PROJECT

PIMA COUNTY, ARIZONA

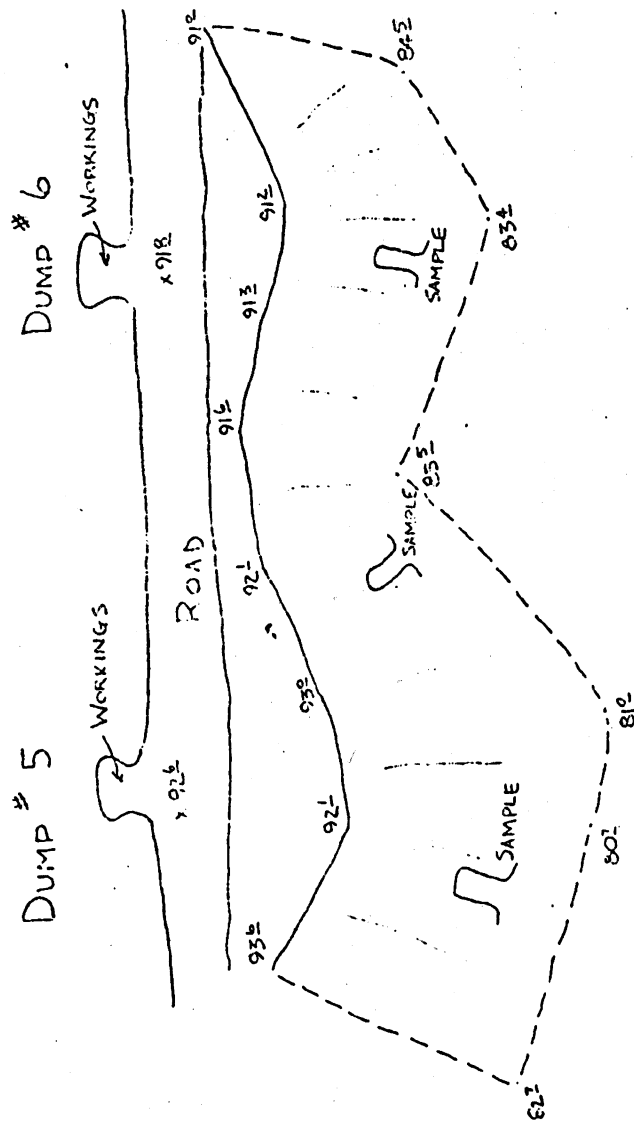
SCALE 1" = 15'

DUMP NUMBERING BY HEYLMUN

PLATE 1



2-24-78 ALANCO LTD. TULSEN.



SNYDER HILL PROJECT

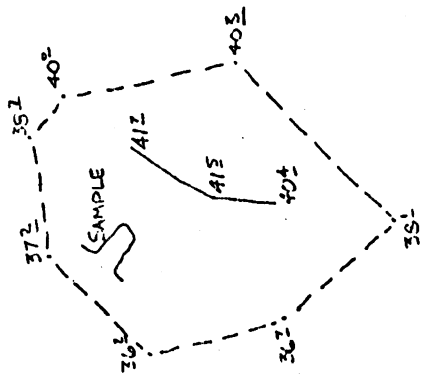
PIMA COUNTY, ARIZONA

SCALE 1" = 15'

ELEVATIONS FROM ASSUMED
ELEVATION AT CONTROL POINT
SEE PLAT 1

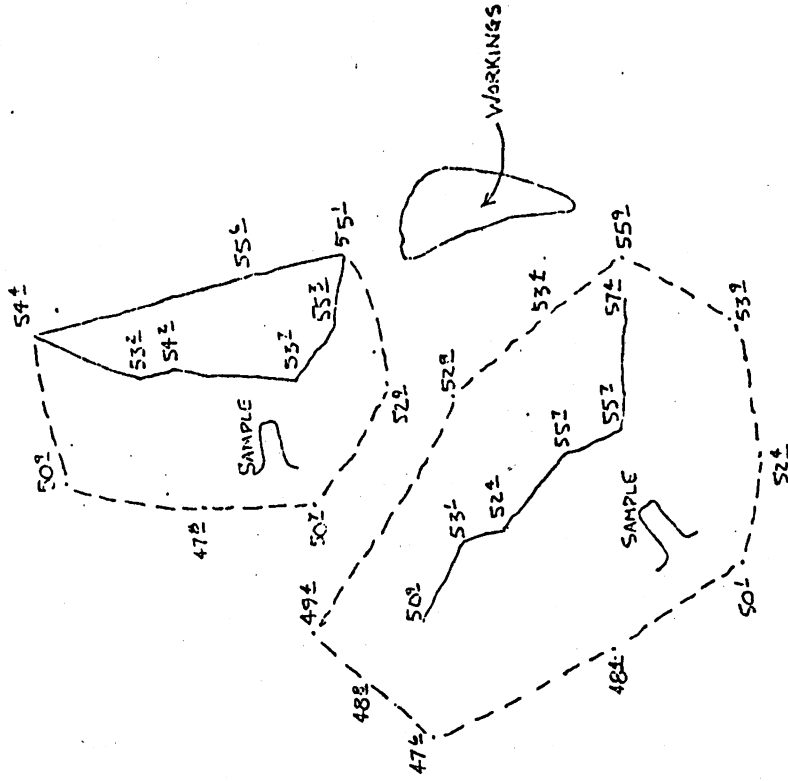
Dump Numbering by Heylman

PLAT 2



SHAFT DUMP # 1

DUMP # 2



DUMP CONFIGURATION
 SNYDER HILL PROJECT
 PIMA COUNTY, ARIZONA
 SCALE 1"=15'

ELEVATIONS FROM ASSUMED ELEVATION AT CONTROL POINT
 SEE PLAT 1

DUMP NUMBERING BY HEYLMUN

PLAT 3

December 10, 1980

John W. Cutler, Pres.
Cutler Mining Inc.
39 East 72nd St. #5
New York, NY 10021

Mr. John Kinnison
5115 No. Oracle Road
Tucson, AZ 85704

Dear John:

Bill Hart gave me this material and I pass it along to you but ask that you send it back when you've finished with it. I doubt it will be of much value to you, but you can look it over.

As I mentioned on the phone, Bill will be arriving in Tucson Sunday, December 14th and will stay at the Aztec Inn. He will be calling you Sunday night or Monday morning. Tuesday looks like a good day for him.

My interest in these properties is for a possible heap leach operation. It appears that total tonnage will be insufficient, but, of course, that's a function of silver prices and the quality of the ore. A remote possibility would be to combine the Mary G. and Synder Hill but moving expenses could well be prohibitive.

I look forward to hearing your assessments and recommendations.

Regards,



John W. Cutler
President

JWC/R

Enc.

S. RCHLIGHT GOLD CORPORA ON

ASSAY CERTIFICATE

NAME OF MINE _____

Cum Bedden

QUOTATIONS—GROSS VALUES

Date of Certificate. May 31, 1931.

W.J. Loring.

Gold 20.67 Per Oz. Copper _____ Per Lb.

Silver 26 c Oz. Lead 3.75 per Lb.

Assayer _____

| SAMPLE NO. | DESCRIPTION | GOLD \$ PER TON | SILVER \$ PER TON | LEAD % | COPPER % | TOTAL VALUE |
|------------|---|-----------------|-------------------|--------|--------------------|-------------|
| 677 | Face of N.X Cut. 49.5' N. Cut across face E & W. 0 to 4.5'. This cut was taken 12" wide at bottom of X.Cut. | 4.54 | Trace. | 0.4 | VALUE AT \$600/TON | AU OZ .219 |
| 678 | Cut. 49.5' N. Face 2' above bottom. 0 to 4' Quartz & crushed material. | 6.61 | " | 0.2 | \$131 40 | .319 |
| 679 | Cut. W side of X.Cut. Vertical. Quartz & crushed material. 0 to 18". | 4.13 | " | 0.25 | 177 40 | .199 |
| 680 | Cut. 49.5' N. Vertical. Above 679W. 18 to 74". | 2.48 | " | 0.25 | 71 40 | .119 |
| 681 | Cut. West of X.Cut. 49.5' N. Quartz & crushed material. 0 to 14". | 4.96 | " | 0.3 | 143 40 | .239 |
| 682 | Continuation of 681 14 to 66". | 3.30 | " | 0.2 | 95 40 | .159 |
| 683 | Shovel sample. Muck near face of N.X.Cut. | 2.89 | " | 0.15 | 83 40 | .139 |
| 684 | Cut E Side of X.Cut. 44.5' N. 0 to 20". | 4.54 | " | 3.95 | 131 40 | .219 |
| 685 | Cut. 47' N. E Side shows galena. 0 to 4" | 3.72 | " | 5.5 | 107 40 | .179 |
| 686 | 47' N. of shaft. E.Side. From around sample 685. | 2.48 | " | 1.85 | 71 40 | .119 |
| 687 | Cut. W Side of N.X.Cut. About 20' W of shaft. Quartz. 0 to 18". | 7.64 | | 8.25 | 221 40 | .369 |
| 688 | Gob 25' N of shaft. | 2.89 | | 1.05 | 83 40 | .139 |
| 689 | Cut. Bottom of incline. E.Side. Quartz. 0 to 30". | 14.05 | | 0.9 | 407 40 | .679 |
| 690 | Cut across back of N.X.Cut. 7' N of shaft. 0 to 14" | 1.24 | | 1.4 | 35 40 | .059 |
| 691 | Cut w side of shaft. 49' down. 0 to 4'. | 9.50 | | 0.8 | 275 40 | .459 |
| 692 | Cut. Bottom of shaft. 49' down. W Side. 0 to 4'. | 0.82 | | 2.15 | | |
| 693 | Main Shaft. Cut 30' down. H.Wall. 0 to 4.5' | 0.62 | | 1.25 | | |
| 695 | Shovel sample of dump. | 2.48 | | 2.35 | 71 40 | .119 |

SUNSHINE GOLD CORPORATION

ASSAY CERTIFICATE

NAME OF MINE Cumberland.

W.J.L.

QUOTATIONS—GROSS VALUES

Date of Certificate.

Gold 20.67 Per Oz. Copper _____ Per Lb.

Silver 20 Per Oz. Lead 3.1 Per Lb.

Assayer.

| AMPLE NO. | DESCRIPTION | GOLD \$ PER TON | SILVER \$ PER TON | LEAD % | COPPER % | TOTAL VALUE |
|-----------|--|-----------------|-------------------|--------|----------|-------------|
| 626W. | Bottom of main incline. N.Face. Quartz. | 33.90 | Ozs. 1.86 | 8.2 | | |
| 627W. | Face at bottom in incline. Fine iron stain ore under quartz. | 13.64 | 0.54 | 1.6 | | |
| 628W. | Bottom of incline, 8' from E.Wall. shows galena. 0 to 2'. | 5.99 | 0.49 | 3.55 | | |
| 629W. | Main shaft H.Wall cut. 0 to 3'. | 28.52 | 1.22 | 3.9 | | |
| 630W. | General sample of dump. Main shaft. | 8.06 | 0.41 | 1.55 | | |
| 631 W. | Surface dump. West of main shaft. | 9.09 | 0.96 | 21.0 | | |
| 632W. | Mill Tails. | 3.72 | 0.62 | 2.20 | | |
| No Tag. | Much galena. | 3.30 | 5.08 | 59.6 | | |

17923 15
6

SEACHLIGHT GOLD CORPORA ON

ASSAY CERTIFICATE

NAME OF MINE _____

QUOTATIONS—GROSS VALUES

O.O.Scott.

Date of Certificate.

Gold 10.67 Per Oz. Copper _____ Per Lb.

Silver _____ Oz. Lead _____ Per Lb.

A. H. McFarland
Assayer.

| SAMPLE NO. | DESCRIPTION | GOLD | SILVER | LEAD | | COPPER | | TOTAL VALUE |
|---------------|-------------|------------|------------|------|----|--------|----|----------------|
| | | \$ PER TON | \$ PER TON | % | \$ | % | \$ | |
| 1. | | 52.08 | | | | | | |

Telephone 363-3302

Hand Sample Serial 14910-14911

ASSAY REPORT
UNION ASSAY OFFICE, Inc.

BRYANT L. LARSEN, President
G. P. WILLIAMS, Vice President
JAMES G. STRATTON, Secretary
A. S. JOLLIFFE, Treasurer
P. O. Box 1528
Salt Lake City, Utah 84110
(801) 363-3302

Mine Ray E. Roberts
121 Forest Lane

Boulder City, NV

RESULTS PER TON OF 2000 POUNDS

May 16, 1980

| NUMBER | GOLD Ozs. per Ton | SILVER Ozs. Per Ton | LEAD Per Cent | COPPER Per Cent | INSOL. Per Cent | ZINC Per Cent | SULPHUR Per Cent | IRON Per Cent | LIME Per Cent | Per Cent | Per Cent |
|--------------------|----------------------|------------------------|------------------|--------------------|--------------------|------------------|---------------------|------------------|------------------|----------|----------|
| Hill One | Trace | 0.2 | none | | | | | | | | |
| Tunnel Mine Two | 0.140 | 0.7 | 3.5 | | | | | | | | |

Remarks

Charges \$ 26.00 Pd \$24.50 Bal Due \$1.50

Glen P. Williams

ASSAY REPORT

Submitted By: Mr. N. W. Gulley
 General Delivery
 Searchlight, Nevada 89046

Charges: \$14.00

Date: June 6, 1979

| Lab. No. | Sample Mark | Per Ton of 2000 Pounds | | | | % Other Metals | | |
|-----------|-------------|------------------------|-------------|--------|------------|----------------|--|--|
| | | GOLD | | SILVER | | | | |
| | | Ounces | @ \$.270.00 | Ounces | @ \$. 8.50 | | | |
| Y-4476 | #-1 | 0.108 | \$29.16 | 0.03 | \$0.25 | | | |
| Y-4487 | #-2 | 0.176 | \$47.52 | 0.07 | \$0.59 | | | |
| Thank you | | | | | | | | |

Remarks:
 lcc

Percent to ton (2,000 lbs.)
 0% = 20.0 Lbs. AVOIR.
 10% = 2.0 Lbs. AVOIR.
 01% = 3.2 oz. AVOIR.
 001% = 0.32 oz. AVOIR.
 0001% = 0.032 oz. AVOIR.

By:

John P. Williams
 JPI/msl Assayer-Chemist

Mariposa Spectrographic Laboratory

CHARGES: \$8.00

5029 FOURNIER ROAD, MARIPOSA, CALIFORNIA 95338

LAB NO. 31189

Telephone (209) 966-2591

Date 5/29/79

SUBMITTED BY:

Qualitative Spectrographic Analysis

J. W. Gully

General Delivery

Searchlight, Nevada 89046

ELEMENTS FOUND
AND ESTIMATED PERCENTAGE RANGE
OF CONCENTRATION

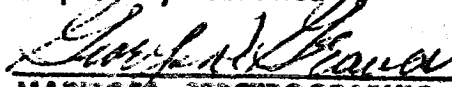
SAMPLE MARK

2

| ELEMENT | Not Less Than % | Not More Than % | ELEMENT | Not Less Than % | Not More Than % | ELEMENT | Not Less Than % | Not More Than % |
|----------------------|-----------------------|-----------------------|---------------------------------|-----------------------|-----------------------|--------------|-----------------------|-----------------------|
| Aluminum Al_{2O_3} | 0.30 | 0.60 | Lithium | | | Thallium | | |
| Antimony | | | Magnesium MgO | 0.03 | 0.10 | Thorium | | |
| Arsenic | 0.02 | 0.07 | Manganese | 0.20 | 0.40 | Tin | | |
| Barium | .0008 | .004 | Mercury | | | Titanium | .001 | .006 |
| Beryllium | | | Molybdenum | .005 | 0.01 | Tungsten | | |
| Bismuth | | | Nickel | .0002 | .0006 | Uranium | | |
| Boron | | | Osmium | | | Vanadium | .001 | .006 |
| Calcium CaO | 1.0 | 2.0 | Palladium | | | Zinc | 1.0 | 2.0 |
| Cadmium | 0.02 | 0.06 | Phosphorus | | | Zirconium | | |
| Cesium | | | Platinum Not detected in sample | | | RARE EARTHS: | | |
| Chromium | .0005 | .001 | Potassium | 0.02 | 0.08 | Cerium | | |
| Cobalt | .0002 | .0000 | Rhenium | | | Dysprosium | | |
| Columbium | | | Rhodium | | | Erbium | | |
| Copper | 0.5 | 1.0 | Rubidium | | | Europium | | |
| Gallium | .003 | .009 | Ruthenium | | | Gadolinium | | |
| Germanium | | | Scandium | | | Holmium | | |
| Gold | .0005 | .001 | Silicon (as SiO_2) | major constituent | | Lanthanum | | |
| Hafnium | .145oz. | 2.61oz. | Silver | .0007 | .003 | Neodymium | | |
| Indium | .003 | .009 | Sodium | | | Praseodymium | | |
| Iridium | | | Strontium | | | Samarium | | |
| Iron FeO/Fe_{2O_3} | | | Tantalum | | | Ytterbium | | |
| Lead PbS | 1.0 | 3.0 | Tellurium | | | Yttrium | | |

Remarks: This material is nearly identical to the #1 sample, but with more Lead and other minor variations.

Respectfully Submitted



(Spectrographer)

MARIPOSA SPECTROGRAPHIC LABORATORY

percent to ton (2,000 lbs.)

10% = 20.0 Lbs. AVOIR.

1.0% = 2.0 Lbs. AVOIR.

0.1% = 3.2 oz. AVOIR.

0.01% = 0.32 oz. AVOIR.

0.001% = 0.032 oz. AVOIR.



CHEMTEC CORPORATION

POST OFFICE BOX 8
HENDERSON, NEVADA 89018
PHONE: (702) 564-5258

Date: October 31, 1980

Name: Ray — Roberts
Address: 121 Forest Lane, Boulder city.

Dear Sirs:

Following is the information you requested from the samples you submitted to us.

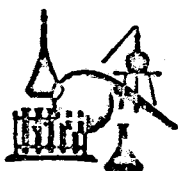
| Lab. No. | Class Sample (ID) | Lot | | | | | | | | |
|-------------|-------------------------|---------------|--------|--------|--------|----|----|----|----|---|
| | | Per 2000 Lbs. | | | oz/ton | % | % | % | % | % |
| | | oz/ton | oz/ton | oz/ton | | | | | | |
| | | PT | AU | AG | PB | CU | FE | ZN | NI | |

10/150 Sun 1.8960 .6300 .43755

This information is to be used only by the person or persons submitting the samples and is not to be used for any other purpose such as soliciting of funds or promotional activities, without the written permission from Chemtec Corporation. Such information will be submitted on a different form.

Sincerely,


Dr. E.B. Davies



CHEMTEC CORPORATION

POST OFFICE BOX 3
HENDERSON, NEVADA 89015
PHONE: (702) 564-5255

Date: October 10, 1980

Name: A. Jones
Address:

Dear Sir:

Following is the information you requested from the samples you submitted to us.

| Class | | Lot | | | | | | | |
|-------------|----------------|---------------|--------|--------|----|----|----|----|----|
| Lab. No. | Sample (ID) | Per 1000 lbs. | | oz/ton | % | % | % | % | % |
| | | oz/ton | oz/ton | | | | | | |
| | | PT | AU | AG | PB | CU | FE | ZN | NI |
| 11/14 | Clumblin | | .28003 | .9334 | | | | | |

This information is to be used only by the person or persons submitting the samples and is not to be used for any other purpose such as soliciting of funds or promotional activities, without the written permission from Chemtec Corporation. Such information will be submitted on a different form.

Sincerely,

MARY G. ✓

GEOLOGY OF THE MARY G MINE AREA
PIMA COUNTY, ARIZONA

by
Robert E. Davis

A Thesis
submitted to the faculty of the
Department of Geology
in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE
in the Graduate College, University of Arizona

1955

Approved: Fredric H. Salbach,
Director of Thesis

1955
Date

GEOLOGY

The geology of the Mary G area probably is representative of a part of the main Cerro Colorado Mountains, which have been briefly described on pages 14-15. For mapping purposes the rocks have been divided into three formations: two units of flow rocks, and an intervening conglomerate.

The earlier of the flows is characterized by the presence of quartz and a reddish or tan color. On the basis of thin-section studies of selected samples, the rock has been designated a quartz latite porphyry. This flow is overlain locally by a conglomerate containing an abundance of quartz latite porphyry fragments. The younger flow rocks consist of highly altered andesite or andesite porphyry characterized by gray to gray-green color and the absence of quartz.

Faulting is predominantly northeast and northwest. Some east-west faulting has occurred, and mineralization is more conspicuous in this set of faults.

Structure

Faulting of the area has taken place in several directions but, in general, two sets of major faults predominate. The first set is aligned in a roughly northeast-southwest direction, and the second set has an approximate northwest-southeast pattern. A third set of faults, upon which little movement is indicated, are aligned in an east-west direction. Field evidence indicates this group to be later than the other two fault systems.

The east-west faults are characterized by the presence of quartz-carbonate mineralization and by oxidation of the andesite porphyry wall-rock to a brick-red color. Although such mineralization is not confined solely to the latest set of faults, it is more common and more prominent along them than in either of the two earlier sets.

Most of the faults are high-angle normal faults. The amount of displacement along them is not known, because of the lack of information concerning the thickness of the formations involved. Although most of the faulting appears to be post-andesite, the relative ages of the major faults is not clear. Mapping, which shows northeast-southwest faults both offsetting and offset by northwest-southeast faults, indicates that both sets of faults probably belong to the same period of deformation.

MINERAL DEPOSITS

General Statement

Mineral deposits in the Mary G area occur in veins that have been deposited along faults by ascending hydrothermal solutions. Economic deposits of sulfide minerals appear to have been localized in the more permeable channels formed by the intersection of faults and fractures, where release of pressure allowed deposition.

Although not confined to the andesite porphyry flow rocks, mineralization is more conspicuous in them, and surface showings of mineralized veins are characterized by a distinct reddening of the normally gray-green andesite. Locally, quartz and calcite zones can be seen in the red andesite wall-rock. The mineralized zones along any given fault are seldom greater than 5 or 6 feet in width, and the quartz and carbonate veins are only a fraction of the total width, in most instances.

Mineralization is more conspicuous along east-west faults (Pl. 1), but faults in other directions show similar characteristics locally. Shear zones

The reddening of the andesite is due to the oxidation of

iron. It is not known whether sufficient iron is present in the propylitized andesite to supply the seemingly high concentration of limonite to the mineralized veins, or whether iron was added from metallizing solutions.

The sulfide deposits in the veins occur in the form of short veinlets and shoots, and nearly always appear to have been concentrated in zones of weakness, formed at the intersections of faults. Economic sulfide deposits were seen only in the Mary G mine, but the depth and direction of many of the deeper prospect pits and adits in the area indicate that shoots similar in shape to those in the Mary G may have been mined from the prospects.

Mining History in Southern Arizona and
the Cerro Colorado District

Several accounts of the history of southcentral and southwestern Arizona, its exploration, settlement, and the development of mining are to be found in the literature. An interesting sketch of the early history (Bryan, 1925, p. 3-23) has been briefly summarized by Wilson (1951, p. 2-3).

Early expeditions by the Spanish date prior to the middle of the 16th century (Bryan, 1925, p. 4-6) and were undertaken to search for reported great wealth in the unknown Indian country. The first record of actual prospecting dates to 1583, when silver ore reportedly was found near the headwaters of the Verde River.

Little prospecting, and probably no extensive mining, was carried on in the region before the middle of the 17th century. The real development of the mining industry to the point at which it became an economic factor was not begun until 1854, following the Gadsden Purchase and subsequent entry into the region by Americans.

The mining industry has been an active one in Pima County for the past hundred years, in varied degree subject to metal price fluctuations and the stimulus of wartime. Through 1953, the value of metal production in Pima County totalled more than \$555,000,000. The principal metals produced are copper, gold, silver, zinc, and lead, although

tungsten, molybdenum, vanadium, and manganese also have been produced (Wilson, 1951, p. 3-4).

Mining was carried on early in the Cerro Colorado district and in the Arivaca district, to the south. Arivaca was mentioned as a mining locality in 1777 (Bryan, 1925, p. 16), and "La Aribac," a land grant dated in 1824, is the oldest mine listed in the Pima County recorder's office (Carpenter, 1927).

According to unpublished notes by J.B. Tenney, in the office of the Arizona Bureau of Mines, the Cerro Colorado mine, about 2.5 miles east-southeast of the Mary G mine, was worked to some extent by the Spaniards prior to 1823. In about 1856 American interests acquired the old mine, renamed it the Heintzelman mine, and started production of silver ore. High-grade ore was produced on a relatively small scale until 1861, when the Civil War brought withdrawal of American troops from the area.

During the late seventies and early eighties the Heintzelman and other small mines, including the Liberty, were worked again. Ore was treated in an amalgamation mill at Arivaca. Since 1884, production from the mines in the district has been sporadic, and the Mary G mine has been one of the few more successful mines of later years.

Total production of the Cerro Colorado district is

slightly more than \$300,000, nearly all of which has been silver (Wilson, 1951, p. 14).

The following account of the history of the Mary G mine is based upon information furnished by Mr. Henry G. Worsley, whose family owns the mine. So far as is known, no records of the mine are in existence. All records prior to 1945 were destroyed by fire at the mine camp in that year.

Fire?

The property, known originally as the Mary H mine, was located in about 1890 by Mr. Clark, who was operating the Liberty mine, 1.5 miles to the north. The claim was relocated in 1912 by Mr. James Guy, who then sold it to the Worsley family in 1914. The mine has remained in the family since that time, except for a two-year period of litigation that began in 1926. The property is now a patented claim. For the past 20 years the mine has been worked intermittently by Mr. Henry Worsley and by others on a lease basis.

The most recent development apparently was in 1951, when a new shaft was started by the Acme Mining and Development Company. In the fall of 1953, when the mine was revisited by the writer, no activity was in evidence and the equipment was in a state of disrepair.

No. 2

Mary G Mine

Ore Deposits

The ore deposits at the Mary G mine are valued chiefly for their silver content. Some lead and minor quantities of copper and mercury have also been recovered from the ore.

Ore occurs within a mineralized fault or fault zone in andesite porphyry. The main fault, followed by most of the mine workings, trends approximately N. 10° E. and dips 45° W. This south-trending fault zone is intersected at several points by cross faults, or fractures, that vary in strike from N. 40° E. to N. 60° E. and usually dip northward. The greatest concentration of sulfide mineralization occurs at the intersections of the cross faults with the main fault zone.

Both the hanging wall and foot wall of the mineralized zone are propylitized andesite porphyry that is typical of that found throughout the area. The mineralized zone consists of iron-rich, red andesite porphyry. The red porphyry varies from hard, competent rock to soft, gougy material.

The silver-bearing sulfide zones occur as small stringers, veinlets, and shoots ranging from a few inches to perhaps 2 feet in width. These stringers seldom can be followed for more than a few feet as they pinch and swell rapidly along their strike.

The ore stringers consist chiefly of fine to coarse crystalline masses of galena occurring in a gangue of milky quartz. The stringers have all been partially oxidized. Oxidation products include anglesite as grains and masses surrounding galena, cerussite as white or slightly grayish crystals and masses, and massicot(?) as yellow, earthy masses and incrustations associated with the other lead minerals.

Copper occurs as small, earthy masses and crusts of malachite on quartz.

Cinnabar occurs as scales and tiny crystals lining cavities in quartz.

Kottramite(?), as a coating of drusy crystals on quartz, was identified on one specimen.

Gangue minerals include milky and grayish, rather fine-grained quartz, some barite, and a little calcite.

Silver occurs with the galena, probably as microscopic inclusions of pyrargyrite or argentiferous tetrahedrite. No silver minerals were identified in the hand specimen.

Mining

The mine is worked through a near-vertical shaft, the depth of which is approximately 135 feet. Early workings were

mostly short crosscuts and some raises, now either caved in or lagged off, from the main south-trending drift on the 135-foot level (Pl. 2). The main drift follows the footwall of the mineralized fault or fault zone, for the most part, for approximately 120 feet.

A winze follows the intersection of the main fault and an east-west cross fault. The winze followed an ore shoot consisting of pinching and swelling stringers and pockets of sulfide minerals and, when the mine was visited by the writer, was about 55 feet in vertical depth.

This is the main shear zone, scarcely developed by the operators.

At the 170-foot level, a drift was driven that wandered between the footwall and hanging wall of the mineralized zone, but relatively little sulfide mineralization was encountered. Mineralization on this level was mainly quartz, with some cinnabar and a little galena.

In general, little difficulty is encountered in mining. The mineralized andesite wall-rock is hard and stands well. Posts, stulls, and loose lagging have been used throughout the mine. Locally, however, the wall-rock is badly broken and, when wet, will run as mud. These local soft zones must be lagged rapidly and tightly.

Water produced through the fractured and faulted andesite usually is not enough to be troublesome in mining. It is pumped to a sump at the bottom of the main shaft and from

there is pumped to the surface. Water from the mine is sufficient to supply the needs at the mine and to keep a stock watering tank filled. Drinking water, however, was hauled from Kinsley's ranch or from Arivaca.

In 1949 the equipment on the surface consisted of five gasoline engines that operated hoist, compressor, pump, ventilating system, and generator. Four buildings on the property housed the sleeping quarters, kitchen, and hoisting equipment. A 50-ton ore bin completed the surface equipment.

Production

According to information furnished by Mr. Kinsley, production from the mine has totalled nearly 100,000. The values have been mainly from silver, although some lead also has been recovered. Copper and mercury, so far as is known, have not been recovered.

Ore from the mine has been treated at Hayden and, more recently, at El Paso, Texas.

ALANCO

LTD.

P. O. BOX 5843
TUCSON, ARIZONA 85703
~~602-243-2400~~
888-5248

REPORT ON DUMP SAMPLING AND TESTS

SNYDER HILL PROJECT

AMOLE MINING DISTRICT

Pima County, Arizona

Introduction

A series of mine dumps were surveyed, measured and sampled at the request of Moki Minerals. The old dumps are located some 12 miles West of Tucson, adjacent to State Highway 86. More specifically, the claims are located in Sections 3 and 4, T. 15 S., R. 12 E., G&SRB&M.

The purpose of the sampling program was to ascertain tonnage and grade of reported silver values. Previous "grab" samples indicated commercial values on some of the dumps.

Systems Employed

1) Sampling

A series of trenches were hand dug to a depth at respective locations on the various dumps to take representative materials throughout the dumps. This representation was verified by digging shallow pits on the top of the dumps to bedrock and comparing rock types encountered to those exposed in trenches.

The samples taken from the trenches were quartered to sample lots of 500 pounds.

2) Screen Analysis and Sample Preparation

The quartered samples were screened through the following mesh sizes:

+ 6"
 - 6" + 3"
 - 3" + 2"
 - 2" + 1"
 - 1"

A chip sample was taken of the plus 6" material and assayed. All other samples were submitted directly to assay after weighing and moisture checked.

In addition, the weights of the dump material was ascertained by filling and semi-compacting by impact, a 1 cubic foot container and weighing the contents. Total weight equates to 14.7 cu. ft. per ton. Allowing for natural compaction, density of 14 cu. ft. per ton was used in all computations.

Surveying and Tonnage Calculation

*2800 #/ton
 Should use 3600 Ton. of load.
 Therefore, Alanco Calculations should be reduced by 78%*

The dumps sampled were identified after Helymun. Each dump sampled was surveyed by stadia and chain as applicable. The upper surface crest elevations, together with the lower toe elevations at ten feet intervals or where significant variances occurred, were surveyed. The contact of bedrock to dump were noted and plotted.

All elevational control was established from one base survey station on Dump No. 4.

After elevational control was established, each dump was sectioned and tonnage calculations computed, according to the following tables. Assays of each mesh size, together with total silver content is included in these tables.

Dump #2 - Total Tonnage 193.0 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 15% | 28.95 | 3.80 | 110.01 |
| - 6" + 3" | 15.5% | 29.92 | 4.45 | 133.14 |
| - 3" + 2" | 9.4% | 18.14 | 3.15 | 57.14 |
| - 2" + 1" | 11.7% | 22.58 | 5.40 | 121.93 |
| + 1" | 48.4% | 93.41 | 7.075 | 660.88 |
| | 100.0% | <u>193.0</u> | | <u>1,083.10</u> |
| | | 150 T. | Ave 4.789 | 720 03 |

Dump #3 - Total Tonnage - 92.5 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 15% | 13.88 | 3.15 | 43.72 |
| - 6" + 3" | 20.4 % | 18.87 | 2.15 | 40.57 |
| - 3" + 2" | 9.7% | 8.97 | 5.80 | 52.30 |
| - 2" + 1" | 14.1% | 13.04 | 4.20 | 54.77 |
| - 1" | 40.8% | 37.74 | 6.80 | 256.63 |
| | 100.0% | <u>92.5</u> | | <u>447.72</u> |
| | | 72 T | Ave 4.42% | 319 03 |

Dump #4 - Total Tonnage - 1,319.7 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|---------------|-------------------|
| + 6" | 20.0% | 263.94 | 5.40 | 1,425.28 |
| - 6" + 3" | 20.6% | 271.86 | 2.55 | 693.24 |
| - 3" + 2" | 10.0% | 131.97 | 1.40 | 184.76 |
| - 2" + 1" | 15.5% | 204.55 | 2.55 | 521.60 |
| - 1" | 33.9% | 447.38 | 8.30 | 3,713.25 |
| | 100.0% | <u>1,319.7</u> | | <u>6,538.13</u> |
| | | 1030 T | Ave 4.04 03/T | 4157 03 |

Limestone Dump - Total Tonnage - 439.9 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 20% | 87.98 | 0.20 | 17.60 |
| - 6" + 3" | 0% | 0.00 | 0 | 0 |
| - 3" + 2" | 10.5% | 46.19 | 0.20 | 9.24 |
| - 2" + 1" | 12.6% | 55.43 | 0.20 | 11.09 |
| - 1" | 56.9% | 250.30 | 1.60 | 400.48 |
| | 100.0% | <u>439.90</u> | | <u>438.41</u> |

Too low grade

Total of #2, #3, #4
and shaft dump

1295 T at 4.18 03/7 = 540803

Dumps #5 and #6 - Total Tonnage - 572.9 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 20% | 114.58 | 9.45 | 1,082.78 |
| - 6" + 3" | 13.1% | 75.05 | 0.70 | 52.54 |
| - 3" + 2" | 5.2% | 29.79 | 0.55 | 16.38 |
| - 2" + 1" | 10.7% | 61.30 | 1.60 | 98.08 |
| - 1" | 51.0% | 291.18 | 4.25 | 1,241.77 |
| | 100.0% | 572.9 | | 2,491.55 |

x 5/2
\$ 64891

erratic Distr. Sulf. ore

Shaft Dump - Total Tonnage - 60.7 tons

| <u>Mesh</u> | <u>Percentage</u> | <u>Tonnage</u> | <u>Assay</u> | <u>Oz. of Ag.</u> |
|-------------|-------------------|----------------|--------------|-------------------|
| + 6" | 5.0% | 3.04 | 4.00 Est. | 12.16 est. |
| - 6" + 3" | 5.8% | 3.52 | 4.20 | 14.78 |
| - 3" + 2" | 10.4% | 6.31 | 5.60 | 35.34 |
| - 2" + 1" | 23.5% | 14.26 | 4.20 | 59.89 |
| - 1" | 55.3% | 33.57 | 5.63 | 189.00 |
| | 100.0% | 60.7 | | 311.17 |

78.8

557 x .78

42.9 T

Ave 4.91 03/5

210 03

Sample Identification is Represented by the Following

| <u>Sample No.</u> | <u>Location</u> | <u>Mesh</u> |
|-------------------|-----------------|---------------------------|
| 2-1 | Dump #2 | Minus 6 inch plus 3 inch |
| 2-2 | Dump #2 | Minus 3 inch plus 2 inch |
| 2-3 | Dump #2 | Minus 2 inch plus 1 inch |
| 2-4 | Dump #2 | Minus 1 inch |
| 2-5 | Dump #2 | Chip Sample plus 6 inch |
| 3-1 | Dump #3 | Minus 6 inch plus 3 inch |
| 3-2 | Dump #3 | Minus 3 inch plus 2 inch |
| 3-3 | Dump #3 | Minus 2 inch plus 1 inch |
| 3-4 | Dump #3 | Minus 1 inch |
| 3-5 | Dump #3 | Chip Sample plus 6 inch |
| 4-1 | Dump #4 | Plus 3 inch |
| 4-2 | Dump #4 | Minus 3 inch plus 2 inch |
| 4-3 | Dump #4 | Minus 2 inch plus 1 inch |
| 4-4 | Dump #4 | Minus 1 inch |
| 4-5 | Dump #4 | Chip Sample plus 6 inches |

| <u>Sample No.</u> | <u>Location</u> | <u>Mesh</u> |
|-------------------|-------------------|--------------------------|
| 4-7 | Limestone Dump #4 | Plus 2 inch |
| 4-8 | Limestone Dump #4 | Minus 2 inch plus 1 inch |
| 4-9 | Limestone Dump #4 | Minus 1 inch |
| 5-1 | Dumps #5 & #6 | Minus 6 inch plus 3 inch |
| 5-2 | Dumps #5 & #6 | Minus 3 inch Plus 2 inch |
| 5-3 | Dumps #5 & #6 | Minus 2 inch plus 1 inch |
| 5-4 | Dumps #5 & #6 | Minus 1 inch |
| 5-5 | Dumps #5 & #6 | Chip Sample plus 6 inch |
| 6-1 | Shaft Dump | Minus 6 inch plus 3 inch |
| 6-2 | Shaft Dump | Minus 3 inch plus 2 inch |
| 6-3 | Shaft Dump | Minus 2 inch plus 1 inch |
| 6-4 | Shaft Dump | Minus 1 inch |

Summary

The total dumps sampled and assayed represents a total of 2,678.7 tons, containing a total of 11,309.9 ounces of silver, representing an average of 4.22 ounces of silver per ton.

The screen analysis completed reflects the bulk of the silver values are contained in the minus 1 inch material, although significant values are contained in all dump material. The only exception being the "Limestone" portion of Dump No. 4.

The minus 1 inch material represents a total of 1,154.5 tons containing a total of 6,461.7 ounces of silver, representing an average of 5.59 ounces of silver per ton, or an increase of 32.4%.

Total values contained represents the following, based on published price of silver at \$4.949.

1) Total Dumps = \$55,972.69

2) Minus 1" material = \$31,978.95

The minus 1 inch material contained within the dumps represents 57.13% of the total values in 43% of the total material

Examination of the dump material indicated that the mineralization occurs both

as quartz vein systems and replacement of bedding plane fault zones. The gangue is basically barite-fluorite-quartz and limestone quartz.

The mineralization is associated with iron manganese containing minor amounts of lead, copper and zinc.

In view of the limited tonnage of dump material, cyanide tests were not undertaken. However, gravity concentration tests were completed on the minus one half inch material by jigging techniques and on minus 10 inch material by table concentration. The ore is amenable to gravity concentration as reflected by the upgrading of the ore to .14 oz. Au. and 18.70 oz. Ag. Recovery factors should represent 65% plus.

Conclusions

- 1) There is insufficient dump material to consider cyanide "heap leach".
- 2) Grade of dump material is not sufficient to plan on agitated cyanide leach circuit (Lane System).
- 3) Gross calculated values are not sufficient to allow adequate amortization of plant costs to upgrade dump values to saleable values.

Recommendations

In order to justify an operation on the Snyder Hill Project, the following aspects warrant consideration:

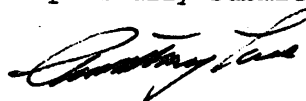
- a) Open existing workings, possibly on an open cut basis to develop sufficient ore to justify a continuing program for at least one year of a minimum of 50 tons per day.
- b) Undertake a combined milling program on existing dumps with a portable milling unit, wherein the capital investment could be prorated over several projects other than Snyder Hill over an adequate time period. Estimated costs of such a portable unit is \$65,000.00

In view of the analysis of the dumps from which the higher grade material has been removed, and considering the volume of material that these dumps represent (normal mining widths being mined from previous operations), the first program suggested is recommended.

Open cut mining systems followed by gravity milling with sale to smelter or by further refinement by hydrometallurgy, represents a total estimated costs per ton based on 50 tons per day operation, of \$35.00 per ton or a minimum grade of 7.07 Oz. of silver, disregarding any gold values, although these represent \$24.00 per ton on gravity concentration.

The minimum grades or increased tonnage would control the feasibility of such a program.

Respectfully submitted,



ALANCO LTD.
Anthony Lane

JEK

7-3 BOX 1869
300 S. W. 11th ST.



Jacobs Assay Office

PHONE 2-20043

Registered Assayers

TUCSON, ARIZONA. 15 Feb. 1978

Sample Submitted by Mr. F. Lane

| SAMPLE MARKED | X | Ag OZ/TON | X | SAMPLE MARKED | X | Ag OZ/TON | X |
|----------------------|---|--------------|---|----------------------|---|--------------|---|
| 2-1 -6"+3" | | 4.45 | | 4-5 +8" | | 5.40 | |
| 2-2 -3"+2" | | 3.15 | | 4-7 +2" | | 0.20 | |
| 2-3 -2"+1" | | 5.40 | | 4-8 -2"+1" | | 0.20 | |
| 2-4 [Ⓢ] -1" | | 5.15 | | 4-9 -1" | | 1.60 | |
| 2-4 [Ⓢ] -1" | | 9.00 | | 5-1 -6"+3" | | 0.70 | |
| 2-5 +6" | | 3.80 | | 5-2 -3"+2" | | 0.55 | |
| 3-1 -6"+3" | | 2.15 | | 5-3 -2"+1" | | 1.60 | |
| 3-2 -3"+2" | | 5.80 | | 5-4 -1" | | 4.75 | |
| 3-3 -2"+1" | | 4.20 | | 5-5 chip | | 9.45 | |
| 3-4 -1" | | 6.80 | | 6-1 -6"+3" | | 4.20 | |
| 3-5 +6" | | 3.15 | | 6-2 -3"+2" | | 5.60 | |
| 4-1 +3" | | 2.55 | | 6-3 -2"+1" | | 4.20 | |
| 4-2 -3"+2" | | 1.40 | | 6-4 [Ⓢ] -1" | | 5.40 | |
| 4-3 -2"+1" | | 2.55 | | 6-4 [Ⓢ] -1" | | 5.85 | |
| 4-4 -1" | | 8.30 | | | | | |

Very respectfully,

Charges \$ 116.00

78

Ben D. Jacobs

PHONE 622-0813

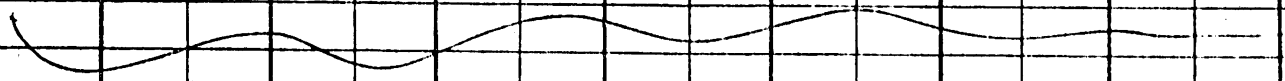
Tucson, Arizona.

27 March 1975

Sample Submitted by Mr.

J. Lema

Ph. 3-3 75

| 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 | | ZINC Per cent Wet Assay | | PER CENT Wet Assay | | PER CENT Wet Assay | |
|--|-----------------------------|--|-------------------------------|--|-------------------------------|--|--|--|--|--|--|--|----------------------------------|--|----------------------------------|--|
| Syndse Hill | 0.14 | | 14 ⁰⁰ | | 18.70 | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | |
| <div style="text-align: center;">48</div> | | | | | | | | | | | | | | | | |

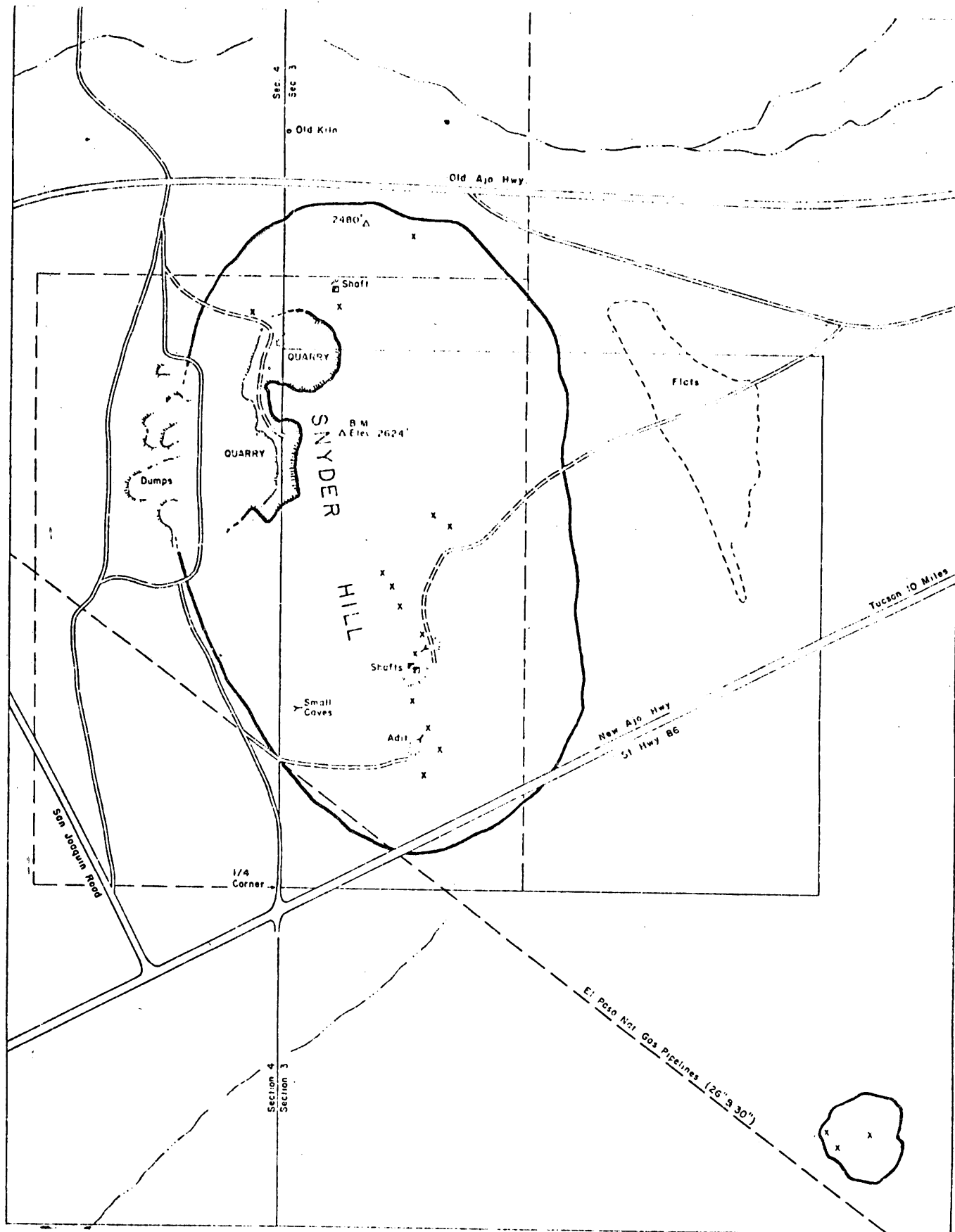
*Gold Figured \$100.00 per oz. Troy

Charges \$

5

Very respectfully,

762281



Map by Edgar B. Heylman
 May 1976

SNYDER HILL

S.3, T.15 S., R.12 E., GSRB&M
 Pima County, Ariz.

0 330 660 FT.
 Scale

Quarry

SEC. 4
SEC. 3

Caves

Location Monument

COVERED
PIT

41030 T

72 Tms

2 T
150 Tms

Shall
43 Tms

EL PASO NAT GAS PIPELINES

AJO ROAD
(ST. HWY. 86)

Cattle
Gund

WC

QUARTER
CORNER
413

T 15 S., R. 12 E.

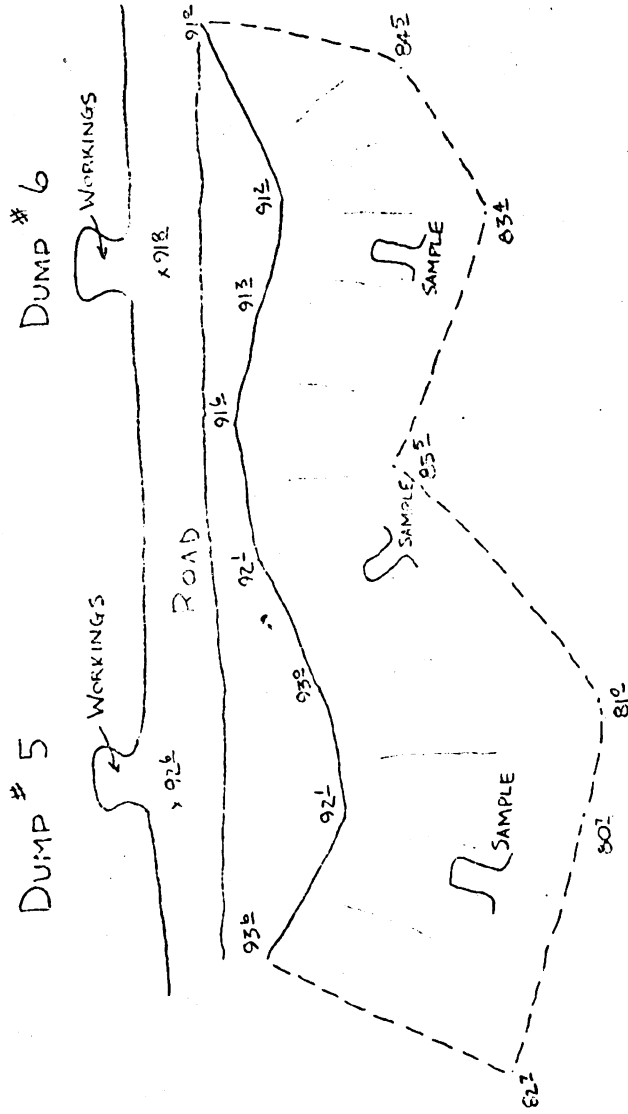
SOUTH END SNYDER HILL

EDGAR HEYLMUN

NOV. 1976

0 100 200
FEET

2-24-78 ALANCO LTD. TULSON. 1-2-78



DUMP CONFIGURATION

SNYDER HILL PROJECT

PIMA COUNTY, ARIZONA

SCALE 1"=15'

ELEVATIONS FROM ASSUMED
ELEVATION AT CONTROL POINT
SEE PLAT 1

DUMP NUMBERING BY HEYLMUN

PLAT 2

$$+ C_{\text{center}} = 16 \times 1.6 = 25.95$$

$$\times 18$$

$$\frac{14.40 \text{ kg-ft}}{18} = 3.7$$

$$\frac{13.69 \div 2 = 15.7 \div 18 = 3.75}{2.5}$$

$$\frac{3.7}{3.75} = 98\%$$

DUMP NUMBERING BY HEYLMUN
PLAT 3

A hand-drawn map of a field, oriented with North at the top. The map features two areas labeled "SAMPLE" with wavy lines indicating their boundaries. The field is bounded by a dashed line. Various points are marked with elevations: 54.4, 50.9, 47.8, 49.4, 48.2, 47.2, 50.2, 53.2, 55.2, 55.6, 52.8, 53.4, 52.4, 50.2, 55.2, 57.4, 55.2, 53.2, 52.4, 50.2, 48.4, 50.4, 52.4, and 53.2. A curved line at the top is labeled "WARRINGS".

ELEVATIONS FROM ASSUMED ELEVATION AT CONTROL POINT
SEE PLAT 1

2-24-75 ALANCO LTD. TUCSON, ARIZ.

MOKI MINERALS

(AN ARIZONA CORPORATION)

EDGAR B. HEYLMUN, GEOLOGIST

4215 EAST FAIRMOUNT
TUCSON, ARIZONA 85712

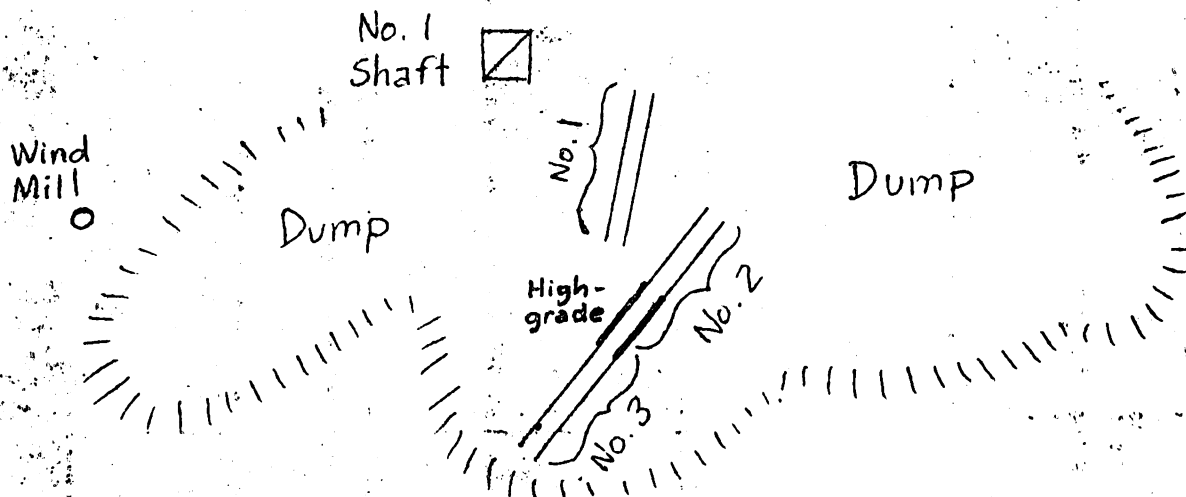
1 Dec 1978

Dear Bill:

I'm convinced that it takes mail an extra day or two to go from Hartford to Lakeville. With the Christmas rush coming on, I hope you took the letter re the prospecting permit directly to Hartford for mailing, as it must be on the desk of the State Land Dept. by 5 PM, Dec. 7, or the permit becomes void. 12.

With the firing of Andrew Bettwy, and pending investigation of Bettwy and the State Land Dept., a lot of dirt will be uncovered. Governor Babbitt (because of several poignant letters on my own letterhead) has asked if I'd be willing to attend a hearing. I replied that I had absolutely no firm evidence of any illegal wrongdoing, but I'd be willing to attend if need be. They've apparently got Bettwy, Duncan, and that bunch racked-up bad. If Moki could hold off a few months until the State Land Dept. gets going again with honest administration, you might find that they will handle Worsley, Dees, et al, for you, and give Moki a clean right to Mary G. If you were willing, I might be able to pursue it for you through Senator Farr and the governor, although I think we should give them a chance to reorganize the land department.

I thought the dump at Mary G looked like 95% waste rock when Luckow cut the trenches, but the assays don't bear me out. The trenches cut were as follows:



I cut a series of channel samples at regular intervals throughout the trenches, and each bag of samples represents a composite of those channels. Each bag weighed 10-15 pounds, so the sampling should be representative. Bag No. 2 contained channel samples taken through lighter-colored material, so that no doubt is in an area of high-grade ore. In all channels, I was careful to collect all the fine material as well as coarse. I really doubt if Bag No. 2 is representative of the entire dump. I think the trench went through a zone of high-grade in that area. If the dump does have values like that throughout, then the dump should be shipped, not leached. There isn't enough total material in the dump to warrant a leaching operation anyhow. As you can see from the assays you've obtained by now, the three bags of samples average 12.4 oz/ton, which might be sufficient to ship.

More trenches are needed to ascertain the overall value of the dump.

Sincerely,

Ed

Mary G
MOKI MINERALS

(AN ARIZONA CORPORATION)

EDGAR B. HEYLMUN, GEOLOGIST

4215 EAST FAIRMOUNT
TUCSON, ARIZONA 85712

9 Dec 1978

Dear Bill:

Received the check today in payment of the assessment work at Mary G. Thanks.

I wonder if the hiring of a registered mining engineer would be the wise course of action in regard to Mary G. First off, no mining engineer or mining geologist that I know would answer his phone for less than \$200, and none would report on Mary G, I don't believe, for much under \$1,000. I feel virtually certain that all would report the same thing - that the property is too small to warrant mining under the present economic conditions. There are numerous silver mines in Arizona, many that are bigger and richer than Mary G, which remain inactive simply because of economics. I think you'd merely spend \$1,000 or more to receive a negative report, or else they'd outline a megabuck drilling program designed to find more ore, a program Moki could never afford.

You have a number of attractive assays, plus records of rich shipments. The last assays, cut from a number of channels in the trenches dug by Luckow, are nothing short of astounding. Remember, those are composite samples of all the dump material, and each sample weighed 10-15 pounds. They are not selected pieces. To get assays that high from a dump is incredible, as dumps are supposed to be waste rock and sub-commercial stuff. The highest dump assay we got at Junetta was around 10 oz/ton, which is very good. So the Mary G dump has streaks of very rich ore. This kind of information might be enough to sell Mary G, outright, to a buyer. Perhaps Moki might be wiser to spend its efforts trying to sell the property, rather than paying professionals to give you an answer I can almost predict.

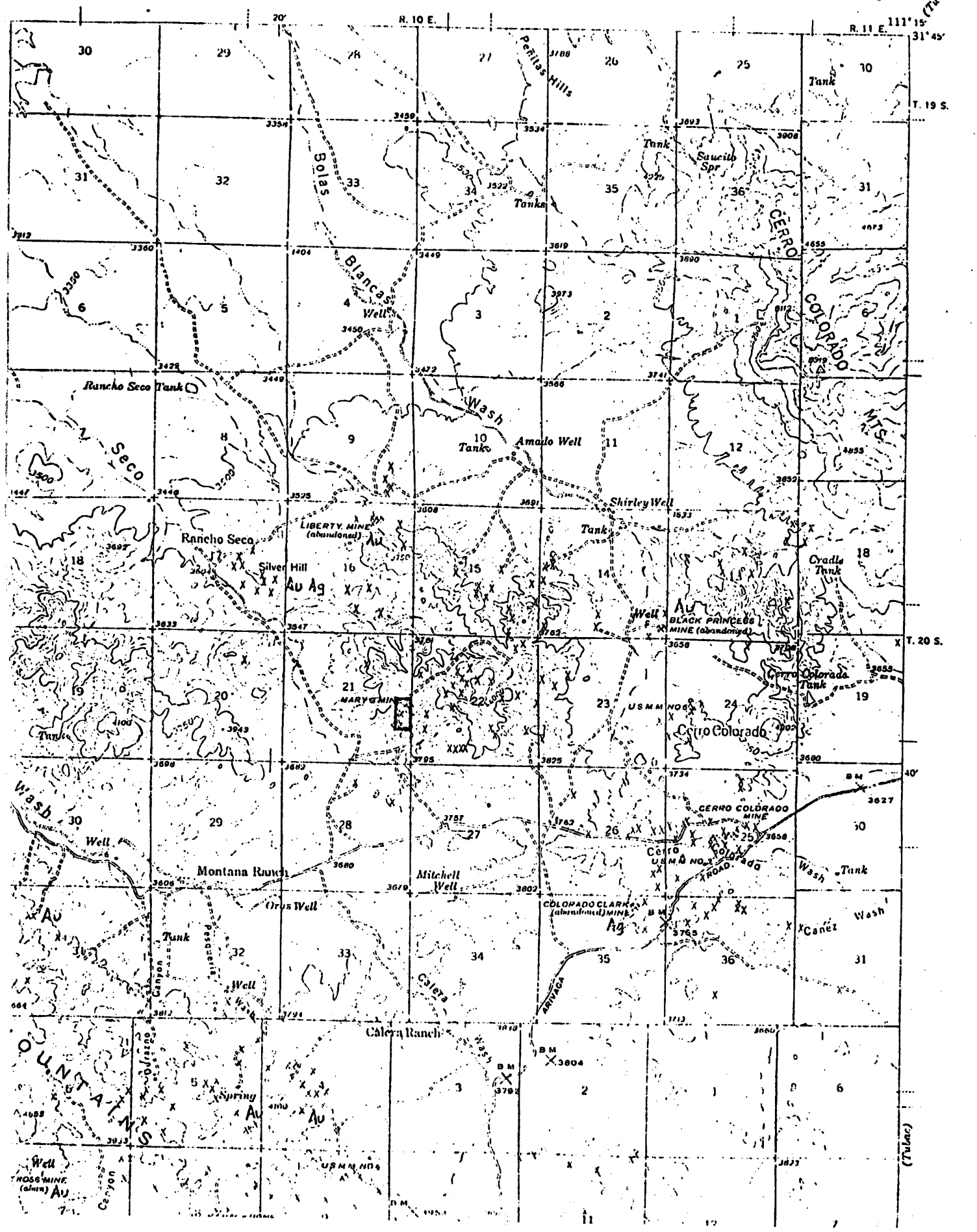
However, you might prefer to drop Redington, Cañada del Oro, and Snyder Hill, and concentrate all further efforts on Pipe Valley, Mary G, and Junetta. That's up to you. But I do know that the cost of mining is prohibitive, and competent labor is sky-high and hard to find. Insurance alone is enough to kill many mining operations.

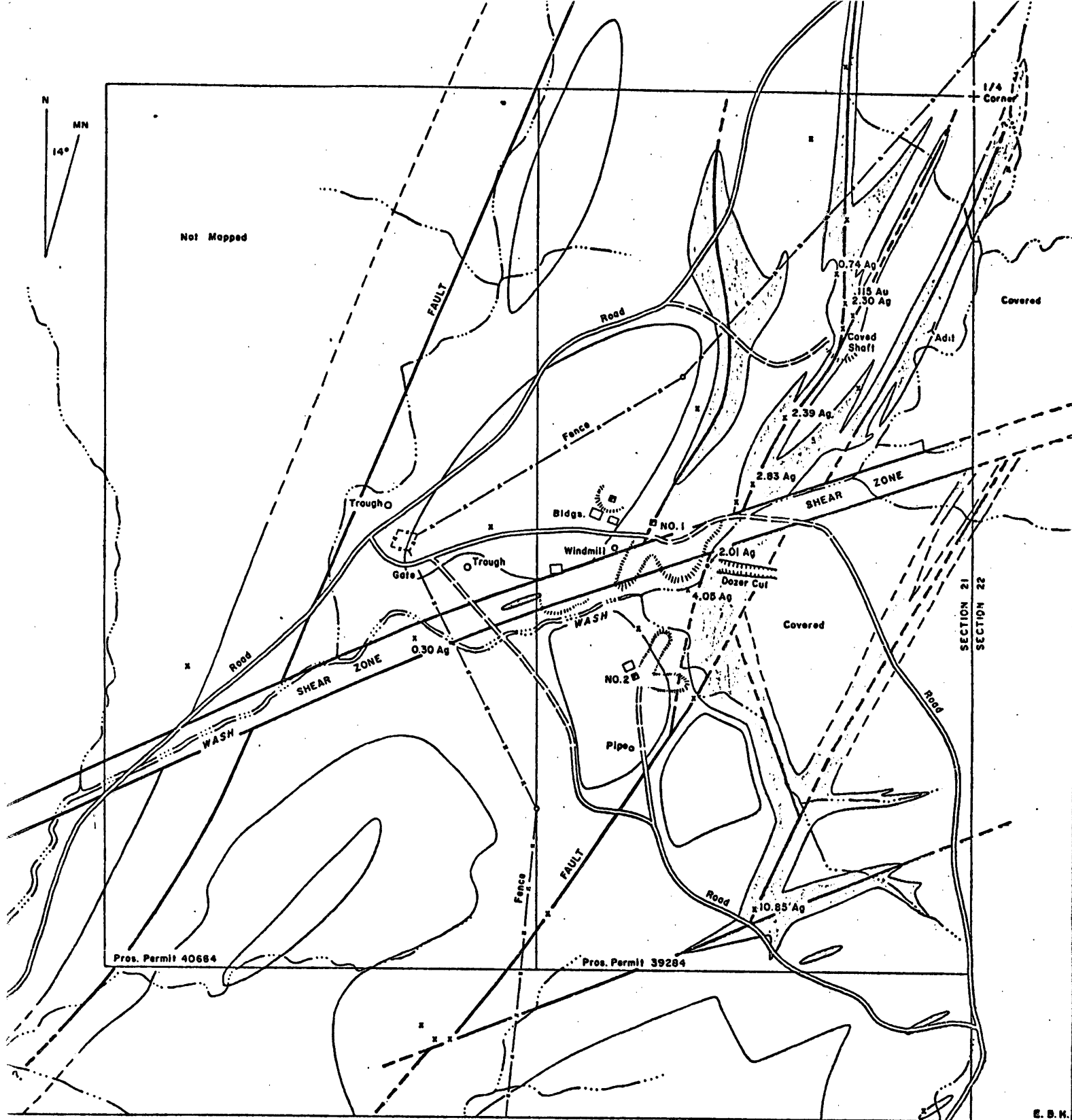
You might be interested in knowing that the widow of the man who found the Half Moon Uranium Claims (Moki's Redington Prospect) called last week. She had discovered that we now hold the area, and was curious what we were doing. She said he discovered the area from an airplane, using a scintillometer, in 1955. She says he spent a ton of money, bulldozing trails and drilling a deep (several hundred foot) test hole which was negative. He had about concluded that the area didn't have enough tonnage (our same conclusion) when he was killed in a plane crash. Apparently, though, she was curious what we were doing, what with the present uranium interest. I merely said we were still looking and testing, without really saying anything.

Enclosed are photos showing Fred Luckow and helper working at Mary G, cutting trenches and repairing the road. Keep these for possible legal reasons. I think you can see that a legitimate amount of work was done.

Sincerely,

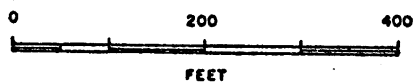






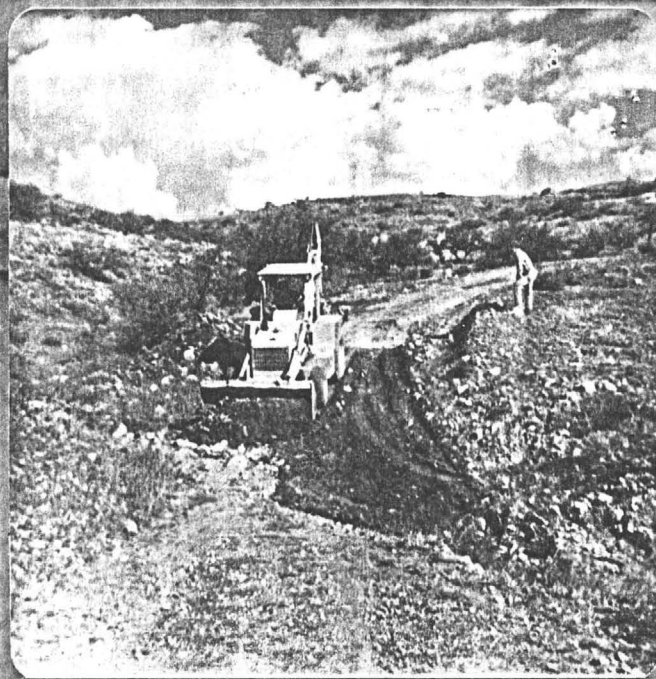
- MINE SHAFT
- × PROSPECT PIT
Values in ounces per ton
- FAULTS and OTHER FRACTURES

ROCK ALTERATION MAP
MARY G MINE AREA
 CERRO COLORADO MINING DISTRICT
 Sec. 21, T. 20 S., R. 10 E.
 PIMA COUNTY, ARIZONA



GEOLOGY BY EDGAR S. HEYLMUN, PhD
 MARCH 1977

- LARAMIDE ANDESITE PORPHYRY
Variable alteration
- PROPYLITIC ALTERATION
- HEMATITIC ALTERATION
Derived from sulfide mineralization



REGISTERED ASSAYERS
P. O. BOX 7517
TUCSON, ARIZONA 85725

710 E. EVANS BLVD.
PHONE 602-884-5811
884-5812

DNYANENDRA A. SHAH
ARIZONA REG. NO: 8888

Moki Minerals
Box 553
Lakeville, Conn. 06039

JOB # 023904
RECEIVED 1-24-80
REPORTED 2-12-80

CC: E. B. Heylman

| SAMPLE NUMBER | GOLD OZ.* | SILVER OZ.* | LEAD % | COPPER % | ZINC % | MOLYBDENUM % |
|------------------|--------------|----------------|-----------|-------------|-----------|-----------------|
| Mary G. Dump: | | | | | | |
| 1-1980- | | | | | | |
| 1 | Nil | 6.15 | | | | |
| 2 | Nil | 1.30 | | | | |
| 3 | Nil | 12.75 | | | | |
| 4 | Nil | 37.80 | | | | |
| 5 | Nil | 2.60 | | | | |
| 6 | Nil | .15 | | | | |
| 7 | Nil | .55 | | | | |
| 8 | Nil | 1.40 | | | | |
| 9 | Nil | .10 | | | | |
| 10 | Nil | Trace | | | | |
| 11 | Nil | .10 | | | | |
| 12 | Nil | .25 | | | | |

2-12-80

* Gold and Silver reported in troy oz. per 2,000 lb. ton.

002

| | | | |
|--------------------------|-------|--------------------|-------|
| | | | |
| ANALYTICAL CHARGES | | OTHER CHARGES | |
| | | ANALYTICAL CHARGES | |
| TOTAL ANALYTICAL CHARGES | 21.00 | PAY THIS AMOUNT | 21.00 |

Thank You

* LESS 3% DISCOUNT NET TEN DAYS

007

SOUTHWESTERN ASSAYERS & CHEMISTS, INC.

REGISTERED ASSAYERS
P. O. BOX 7517
TUCSON, ARIZONA 85725

710 E. EVANS BLVD.
PHONE 602-884-5811
884-5812

WIL WRIGHT
ARIZONA REG. NO. 5875

DNYANENDRA A. SHAH
ARIZONA REG. NO. 8888

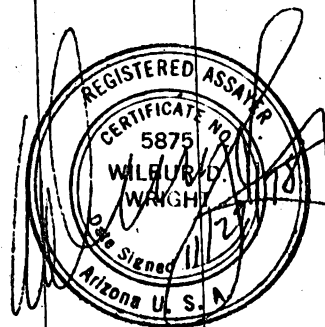
Moki Minerals
Box 553
Lakeville, Conn. 06039

Mary E.

JOB # 022409
RECEIVED 11-27-78
REPORTED 11-29-78

CC: E. B. Heylmun

| SAMPLE NUMBER | GOLD OZ.* | SILVER OZ.* | LEAD % | COPPER % | ZINC % | MOLYBDENUM % |
|------------------|--------------|----------------|-----------|-------------|-----------|-----------------|
| 1 | .006 | .12 | | | | |
| 2 | .009 | 33.54 | | | | |
| 3 | .004 | 3.56 | | | | |



1 ppm = 0.0001% 1 troy oz./ton = 34.286 ppm 1 ppm = 0.0292 troy oz./ton
* Gold and Silver reported in troy oz. per 2,000 lb. ton.

002

| | | | | | |
|--------------------------|--|--|--------------------|-----------------|-------|
| | | | | | |
| ANALYTICAL CHARGES | | | OTHER CHARGES | | |
| | | | ANALYTICAL CHARGES | | |
| TOTAL ANALYTICAL CHARGES | | | 21.00 | PAY THIS AMOUNT | 21.00 |

* LESS 3% DISCOUNT NET TEN DAYS

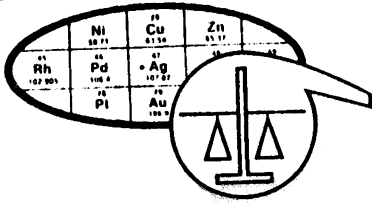
Thank You

Wil Wright

007

SKYLINE LABS, INC.
P.O. Box 50106 • 1700 West Grant Road
Tucson, Arizona 85703
(602) 622-4836

Charles E. Thompson
Arizona Registered Assayer No. 9435
William L. Lehnbeck
Arizona Registered Assayer No. 9435
James A. Martin
Arizona Registered Assayer No. 11122



CERTIFICATE OF ANALYSIS

| ITEM NO. | SAMPLE IDENTIFICATION | Au oz/ton | Ag oz/ton | Au * oz/ton | Ag * oz/ton | Cu % | Pb % | Mo % | W % |
|----------|-----------------------------|--------------|--------------|----------------|----------------|---------|---------|---------|--------|
| | <u>Mary G</u> No. 1 Dump | >0.10 | >10 | 0.100 | 215.32 | 1.72 | 7.65 | 0.017 | 0.0005 |

TO: MOKI MINERALS
P. O. Box 553
Lakeville, Conn 06039
cc: E. B. Heylman
3660 E. 3rd St. #B-3
Tucson, Arizona 85716

REMARKS:

*Single fire assay

CERTIFIED BY

DATE REC'D:

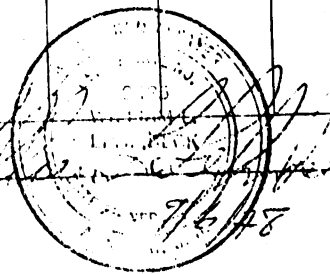
8/14/78

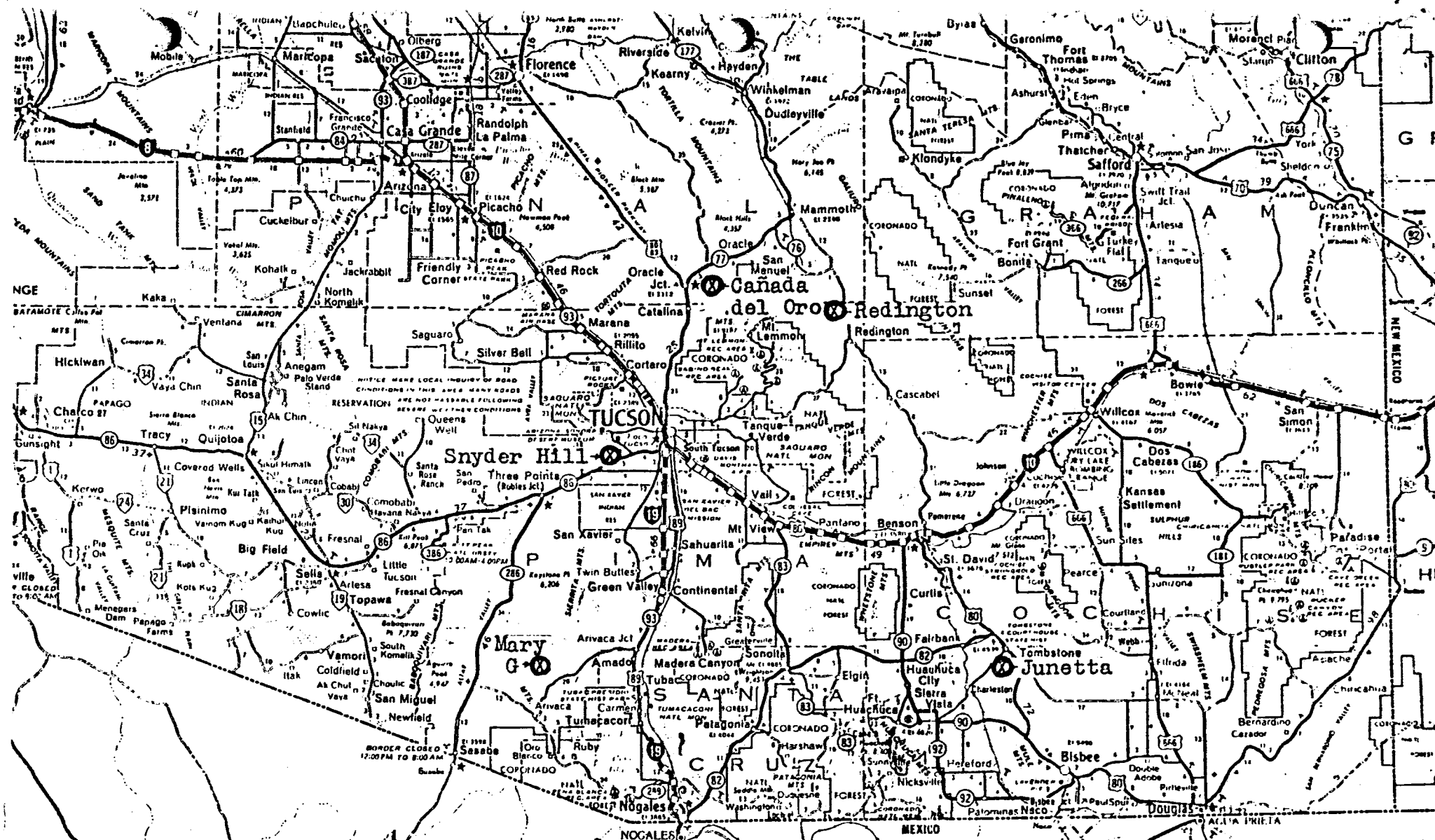
DATE COMPL:

9/6/78

JOB NUMBER

TDT 003





ENJOY OUR FRIENDLY
NEIGHBORS IN SONORA, MEXICO
FOR BRIEF TRIPS INTO BORDER
COMMUNITIES, NO TRAVEL PERMITS ARE REQUIRED
FOR EXTENDED TRIPS BEYOND THE BORDER, CONSULT
YOUR NEAREST MEXICAN TOURIST AGENCY OR
MEXICAN CONSULATE FOR DETAILED
INFORMATION AND HELPFUL
TRAVEL HINTS

DRIVING SUGGESTIONS
WHILE TRAVELLING ARIZONA'S HIGHWAYS
1. ALWAYS CARRY AMPLI SUPPLY OF WATER 2. RAISING
THE HOOD OF YOUR AUTO ALERTS THE HIGHWAY PATROL THAT HELP
IS NEEDED 3. FIRST-AID STATIONS LOCATED CONVENIENTLY THROUGHOUT
THE STATE FURNISH EMERGENCY COMMUNICATION SUCH AS TELEPHONE OR
RADIO 4. VARIABLE SPEED LIMITS ARE WELL POSTED 5. SCHOOL ZONE
SPEED LIMITS OF 15 M.P.H. ARE WELL POSTED AND STRICTLY ENFORCED
6. FREQUENT STOPS TO ENJOY ARIZONA'S SCENIC BEAUTIES
HELP ELIMINATE DRIVING FATIGUE

SNYDER HILL SILVER PROSPECT
Pima County, Arizona

LOCATION: Located along State Highway 86, 10 miles southwest of Tucson, in sections 3 and 4, T. 15 S., R. 12 E., Pima County, Arizona. The prospect is covered by three lode claims and one placer claim, all on federally-owned land.

GEOGRAPHY: Snyder Hill is a low hill which rises out of Avra Valley, on the west side of the Tucson Mountains. It is easily accessible.

STRATIGRAPHY: Permian limestone and dolomitic limestone make up the bulk of the hill. It is locally silicified and mineralized, but the majority of the exposed rock is suitable for crushed rock used for aggregate, ballast, and road metal, and has been quarried for those purposes. Much of the rock might also be suitable as cement rock. The CaO content is 46.1%, and CaCO₃ runs 76.8%.

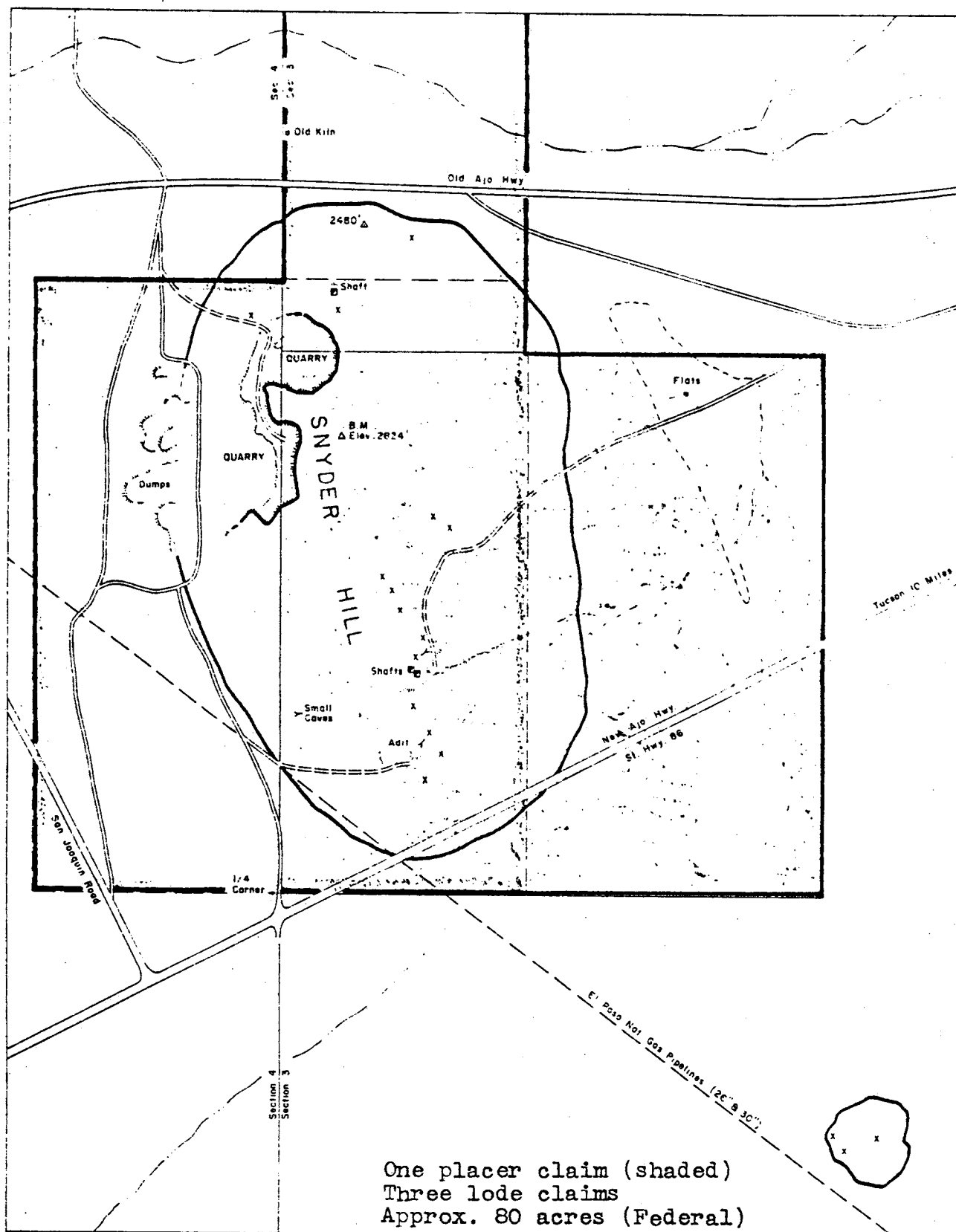
STRUCTURE: The beds at Snyder Hill dip about 15° to the east, with local structural "rolls" which appear to play a part in ore deposition. The "rolls" appear to parallel the strike of the Permian limestone. There appears to be a northeast-striking fault at the north end of the hill which controls ore deposition in that area, but elsewhere on the hill, faulting and jointing of rocks is not significant, although the limestone is too fractured to be used as dimension stone.

MINERAL DEPOSITS: Mineralization is confined to small, irregular pods or lenses which appear to be controlled by structural "rolls" in the limestone and dolomitic limestone. Where the "rolls" occur, bedding planes have "opened-up," thus providing cavities for ore deposits. Considerable replacement of limestone has also occurred, although contact metamorphism and alteration of the host rock is minimal. There is no skarn development such as would be expected near hydrothermal vein deposits. It appears that at Snyder Hill, ore-bearing solutions traveled along bedding planes rather than fracture zones. However, at the north end of the hill, at a pit where dump material assays over 50 ounces of silver per ton, a north-east striking fault appears to aid in ore control.

A detailed study of existing dump material was conducted by Alanco, Ltd., in early 1978. It was calculated that 11,310 ounces of silver exist on the dumps sampled, with a value of approximately \$56,000 on today's silver market. Some of the ore shipped from Snyder Hill in the past averaged over 300 ounces of silver per ton. There are also lead values.

The minerals visible on the dumps include calcite, barite, quartz, limonite, cerussite, anglesite, and cerargyrite. No primary sulfides are in evidence.

RECOMMENDATIONS: It does not appear that sufficient dump material exists to attempt heap leaching operations. Drilling should be conducted in favorable areas in an attempt to find additional rich silver bodies at depth. Additional uses might be found for the limestone.



Map by Edgar B. Heylman
 May 1976

N Mag
 113°

SNYDER HILL
 S. 3, T. 15 S., R. 12 E., GSRB&M
 Pima County, Ariz.

0 330 660 Feet
 Scale

MOKI MINERALS

(AN ARIZONA CORPORATION)

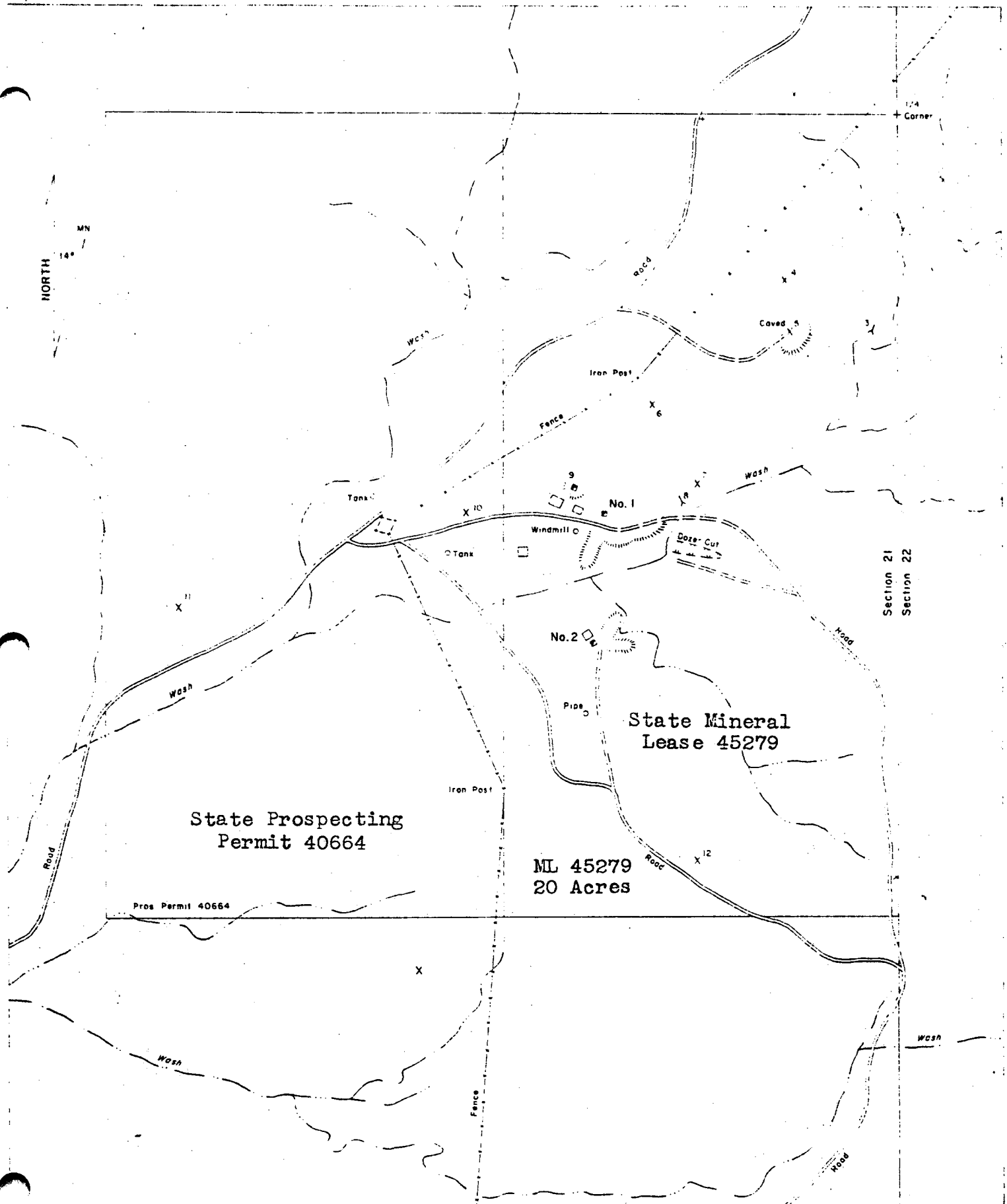
EDGAR B. HEYLMUN, GEOLOGIST

1 November 1976

P.O. BOX 4806
TUCSON, ARIZONA 85717

MARY G MINE

- Location:** In the NE/4 SE/4 of section 21, T. 20 S., R. 10 E., Pima County, Arizona. Situated in the Cerro Colorado (Silver Hill) Mining District, 55 miles by road southwest of Tucson, and 13 miles by road north of Arivaca. All but last four miles are paved.
- Topography:** In low hill country at an average elevation of 3,750 feet. It is an active cattle range with typical desert vegetation.
- Surface Rocks:** Early Tertiary latite and andesite porphyry, locally altered and mineralized.
- Structure:** Minor north and northeast trending faults and fissures, with a shear zone trending N. 75-85° E. under the main wash.
- Mineralization:** Strong wall-rock alteration along the shear zone, with lesser alteration elsewhere in the area. Most mining to date has been on the north and northeast trending faults and fissures, but important ore bodies, largely unmined, may exist in the shear zone underlying the main wash. Ore is found in quartz stringers, shoots, and lenses ranging from a few inches to over two feet in width along faults, fissures, and shear zones, especially where they intersect. Silver is the principal metal of commercial importance, associated with argentiferous cerussite, barite, and manganese oxide in the zone of oxidation. At depth, primary silver ores occur, and include argentite, galena, and argentiferous tetrahedrite. Enriched silver values occur in the zone of oxidation, and in the vicinity of the water-table. Other metals found include lead, copper, zinc, mercury, and gold.
- Assays:** Rich streaks of silver ore were encountered in past mining operations. Ore shipped in the past was reported to have averaged 60 ounces of silver per ton. A random sample was collected by Moki Minerals from the dump at the No. 1 shaft, and it assayed 141.54 ounces of silver per ton.
- Development:** There are four old shafts, one of which is completely caved. The other three are in various states of repair. No. 1 shaft, through which most ore has been produced, is in bad condition, and is blocked by caving at a depth of 30 feet. Originally, the No. 1 shaft went to a depth of 200 feet, with workings at the 136 and 186-foot levels. No. 2 shaft, 240 feet to the south, was sunk in 1950-1952 to a depth of 135 feet, with workings at the 130 foot level. The shaft is timbered and lagged and in fair condition, although it is flooded, with the water-level standing 56 feet from the surface. There is another shaft, near No. 1, which is not deep, and is of little consequence.
- Past Production:** Spaniards found rich silver ore in the area, around 1750, and Anglos prospected the area as early as 1855. The Mary G Mine did not go into production until 1890, and most ore was shipped between 1890 and 1942. Approximately 800 tons were shipped, worth about \$200,000 on today's market. Some rich ore may have been shipped before records were kept.
- Recommended Work:** Drill holes between 100 and 150 feet deep should be sunk in the mineralized shear zone along the main wash. No. 2 shaft should be dewatered, repaired, and the workings on the 130-foot level extended to the mineralized shear zone under the main wash. No. 1 shaft should be re-established, repaired, and the workings connected with those of the No. 2 shaft. Drilling might establish need for more workings at shallow depths, in the zone of oxidation.



Edgar B. Heyimun

December 1976

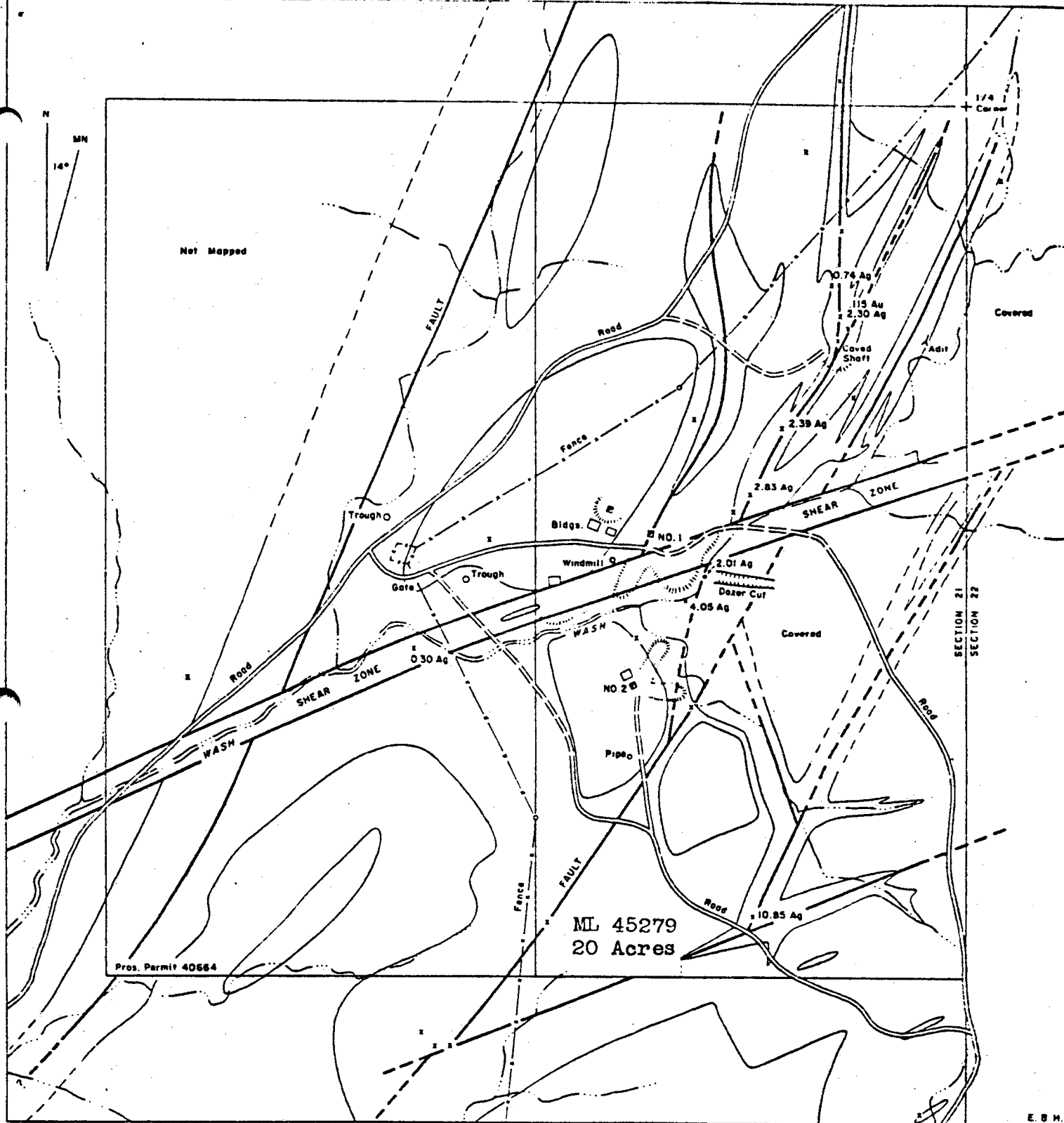
Tucson, Arizona

Cerro Colorado
Mining District

MARY G MINE

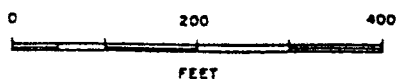
Sec. 21, T. 20 S., R. 10 E.
PIMA COUNTY, ARIZONA

0 200 400 FT
SCALE



- MINE SHAFT
- PROSPECT PIT
- x Values in ounces per ton
- FAULTS and OTHER FRACTURES

ROCK ALTERATION MAP
MARY G MINE AREA
 CERRO COLORADO MINING DISTRICT
 Sec. 21, T. 20 S., R. 10 E.
 PIMA COUNTY, ARIZONA



GEOLOGY BY EDGAR S. HEYLMUN, PhD
 MARCH 1977

- LARAMIDE ANDESITE PORPHYRY
Variable alteration
- PROPYLITIC ALTERATION
- HEMATITIC ALTERATION
Derived from sulfide mineralization

MARY G MINE
GERRC COLORADO DISTRICT
Near Arivaca, Pima Co., Arizona

SUMMARY OF SHIPMENTS AS TAKEN FROM SETTLEMENT SHEETS

Shipped to Phelps Dodge Corp., Douglas, by J.S. Ayres

| Date | Tons | Oz./ton | | Per cent: | | | Ins. | Fe | Net # Proceeds |
|---------|-------|---------|--------|-----------|--------|----|------|-----------|-------------------|
| | | Gold | Silver | Lead | Copper | | | | |
| 3/28/29 | 26.0 | -- | 112.0 | -- | 1.0 | 69 | 2.8 | \$1410.96 | |
| 6/19/29 | 29.2 | .03 | 144. | | 1.5 | 65 | 2.0 | 1990.14 | |
| 8/17/29 | 31.4 | | 89.4 | | .93 | 71 | 2.9 | 1236.45 | |
| 8/30/29 | 36.3 | | 67.2 | | .88 | 73 | 2.4 | 1007.64 | |
| 9/16/29 | 35.0 | | 66. | | .7 | 74 | 2.4 | 953.83 | |
| | 157.9 | | | | | | | \$6599.02 | |

Shipped to A.S.&R.Co., Hayden, by J.S. Ayres

| | | | | | | | | |
|----------|--------|--|------|--|-----|--|--|-----------|
| 5/1/29 | 30.19 | | 77.7 | | .9 | | | 1070.36 |
| 5/24/29 | 25.61 | | 79 | | .9 | | | 874.13 |
| 11/27/29 | 33.53 | | 55.5 | | .58 | | | 710.71 |
| 12/23/29 | 27.31 | | 47.4 | | .57 | | | 478.47 |
| | 116.64 | | | | | | | \$3133.67 |

Shipped to A.S.&R.Co., Hayden, by Virgil Bledsoe, Lessee

| | | | | | | | | |
|----------|-----|------|-------|-----|------|----|------|----------------|
| 11/7/40 | 5. | .05 | 335.3 | 9.2 | 3.32 | 61 | 7.8 | 832.69 (Truck) |
| 11/16/42 | 24. | .005 | 16.3 | | | 74 | 10.5 | 85.63 |
| | 29 | | | | | | | 918.32 |

Shipped to El Paso Smelting Works by Virgil Bledsoe

| | | | | | | | | |
|---------|------|-----|------|-----|-----|----|-----|---------|
| 8/11/42 | 38.2 | .01 | 50.8 | 1.2 | .55 | 76 | 7.9 | 1008.89 |
|---------|------|-----|------|-----|-----|----|-----|---------|

Shipped to Hugo Miller, Nogales (Trucked to Nogales)

| | | | | | | | | |
|---------|------|-----|-----|------|-----|--|--|----------|
| 6/20/42 | 0.26 | .05 | 436 | 19.5 | 3.4 | | | 57.08 |
| 6/27/42 | .25 | .06 | 456 | 20.5 | 7.8 | | | 61.65 |
| 7/3/42 | .17 | .05 | 402 | 23.5 | 3.4 | | | 32.70 |
| 7/18/42 | .26 | .05 | 304 | 10.2 | 2.1 | | | 38.50 |
| 7/25/42 | .21 | .05 | 562 | 7.0 | 5.1 | | | 58.30 |
| 8/1/42 | .31 | .04 | 578 | 7.0 | 5.2 | | | 91.00 |
| 8/7/42 | .23 | .06 | 555 | 9.5 | 6.2 | | | 65.88 |
| 8/15/42 | .22 | .04 | 514 | 11.5 | 5.8 | | | 58.80 |
| 8/22/42 | .27 | .05 | 405 | 11.5 | 4.2 | | | 56.40 |
| | 2.17 | | | | | | | \$520.31 |

Shipped to El Paso Smelting Works by Ayres-Herron & Williams

| | | | | | | | | |
|-----------|------|-----|----|-----|-----|----|--|--|
| Feb. 1929 | 29.0 | .02 | 98 | 4.8 | .98 | 70 | | |
|-----------|------|-----|----|-----|-----|----|--|--|

#Net Proceeds--Net paid shipper after deducting freight and smelting charge on lots delivered by truck, net after treatment charges.

Tucson, Arizona
October 11, 1943

BRENT N. RICKARD

12,180.31
05
\$609.01