



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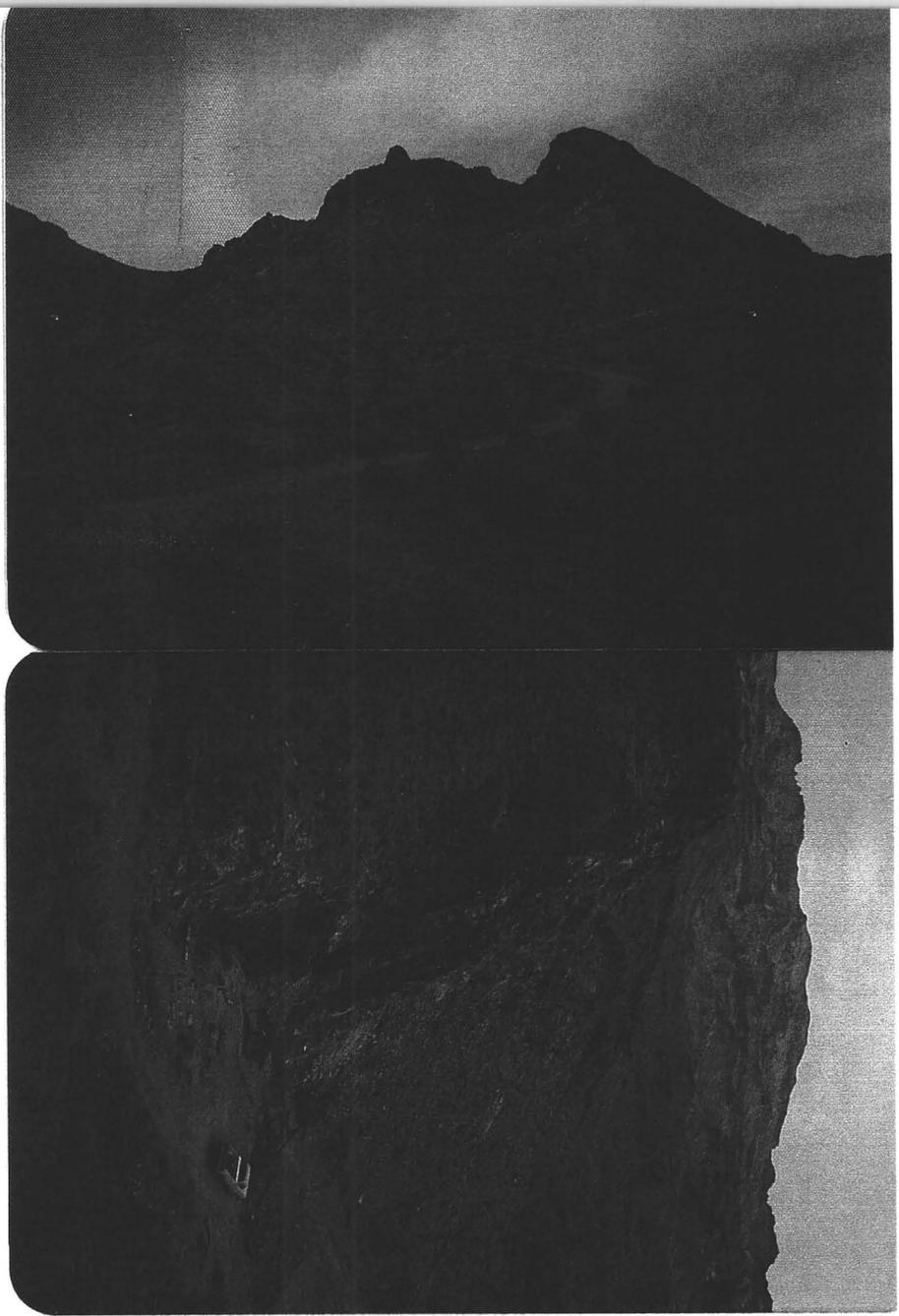
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The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity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



MOSS MINE
OATMAN DISTRICT
MOHAVE COUNTY, ARIZONA

Location and Access:

The Moss property is in Sections 19 and 30 of T.20 N., R.20 W, in submountainous desert terrain at an elevation of about 2500 feet, seven miles NW of the town of Oatman by fair dirt road. Oatman is about 30 miles SW of Kingman by paved road.

Land Status:

Six contiguous patented lode claims comprising about 88 acres.

History:

Probably first vein to be worked in district. A reported \$240,000 worth of high grade free gold was taken out of the Moss vein by John Moss in 1864 from a surface pocket extending to 65 feet depth. Subsequent exploration has been intermittent until about 1940 after which the property has been essentially dormant. Little or no production has resulted from this exploration due to the marginal average grades encountered and the prevailing low gold prices.

District:

The Oatman district has produced about \$36,000,000 worth of \$20.67/ounce gold from 2,650,000 tons of ore and is the major lode gold district in Arizona, yielding about 42% of the State's lode gold production. This production, almost all prior to 1934, was mainly from three veins with the Moss vein being the fourth most important producer. The average grade of gold ore was about 0.65 oz/T. The range of larger scale production varied from 0.34 oz/T to 1.69 oz/T with 0.34 oz/T being about as low as could be successfully worked in the district at that time.

Geology:

The general geology is essentially a complex thick section of gently eastward dipping Tertiary volcanics resting on a Precambrian granite-gneiss basement. Some areas of the volcanics have been intruded by quartz monzonite and granite porphyries. The Moss vein occurs within quartz monzonite porphyry, strikes about N78°W and is traceable for about 2 1/2 miles in length. The widest and most productive part of the vein to date lies within the claim group and varies from about 50 to 110 feet in width and is evidenced by a very prominent bold quartz outcrop. The vein generally dips approximately 70° to the south.

Mineralogy:

The vein filling is fine-grained cellular white quartz sometimes with white calcite and stringers of colorless to pale-green fluorite and very minor fine-grained pyrite. The gold occurs mainly in the quartz and is generally fine-grained and usually only visible in rich ore.

Workings and Drilling:

A 300 foot vertical shaft, now apparently caved at 85 feet below surface, reportedly has drifts and crosscuts at the 65, 220, and 300 foot levels aggregating about 2000 total feet of workings. No major stopes are reported. A 345 foot diamond drill hole completed in 1936 is the only drilling known at present for which any data exists although other shallow drilling may have been done.

Comments and Discussion:

F. L. Ransome who reported on the district for the U.S.G.S. in 1923 (Bulletin 743, Geology of the Oatman Gold district, Arizona) indicated that the vein on the 220 foot level (deepest level at that time) is 90 feet wide and as a whole probably runs from 0.15 to 0.20 oz/T gold - too low to be economic at that time. However, this width and grade implies a considerable potential tonnage of possibly economic material at present gold prices. This prompted our further investigation of the property which has consisted of an inspection of the property, initial dump sampling, several discussions with the owners and study of their available maps and assay data.

Five near surface dump samples were taken where the dump rock appeared to be largely vein material although some dilution with country rock is inevitable. The gold assays ranged from 0.02 to 0.14 oz/T with an average of 0.07 oz/T. Silver ranged from 0.40 to 1.95 oz/T and averaged 0.99 oz/T. These values were high enough to continue our interest and to substantiate Ransome's statement after considering a reasonable dilution factor and the effects of the elements on the near surface dump material.

After checking the land status in Kingman, the owners were contacted and met with in Prescott. Copies of their available data were obtained and these consist of claim plats, a generalized geology plan also showing the surface projected workings, assay plans of a portion of the 220 and 300 foot levels, a longitudinal section of the 65 and 220 foot levels and an assay section of the 345 foot diamond drill hole.

The assay plans indicate that the sampling was probably of good quality with both muck and cut samples being taken on about five foot intervals. Generalizing these data, the 220 level shows a 100' sampled zone crossing the vein northwesterly at about a 45° bias. This entire 100' averages 0.10 oz/T gold and 0.77 oz/T silver. A more normal N-S component includes a 35' interval of 0.15 gold and 1.32 silver.

The 300 foot level has been assayed across the vein on two N-S crosscuts separated about 105'. The west crosscut averaged 0.14 gold and 0.66 silver across about 68 feet of true width. The east crosscut averaged 0.18 gold and 0.91 silver across about 61' of true width in a cut sample and contains a 20' zone of 0.40 gold and 2.13 silver. A muck sample across the 61' zone is considerably higher with 0.73 gold and 1.59 silver - the high value largely due to a 5' interval of 8.10 gold and 13.10 silver - apparently a very local high grade pocket which should perhaps be discredited in any overall grade estimates. The drift connecting these two crosscuts shows 102' of 0.15 gold and 0.69 silver.

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A small surface zone near the shaft was also sampled and gave 27' of 0.094 gold - silver not assayed.

Possibilities:

In that these assays are reasonably consistent over a fair vertical range and across impressive widths, it is not at all unrealistic to speculate a body being present perhaps 50' in average width, 300' long and having 400' of vertical extent and averaging about 0.15 oz/T gold and 1.0 oz/T silver or about \$30.00/T at present price levels. This size body would contain about 500,000 tons with an in-place value of \$15,000,000.

The existing data suggests an improvement in grade with depth and based on other mines in the district, a potential vertical ore shoot depth extent of 1000 feet or so, is possible. These factors give an incentive and considerable vertical prospecting leeway to test below the 300' depth partially prospected to date. And, some high grade zones have been encountered in past mining and sampling of this vein and a major high grade ore shoot of the type mined in the three major mines of the district is a possibility in the Moss vein.

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Terms:

The owners are asking a minimum royalty of \$10,000 in advance for the first six months and \$10,000 for each of the three following six month intervals for the first two years. Following the initial two years, the minimum royalties would escalate. A total ten year payoff period and a \$2,000,000 buyout is involved with all royalty payments applicable to the end price. A production royalty of 5% is involved which escalates to 50% as the grade increases. A several thousand foot minimum drill commitment is also being asked.

We believe the Moss mine to be an excellent exploration target and our group would like a 16 2/3% undivided carried interest and the right to participate up to a 33 1/3% interest. We envision a total exploration expenditure of about \$100,000, mostly in drilling, to take the property to the next stage.

Chris S. Ludwig

1435 SOUTH 10th AVENUE
P.O. BOX 1889

Jacobs Assay Office

PHONE 622-0813



Registered Assayers

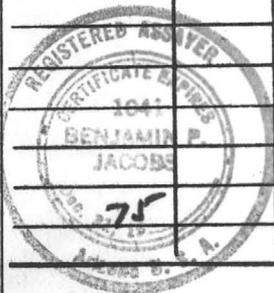
85702 Tucson, Arizona,

April 3rd, 19 75

Sample Submitted by Mr.

Heinrich Neumann Exploration

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
2401	0.02	—	0.25	<i>Bubogucari</i>				
2	0.14	—	1.95	} <i>Moss Dump</i>				
3	0.02	—	0.50					
4	0.11	—	1.45					
5	0.06	—	0.65					
6	0.03	—	0.40					
2407	0.02	—	0.85	<i>Moss Surface Vein Grabs</i>				



Job # 801 (new area)

* Gold Figured \$ 100.00 per oz. Troy

Charges \$ *2.80*

Very respectfully,

Ben P. Jacobs

January 27, 1978

Mrs. Jerry Williams
Williams Enterprises
1950 Shadow Valley Drive
Prescott, Arizona 86301

Dear Mrs. Williams:

Regarding your telephone call earlier this week, we have enclosed two replacement copies of our last proposal letter written November 28, 1975, regarding our thoughts on optioning your Moss property near Oatman, Arizona.

As mentioned, we have several associates or clients that recently and continually have expressed interest in gold mine exploration and development opportunities like the Moss, providing reasonable and equitable acquisition and/or option terms can be negotiated.

Indication by you of your late brother's concurrence, in principle, with our proposals as recalled by you, is both heartening and appreciated. Please accept for yourself and the family our condolences regarding his untimely passing.

We will look forward to your response.

Faithfully,

Heinrichs GEOEXploration Co.

Walter E. Heinrichs, Jr.
P.E. & C.P.G.S.

WEH:mt
Enclosures: 2

*talked to Mrs Williams 2/27/76
still considering an enclosed report to her about the
her thoughts. Mr Williams wants to know if parent they
will send us a written proposal in time?
12/7/77 same as above
[Signature]*

November 28, 1975

Mr. and Mrs. Jerry Williams
Williams Enterprises
1950 Shadow Valley Drive
Prescott, Arizona 86301

Dear Mr. and Mrs. Williams:

As Mr. Walter Heinrichs and I have discussed with you on several occasions this year, we believe your Moss gold property is worthy of further exploration to determine if a minable size and grade situation may be present. We have an associate who has expressed a definite interest in such an exploration program providing an equitable working arrangement can be made.

We feel it would be to the advantage of all concerned to apportion the majority of any funding into work on the ground but appreciate your desire to receive a rental or minimum royalty to guard against a stagnating ground-holding situation. We also feel that some additional adjoining property will have to be controlled for proper protection, adding to our non-productive out-of-pocket expenses. With these considerations in mind, we offer the following tentative proposal to option the Moss property:

- 1.) Purchase price: \$1,000,000.00
- 2.) Term: 10 Years
- 3.) Schedule of minimum royalty (rental) payments, in advance:
 - 1st six months \$5,000.00
 - 2nd six months \$10,000.00
 - 3rd six months \$15,000.00
 - 4th six months \$20,000.00

and, for subsequent six month periods until the termination or expiration of the agreement or exercise of the option the minimum royalty would be \$25,000, with any remaining balance to bring the total to \$1,000,000.00 to be paid as a cash lump sum at the end of the tenth year.

Mr. and Mrs. Jerry Williams
November 28, 1975
Page Two

4.) Production royalty, if greater than the minimum royalty, would be 5% of the net returns from the sale of minerals from the property. Net returns are defined as the total returns from the smelter or other purchaser less all charges by the smelter or the purchaser including smelting or other production charges, refining charges and all transportation charges from the mine or, if concentrates, from the concentrate bin.

5.) All minimum royalty and production royalties will be a credit against the purchase price in the event the option is exercised.

6.) We would agree to assume responsibility for payment of taxes on the patented claims during the course of the option.

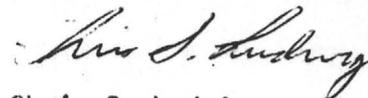
7.) Other standard provisions would be included to allow you reasonable access to the property, inspection of production records and transmittal of all factual non-interpretive data if the option is terminated.

With the rapidly escalating minimum royalty payments during the initial three years of the program, we feel this provides sufficient incentive to diligently explore your property. However, we would also consider a minimum work commitment of 4000 feet of drilling, of which at least 500 feet would be diamond core drilling in the first year of the option.

We assure you that we would conduct a competent, professional exploration program on your property and hope you give this proposal careful consideration. We look forward to your early response.

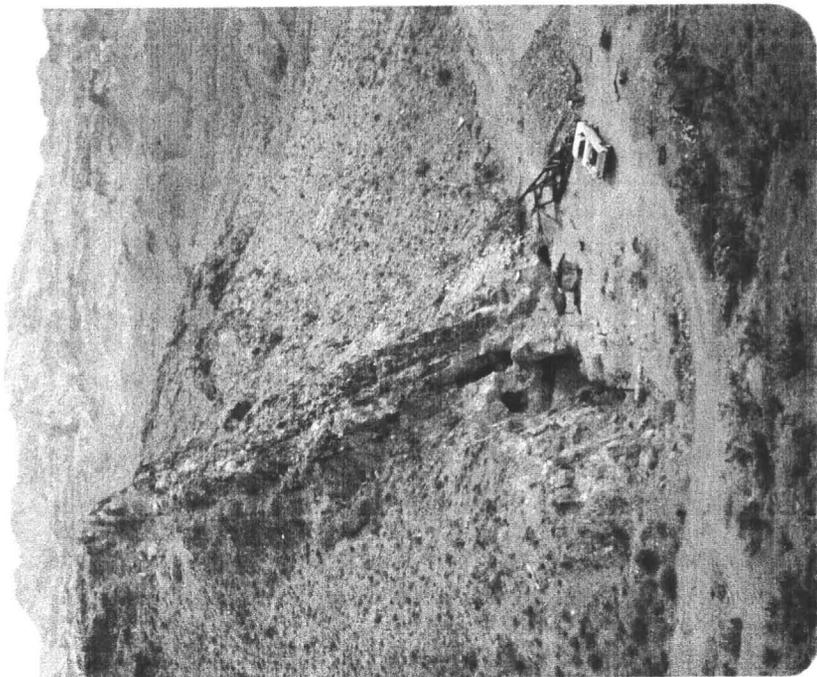
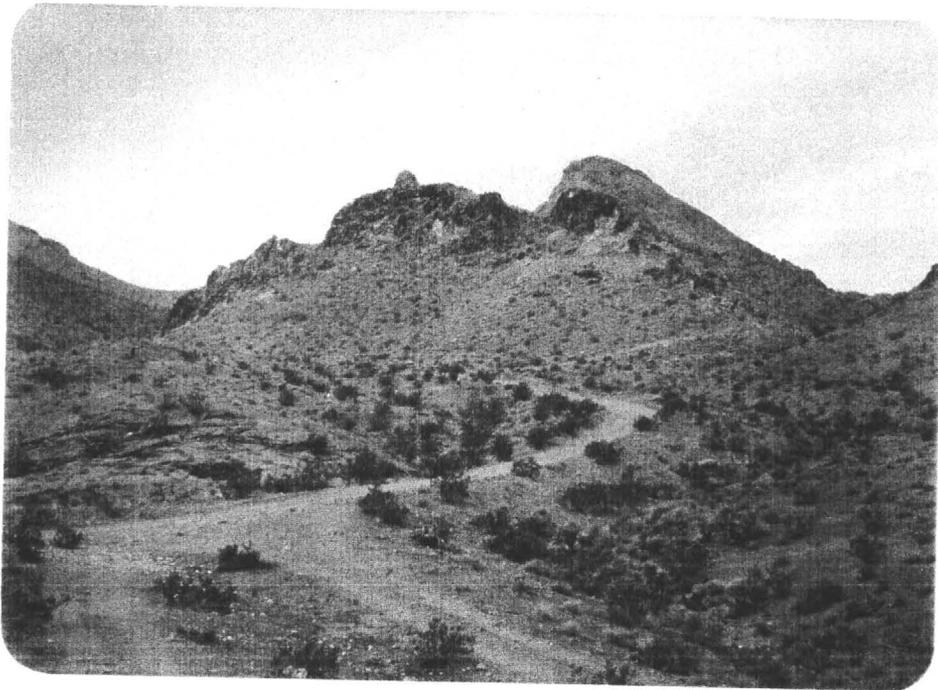
Sincerely,

Heinrichs GEOEXploration Co.



Chris S. Ludwig
Chief Geophysicist

CSL:mt



Talked to Mrs Williams 2/27/76
still considering our proposal - sent copy to her Aunt & waiting
her thoughts. Mr Williams wants a higher rate of payout. They
will send us a counter proposal - sometime?

12/7/77 Same as above
They will let us know

November 28, 1975

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1950 Shadow Valley Drive
Prescott, Arizona 86301

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| | 4th six months | \$20,000.00 |

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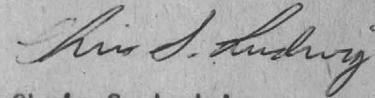
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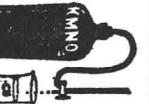
Walter E. Heinrichs, Jr.
P.E. & C.P.G.S.

WEH:mt
Enclosures: 2

Registered Assayers

85702 Tucson, Arizona,

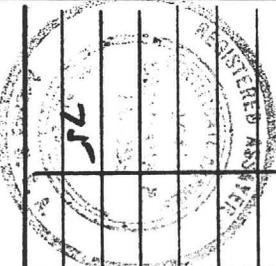
April 3rd, 1975



Sample Submitted by Mr.

Hennrich Hawkshotz

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*The KMMO
Stamp*

• Gold Figured \$ 100.00 per oz. Troy
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Very respectfully,

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Workings and Drilling:

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Comments and Discussion:

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We believe the Moss mine to be an excellent exploration target and our group would like a $16 \frac{2}{3}\%$ undivided carried interest and the right to participate up to a $33 \frac{1}{3}\%$ interest. We envision a total exploration expenditure of about \$100,000, mostly in drilling, to take the property to the next stage.

Chris S. Ludwig

April 8, 1975

Mrs. Hazel Dean Pinney
15601 North 19th Avenue, Box 49
Phoenix, Arizona 85023

Dear Mrs. Pinney:

Records in the Mohave County Courthouse in Kingman show that you are the owner of several patented mining claims in Sections 19 and 30, Township 20 North, Range 20 West, covering the Moss Mine.

My associates and I are seeking a mineral environment with reasonable potential for economic development through an active exploration program. If you are interested in discussing this matter and possibly entering into negotiations, please contact me at your convenience.

Sincerely yours,

Chris S. Ludwig
Chris S. Ludwig

CSL:mt

construction
williams enterprises *ondon*

1950 Shadow Valley Drive
PRESCOTT, ARIZONA 86301

INTERNATIONAL
GEOEX

Cable: GEOEX



April 14, 1975

REC'D APR 16 1975 REC'D

BOX 5964 TUCSON, ARIZONA 85708

Phone: (AREA 602) 623-0578

Mr. Chris S. Ludwig
Heinrichs Geoexploration Company
P. O. Box 5964
Tucson, Arizona 85703

Dear Mr. Ludwig

Mrs. Pinney forwarded your letter dated April 8, concerning the Moss Mine to me. We would be interested in discussing your ideas concerning development of the mine. Please call us at 602-~~445-4963~~, or write to us at the above address to set up a time and place which would be convenient to both of us to discuss the matter.

Thank you for your interest.

Sincerely yours

Jerry Williams

Barbara or Jerry Williams

Construction site
~~445-6401 Ex 55~~

*Through town on Shady to Grove
turn right on Grove
at 500 Grove
green metal steel
Chester Proctor
State Ave and turning
left for sun mail
2nd office
(423 Miller Rd)
also check just beyond
at home*

MOSS MINE
OATMAN DISTRICT
MOHAVE COUNTY, ARIZONA

Location and Access:

The Moss property is in Sections 19 and 30 of T.20 N., R.20 W, in submountainous desert terrain at an elevation of about 2500 feet, seven miles NW of the town of Oatman by fair dirt road. Oatman is about 30 miles SW of Kingman by paved road.

Land Status:

Six contiguous patented lode claims comprising about 88 acres.

History:

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Mineralogy:

The vein filling is fine-grained cellular white quartz sometimes with white calcite and stringers of colorless to pale-green fluorite and very minor fine-grained pyrite. The gold occurs mainly in the quartz and is generally fine-grained and usually only visible in rich ore.

Massive Moss Vein

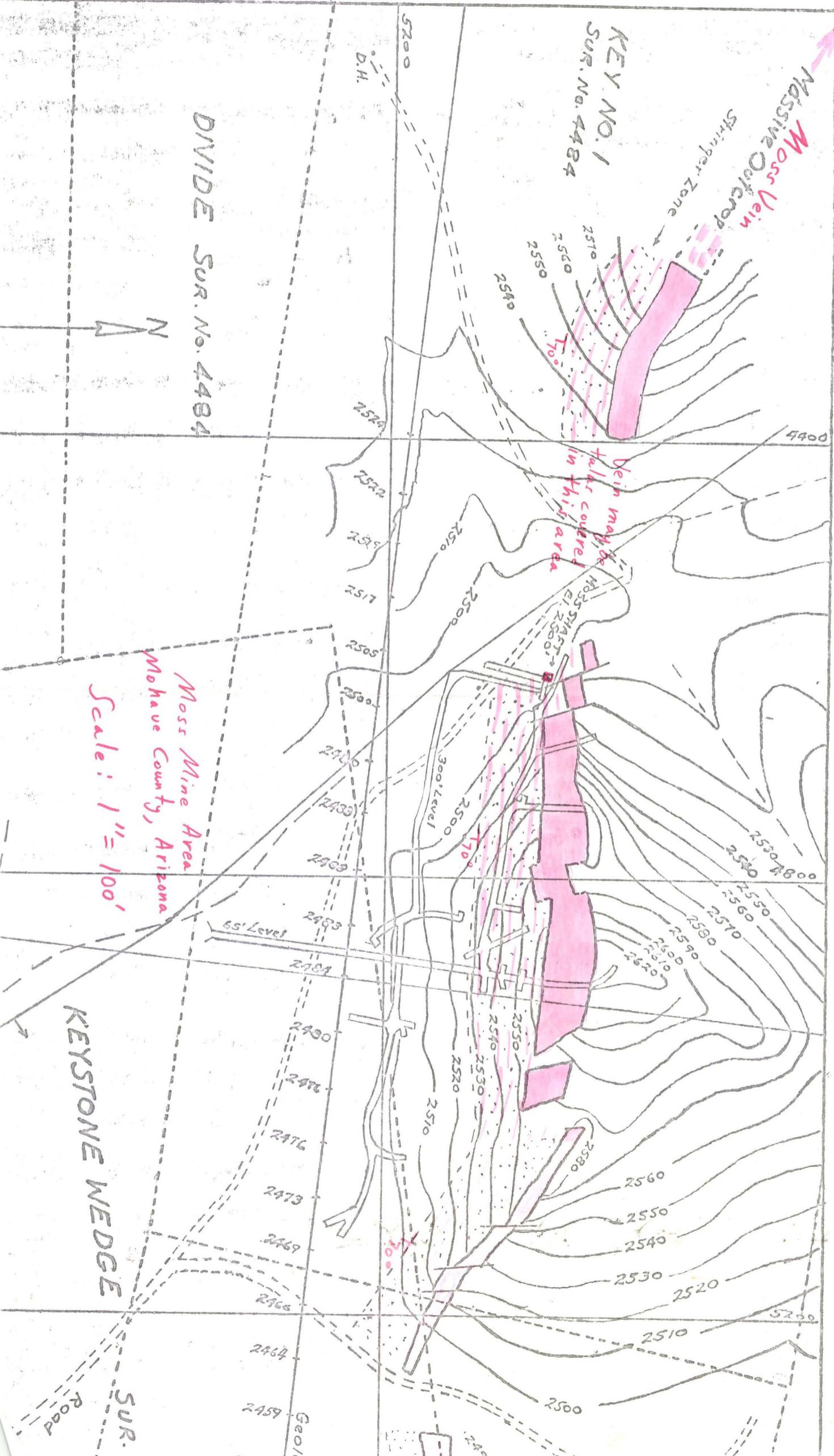
Stringer Zone

KEY NO. 1
SUR. No. 4484

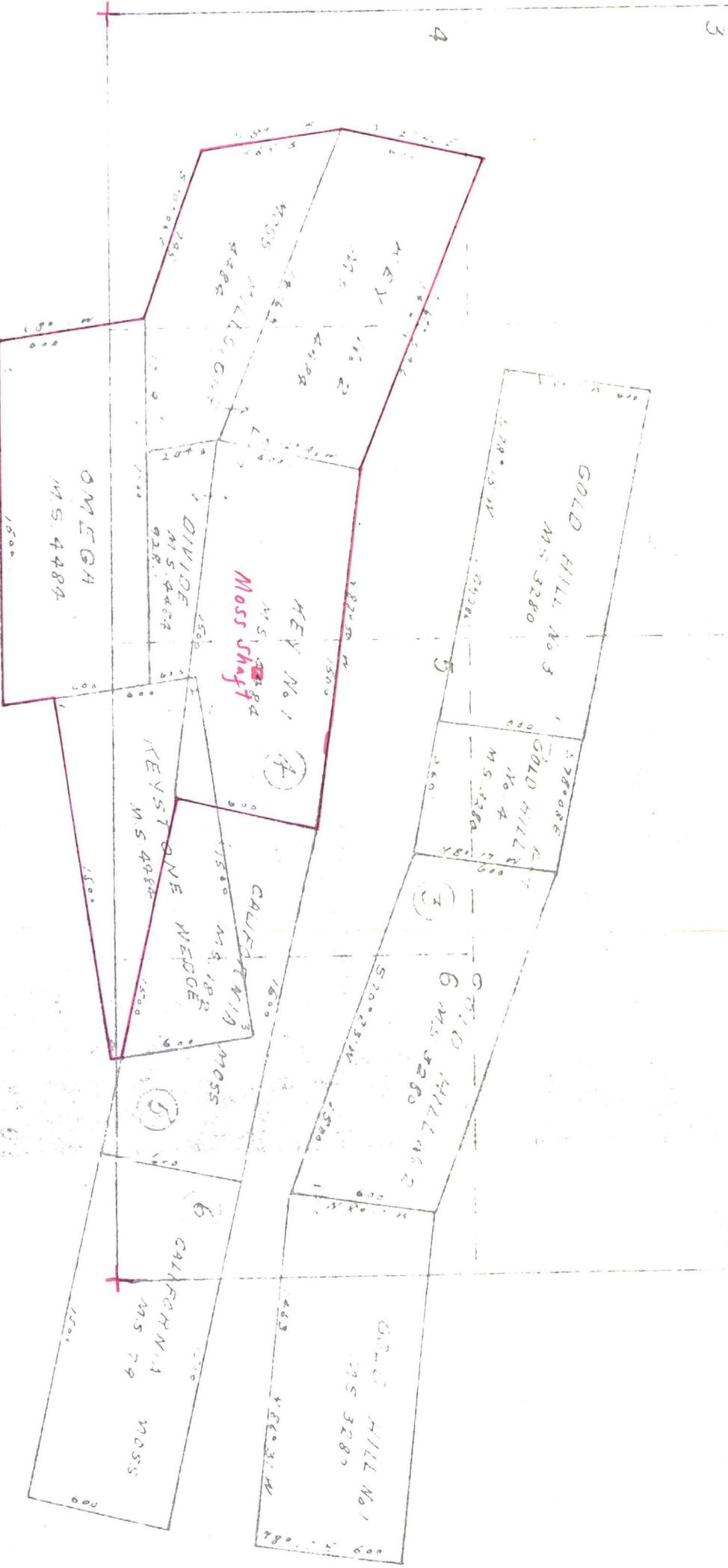
DIVIDE SUR. No. 4484

Moss Mine Area
Mohave County, Arizona
Scale: 1" = 100'

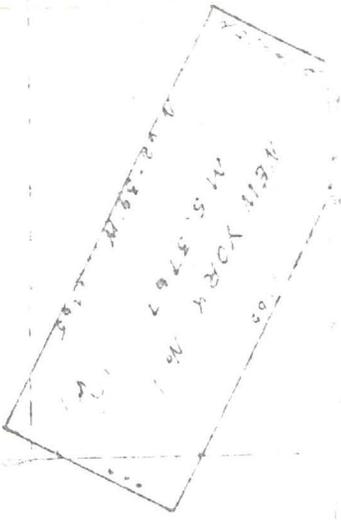
KEYSTONE WEDGE



Section 19
N



Moss Claim Group



SCALE
1" = 600'

DON M

MOHAVE CO

20N-20W-19

January 5, 1980

Mr. Jim Parker
P. O. Box 762
Comanche, TX 76442

Re: Oatman, AZ Mining Claims
GEOEX Job #1396

Dear Mr. Parker :

Research through our files indicates the claims of interest to be approximately located as shown on the enclosed sketch map. It appears that they involve structure or veins close to and probably associated with the Ruth and Moss veins. These veins are identified from old work and are mentioned in U.S. Geological Survey Bulletin 743 on the geology of the Oatman District. The Moss vein was the first discovery in the region 1863-1864 and apparently contained some very rich but small shoots of high grade free gold.

In 1975 GEOEX personnel had occasion to briefly review and sample the Moss situation and exposed surface structure with generally encouraging results. Indications suggested good possibility for a body 300 feet long by 400 feet deep and 50 feet wide or approximately 500,000 tons which would average 0.15 ounces per ton gold and 1.0 ounces per ton silver. Unfortunately, we have never been able to pursue the matter further than this.

Logical steps are first to acquire adequate mineral rights ownership, such as leases or options of patented claims and staking of unpatented claims on open ground. Once this is done, proving of mineable tonnage and grade by extensive geological sampling and mapping are the next step. This would involve considerable subsurface drilling. Financing, production and marketing feasibility requirements and studies would be the final step assuming results are sufficiently encouraging. If not, exploration efforts would need to continue or, matters put on hold.

Let us know if there is anything further we can do to assist or answer questions you may have.

The extra copies of this communication and maps are intended for Mr. Nash whose mailing address I do not have.

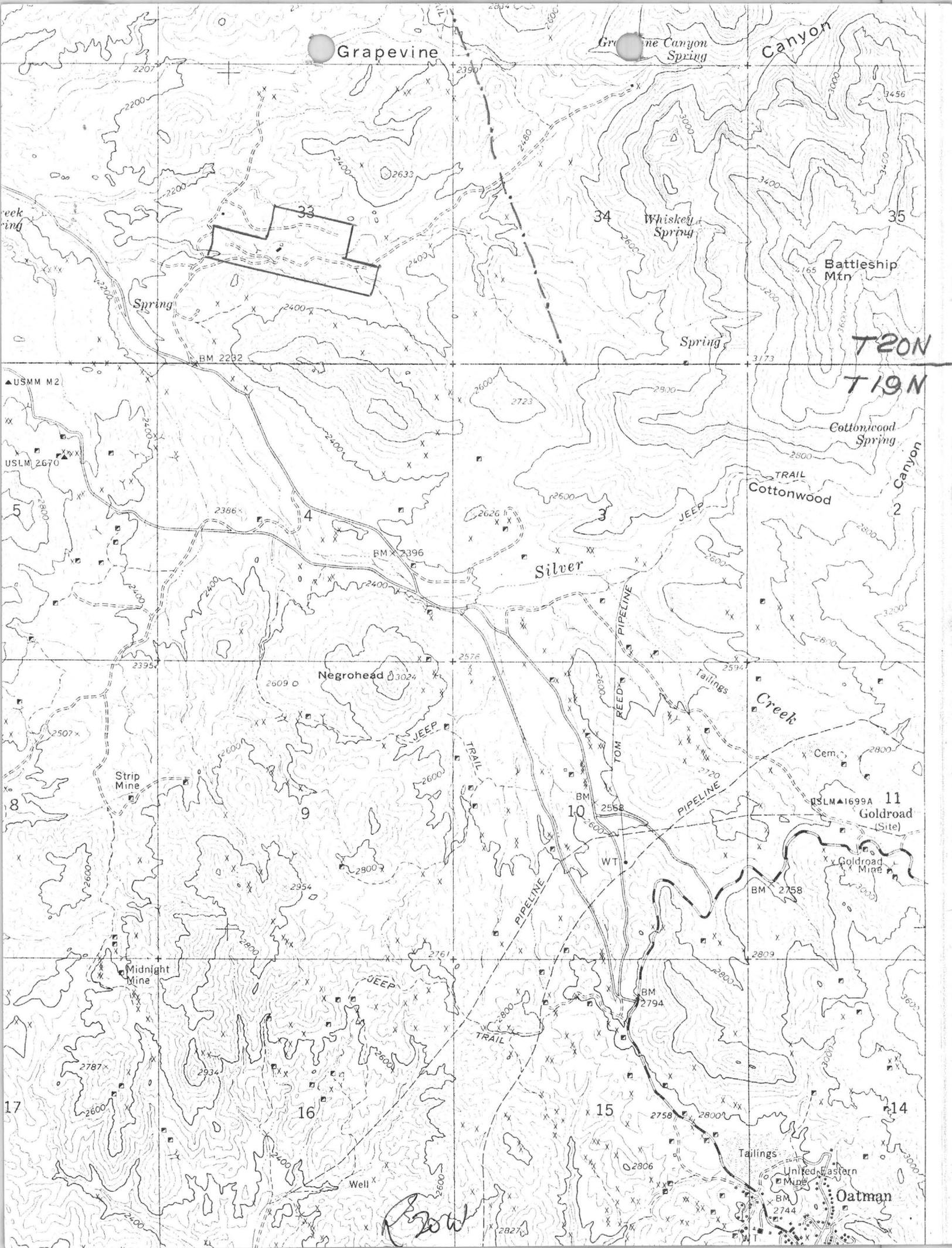
Our statement for services is enclosed together with additional information about our firm and associates.

Very truly yours,

Walter E. Heinrichs, Jr.

P.E. & C.P.G.

Encl: 2 (Tri-fold &
Prof. Services & Custom Products.



Grapevine

Gro... ne Canyon Spring

Canyon



34 Whiskey Spring

35

Battleship Mtn

T20N
T19N

Cottonwood Spring

TRAIL Cottonwood

Canyon

Silver

Negrohead

Creek

11 Goldroad (Site)

Strip Mine

Midnight Mine

Oatman

R. B. ...



1 500 000 FEET
 240 000 FEET
 260 000 FEET
 280 000 FEET
 300 000 FEET
 320 000 FEET
 To Topock
 MATCH LINE TO PAGE 16
 R. 22 W.
 R. 21 W.
 R. 20 W.
 R. 19 W.

GENERAL HIGHWAY MAP
MOHAVE COUNTY, ARIZONA
 ARIZONA HIGHWAY DEPARTMENT
 PHOTOGRAMMETRY AND MAPPING DIVISION
IN COOPERATION WITH THE
 U.S. DEPARTMENT OF TRANSPORTATION
 BUREAU OF PUBLIC ROADS
 1969



HAY 1967
 AN DATUM

© A H D 1970

CLARK CO
 SAN BERNARDINO CO
 CALIFORNIA 35° 00'

T. 20
 N.

T. 19
 N.

R. 23 W.

R. 22 W.

R. 21 W.

R. 20 W.

R. 19 W.



HEINRICHS
GEOEXPLORATION CO. #1396

Box 5354 Tucson, Arizona 85703
Phone: (602) 623-0578
Cable: GEOEX

JAN 5 1981

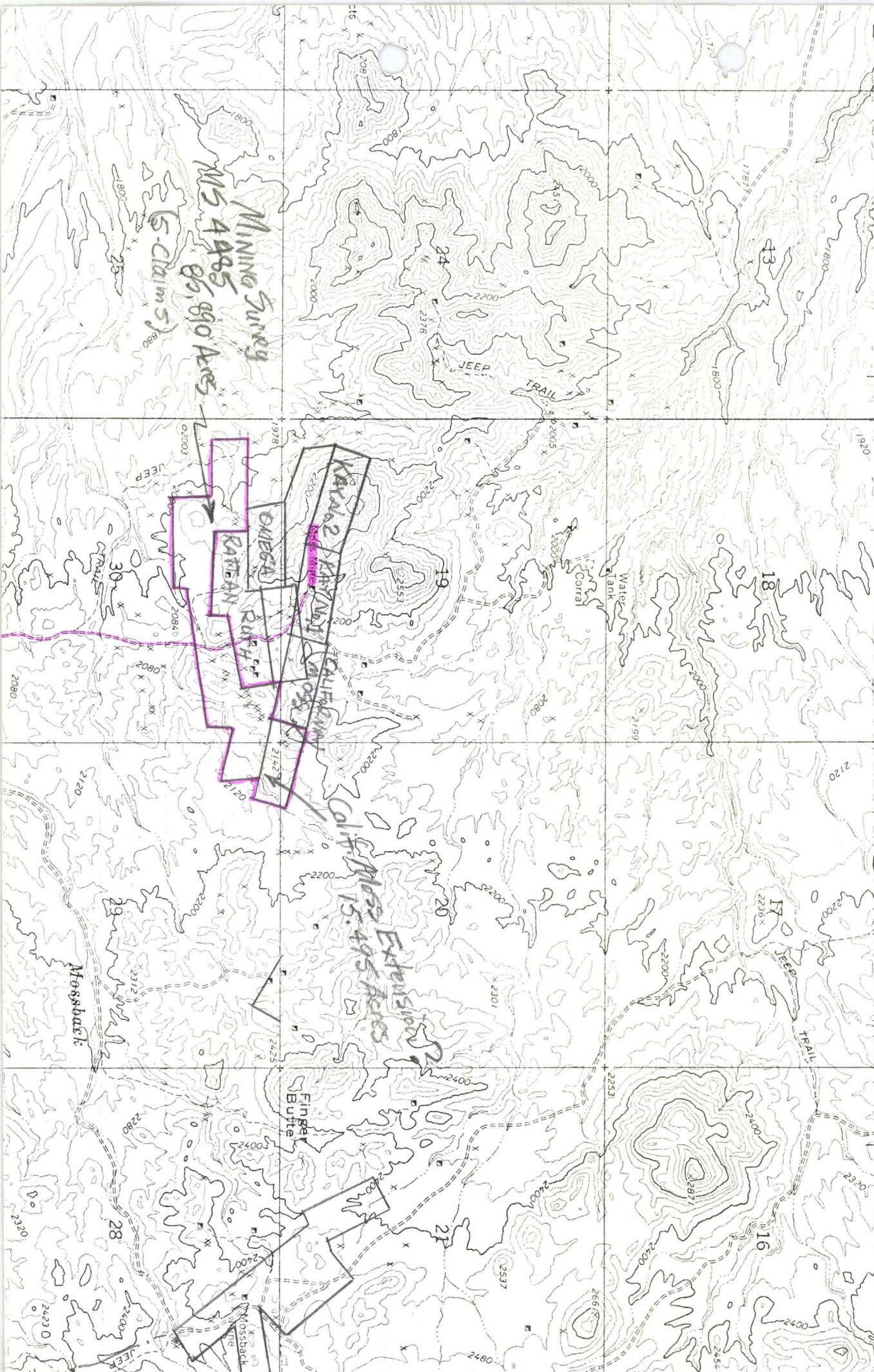
R21W

SCALE: 1" = 24,000' or 1" = 2000'

R20W

U.S. Geol. Survey
CATMAN QUADRANGLE

130 131 R 21 W 27 30" 132 R 20 W 133 3154 III NW (UNION PASS) 134 7 MI. TO ARIZ. 68 25' 136



Scale: 1 Mile (per 1/2 inch)

Sheet # 15 of:

MOHAVE COUNTY, ARIZONA

ARIZONA HIGHWAY DEPARTMENT
PHOTOGRAMMETRY AND MAPPING DIVISION

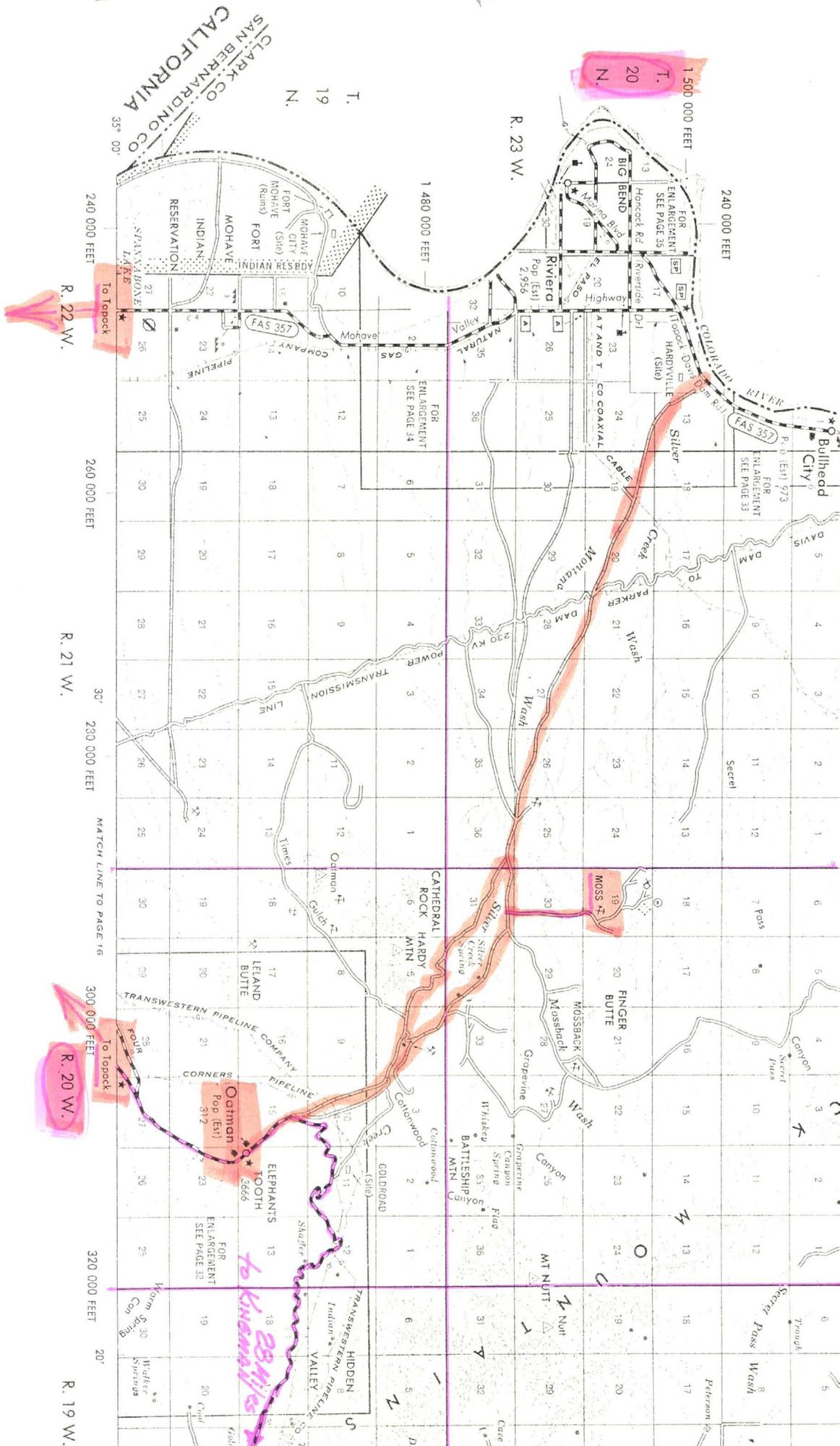
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

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GEOTECHNICAL ENGINEERS

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CLARK CO
SAN BERNARDINO CO
CALIFORNIA

R. 23 W. 240 000 FEET 260 000 FEET 300 000 FEET 320 000 FEET
R. 22 W. 240 000 FEET 260 000 FEET 300 000 FEET 320 000 FEET
R. 21 W. 230 000 FEET 250 000 FEET 270 000 FEET 290 000 FEET
R. 20 W. 300 000 FEET 320 000 FEET 340 000 FEET 360 000 FEET
R. 19 W. 320 000 FEET 340 000 FEET 360 000 FEET 380 000 FEET

T. 19 N.
T. 20 N.

T. 20 N.

R. 20 W.

28 Miles to Kingman