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One of the NICOR
basic energy companies

NICOR MINERAL VENTURES

Suite 12 2341 South Friebus Avenue Tucson, Arizona 85713 602-881-8871

March 25, 1985

Robert O. Rose
4205 Winfield Scott Plaza
Suite 4
Scottsdale, AZ 85251

Dear Mr. Rose:

Thank you and your people for letting NICOR Mineral Ventures examine your Zulu property. It is certainly a most interesting property and deserving of further work. At this time, however, the property does not present the potential required for further consideration by NICOR. Again, thank you for bringing this property to our attention and keep us informed of any future developments.

Sincerely,

Gary A. Parkison
Senior Geologist

GAP/psp

H. Clyde Davis

GEOLOGIC AND MINING CONSULTANTS

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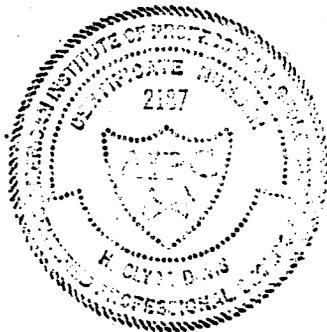
GEOLOGIC REPORT

ON

ZULU MINE

ZULU MINE
GILA COUNTY,
ARIZONA

H. CLYDE DAVIS
CONSULTING GEOLOGIST



W. Clyde Davis
GEOLOGIC AND MINING CONSULTANTS

RESIDENTIAL
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September 21, 1984

Zulu Mine Joint Venture
Bob Rose
4205 Winfield Scott Plaza
Scottsdale, AZ 85251

RE: Zulu Mine

Dear Mr. Rose:

A geologic update report on the Zulu Mine which is located in the northwest section of Gila County, Arizona, approximately 12 miles southwest of Payson, Arizona.

Location

The mine is located in sections 1 of township 9 ~~south~~^{north} range 9 east and adjoins section 36 of township 10 north range 9 east of the Arizona base and meridian. The mine is located adjacent to Rye Creek and approximately 3.5 miles northwest of Rye, Arizona. The property is accessible by a partly gravel but a good graded road from Rye about two miles along Rye Creek, then north for 1.5 miles to the Zulu Mine area (maps).

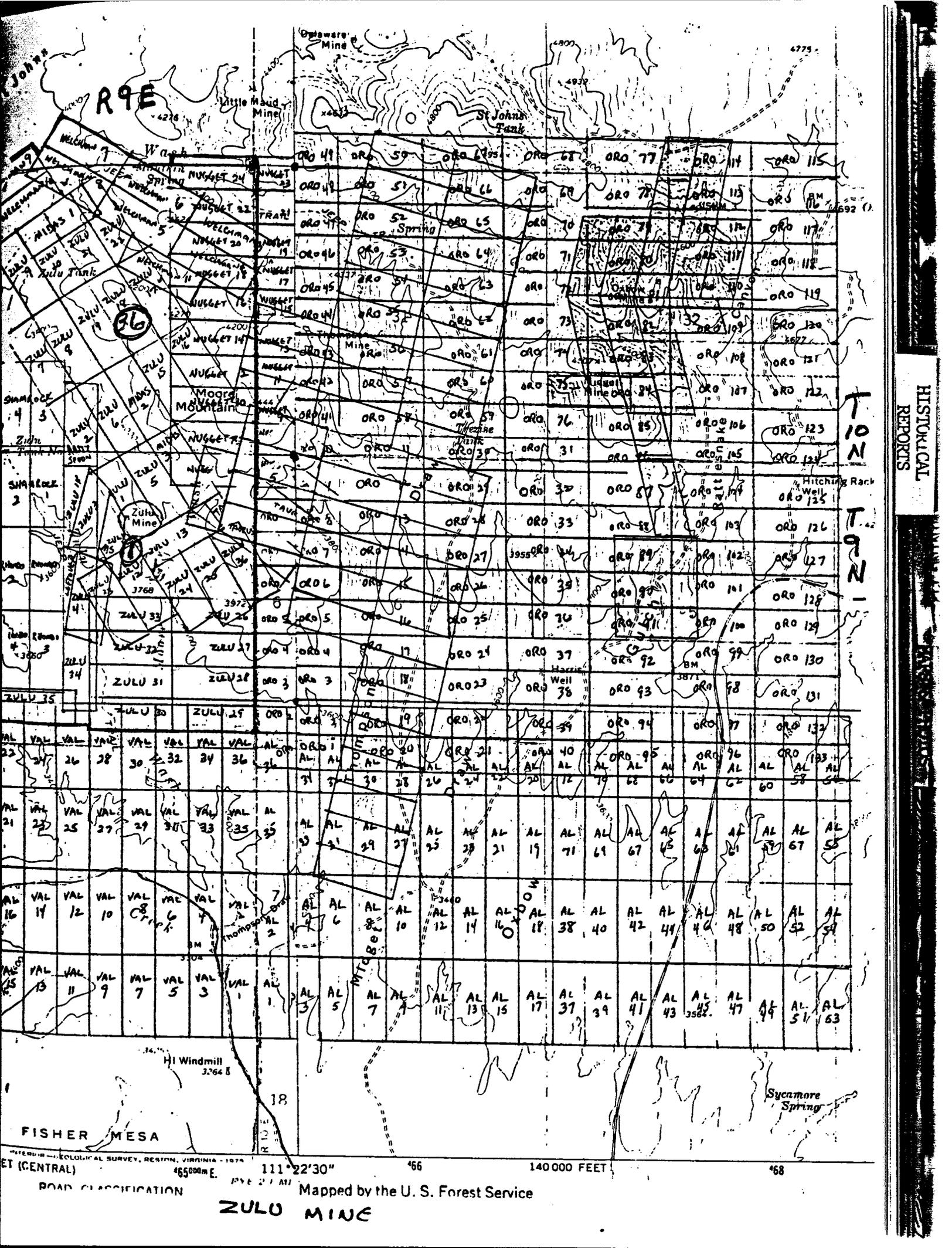
Climate

The elevation at the Zulu area is approximately 3,500' to 4,000' altitude. It is located in what is a geologic transition mountain zone between the Colorado Plateau province located to the northeast and the Basin Range Mountain province to the southwest. The climate conditions are good for year round operation, and the property lies in the lower rolling hills which gives ample room for mill site and enough grade for a proper disposal of tailings (map).

History

The history is one of intermittent operation since the claims were first located. The Zulu Mine was located by Sam Hill and Mr. Smith in 1878 and then later owned by William Craig of Payson who furnished the information on the early history of the mining district. It had been operated as a shaft-drift mine as is indicated in the reports on the Gila Monster Gold Mine by Mr. Thomas H. Rohdiner dated December 9, 1939, and an update report

<u>Claim Name</u>	<u>Section</u>	<u>T</u>	<u>R</u>	<u>Docket</u>	<u>Page</u>	<u>AMC BLM#</u>
Zulu #1	1	9N	9E	49	316	87306
Zulu #2	1 & 36	9N & 10N	9E	49	317	87307
Zulu #3	1 & 36	9N & 10N	9E	49	317	87308
Zulu #4	1	9N	9E	50	90	87309
Zulu #5	1	9N	9E	395	496	81832
Zulu #6	1 & 36	9N & 10N	9E	395	497	81833
Zulu #7	36	10N	9E	395	498	81834
Zulu #8	36	10N	9E	395	499	81835
Zulu #9	36	10N	9E	395	500	81836
Zulu #10	36	10N	9E	395	501	81837
Zulu #11	1	9N	9E	395	502	81838
Zulu #12	1	9N	9E	395	503	81839
Zulu #13	1	9N	9E	395	504	81840
Zulu #14	1 & 36	9N & 10N	9E	395	505	81841
Zulu #23	1	9N	9E	560	628-629	164300
Zulu #24	1	9N	9E	560	630-631	164301
Zulu #25	1	9N	9E	560	632-633	164302
Zulu Millsite	1	9N	9E	49	316	87305
Rhondo 1	1	9N	9E	536	286-287	137381
Rhondo 2	1	9N	9E	536	288-289	137382
Rhondo 3	1	9N	9E	536	290-291	137383
Rhondo 4	1	9N	9E	536	292-293	137384
Shamrock 1	36	10N	9E	536	278-279	137385
Shamrock 2	36	10N	9E	536	280-281	137386
Shamrock 3	36	10N	9E	536	282-283	137387
Shamrock 4	36	10N	9E	536	284-285	137388
Leftover	1	9N	9E	543	756-757	139636
Rusty Spoon	1	9N	9E	543	754-755	139635
Midas 1	36	10N	9E	473	221	48438
Midas 2	1 & 36	9N & 10N	9E	473	222	48439
Midas 3	1	9N	9E	473	232	48440
Welshman #1	36	10N	9E	398, 483	283, 977	81822
Welshman #2	36	10N	9E	398, 483	284, 979	81823
Welshman #3	36	10N	9E	398, 483	285, 981	81824
Welshman #4	36	10N	9E	398, 483	286, 983	81825
Welshman #5	36	10N	9E	398, 483	287, 985	81826
Welshman #6	36	10N	9E	398, 483	288, 987	81827
Welshman #7	36	10N	9E	398, 483	289, 989	81828
Welshman #8	36	10N	9E			
Welshman #9	36	10N	9E			
Welshman #10	36	10N	9E			
Zulu 15	36	10N	9E			
Zulu 16	36	10N	9E			
Zulu 17	36	10N	9E			
Zulu 18	36	10N	9E			
Zulu 19	36	10N	9E			
Zulu 20	36	10N	9E			
Zulu 21	36	10N	9E			
Zulu 22	36	10N	9E			
Zulu 26	1	9N	9E			
Zulu 27	1	9N	9E			
Zulu 28	1	9N	9E			
Zulu 29	1	9N	9E			
Zulu 30	1	9N	9E			
Zulu 31	1	9N	9E			
Zulu 32	1	9N	9E			
Zulu 33	1	9N	9E			
Zulu 34	1	9N	9E			
Zulu 35	1	9N	9E			
Zulu 36	1	9N	9E			
Welchman #11	36	10N	9E			



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VAL 22	VAL 24	VAL 26	VAL 28	VAL 30	VAL 32	VAL 34	VAL 36	VAL 38	VAL 40	VAL 42	VAL 44	VAL 46	VAL 48	VAL 50	VAL 52	VAL 54	VAL 56	VAL 58	VAL 60
VAL 21	VAL 23	VAL 25	VAL 27	VAL 29	VAL 31	VAL 33	VAL 35	VAL 37	VAL 39	VAL 41	VAL 43	VAL 45	VAL 47	VAL 49	VAL 51	VAL 53	VAL 55	VAL 57	VAL 59
VAL 16	VAL 14	VAL 12	VAL 10	VAL 8	VAL 6	VAL 4	VAL 2	VAL 1	VAL 3	VAL 5	VAL 7	VAL 9	VAL 11	VAL 13	VAL 15	VAL 17	VAL 19	VAL 21	VAL 23
VAL 15	VAL 13	VAL 11	VAL 9	VAL 7	VAL 5	VAL 3	VAL 1	VAL 1	VAL 3	VAL 5	VAL 7	VAL 9	VAL 11	VAL 13	VAL 15	VAL 17	VAL 19	VAL 21	VAL 23

FISHER MESA

ET (CENTRAL) 465000m E. 111°22'30" 466 140000 FEET 468

Mapped by the U. S. Forest Service

ZULU MINE

Bob Rose
September 21, 1984
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by Scott Fairbetter dated February 3, 1978 (enclosed). In 1981 a mining and leaching operation was on the property producing approximately 200 to 300 ounces of gold. The leaching pad had a surface area of one acre and stacked 9' deep containing approximately 20,000 tons. The pad consisted of material from old dumps and open pit mines along the vein structure and from the other mineralized area on the property. I was informed the operation failed because of poor management and lack of technical skills in using the cyanide process.

Claims

The mine today consists of 61 full and fractional claims known as the Zulu 1-36, Rondo 1-4, Shamrock 1-4, Leftover, the Rusty Spoon, and the Welshman 1-11. These claims are all located in section 1 of township 9 north range 9 east and section 36 of township 10 north range 9 east in Gila County, Arizona. Enclosed is a copy of the Arizona mining claim BLM number along with the sectional location and map.

Other Mines

According to USGS 7-1/2 Min Topo Quad Map known as N. Peak Gila County. The property is near many other mines in the district which include the Gold Hill Mine approximately 1.5 miles west, Little Green Mine, the Callahan Mine, Excursion Mine, Gowain, Single Standard, Oxbow, Golden Wonder and are located north. To the east are the Maggie Mine, the Waif Mine, Bishop Knoll and the Little Mod Mine. Silver Butte Mine is located west in the Mazatzal Mountains.

Geology

According to Arizona state literature and the USGS survey, there has been considerable general geology work completed in the area. The oldest rocks in the district are known as the Payson diorite and intermediate andesite. This rock is sometimes termed in the field as diabase. The diorite in the Zulu area is intruded by granite monzonite of a later age but still pre-Cambrian time and is known as the Payson granite. At the mine, the pink Payson granite interfingers with the diabase. The interfingering area is called chill zones where blocks of older diorite are in the granite masses of the fluid system of the younger granite. Shears, faults and mineralization are noted primarily along the diorite contact zone and where quartz has intruded along vein shear zones where there is mineralization containing gold and silver values.

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Bob Rose
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The Payson diorite is greenish, a module light and dark grey weathered quartz diorite with hypidiomorphic granular texture containing subhedral plagioclase crystals and smaller euhedral to subeuhedral rows of crystals of hornblende and amphibole, augite, magnetite, and apatite. The diorite has been altered, especially in the chill zones to both epidote chlorite and sericite chlorite and minor potassium feldspar. The plagioclase feldspar in some areas has been altered to sericite and the biotite and the other darker minerals have been altered to the chlorites and epidotes.

The lake bed formation which is located south of the Zulu property is of pliocene of tertiary age. This formation includes fossiliferous in the lacustrine deposits of possible middle and early pliocene. These are within valleys of the present drainage system near Rye, Arizona. The rocks are primarily of conglomerate, sand, silt, clays, and freshwater lime deposits. The sediment in the Zulu area is a freshwater deposit composed only of microcrystalline calcite. Other debris in the sample is of volcanic origin and includes vitric chips or shards replaced by wispy ferric iron and tiny chips of quartz sanidine, hornblende, sericitized plagioclase.

The table mountain area located to the west is sedimentary which is made up of siltstone sandstone and is of Cambrian age.

Directly west of the Zulu Mine in the St. Johns Wash has been a placer operation operating in the last ten years. Some free gold was taken from this wash. The history is very limited, but in viewing the property, tails from their operations were noted.

In the mine area, the diorite contained lenses of felsite granite-monzonite or aplite dikes which run through the vein system area. This is a pale to moderate orange rock, is medium grain, and hypidiomorphic granular texture and consists of microcline, albite, quartz, muscovite and magnetite. Granite covers a large area in the northern part of the property running into the Payson City area. Its composition is from quartz monzonite to granite diorite. The feldspars are microcline, orthoclase, and partly plagioclase. The plagioclase usually is altered to sericite and kaolinite to montmorillonite. The diorite is altered to quartz epidote, chlorite, sericite. It is noted that augite, hornblende, magnetite, biotite, and apatite are present. The aplite dikes are lens and are small to medium wide, pale to moderate orange color.

The Payson diorite of the Zulu area intrude older felsitic and basic volcanics sediments and tufts on the edge of the Mazatzal Wilderness. The volcanics are pre-1740, a M/YO (million years

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old), and the Payson diorite itself is approximately 7040 million years old or older.

The Payson granite is 1720 M/YO and about the same age as the broad expanses of felsitic volcanic rocks in the diamond butte, upper Tonto Basin and southern Mazatzal Wilderness, better described either as Red Rock rhyolites or simply ignimbrites.

The following geology of the Payson district is from the University of Arizona Bulletin #120. It was written by Care Lausen and E. W. Wilson.

"The quartz vein is in the Payson district strikes from north 15° west to north 65° west. The dip is usually to the northeast. The veins occupy fault fissures, and the movement has produced crush zones from a few inches to several feet in width on both walls on the vein. There has also been renewed movement of these fault fissures in the past later than the oxidation of the ore. It was these exposed portions of the vein together with the flow that occurred near them that were collected by the early settlers and hauled by burros to Rye Creek to be worked in an arrastras. The Zulu vein was one of the prominent veins of this group.

"The oxidized portion of the veins are rather porous systems of quartz with hematite and limonite. Cavities with a cubicle outline and with striations on the walls suggests that they were originally occupied by cubes and some pyrite. Other cavities in this porous ore contain nests of small radiating crystals of quartz that probably never originally occupied sulphide. Some portions of the veins are more massive quartz with only a small amount of hematite and limonite and are of lower grade than the honeycombed variety. Locally the veins carry oxidized silver and some copper along with the gold."

Structure

The transition zone of this area has a definite northwest trend, and mineralization of large mineral deposits have been found in the Jerome and Globe-Miami area which extends through the Zulu Mine area. The Globe-Miami area for the coincidence of the older pre-Cambrian has a northeast trending structure but later had deep-seated intrusions of igneous rock and related mineralization. However, one important control of both the Miami and Globe area Copper City deposits appear to have been contact between pre-Cambrian granite to the north and schist to the south. Many

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of the small granitic intrusions are confined to the northeast trending belt. Nearly all are elongated in this direction. However, other reports have concluded that the northwest trending structures most directly associated with the mineral deposits were formed during late cretaceous or early tertiary orogeny and igneous activity, but they probably reflected the deep rooted zones of weakness inherited from the pre-Cambrian deformation which also has a northwest trend.

The mineralized structures on the Zulu property have about a trend north 20° west or mainly north with many cross cut structures. The mineralization is in shear zones and veins and contacts small dikes are probably of pre-Cambrian age but could have had influence from the laramide orogeny, and the mineralization may have been remobilized by the laramide mineral or later dike systems.

Mineralization

A geologic map was completed by Tom Cleary, a geologist from Superior, Arizona, and a copy of his map is included in this report. From the maps it indicates the vein system, dikes, contact zones where mineralization was noted. It shows the quartz diorite or diabase of andesitic and meta volcanics which are the basic rocks of the mine area. There is the assimilated zone of the younger granite and diabase contact. The Payson granite is noted more to the west of the mapped area. There are also the conglomerates and siltstone and calcic siltstones located to the west and the south of the mine diabase area. It also included the apatite dikes and small barite veins, the shear zone and veins of the main Zulu vein where the bulk of the mineralization and mining has taken place. Ore zones are along the fault structure Zulu vein, east vein, north vein and many intersections of structure into the main N.W. and north veins.

Drilling

A drilling program was outlined which cut the various structures of the mine area. These drill holes are as follows (map):

<u>Drill Hole</u>	<u>Depth of Hole</u>
1. Drill hole #1	340 feet
2. Drill hole #2	300 feet
3. Drill hole #3	100 feet
4. Drill hole #4	100 feet

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5. Drill hole #16	100 feet
6. Drill hole #7	100 feet
7. Drill hole #8	100 feet
8. Drill hole #20	45 feet and 100 feet
9. Drill hole #12	300 feet
10. Drill hole #31	100 feet
11. Drill hole #13	100 feet
12. Drill hole #14	100 feet
13. Drill hole #17	95 feet

These drill holes are all indicated on the map by Mr. Cleary. The Zulu property with the north-south trending dikes, the mineralization primarily to the northwest-southeast, seem to be like a spider web cutting the major trends.

Conclusions and Recommendations

In conclusion after reviewing the Zulu deposit and the considerable amount of exploration by trenching which has been done by backhoe and bulldozer and also a drilling program, this property has a favorable future as a gold and silver mining project. The assaying is done by Milltex Corporation of Chandler, Arizona, and also Electro Claim Lab of Sedona, Arizona. Mr. Larry Hunter is in charge of the Electro Claim Lab. The assays are the result from fire assay and also cyanide leaching where a button has been parted, and also, using the atomic absorption method. As the assays indicate, there are high zones and pockets in the Zulu vein structure which have a strike or a length of approximately 3,000 feet and width from 95 to 6 feet wide. These assays run from 0.05 (Au) to many ounces per ton as indicated in the attached assay sheets.

There is a zone approximately 200-feet long and 95-feet wide in the old Zulu shaft area where old workings had gone to a depth of over 300 feet in mining the high-grade gold. However, with opening up this vein to the northwest and southeast, the vein has thickness from 6 feet, 20 feet as is noted on the map area. The best assays were taken in the old mining area from drill hole #12 through drill hole #13 as indicated on the map. The best sampling would be determined by the 20,000 tons of ore on the old leach pad which ran approximately 0.28 in gold (Au).

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MINING PLANS

MAPS & PHOTOS

Bob Rose
September 21, 1984
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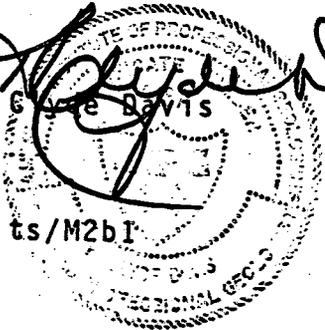
From the many assays and consulting with assayers and metallurgists, the property should run approximately 0.30 in gold (Au) values. The silver is insignificant and runs from 0.5 to 3. ounces of silver in the high-grade areas.

Recommendations

1. I would recommend a thorough metallurgical test be run on the dumps and ore of the Zulu vein on at least 500 pounds to a ton on a pilot study to determine the flow sheet and the proper metallurgy for the optimum results in obtaining the gold values. Mr. Steel is working on this project and will give a report pertaining to the metallurgy and flow sheets.
2. I would recommend a detailed study on breaking and mining of the rocks so that it would be economical and make use of the best method and equipment today. Floyd Bleka will give a report on the mining costs and breakdown of this operation.
3. As mining proceeds with the property, a geologic map should be made which would give details of the faulting, the shearing and mineralization encountered as it is open pit in depth.

With the above values from the property, it should be mined on an economical base and a profit.

Best regards,



ts/M2b1

REPORTS

Ore Reserves

The relationships of ore reserve classifications are as follows:

1. Developed ore (proven ore).
2. Indicated-inferred ore (probable ore).
3. Possible ore.

The following ore reserve calculations are reported in the USGS and Bureau of Mine Systems of Reporting: Proven ore, indicated and inferred ore, and possible ore.

The developed ore ounces/tons gold (Au) and ounces/tons silver (AG) are based on assays from previous works completed on the Zulu Mine as shown in the reports by former geologists and many assays by myself.

1. Developed ore reserves are based upon material at the leach pad at the mine site as well as area above the mine cut which are in dumps adjacent to the vein systems.

The specific gravity used for rhyolite and diabase is approximately 2.5, and the tonage factor is $2.5 \times 62.4 = 156$ lbs. per cubic ft. which equals $2,000/156 = 12.8$ cubic ft. per ton. The factor 12.8 will be used in reducing the volume cubic foot tons to the tons.

Table 1 - Developed Ore

Proven Ore

<u>Location</u>	<u>Area</u>	<u>Dimension</u> <u>Length, Depth, Width</u> <u>Surface to 100' Level)</u>	<u>Volume</u> <u>Cu. Ft.</u>	<u>Tons</u>
Zulu vein	DH #12, 13	200 x 200 x 95	3,800,000	296,875
Zulu	So of DH12	400 x 100 x 70	2,800,000	218,750
Zulu	So. of Shaft Area #2	200 x 100 x 60	1,200,000	93,750
Zulu	So. of Area #3	400 x 100 x 20	800,000	62,500
Zulu	North of #13	900 x 100 x 20	1,800,000	140,625
Zulu	North of #5	700 x 100 x 15	1,100,000	82,031
Zulu	East vein	250 x 100 x 20	500,000	<u>40,000</u>
Total				934,531

Indicated-Inferred Ore

<u>Location</u>	<u>Area</u>	<u>Dimension Length, Depth, Width (Below 100' Level) to 300 feet</u>	<u>Volume Cu. Ft.</u>	<u>Tons</u>
Zulu vein	DDH 12-13	200 x 200 x 95	3,800,000	296,875
Zulu	So DDH #2	400 x 200 x 70	5,600,000	437,500
Zulu	So DDH 12 of #2	200 x 200 x 60	2,400,000	187,500
Zulu	So of #3	400 x 200 x 20	1,600,000	125,000
Zulu	No of DDH 13	900 x 200 x 20	3,600,000	281,250
Zulu	N of DDH 13 #5	700 x 200 x 15	2,100,000	164,062
East vein	East vein	250 x 200 x 20	1,000,000	<u>78,125</u>
Total				1,570,312

Possible Ore

<u>Location</u>	<u>Area</u>	<u>Dimension Length, Depth, Width (Below 300' to 600' level)</u>	<u>Volume Cu. Ft.</u>	<u>Tons</u>
Zulu	DH12, 13	200 x 200 x 95	3,800,000	296,875
Zulu	So DH #12	400 x 300 x 70	8,400,000	656,250
Zulu	So of h #12 of #2	200 x 300 x 60	3,600,000	281,250
Zulu	So of #3	400 x 300 x 20	2,400,000	187,500
Zulu	No of #13	900 x 300 x 10	2,700,000	210,937
Zulu	No of #5	700 x 300 x 10	2,100,000	164,062
Zulu	East vein	250 x 300 x 10	750,000	<u>58,593</u>
Total				1,855,467

VEIN SYSTEM COULD GO TO 1000 feet PLUS. THIS HAS NOT BEEN CALCULATED



P.O. BOX 872
DOUGLAS, AZ 85607
USA

Payson AZ

The slide shows coarse vein quartz, individual grains being of prismatic habit and lying in random orientation. Tiny beads of calcite occur as inclusions within the outer portions of the crystals in zonal arrangement. Grain boundaries were disturbed during the latter stages of growth, and crackled or broken quartz has recrystallized as smaller prisms with sulfides and a little pennine in the interstices.

Coarse chalcopyrite once present has altered in situ to goethite and chrysocolla in cellular intergrowth. Coarse native gold is common within and at the margins of the pseudomorphs. Chrysocolla and crystalline hematite also migrate into the gangue along fractures that also carry β duffite and mottramite.

Clay (?)

The rock is a marl, a fresh water carbonate sediment composed almost wholly of microcrystalline calcite. Bedding is crudely defined by virtue of distribution of impurities. These include a few bits of fossil debris replaced by clear granular calcite. Other debris is of volcanic origin and includes vitric chips or shards replaced by wispy ferrian smectite, and tiny chips of quartz, sanidine, hornblende, sausseritized plagioclase, etc.

There has been no alteration or recrystallization of the rock whatsoever. Its friability is due to leaching of calcite along a myriad of irregular fractures cutting the fabric.

Lm-55 East

Calc-arkose, chiefly andesitic and tonalitic debris in calcite matrix.

Basalt Rock

Meta-basalt, a quartz-epidote-biotite hornfels.

Cap Rock, West Contact

Marl, similar to "clay".

Intermediate

Dacite microgranophyre, likely a dike or sill.

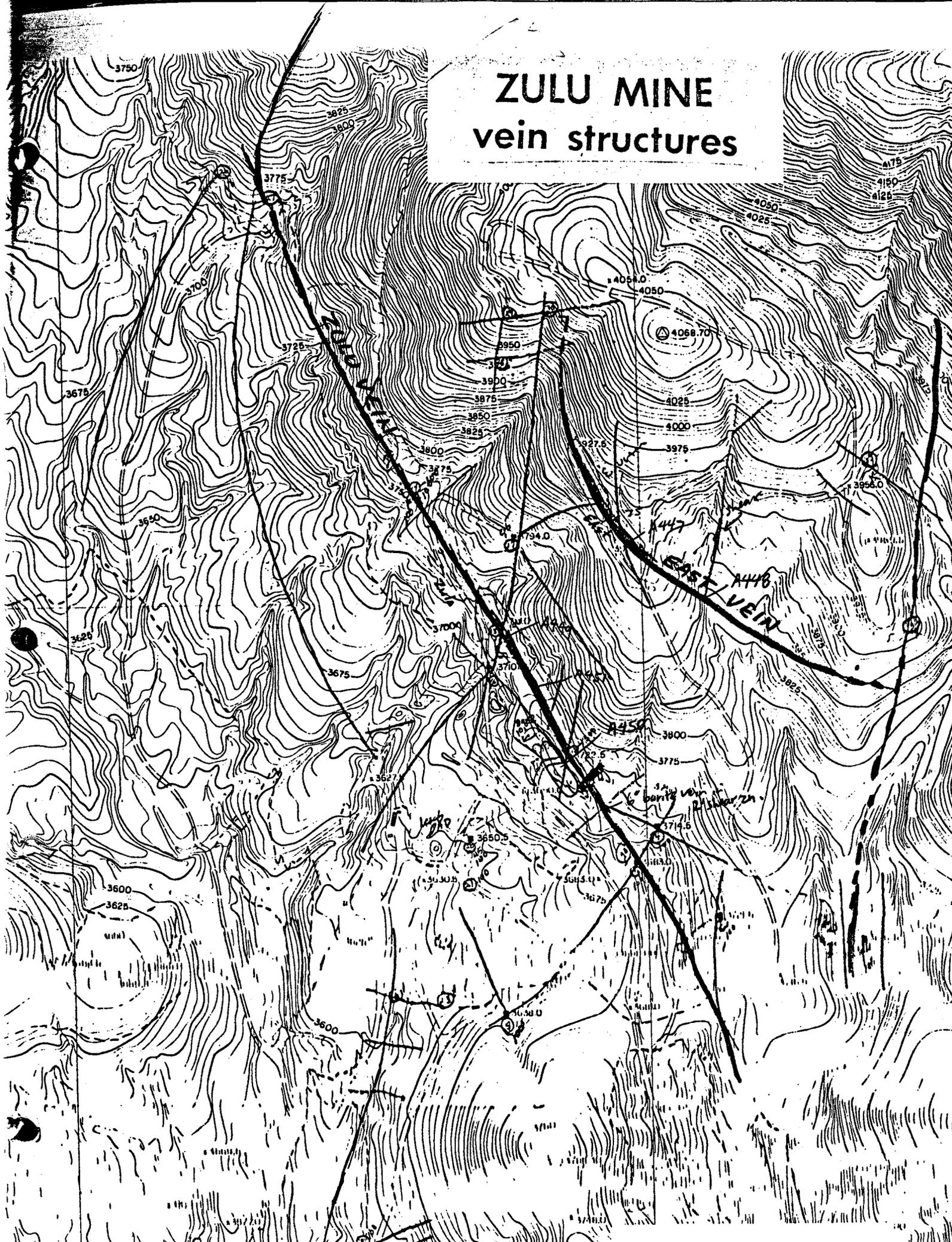
Mineral Matrix

Mylonitized breccia, mainly sheared metasilstone rubble.

HISTORICAL
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WORLD OF LOMO ENTERPRISES

ZULU MINE vein structures



PRELIMINARY METALLURGICAL INVESTIGATION
OF ORE FROM THE ZULU MINE IN GILA
COUNTY, ARIZONA

FOR

ZULU MINING JOINT VENTURES
4205 Winfield Scott
Plaza Suite No. 4
SCOTTSDALE, ARIZONA 85251

BY

Mountain States Research & Development
Post Office Box 17960
Tucson, Arizona 85731

Project 2566

Prepared by: James F. Minno
James F. Minno
Process Engineer

Approved by: Joseph F. Shirley
Joseph F. Shirley
Senior Vice President
General Manager

October 2, 1984

TEACHING
OPERATION

MILL & FORT

INTRODUCTION

An approximate 500 pound sample of approximate 4 inch rock was delivered to Mountain States Research and Development (MSRD) laboratories on September 18, 1984 by Mr. Charles "Ray" Steele of Zulu Mining Joint Ventures (ZMJV). After discussing the scope of work with Mr. Richard Boehme, Senior Process Engineer MSRD and Mr. Joel Teel, Assistant Vice President of Projects MSRD, Mr. Steele gave verbal authorization and a \$5,000.00 advance to begin sample preparation and metallurgical testing.

The "as received" sample was crushed to approximately 10 mesh blended and split into representative 1000 gram charges. (See attached sample preparation flowsheet for details). Three of these charges were randomly selected, pulverized, and submitted for triplicate gold and silver head assay analysis. Other charges were selected and used for metallurgical testing. The test program included cyanidation, flotation, gravity concentration and amalgamation. (See attached individual test data log sheets for details).

SUMMARY AND CONCLUSIONS

In general metallurgical results were favorable and ore grade high. The sample submitted for testing had triplicate head assay pulps prepared which were subjected to multiple analysis by the fire assay method. The average assay head were 0.285 oz/ton gold and 0.18 oz/ton silver. Due to its low assay and relative insignificant economic importance silver will not be discussed in the report. Cyanide agitation leaching reported the best gold recovery at a near perfect and probably difficult to maintain commercially 98.4 percent. Flotation was second best with an excellent gold recovery of 92.3 percent. Amalgamation and gravity concentration yielded gold recoveries of 73.6 percent and 45.6 percent respectively.

Cyanide heap leaching was not attempted due to the ore being "high grade". Heap leaching which is performed on relatively coarse crushed ore yields lower recoveries when compared to agitation leaching which is performed on relatively finely ground ore. However, heap leaching is considerably less expensive in regards to both capital and operating costs and in many cases provides the best net return. Should the ore drop in grade to say below 0.10 oz/ton gold, then heap leaching should be considered.

Although cyanide agitation leaching produced the highest gold recovery it is not being recommended as the tentative process flowsheet at this time. This is due to its typically high process capital and operating costs and the even greater cost and other potential problems of tailings disposal in an environmentally sensitive area like the Tonto National Forrest where the Zulu Mine is located.

In conclusion, based on the limited data available in conjunction with knowledge of typical capital costs, operation costs, and related environmental considerations, the recommended tentative process flowsheet includes crushing, grinding, flotation, and either smelting or cyanidation of the flotation concentrate. (See attached tentative process flowsheet for details).

LEACHING PAD OPERATION

1981 - 82

The present owners constructed and operated a cyanide leaching pad in 1981-82. The one-acre pad was designed and constructed by the mine owners. The pad was laid out 200 feet wide by 200 feet long. The slope was 3-1/2 feet to 100 feet to the center of the pad and 9 feet in 200 feet from the top of pad to the lower end. Two ponds were constructed below the pad; one for collecting the pregnant liquor and the other for mixing and recycling to the pad.

The pad produced about 200 ounces of gold but was closed down because of the lack of working capital. We considered the pad a success because it proved that the ore could be leached and that there was gold in the Zulu Mine.

Being under-capitalized caused us to take short cuts with the leaching operation that prevented success. We did not have an adequate lab to control our solutions; we were unable to hire a metallurgist; we did not crush the ore and we tried to leach when the temperature was too low.

We have attached copies of typical sales records to North American Refining & Distributing Ltd.