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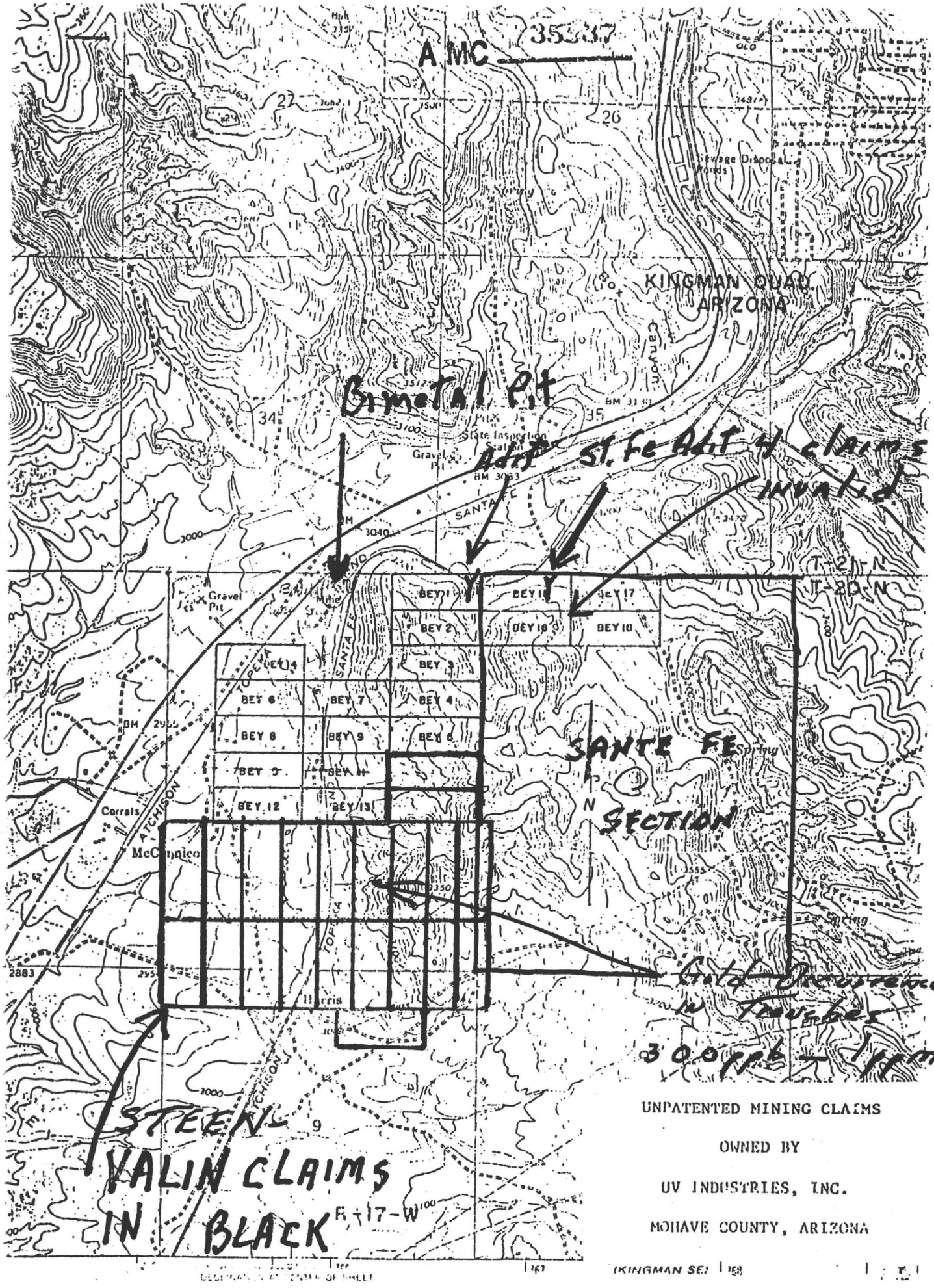


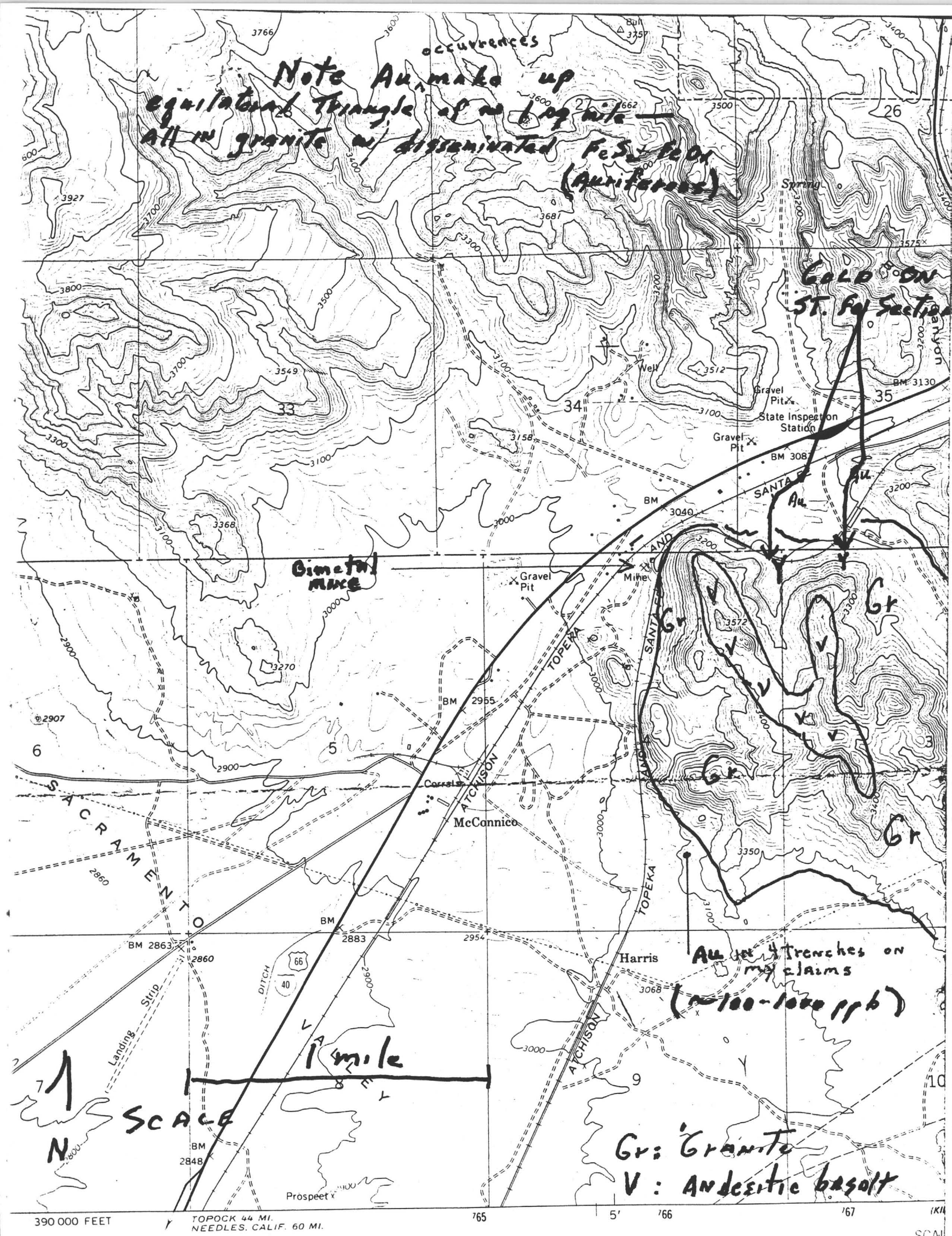
UNPATENTED MINING CLAIMS

OWNED BY

UV INDUSTRIES, INC.

MOHAVE COUNTY, ARIZONA

(KINGMAN SE)



Note Au occurrences make up equilateral triangle of ~ 1 sq mile —
All in granite w/ disseminated FeS + FeOx (Auriferous)
GOLD ON ST. Fe Section
Au
Au
Bimetal Mine
Au in 4 trenches on my claims (~100-1000 ppb)
1 mile
SCALE
N
Gr: Granite
V: Andesitic basalt
Gr
V
Spring
Well
Gravel Pit
State Inspection Station
Mine
Corrals
McConnico
Harris
Prospect
SACRAMENTO
VALLEY
ATCHISON
TOPEKA
SANTA FE
Landing Strip
DITCH
66
40
BM 3130
BM 3083
BM 3040
BM 2955
BM 2883
BM 2863
BM 2848
390 000 FEET
TOPOCK 44 MI.
NEEDLES, CALIF. 60 MI.
765
766
767

DONALDSON VALIN
1615 North Virginia, #71
Reno, NV 89503
(702) 322-5082
May 1, 1991

Michel Drouin, Regional Manager
Cambior
230 South Rock
Sparks, NV 89431

Dear Michel,

My (and my partner John Steen's) 21 unpatented claims are in the south third of section 4, wherein lies the Sharon Steel Bimetal Pit, up in the private northwest corner. Sharon also owns 15 unpatented claims in the middle of the section, and Sante Fe owns the section to the east (see maps). The data package contains mostly information on the Bimetal, which, by the way, stands for gold and iron, not gold and silver. There is very low silver there: <1:1 Ag:Au. I assume anyone interested in the Bimetal will want to pick up my Z claims also; thus my interest in promoting the Bimetal: I am not looking for any finder's fee. The data package consists of:

1. An internal report generated by Sharon before they went bankrupt discussing a possible reserve of 200,000 tons of .1 oz., with a land status map and a map of the pit.
2. Map of Valin-Steen Z Claims in relation to Sharon and Sante Fe property. Note elongated north-south triangle formed by the Bimetal pit, Sante Fe adits to the east, and Z claim gold occurrences to the south--all similar mineralization in same host rock, all capped by Kingman Mesa Andesitic Basalts. A geologic sketch is on the next page after this map.
3. Brief history of recent development at Bimetal.
4. Letter from former Director of Mineral Resources, State of Arizona, regarding Bimetal and possible reserves.
5. Report by Howard Fields on Bimetal with good assay data.
6. Discussion of Au in episyenite. (Episyenite: granitic rock that thas been flooded by highly potassic feldspar solutions replacing silica [quartz] and often forming nephelene syenite crystals.)

7. Historical Bimetal data from published literature.
8. Assays from 2 claims, Bimetal pit and area, and drill cutting assays at 50 foot level of 18 shallow holes punched by Doug Bonnelli.
9. Photos of Bimetal area and rocks from my 2 Claims.
10. Short discussion of using the fine fraction of stream sediment for sampling in semi-arid environment (unrelated to submittal.)

There are certain problems associated with this possible ore deposit: you will have to deal with Sharon Steel (UV Industries) plus Sante Fe, and it is between two railroad tracks and very near the I-40 Highway. On the other hand, all indications point to a deposit being there, and it would seem that permitting would be easier in that area than in most places. The Kingman city sewer plant is 2 miles north of the pit, high voltage electric transmission lines run right across the south end, and Sante Fe carries enormous clout in that part of the world, as no doubt you do too.

The deal my partner and I want is $10,000 for the first year, doubling each anniversary, against 5% NSR. Some money if our claims are used for dumps, milling, stockpiling, or leaching. Both of us have other mining claims leased to major gold companies. You will find us easy to make a deal with.

Good prospecting in the coming season.

Yours truly

Don Valin

(2)

SHARONSTEEL o Mining Division

AN NVE COMPANY

SHARON STEEL CORPORATION
19TH FLOOR UNIVERSITY CLUB BLDG.
SALT LAKE CITY, UTAH 84111
TELEPHONE (801) 355-5301

FOR INTER-OFFICE COMMUNICATION

April 9, 1982

To: Mr. E. Peter Matthies, Vice President and
General Manager

From: Gaylon W. Hansen, Manager of Exploration

Exploration Proposal

Bi-Metals Project

SHARONSTEEL o Mining Division
AN NVF COMPANY
SHARON STEEL CORPORATION
19TH FLOOR UNIVERSITY CLUB BLDG.
SALT LAKE CITY, UTAH 84111
TELEPHONE (801) 355-5301

FOR INTER-OFFICE COMMUNICATION

April 9, 1982

Bi-Metals Project
Proposed Exploration Program, 1982

Abstract

The Bi-Metals Project is located 5 miles southwest of Kingman, Arizona and consists of 4 patented and 26 unpatented mining claims.

The annual direct holding cost is $2,600.

Past production records indicate that 24,923 tons of ore were mined which contained an average of .326 oz. gold per ton. The mining was done from shaft, adits and open pit.

Estimated probable ore reserves in the area of the open pit are placed at 1 to 200,000 tons at a grade of .08 to .15 oz. gold per ton.

Estimated possible and inferred ore reserve potential, outside of the open pit area, is placed at 500,000 to 3,000,000 tons at a grade of .03 to .15 oz. gold per ton.

An exploration drilling program of a total of 12 holes is recommended for this project at a total cost of approximately $170,000. This drilling program should indicate the probability of the existence of the various, estimated, ore reserve classes, and the open pit mining probability.

This project is considered to have a good prospect potential.

The adjacent Oro Fino claim property of 16 acres is recommended for purchase because of its location within the mineralized area and for the large building on the property which would be of valuable use for future work at the Bi-Metals and Gold Road Projects.

The purchase price for the Oro Fino property is estimated at $70,000.

The total cost of this proposed Program is projected at $240,000.

The implementation of this Proposed Exploration Program could begin upon approval and would require about 6-8 months to complete.

Pertinent maps relative to the project are included herewith.

SHARONSTEEL ○ Mining Division

AN NVF COMPANY

SHARON STEEL CORPORATION
19TH FLOOR UNIVERSITY CLUB BLDG.
SALT LAKE CITY, UTAH 84111
TELEPHONE (801) 355-5301

FOR INTER-OFFICE COMMUNICATION

April 9, 1982

Bi-Metals Project
Proposed Exploration Program, 1982

Location - Logistics

The Bi-Metals property is located 5 miles southwesterly from Kingman, in Mohave County, Arizona, and is accessible via paved roads with a network of good dirt roads throughout much of the property area. All service facilities and supplies are readily available, with a moderate climate prevailing through most of the year. The topography is generally characterized as being of low hills and moderate relief, at an average elevation of 3,200 feet.

Property Status

The property consists of 4 patented claims (82 acres) and 26 unpatented claims (537 acres) owned by Sharon. The patented claims were acquired by UV Industries in 1972 for $4,300 at a tax sale; the unpatented claims were subsequently located at periods up to 1978. The annual direct holding cost is $2,600.

Property Workings

There are a number of mine workings on the property, dating from the early 1900's through the 1930's.

These, in the main, consist of a small open pit 200 feet in diameter by 30 feet deep; a 50 foot deep shaft within the bottom of the pit area; 2 lateral drifts, of 90 and 40 feet in length, driven into the north side of the pit wall; a 125 foot deep shaft just north of the pit area, which has about 180 feet of drifting extending out from its lower level; 2 mine adits in the eastern area of the property which are 75 and 135 feet in length, and numerous small prospect pits scattered throughout the general area. The shafts and several of the drifts are partially caved and unsafe to enter.

Historical Background - Past Production

From 1907-1909, J. Hammond mined 8,000 tons from the 125 foot shaft and from the open pit area. This ore averaged .20 oz. gold per ton and was milled on site. This operation ceased in 1909.

In 1935-1936, Wilkerson and Jones selectively mined about 800 tons from the pit area which averaged .54 oz. gold per ton. This ore was shipped to the Tom Reed mill in Oatman, Arizona, near the Gold Road Mine. In the late 1930's, Wilkerson, Jones and Weeks erected a mill on the property which treated about 15,000 tons of ore mined from the pit area, which averaged .36 oz. gold per ton.

In 1937, Wilkerson selectively mined about 1,000 tons from the shaft in the bottom of the pit area; this ore averaged .65 oz. gold per ton.

Years	Tons	Average Grade-Gold
1907-1909	8,000	.20 oz. per ton
1935	791	.544 oz. per ton
1936	15,154	.36 oz. per ton
1937	978	.651 oz. per ton
Total mined	24,923	.326 oz. per ton

The gold content of this ore production was, for the most part, free-milling and, therefore, amenable to simple metallurgical recovery techniques.

Geology

The general area of the project is underlain by a basement complex of altered and mineralized pre-Cambrian granite and gneiss which has been invaded by numerous aplite and diabase dikes. Capping the pre-Cambrian is a thick series of layered volcanic extrusives, which consist of andesite, interspersed with ash, tuff and scoria ejecta with a final thick layer of basalt.

The granite has been shattered and sheared over broad zones by the action of the intruded dikes with gold-pyrite mineralization occurring as disseminations, with quartz, throughout these zones as a filling along fractures and veinlets. The source of the mineralization appears to have been from the aplite, diabase intrusives with accompanying hydrothermal activity. The more intensely mineralized areas tend to occur where aplite is more abundant. Oxidation is shallow but is extensive within the fracture zones where the pyrite has oxidized, giving the area a high degree of limonite staining. The gold apparently occurs in close association with the pyrite and in areas has been chemically-physically concentrated, through oxidation as free gold, in and along these fracture zones. The area of the old open pit is an exposed zone of intensive fracturing.

These mineralized zones, as observed, appear to be in excess of 800 feet in total width near the area of the open pit and extend, in an elongate configuration, in an easterly direction for at least 3,000 feet. Most of the conjecturally extended area of these zones is covered by the post-mineral volcanic formations and by erosional debris; however, scattered outcrop exposures tend to support the conjectural areas of extension. It is not inferred that the entire areas of these zones, in any dimension, contain potentially commercial gold values.

Present Ore Reserves

Various potential reserve estimates have been made in prior years, as follows:

1. U. S. Smelting Company; Mike Romney, 1938,
   140,000 tons of probable ore at .11 oz. gold per ton.

2. American Smelting Company; Howard Fields, 1938,
   500,000 to 1,000,000 tons of inferred ore at .13 oz. gold per ton.

3. Arizona Department of Natural Resources; J. S. Coupal, 1945,
   200,000 tons of probable ore at .15 oz. gold per ton
   500,000 tons of possible ore at .15 oz. gold per ton
   1-3,000,000 tons of inferred ore at .15 oz. gold per ton.

4. Sharon Exploration Department, 1981,
   100,000 tons of probable ore at .08 oz. gold per ton,
   and 500,000 to 1,000,000 tons of inferred ore at .03 to .07 oz. gold per ton.

These various reserve estimates, being in the probable, possible and inferred classes, are not proven and are subject to continued exploration-development work for verification. The majority of these estimated reserves are prospective only, at this stage of investigation.

The gold mineralization, as presently identified, occurs disseminated throughout a number of the old mine workings and in intermittent-partial surface exposures of significant size, within the property area.

The gold content of samples from the old pit workings area range from .025 to .55 oz. per ton; samples from the nearby shaft contain gold in the range of .05 to .16 oz. per ton, and general samples of the other numerous, scattered workings, prospect pits and exposures range from .02 to .07 oz. gold per ton.

Given the apparent overall nature and distribution occurrence of the gold values, it is probable that the deposit could be amenable to open pit mining methods.

Exploration to Date

Up to the late 1930's, various amounts of exploration-development work was conducted on the property in conjunction with several periods of ore production. This work has tended to identify the tonnage and grade as is previously listed as being probable, which is within the immediate area of the pit zone. The additional listed tonnages, possible and inferred, are projected into the areas outside and beyond the pit zone.

Since acquisition in 1972 to the present, our exploration work has, in the main, consisted of geologic-geochemical studies and mapping; some limited amounts of rotary and air-track drilling for geologic and prospect information, and, most recently, the construction of roads and a number of future exploration drilling sites within the project area.

The location of these drill sites having been based upon the identification of the most favorable mineral target areas, as determined to date.

Proposed Exploration

As previously stated, a number of favorable exploration drilling target areas have been determined and 6 drill sites have been constructed, to date, in preparation for testing these target areas.

In accord with the recent discussion-approval conference with Mr. Matthies, regarding the Exploration Proposal on this Project, a total of 12 diamond core drill holes, HQ size, are planned for this phase of the proposed exploration drilling program. The location and the spacing of these drill holes is designed to maximize the exploration testing of the grade, tonnage and dimensions of these indicated zones of gold mineralization.

Three (3) holes are planned to be drilled in the general region of the open pit, on the Bi-Metal and Mineral Point claims, for the main purpose of further identifying the listed probable and the possible ore reserves, as are indicated to exist in this area of the mineralized zone. These holes are expected to be drilled to a projected depth of 400 feet each.

One (1) hole is planned to be drilled to an approximate depth of 500 feet, on the Bey #15 claim, to intercept the downward extension of an exposed mineralized zone which is near the easternmost extension of the projected mineralized area.

Two (2) old mine adits have penetrated the zone in this area, at shallow depth, with an apparent gold content of .03 to .10 oz. per ton.

One (1) hole is planned to be drilled on the Bey #4 claim to a depth of about 500 feet for the purpose of testing the southeasterly projection of a mineralized zone extending out from the area of the open pit. The mineralized zone in the area of this planned drill hole was exposed by our recent road construction work.

Under this phase of the proposed exploration drilling, it is planned that an additional seven (7) contingent, 500 foot drill holes will be required to supplement and extend the results obtained from the initial five (5) primary holes.

The location and the projected depth of these planned drill holes will vary, to some extent, as the drilling program proceeds, due to the obtaining of new geologic information which may dictate revisions of the planned program. In this connection, it is planned to conduct the drilling operations with one (1) drill rig, during the initial phase, in order that the results can be evaluated and incorporated into the prudent placement and design of the additional drill holes.

The total planned footage to be drilled for this 12 hole drilling program approximates 5,700 feet, and is expected to cost a total of $170,000 under a drilling contract agreement.

The program, as planned at this time, would require about 6-8 months to complete, with the drilling operations proceeding on the basis of 1 shift per day and 5 days per week, with one drilling rig.

The drilling on this project can begin upon approval. The drilling contractors and the environmental permits have been in order for this operation for some time.

Property Factors

It has become apparent, through our exploration work to date, that the mineralization occurring on Sharon's property, in the general region of the open pit, does probably extend into an adjacent property of other ownership. This property should be acquired by Sharon as part of the currently proposed Exploration Program. This property is the Oro Fino patented mining claim and consists of 16 acres with surface and mineral rights. On the property is a good cinder-block building, which is 34 feet by 72 feet, with office, warehouse and dock facilities, and is serviced by all utilities and paved road access. This property would be of high mineral and service value to our exploration activities on the Bi-Metals and the nearby Gold Road Project. The Oro Fino property is presently available for purchase at a total price of $70,000, which is at current appraisal for the surface and building value only.

Negotiation for the acquisition of this property should begin as soon as possible.

Cost

The total cost of this Program, as here presented, is $240,000.

Other

The Exploration Proposal, as here discussed, was previously presented in summary form in the Proposed 1982 Exploration Department Budget of December 22, 1982, but has since been revised and refined through discussion with Management.

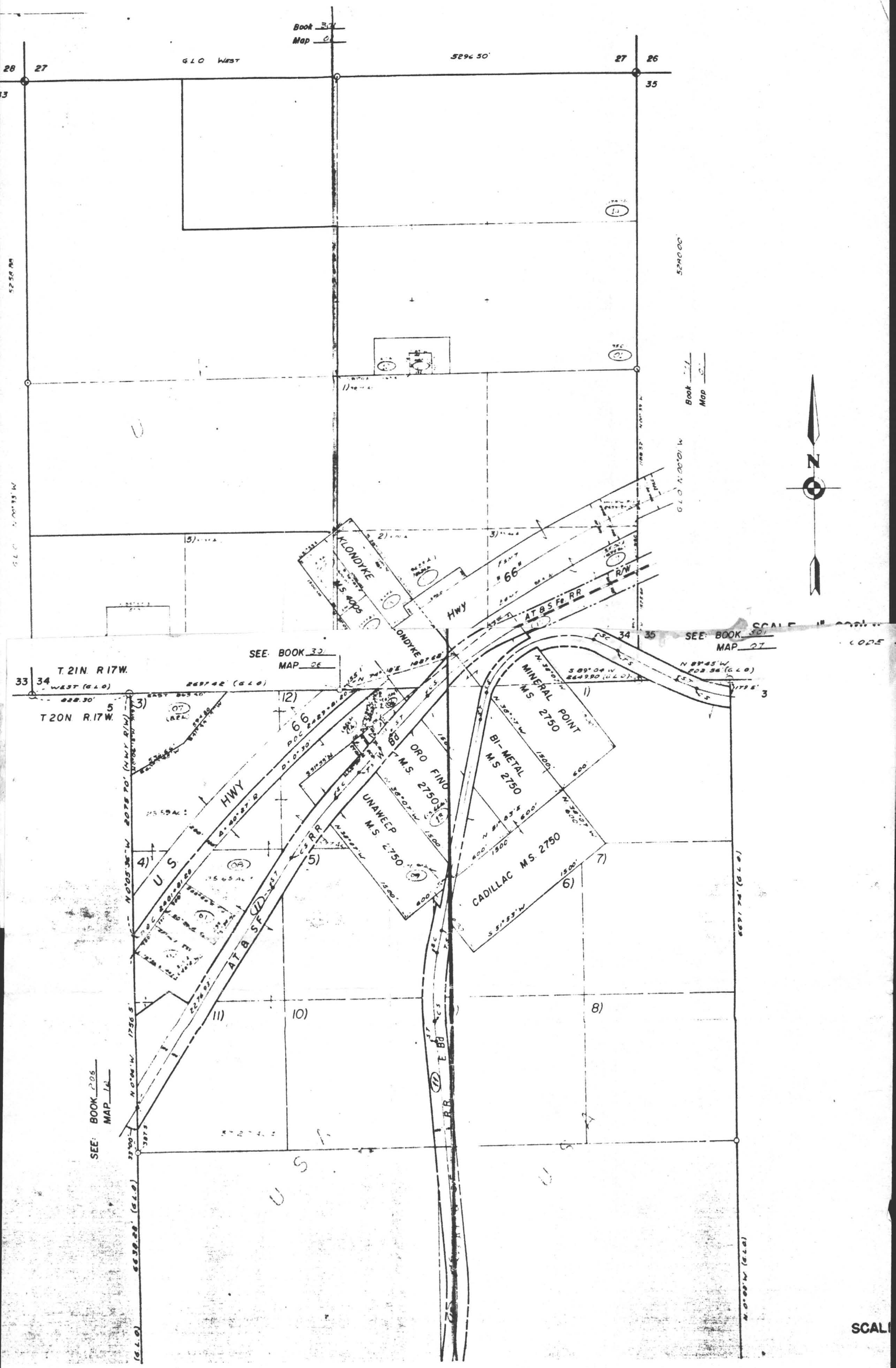
Maps

Accompanying this Report-Proposal are the following described maps:

Plat 1 - Bi-Metals Project; geographic location.
Plat 2 - Bi-Metals Project; geographic location.
Plat 3 - Bi-Metals Project; geology, topography, property ownership, proposed drill sites.
Plat 4 - Bi-Metals Project; open pit area, shaft, sample assays, geology.
Plat 5 - Bi-Metals Project; geologic cross section.

Note: The seven (7) additional-contingent drill site locations do not appear on Plat 3, as their locating will depend upon the drill results of the five (5) primary holes.

Jaylon N. Hansen


Book 301
Map 01
28
27
GLO WEST
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SCALE
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MAP 27
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MAP 26
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MINERAL POINT
M.S. 2750
BI-METAL
M.S. 2750
ORO FINO
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MAP 16
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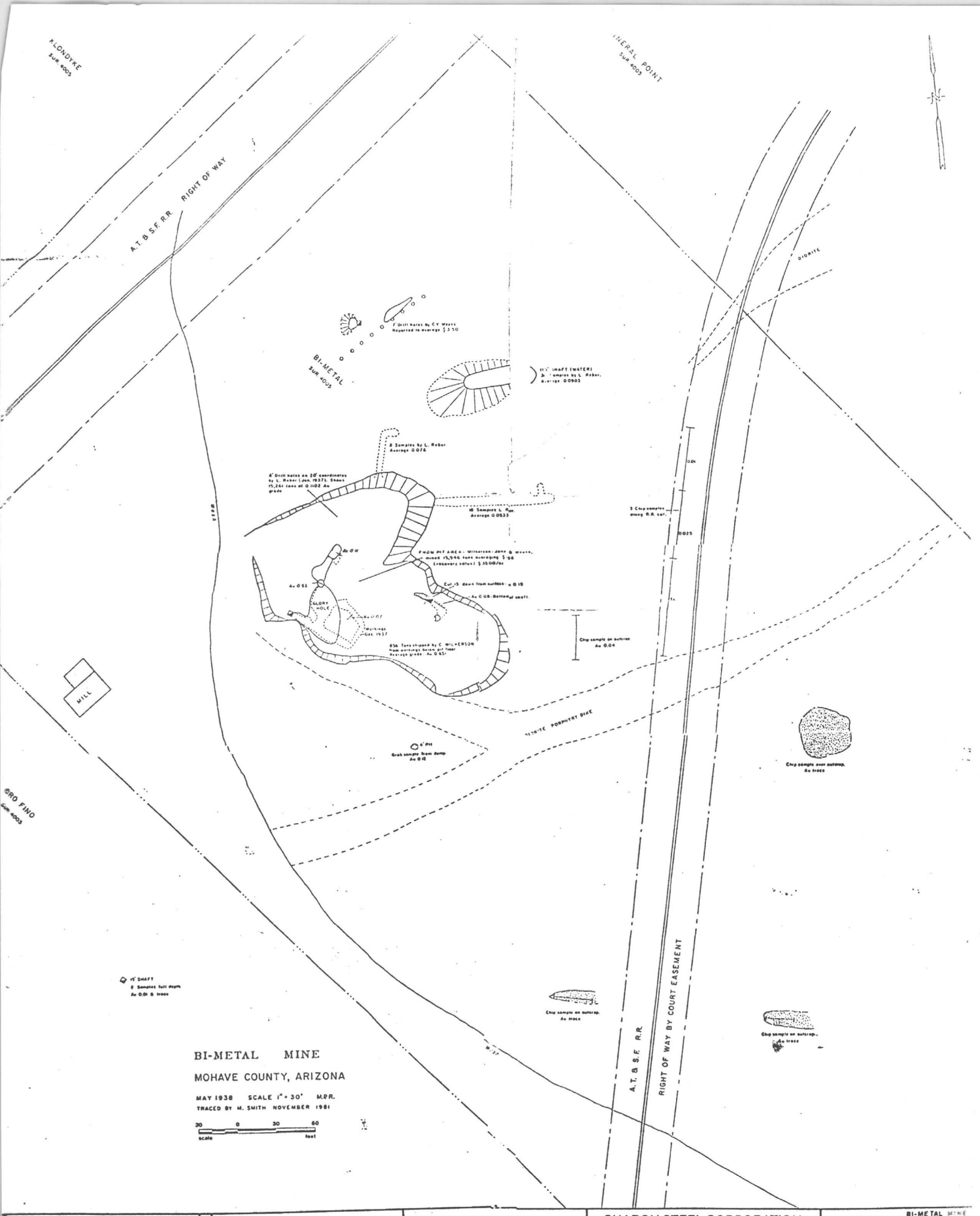


Traced from an old print. Overlay data - Drill holes taken from an old map. No date or other details. Sections from a map dated June 30, 1938

REVISIONS

SHARON STEEL CORPORATION
MINING EXPLORATION DEPARTMENT
SALT LAKE CITY, UTAH

BI-METAL MINE
MOHAVE COUNTY, ARIZ.
WITH OVERLAY
1"=30'

REPORT

on

BI METAL MINE

Kingman, Mohave County, Arizona.

By

Howard H. Fields.

BI METAL MINE

LOCATION:

The Bi Metal Mine is located in Section 34, T 21, N R 17 W and Section 3, T 20 N R 17 W of Mohave County, Arizona. The Santa Fe Railroad crosses the property five miles West of Kingman, Arizona.

TITLE:

The property consists of the following patented mining claims:

Mineral Point,
Bi Metal,
Oro Fino,
Una Weep,
Cadillac
} U. S. Mineral Survey No. 2750.

Klondyke --------- U. S. Mineral Survey No. 4005.

These claims are owned by Mrs. Grace Trout of North Girard, Pennsylvania, and are held under option by Claude M. Wilkerson of Kingman, Arizona. Title is reported to be in perfect condition with taxes paid.

TOPOGRAPHY--CLIMATE:--

The elevation at the Bi Metal Mine is about 3,250 feet. The climate ranges from 8 F to 117 F and the normal annual rainfall is 11.5 inches.

The mine lies largely in a gently dipping valley floor and extends up a steep hillside to the East. The major portion of the property can be driven over by truck.

MINING FACILITIES:

Kingman, County Seat of Mohave County, lies five miles East, affording a local source for supplies and labor. Los Angeles supplies overnight service for supplies.

Electrical power is available from the high tension lines of the Desert Power Company, running from Kingman to Oatman Present power cost is estimated 1.75 ¢ KWH. A power line from Boulder Dam to Kingman is under construction and will begin serving the Desert Power Company in August. Power costs will be lowered by the replacing of local steam produced power by Boulder Dam.

Water for milling is at present purchased from a private source about a mile distant. This is too expensive for steady operation of any size. A 100 foot well nearby produces 30,000 gallons per day. Wells drilled on adjoining railroad and government lands in the same valley as the producing Santa Fe Railroad wells will probably supply all the water required from a distance not to exceed 3500 feet but slightly up grade.

HISTORY:

In 1907--8--9, John Hays Hammond is reported to have taken an option to purchase this group for $350,000.00. He sank Shaft "A" on Map I. 135 feet, and ran 200 feet of drift and cross-cut and 200 feet of shallow tunnel. A 10 stamp mill, steam powered, was built and from 7 to 8 thousand tons milled with reported heads of .20 Au and tails of .08 Au. Some 66 shallow drill holes were reported to have averaged .094 au. This block milled .20 Au. but high tailing loss caused a shutdown in late 1909.

Between 1909 and 1935 the property was examined by U.S.S.R. and M. Co., American Metals, and Clarence King for R. E. Talley of the United Verde Copper Company.

In 1935 C. M. Wilkerson and S. S. Jones took an option from Mrs. Trout and by selective mining shipped about 700 tons crude to the Tom Reed Mill at Oatman, which averaged about $18.73 per ton. In June, 1936, C. F. Weeks joined them, rehabilitated the old mill, milled about 15,000 tons. His operation consisted of mining in the pit by gas shovel, truck to mill, floating gold, amalgamating the concentrates and shipping treated concentrates to Oatman for cyaniding and amalgam to the mine.

Dissension among the partners and the unprecedented winter of 1937 closed down the operation. The option reverted to the owners.

Wilkerson obtained a new option in September, 1937, and since has shipped selected ore from a windlass shaft 40 feet deep in the bottom of the old pit, some 978 tons having a net value per ton to him of $23.55per ton. He is still shipping.

About the time Wilkerson resumed shipping in 1937, Louis Huber examined the property for the Phelps Dodge Corporation and recommended that they option it, to enable them to do some drilling.

The Phelps Dodge Corporation drilled sixteen 10-foot Jackhammer holes, sampled the tunnel, dumps, and inall, took seventy-six 100 pound samples. The terms were too onerous so nothing resulted.

Wilkerson has set up a small tripod headframe, installed a gasoline hoist and is working two shifts, shipping crude ore to the Vivian Mill at Oatman.

GEOLOGY:

The surface and underground work at the Bi Metal shows a complex of various types of granitic rocks, apparently of pre-Cambrian age. This granite is a medium fine grained silicious rock, showing abundant aplite where mineralization is most intense. Regionally the various rocks show a NW trend with vertical contacts. In the pit some sheeting with a westerly flat dip is conspicious, also there are a series of slips NE dipping 40° -- 50° N and an E-W vertical series. The downward trend of the mineralization might be controlled by any of these, but the steep regional structure seems most significant. The values are apparently associated with fine grained pyrite in the more silicious areas of granite. The gold is mechanically combined for the most part as all the sulphides pan. Oxidation is shallow as sulphides occur close to grass roots. Coarse and fine grained pyrite is the only sulphide noted. A dark colored mineral, probably manganese, shows with the better grade ore.

A dark basic dike, possibly gabbro, shows on the South side of the pit and mining was stopped in this direction by the dike. Similar intrusive rock shows in the NE corner of the pit, in the railroad cut and in the present shaft isolated fragments, both fresh and altered and more or less mineralized, with angular and rounded outlines, were noted. It is not clear whether the dike intrusion caused more intense fracturing near it or whether it followed previous fracturing, but apparently more intense mineralization lies in the areas near the dike rocks. The dike itself is reported to carry about $1.00 in gold

In the area around Shaft A, 130 feet deep, there may be more commercial ore, judging from the old records. While the presence of dike rock here is not clearly shown, yet the nearby exposures of it may have some bearing on its occurence.

Southeast of the main dike area and adjoining it, a couple of shallow cuts and shafts show a mineralized, silicious granite, similar to that in the pit area. Aside from these, no work has been done in this direction, which appears to be an exceedingly promising one. If the areas adjoining the dikes are the most likely ore bearing areas, then it is logical to expect ore on both sides. Since all the

other factors are apparently similar and commercial ore found in the pits shown on the map, prospecting should show a similar ore body on the SE side of the dike. If other dike areas are discovered, they also will offer promising prospects.

Aside from the comparatively shallow workings, there is no direct evidence as to the probable depth the commercial mineralization may extend. However, on the surface there is commercial ore from the mill to Shaft A, a distance of 400 feet. The granite is Pre-Cambrian. There is no evidence of weakening mineralization.

Considering all this evidence, it seems safe to assume the present grade of ore will continue to at least a depth of 300 feet.

MINE DEVELOPMENT:

The attached map shows the outlines of the pits, the various shafts and tunnels, together with assays in ounces of gold, and the location of buildings.

Shaft A shown in plan and section demonstrates that the mineralization at that point continues regularly to a depth of 130 feet below the surface. This means 70 feet below the pit floor. While this is not accessible now, yet Wilkerson trenched the dump and Weeks milled 50 tons, both reporting .10 oz. Au., confirming the ore ~~persistence~~ to that depth.

The incline showing on the map produced shipping ore to a depth of 35 feet, where a hard, low grade granite ore stopped their shipping. Wilkerson claims this has a value of $7.00. My ore sample, fines included, assayed $4.90.

The present shaft is 43 feet deep and followed shipping ore all the way. This shaft passed through the hard ore that stopped the incline and the last shipment of 34.6 tons ran .95 oz. gold. Not over a couple of tons were sorted.

From the incline and this new shaft, Wilkerson has shipped 78 tons, having an average gross value of $23.55 per ton. The grade is apparently best at the present bottom as his last shipment of 34.6 tons assayed .95 oz. Au. The continuation of this good grade of ore from the surface to its present depth, indicates that the entire area of mineralization also will continue down with similar values.

HOWARD H. FIELDS

The [redacted] mine has a definitely established area of commercial ore in the present pit area with indications of persistence to depth, but no blocked out ore. Diamond drilling seems to furnish the solution for quick preliminary exploration, both as to depth and lateral extension.

It is proposed to drill a series of 100 foot holes as shown on the map and in sequence of numbering. The results of these drillings will determine the next step. If they prove satisfactory, a number of deeper holes should be drilled and the ore bodies outlined to make possible the location of the shaft mill and indicate the size of the operation. The preliminary 9 holes to 100 foot depth should not cost over $1500.00--$2000.00, including assaying, etc. Since past dry Jackhammer drilling has been so accurate, it appears that careful diamond drilling properly located will develop the ore bodies, so the next step will be shaft sinking and mill construction.

The mining method proposed in either sized operation is "glory hole". A shaft sufficient for the tonnage planned will be sunk in wall rock and a drift put in to the center of the ore. The shaft will have an ore pocket of proper size. Two raises terminating in bulldozing chambers will be driven to surface and the ore benched down from the surface with Jackhammers--grizzlies at the bulldozing chambers will make it possible to reduce large pieces to skip size.

An alternate will be an incline shaft from wall rock to the center of the ore, with ore pocket, grizzlies and bulldozing chamber above it, eliminating any underground tramming, but tying up some ore in a shaft pillar. The glory hole walls will be benched but the average inclination will be about 74°.

Milling will be the usual step--crushing and grinding in a ball mill. Ball mill discharge will pass through a mineral jig before reaching the classifier where 50% of the gold is removed. Bulk flotation, 200--1 ratio concentration, will treat classifier overflow. Both jig and flotation concentrates will be amalgamated, recovering over 60% total gold in amalgam. After amalgamation the concentrates are cyanided.

The Oatman mills pay for 95% of the gold in flotation concentrates so their recovery is probably 97--98.

Overall recoveries are expected to be over 90%. 85% is used in these calculations. The pyrite floats easily and fineness of grind is apparently the governing factor in the flotation recovery, so 90% plus is expected which should give an overall recovery over 90. The recovery of such a large proportion of gold in the amalgam re-

duces the period of tieup in process to a minimum.

MINE--MILL EQUIPMENT:

The mine has no equipment beyond a gas powered portable air compressor, large enough for two Jackhammers, a 12 HP gasoline hoist, car bucket, track, drills and steel.

The mill is an old remodeled stamp mill with stamps replaced with ball mill. It is powered by steam through a Corliss valve engine driving both a D.C. generator and line shaft. The jaw crusher is motor driven. The ball mill is a remodeled standard mill--the jig between it and an Aikens Classifier is too small -- the flotation cells are Denver Sub A and in good shape. The amalgamators, thickeners, feeders, etc., are all home made. There is a first class water softener for boiler water. The mill can easily be used for a pilot plant or for bulk sampling but is too costly to use for any medium or large size operation, and further is located on a possible ore extension.

ORE VALUES and TONNAGES:

Value of ore mined in 1936 operation:

Gross value crude ore shipped prior milling Mined from block milled		$ 11,999.71
Gross value bullion and Cts. shipped 6/12/36--2/28/37		
Concentrates	$ 15,862.86	
Plus 5% deducted by mill	793.14	
	$ 16,656.00	
Bullion		
Mint receipts	35,813.20	52,469.20
Total gross value in ore (less tailings loss)..		$ 64,468.91

Tons ore milled	12,206.00	
Tons ore crude (shipped)	653.42	
	12,859.42	
Value per ton crude (less tailings).....		$ 5.01
Tailing loss .025 at 34.90		.86
Calculated value ore in pit before mining		$ 5.87
for shipment or mill--Per ton		.185

HOWARD H. FIELDS

In addition to the foregoing shipments, a clean up was made after mill closed down. The value of this is not available but is reported to be between $10,000 and $20,000, which will add to the value per ton.

Weeks' sampling before milling consisted of drilling 60 holes, about 20 feet deep, from the surface and bottom of old pit, with a dry Jackhammer drill. The first two feet were not sampled but the drillings from each succeeding four feet were blown out by air and caught in a canvas bag fastened to a 1 1/2 inch pipe collared in the hole. These were averaged and the grand average was .128 oz. gold per ton. This does not include the crude ore mined and shipped from this area just previous to the sampling. The average of the ore mined and milled from this area from actual bullion and concentrate returns, excluding crude ore shipments, was .1235 oz. per ton, to which should be added the tailing loss of .025, making it .1485 oz. per ton. The ore actually mined better than it sampled by drilling, 71 ¢ per ton.

From the records kept by O. K. Lewis, connected with the 1907--8 operations, the heads averaged about .20 and tails .06. The tailings are covered by the tailings from the second milling operation.

To spotcheck these samples, a few samples were cut in the pit, as shown on the attached plan map. Some of these were cut from pit walls which were too low grade for the last operation to mine. Several not listed were cut in the present shaft in shipping ore.

No.	Width in Ft.	Description	Oz. Per T. Assay
	23	Vertical cut ore pit wall S. face near dike-60 #--no fines	.105
	24	Vertical cut--schisty ore E. wall, possibly lens of dike--low grade--75#--no fines	.035
	10	2 vertical cuts in old winze from short tunnel under schist sampled as #2, 6 feet below pit floor--grey granite	.170
	16	Vertical cut N wall--reddish granite shattered leached-no fines	.035
	7	Vertical cut in floor of pit in trench-- hard granite, few sulphides--no fines	.060

ontinued)

No.	Width in Ft.	Description	Assay--Oz. Per T.
7	18	Vertical cut face Incline shaft from floor pit-- above bulkhead about 35' below floor pit--no fines	.140
11	4	Vertical cut--in new shaft 36'--40' Nwest wall near shipping ore--no fines	.380
13	4	Vertical cut surface pit SE office on S side of dike-- no fines	.140
15	3	Vertical cut in new shaft 40'-43' bottom hard granite showing sulphides--no fines	.180

The weighted averages of these are as follows:

All samples ..... .102
Eliminating No. 5 on extreme N wall-edge ore .113

Considering the fact that these were mostly taken from ore left by the former mill operators, it seems that they support the records sufficiently to warrant using their results as indicating the grade of ore to be expected in extensions.

The plan of mining, glory hole method, will necessarily mean dilution and a dilution factor of 28% in a glory hole 300 feet deep is estimated. This low grade is estimated to assay .035 oz., so the average of the block mined and milled by Weeks, et. al., will be reduced from .165 oz. per ton to .130 oz. per ton, which is assumed as an expected head assay.

Two scales of operations are considered (1) the tonnage to 300 feet deep under the present pit, an area 200 x 100 feet, with 15 cubic feet per ton in place, ore 400,000 tons increased by dilution to 512,000 tons; (2) the present pit area plus a similar area to the SE, totalling 800,000 tons, increased by dilution to 1,024,000 tons. The outcome on both bases follows:

Under both bases the recoveries and costs will be considered the same, though a slight reduction might be made in mining and milling costs under the 500 ton basis. Ratio of concentration from past operation is 200-1. The ore will be ground through 100 mesh, floated and the concentrates cyanided.

(Continued)

Heads	.130 oz. gold per ton		
Tails	.020	85% recovery	
Recovered	.110	at $34.90	$ 3.83
Mining	.50		
Milling	1.00		
General	.25		
			1.75
Profit per ton.....			$ 2.08

250 Tons per day		500 Tons per day
$1,064,960	Total Profit.....	$2,129,920

Present value by Hoskins formula

$ 812,554	7-4 5.7 years.....	1,625,109

Mine Development & Equipment

14,000	350 ft. shaft $40.00	14,000
10,500	700 " raise $15.00	10,500
3,000	Bulldozing chamber	5,000
7,500	Hoist & Equipment	10,000
5,000	Compressor	7,500
2,000	Pipe lines	2,500
3,000	Drills and Steel	5,000
15,000	Exploration & Development	25,000
75,000	Mill at $300 per ton	150,000
10,000	Cyanide Plant Cts.	15,000
3,000	Water system	5,000
3,000	Transformer station	5,000
20,000	General contingencies	25,000
171,000		$ 279,500

Purchase Price.
Interest on investment until mill starts.
Salvage value equipment.

160,000	Purchase property	160,000
7,500	Interest to start mill	10,000
338,500		$ 449.500
12,000	Salvage equipment 15%	24,000
326,500	Total net cost	$ 425,500
486,054	Present cash value profit	1,199,609
15,600	Profit per month	31,200
187,200	Profit per year	374,400

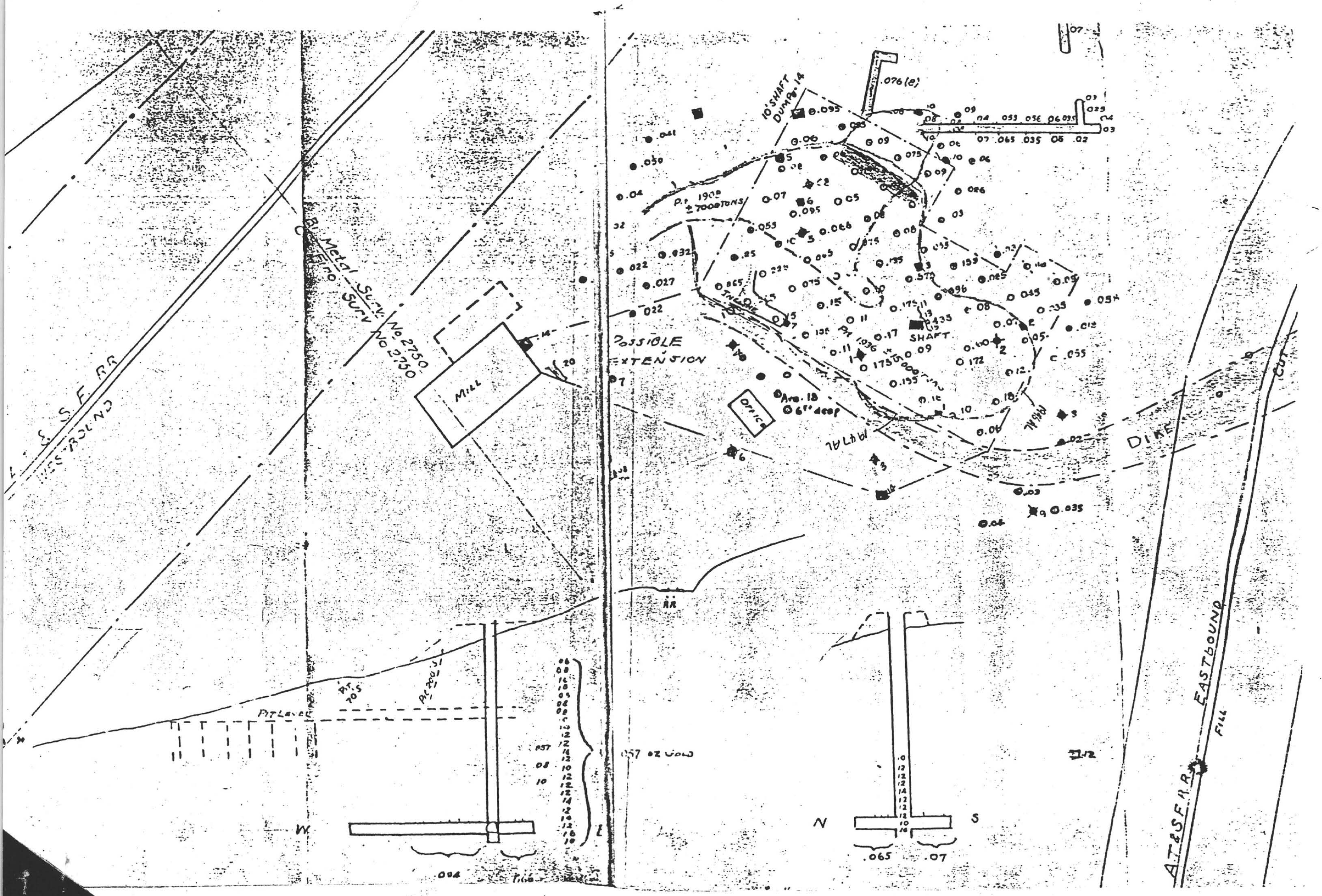
...SION:

The past [redacted] mine operations has established the pres-
e of commercial ore in considerable volume. The downward ex-
sion of this ore and its lateral extension can be shown by
iond drilling a few 100 foot holes cheaply, to be followed by
e detailed and deeper drilling for development.

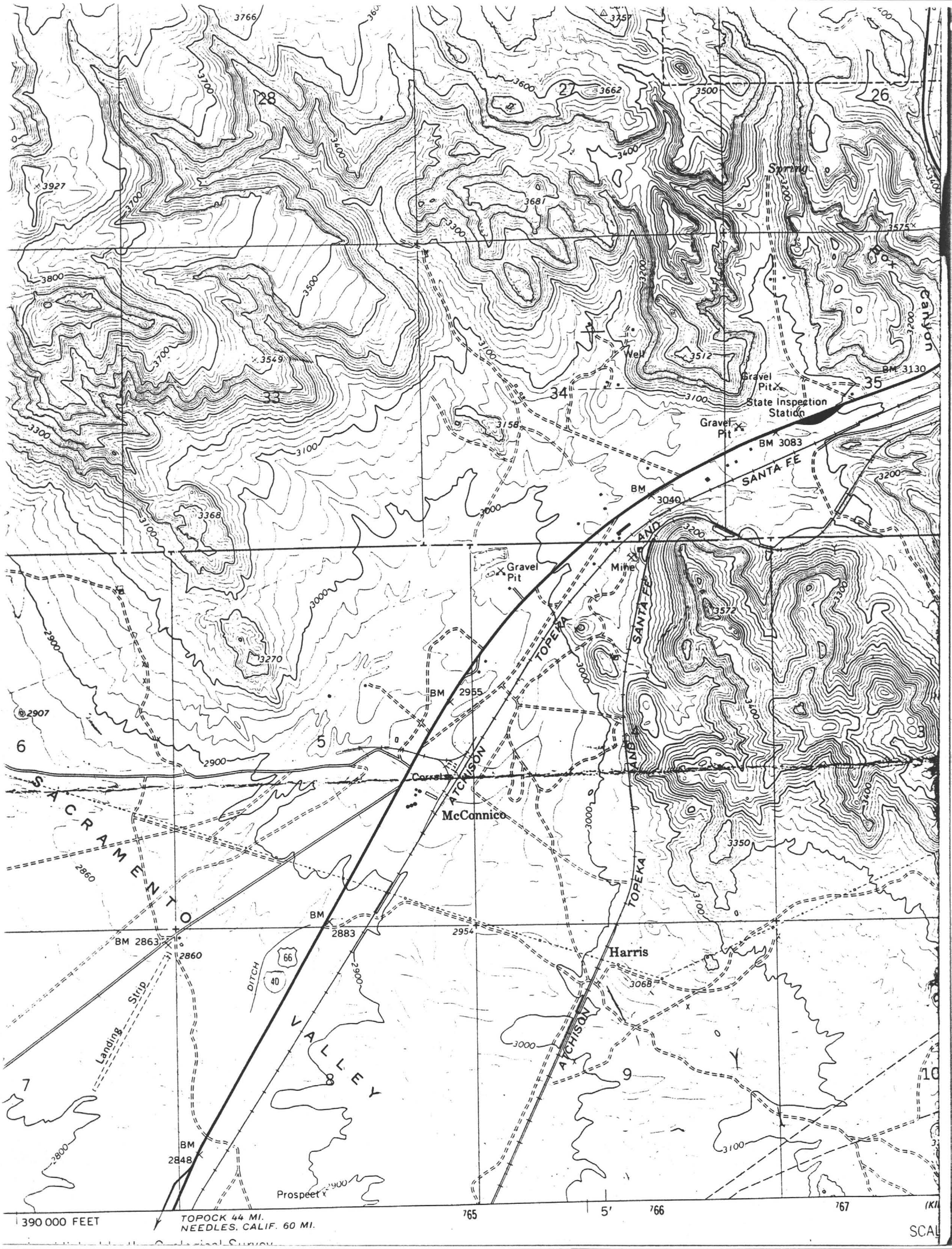
The ore in sight and to be proven can be cheaply mined and
ply and simply milled, producing bullion. Power, water, and
r can be easily obtained. The price of the property is not
ssive.

Considering all of these very favorable facts, the prelimi-
diamond drilling is well warranted and should indicate suf-
ent commercial ore to warrant detailed drilling and subse-
t equipment of mine and mill, with the expectation of a fairly
lived and very profitable operation.

Howard H. Fields.



A.T. & S.F. RR.
WESTBOUND
Metal Surv. No. 2750
Fino Surv. No. 2750
MILL
POSSIBLE EXTENSION
OFFICE
Pit 1909 ± 7000 TONS
10' SHAFT DUMP
SHAFT
DIKE
PIT LEVEL
W
E
N
S
.057 oz GOLD
A.T. & S.F. R.R.
EASTBOUND
FILL
CUT


3766
3757
28
27
26
3662
3600
3500
3400
3700
3927
Spring
3681
3300
3200
3575
Box Canyon
3800
3500
3549
3100
Well
3512
BM 3130
33
34
35
Gravel Pit
State Inspection Station
3158
Gravel Pit
BM 3083
SANTA FE
3368
BM 3040
3000
AND
Gravel Pit
Mine
3572
2900
SANTA FE
TOPEKA
3270
BM 2955
2907
6
5
SACRAMENTO VALLEY
Corral
ATCHISON
McConnico
3350
2860
BM 2863
BM 2883
2954
66
40
DITCH
Harris
3068
Landing Strip
7
8
9
10
3000
2800
BM 2848
Prospect
3100
390 000 FEET
TOPOCK 44 MI.
NEEDLES, CALIF. 60 MI.
765
5′
766
767
SCAL

NJ WR 10/3/86: Made a brief visit to the Bi-Metal Mine (f) near Kingman. The site of the old, small pit has been cleaned up and new benches started. Recent drilling also evidenced. I would estimate that at least 2,000 tons had been mined. This material has been trucked to the Frisco Mine (f) to be leached.

NJN WR 11/7/86: Doug Bonelli (c) of Frisco Mining (c) reported that drilling this spring proved 60,000 tons of .057 -.08 oz/ton Au, with higher grade areas at the Bi-Metal mine (file) Mojave County. The drilling consisted of 3 main drill holes and sampling of 15 blast holes. Frisco Mining Company mined about 4,000 tons and trucked it to the leach facility at the Frisco Mine (file) Mojave County where it was crushed to -1/2 inch and leached with a 55% recovery. Unfortunately, this is not sufficicent to justify the trucking costs.

BI METAL MINE MOHAVE COUNTY

KAP WR 6/5/81: A report was received by a reliable source that U.V. Industries has a deposit of large low-grade potential and some higher grade areas containing gold and silver mineralization at the Bi Metals (file) property which might be currently minable if a processing facility were available in the Kingman area. A portion of this property lies under the new interstate 40 Highway.

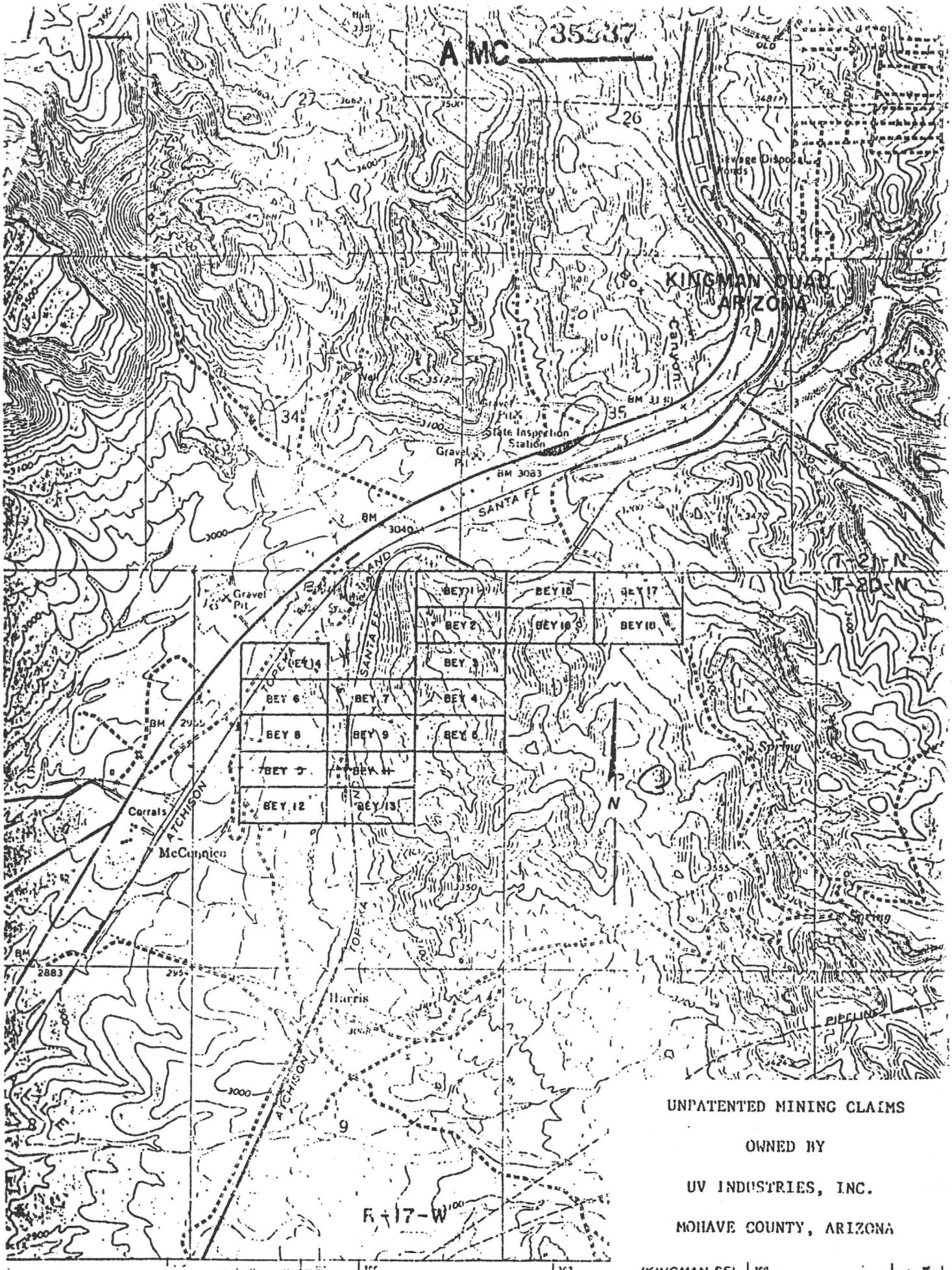
NJN WR 11/23/84: Pete Drobeck reported that Sharon Steel, 136 E. South Temple, Salt Lake City, Utah 84111 drilled and defined open pit gold reserves at the Bi Metal Mine (f) Mohave County. Unfortunately, some of the reserves underlie Interstate 40 and the Santa Fe Railroad and can't be mined without moving them and their right of ways.

NJN WR 2/15/85: Dan Maxwell reported that from Sharon Steel's work it appears that 100,000 tons of .075 oz Au/ton material amenable to cyanide treatment could be mined by open pit methods without interferring with the railroad or interstate highway.

NJN WR 6/21/85: Dan Maxwell, P O Box 99, Pinos Altos, Ne Mexico 88053, phone (505) 536-9301 visited and reported that he is going to try to lease the Bi Metals Mine (f) Mohave County. He believes he can mine 60,000 tons of .07 oz Au/ton from the breccia pipe deposit without interfering with any right of ways.

NJN WR 2/28/86: Benjamin Bonelli (c) reported that he has signed a lease on the Bi-Metals (f) Mohave County. My earlier report that the property has been leased was apparently in error. The Frisco Land and Mining Co. plans to truck the ore to the millsite at the Frisco Mine (f) and process it there. Mr. Bonelli estimates they will mine between 30,000 and 60,000 tons. The property will require some additional sampling and drilling to determine what will actually be mined.

NJN WR 6/6/86: Bill Vanderwall (c) reported that Frisco Land and Mining Co has recently been open pit mining at the Bi-Metals Mine (c) Mohave County and shipping by truck to their leaching facilities at the Frisco Mine (f) Mohave County, but have now suspended mining. Apparently, the ore at the Bi-Metals Mine did not run .2 oz/ton Au as indicated in our old file data, but a little less than .1 oz/ton Au. Economics do not justify continuing operations on this grade of material.



UNPATENTED MINING CLAIMS

OWNED BY

UV INDUSTRIES, INC.

MOHAVE COUNTY, ARIZONA

(KINGMAN SE)

HUNTER MINING LABORATORY, INC.

994 GLENDALE AVENUE • SPARKS, NEVADA 89431 • TELEPHONE: (702) 358-6227

REPORT OF ANALYSIS

Submitted by:

HOMESTAKE MINING COMPANY
330 CONEY ISLAND DRIVE
SPARKS, NEVADA 89431

Date: May 20, 1987

Laboratory number: 30511

Analytical Method: Fire AT

Your Order Number: 7314-1

Report on: 71 Samples, pulp

Sample Mark	Gold oz/ton	Silver oz/ton	Sample Mark		Gold oz/ton	Silver oz/ton
1946 AL Pit north of dike (ox pyritic mang. in)	0.088	-0.01	3265	Railroad ballast	0.011	0.36
1947 north side of dike	0.242	-0.01	3266	Boulder well area - pyritic pegmatitic granitic rock	0.026	0.43
1948 20'-sheared brid mang	0.001	0.02	3267	Boulder well area - ankerite (pyrite inclusions)	0.011	-0.01
1949 Railroad ballast rock	-0.001	-0.01	3258		0.001	0.03
1950 AL qtz mang in ltr brn (?)	-0.001	0.05	3269	JB Claims	0.002	0.04
1251 AN qtz-mang brn w/bot, pyrite	0.002	0.01	3270		0.001	0.02
3252 grab of rock by mill site	0.094	-0.01	3271		0.001	-0.01
3253 below adit on N side of pit	0.064	-0.01	3272		0.001	-0.01
3254 site of Valine 5073AN	0.019 x	0.06	3273	Fe stained argillite in road	0.164	0.83
3255 site of Valine 5072-73AN	0.010 x	0.10	3274		0.001	0.08
3256 site of Valine 5075AN	0.020 x	0.19	3275	STIRLING MINE	0.001	0.10
3257 rhyolitic dike	-0.001	0.08	3276		-0.001	0.07
3258 trench in flats	-0.001	0.03	3277		0.001	0.09
3259 dump-backfill by RR track	0.017	-0.01	3278		-0.001	-0.01
3260 upper dump (to North)	0.055	-0.01	3279		-0.001	-0.01
3261 select of screened fines	0.034	-0.01	3280		-0.001	-0.01
3262 select hematitic gossanous qtz in Valine road	0.009	-0.01	3281		-0.001	-0.01
3263 grab by Valine 75-100' elev	0.001	0.02	3282		-0.001	-0.01
3264 grab from face upper dump (road)	0.025	-0.01	3283		-0.001	-0.01

By metal

Sq. fire section

x retake of prior samples Taken from 2 claims

HUNTER MINING LABORATORY, INC.

GLENDALE AVENUE • SPARKS, NEVADA 89431 • TELEPHONE:(702) 358-6227

RECEIVED MAY 04 1987

NANCY

REPORT OF ANALYSIS

Blakestad
Valin

Submitted by:

HOMESTAKE MINING COMPANY
330 CONEY ISLAND DRIVE
SPARKS, NEVADA 89431

Date: April 28, 1987

Laboratory number: 30255

Analytical Method: AA
Fire AT
Flameless AA

Your Order Number: 7003-1

BLAKESTAD VALIN GRUBSTAKE (2894)

Report on: 26 Samples, pulp

Sample Mark	Gold oz/ton	Silver oz/ton	Arsenic ppm	Antimony ppm	Mercury ppb
5058AN	0.001	-0.01	19	1	20
5059	0.001	-0.01	26	6	50
5060	0.001	-0.01	7	2	20
5061	0.002	-0.01	340	330	140
5062	-0.001	-0.01	64	74	30
5063	0.560	0.09	-5	13	60
5064	0.004	-0.01	130	-1	40
5065	0.005	-0.01	11	-1	10
5066	0.001	-0.01			
5067	0.008	0.02			
5068	0.004	0.03			
5069	-0.001	-0.01			
5070	0.010	0.61			
+5071	0.016	0.49			
+5072	0.007	0.09			
+5073	0.025	0.19			
+5074	0.018	0.07			
+5075	0.018	0.16			
5076	0.003	-0.01			

+ 1 Claims

ppm = parts per million. oz/ton = troy ounces per ton of 2000 pounds avoirdupois. percent = parts per hundred. fineness = parts per thousand. ppb = 0.001 ppm. Read — as "less than". 1 oz/ton = 34.286 ppm. 1 ppm = 0.0001% = 0.029167 oz/ton. 1.0% = 20 pounds/ton.

ppm = 0.001 ppm. Read — as "less than". 1 oz/ton = 34.286 ppm. 1 ppm = 0.0001% = 0.029167 oz/ton. 1.0%

SAMPLE NO.	ppb Gold-F/AA	ppm Silver
8002	2.768 ppm	-0.1
8003	2.543 ppm	-0.1
8004	1.180 ppm	-0.1
8005	240	-0.1
8006	370	-0.1
8007	540	-0.1
8008	195	-0.1
8009	2.665 ppm	-0.1
8010	400	-0.1
8011	130	-0.1
8012	610	-0.1
8013	185	-0.1
8014	205	-0.1
8015	695	-0.1
8016	105	-0.1
8017	885	-0.1

COPY

BM

December 1st, 1945.

Mr. M. B. Dudley
P. O. Box 1071
Kingman, Arizona

Dear Mr. Dudley:

In 1941, while Director of the Department of Mineral Resources of the State of Arizona, I had occasion to examine the Bi-Metal Mine near Kingman. The examination was only a casual one, as I took no measurements or samples, but did discuss the physical characteristics with several of the engineers and operators who had put in considerable time on the property. From my notes as a result of this visit, and some information acquired since then, I can briefly summarize my observations.

PROPERTY:

The property consists of a group of 6 patented mining claims, located about 3½ miles southerly from Kingman, county-seat of Mohave County, Arizona. The Atchison, Topeka, & Santa Fe Railroad passes through the property, and about 300 yards of dirt road connects directly with U. S. Highway #66. The elevation is about the same as Kingman, 3,300 feet.

TITLE:

The property was formerly known as the McGuire Mine and is patented. Title clear and unemcumbered now rests in the hands of M. B. Dudley and J. H. Dungan, both of Kingman.

GEOLOGY:

The geology of this particular property is fully covered in the U. S. G. S. Bulletin #397, "Mineral Deposits of the Cerbat Range, etc., Mohave County, Arizona," by F. C. Schrader, 1909. Briefly the deposit occurs in a shear zone of altered mineralized granite, clearly associated with an intrusive diabase.

The granite has been shattered and sheared by the intrusion, and along these fractures a stockwork of veinlets, carrying silica, some hematite and gold values, exists. Alterations by the vapors and solutions from the diabase intrusion extend will into the sheared granitic mass and form the net-work of veinlets which may be considered the mineralized and mineable ore zone.

TOPOGRAPHY, etc.:

The area consists of low, rolling foot-hills, and the deposit occurs near the bottom of one of the foot-hill slopes which has about a 30° slope. The elevation is about 3,300 feet, making an ideal elevation for year-around work. The vegetation is sparse and of the semi-arid type of the southwest desert country.

4. Letter from former Director of Mineral Resources, State of Arizona, regarding Bimetal and possible reserves.

The annual precipitation is about 5 inches, and falls mostly in the winter months of December, January, and February, and the summer months of July and August.

MINE WORKING:

There is an open pit showing about 300 feet in width by 350 feet in length, with numerous shallow shafts, pits, and tunnels. From the open pit a substantial tonnage has been mined and milled. From the various tunnels and shafts selective high-grading has been done, yielding shipping ores of from 0.6 to 0.9 ounces per ton in gold.

GENERAL MINE INFORMATION:

I have had access to a number of reports, among them one by E. Ross Householder, mining engineer of Kingman, with whom I discussed the property at the time he made the report. The object of the report was to refute a claim that there were 200,000 tons of definite tonnage and definite value blocked out. A deposit of this type is seldom developed in a manner which permits of definite blocking out of ore values and tonnages. The work can well indicate a large tonnage of ore practically in sight or assured, but not blocked out.

The property was examined and reported on by Howard Fields of the American Smelting & Refining Company, and a summary of his results of drilling showed as follows:

74 drill holes,	average value,	$3.15 per ton in gold.
58 " "	" "	4.92 " " " "
16 pits and surface cuts,		3.01 " " " "

An average value was given as $3.89 per ton in gold, but no information as to depth or weighted value to check on, nor of tonnage represented by this average.

A series of drill holes by the operating company shows 290 holes averaging $4.00 per ton in gold. These holes were sunk to an average depth of 22 feet.

About 15,000 tons of ore were mined and milled in ore operation, and the superintendent in charge at that prticular time stated that he maintained an average value of the mill heads at $5.25 per ton in gold.

Recently the 60-foot shaft was unwatered and sampled, each 4 feet in depth being assayed and samples separately, and the following results are reported:

Sample Number	Gold Per Ton	
	Ounces	Value
#1	0.13	$4.55
#2	0.14	4.90
#3	0.10	3.50
#4	0.90	31.50
#5	0.14	4.90
#6	0.13	4.55
#7	0.02	0.70
#8	0.04	1.40
#9	0.30	10.50
#10	0.77	26.95
#11	0.24	8.40

Sample Number	Gold Per Ton Ounces	Value
#12	0.08	2.80
#13	0.22	7.70
#14	0.87	30.45
#15	0.18	6.30

CONCLUSIONS:

The extent of the mineralized zone has not been determined laterally nor in depth. Further exploration may show extensions in length, width and depth.

The probable tonnage is in no way indicated. The drilling and open pit work have, however, showed sufficient tonnage to call for a lawsuit to prove that the 200,000 tons of claimed ore was not definitely blocked out.

The property is most favorable located for cheap mining; proximity to rail and road facilities; within 3½ miles of Kingman where mine supplies and labor are available; ample water available at shallow depth by wells; cheap electric power near the property, and an ideal climate for year-around operations.

The ore is free milling, and a high extraction of values can be made by cyanidation and/or flotation.

The problem of tonnage is the only questionable point. The value of the ore from the various mine operations, drill holes, and samplings show the ore to be of a profitable commercial grade, and costs by open pit mining should be extremely low. Costs of mining and milling should be about $1.50 to $2.00 per ton if an efficient plant of 250 to 300 tons per day capacity is installed.

As to tonnage; estimates varying from 1,000,000 to 3,000,000 tons have been made. Sufficient work has not been done to substantiate such figures. Definitely about 200,000 tons seem assured. From reasonable extensions of this developed zone it is quite probable that in excess of 500,000 tons may be assumed. At 250 tons per day, this would indicate several years of active work.

I can highly recommend the property for extensive examination and study, with an objective of a 250 to 300 ton daily capacity milling operation.

Very truly yours,

J. S. Coupal

EPISYENITE

Initially, the old timers found gold associated with unevenly distributed grains and crystals of pyrite (FeS_2) which is now oxidized to limonite ($FE_2O_3 \cdot nH_2O$) and specular hematite (Fe_2O_3). These early prospectors must have been attracted to the site by the color anomalies generated by the iron-stain resulting from the oxidation of the pyrite. The pyrite is contained solely within a light orange to pink rock consisting almost entirely of orthoclase ($K\ AlSi_3O_8$). This rock, termed episyenite, is fine-to coarse-grained, locally quartz-poor, has an apparent igneous rock fabric, contains well-developed potassium feldspar megacrysts, and displays relatively sharp contact relations with the enclosing rocks. The episyenites appear to be younger (late Cretaceous or early Tertiary?) than the host migmatites, and apparently were formed by significant removal of silica, iron and calcium, accompanied by potassium metasomatism. Late stage fluids associated with the episyenitization deposited the gold, which is intimately associated with orange and reddish-brown fluffy limonite and limonite casts after pyrite. Specular hematite and sparse carbonate also appear to be associated with the mineralizing event, as is epidote emplacement and/or alteration. The epidote/amphibolite/metaquartzite/episyenite relationship has yet to be resolved in the field.

Episyenites are poorly understood because they have not been well studied. The rare earth element (REE) episyenites in northern Colorado near Powderhorn have been documented by Olson at the USGS, and Blacet (1982) wrote about the episyenite pipes of the Gold Basin District east of White Hills, here in Mohave County.

* From Recent USGS Prof Paper - "Gold in Gold Basin and Lost Basin, Arizona."

They might not have been studied, but they have been mined for their gold content. Sharon Steel's Bimetal Mine just south of Kingman is said to have yielded 38,000 tons of ore grading from 0.1 to 0.2 OT (ounces per ton), which would yield 5,700 ounces (@ $300.00/oz. = $1,700,000.00) of gold, developed by bulk tonnage open pit methods.

The episyenite at Desert Ranch, about 4 miles south of Kingman, runs 0.329 OT (Chemex assay #11009, November 26th, 1984).* Production figures and ore body estimates are unavailable.

At McConnico, the deposit adjacent to Desert Ranch, the NICOR MINERAL VENTURES group has a quartz-flooded episyenite ore body with a strike length of 500 feet, explored by a 270' decline "... that was still in ore at the bottom.". The host rock there is 2 feet thick, but thickens locally to 10 ft. or more. If an average thickness of 3 ft. can be maintained, then the McConnico deposit could contain 34,000 tons averaging 0.20 OT, or 6,750 ounces of gold worth $2,000,000.00 at $300.00 gold.

At the Holy Moses mine, a 180' shaft has been sunk on an episyenite vein less than 4" wide!! There has been no drifting or stoping along this vein (not surprisingly).

We see then, that the potential to develope small mines in episyenites has been realized in the past. At the Eye of the Tiger, there are four, and possibly five separate episyenite bodies, all of which have been tested by digging trenches, driving adits, sinking a short shaft, dozing around, and even by drilling. Unfortunately, these operations are more of a hindrance than anything else, as they obscure the geology considerably.