0500 0020

190

ITEM 20

PRELIMINARY REPORT

MINA GOLD PROJECT

MINERAL COUNTY, NEVADA

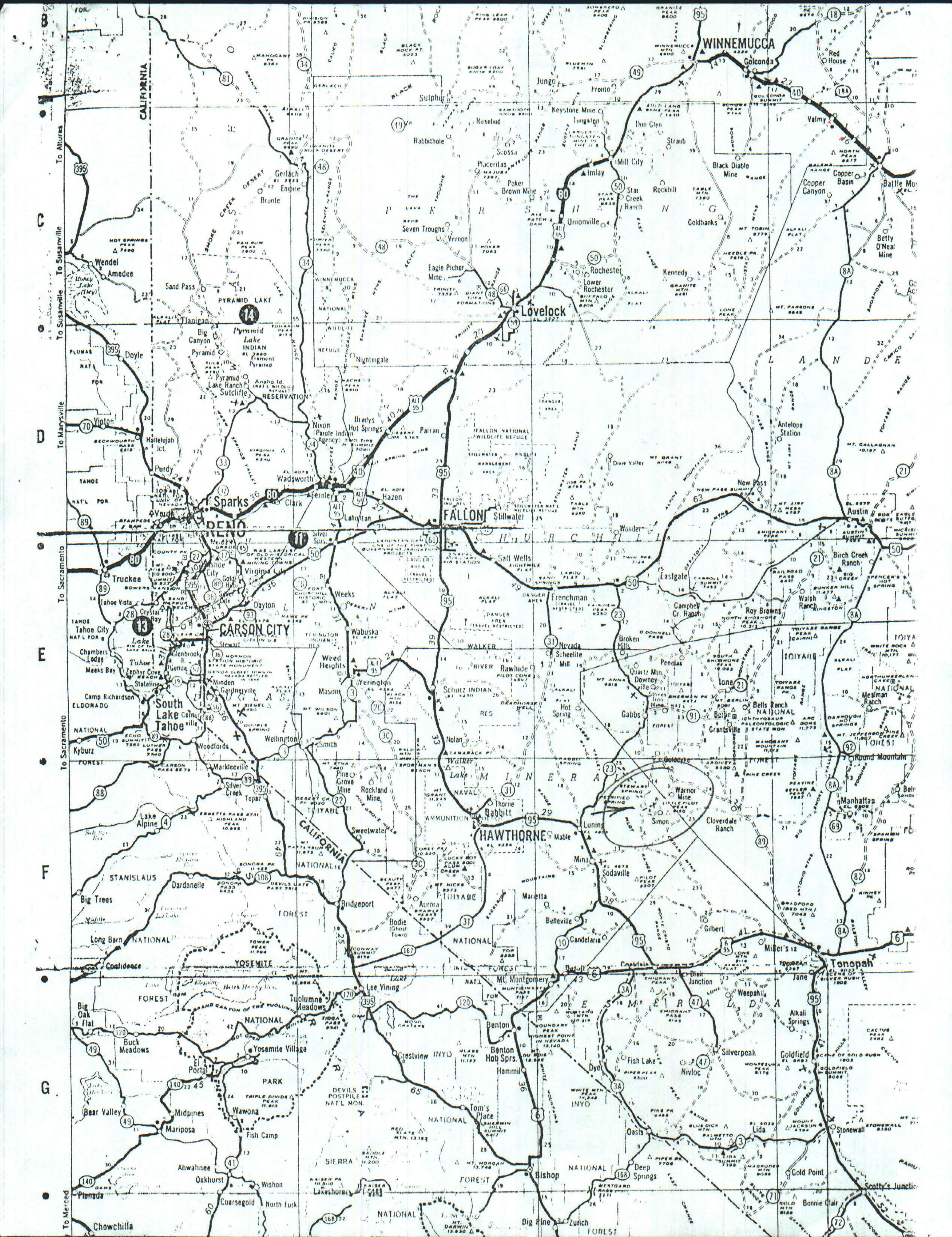
By

MINA GOLD MINE, INC.

120 Greenridge Dr.

Reno, Nevada 89509

Phone (702) 826 2404 FAX (702) 826 4080



WINNEMUCCA
Golconda
Valmy
Battle Mountain
Red House
Copper Basin
Copper Canyon
Betty O'Neal Mine
Jungo
Sulphur
Rosebud
Rabbithole
Keystone Mine
Tungsten
Dun Glen
Straub
Mill City
Imlay
Black Diablo Mine
Placeritas
Scossa
Poker Brown Mine
Star Creek Ranch
Rockhill
Unionville
Goldbanks
Seven Troughs
Vernon
Rochester
Lower Rochester
Kennedy
Eagle Picher Mine
Lovelock
Gerlach
Empire
Bruntc
Sand Pass
Wendel
Amedee
Flanigan
Pyramid Lake
Big Canyon
Pyramid
Pyramid Lake Ranch
Sutcliffe
Doyle
Nightingale
Vinton
Hallelujah Jct.
Purdy
Nixon
Bradys Hot Springs
Parran
Antelope Station
Wadsworth
Sparks
Clark
Fernley
Hazen
RENO
Verdi
Truckee
FALLON
Stillwater
Salt Wells
Austin
New Pass
Eastgate
Frenchman
Campbell Cr. Ranch
Birch Creek Ranch
Walsh Ranch
Roy Browns
Tahoe Vista
Crystal Bay
Tahoe City
Virginia City
Dayton
CARSON CITY
Weeks
Wabuska
Nevada Scheelite Mill
Broken Hills
Chambers Lodge
Meeks Bay
Zephyr Cove
Stateline
Glenbrook
Genoa
Minden
Gardnerville
Weed Heights
Yerington
Mason
Rawhide
Quartz Mtn.
Downeyville
Penelas
Ione
Gabbs
Berlin
Grantsville
Bells Ranch
Camp Richardson
ELDORADO
South Lake Tahoe
Centerville
Wellington
Smith
Schurz
Kyburz
Woodfords
Markleeville
Nolan
Walker Lake
Round Mountain
Manhattan
Silver Creek
Topaz
Pine Grove Mine
Rockland Mine
Thorne
Babbitt
HAWTHORNE
Mable
Luning
Warrior Mine
Simon
Cloverdale Ranch
Lake Alpine
Sweetwater
Mina
Sodaville
Dardanelle
Big Trees
Bridgeport
Aurora
Marietta
Belleville
Bodie
Candelaria
Gilbert
Long Barn
Miller's
Tonopah
Coaldale
Blair Junction
Confidence
Lee Vining
Mt. Montgomery
Tuolumne Meadows
Weepah
Alkali Springs
Big Oak Flat
Buck Meadows
Yosemite Village
Benton
Benton Hot Sprs.
Hammil
Crestview
El Portal
Fish Lake
Dyer
Silverpeak
Nivloc
Goldfield
Stonewall
Bear Valley
Midpines
Mariposa
Wawona
Fish Camp
Devils Postpile Nat'l Mon.
Tom's Place
Oasis
Lida
Gold Point
Ahwahnee
Oakhurst
Wishon
Bishop
Deep Springs
Scotty's Junction
Planada
Coarsegold
North Fork
Lakeshore
Bonnie Clair
Chowchilla
Big Pine
Zurich
CALIFORNIA
To Alturas
To Susanville
To Marysville
To Sacramento
To Merced

TABLE OF CONTENTS

FIGURES

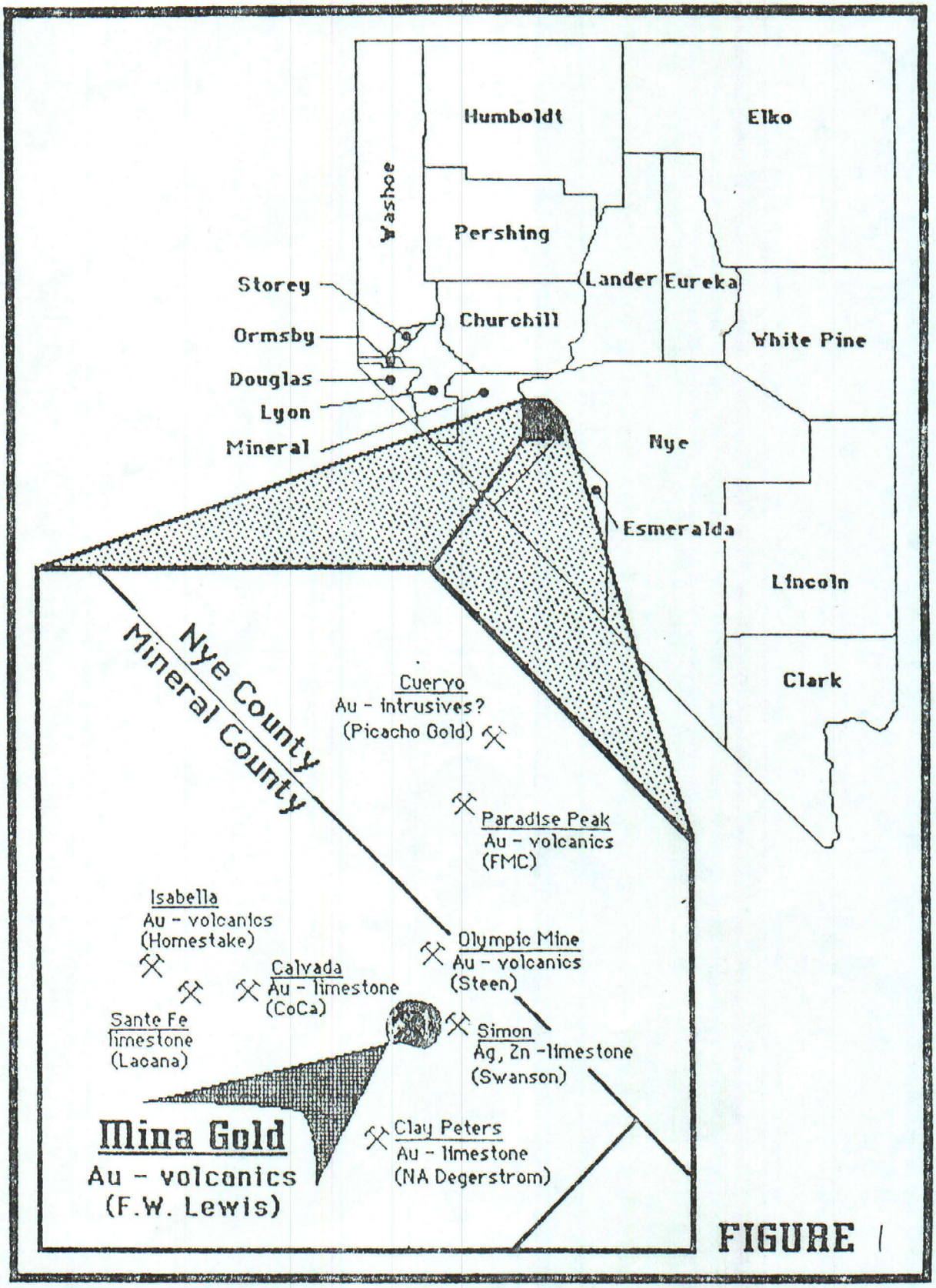

Humboldt
Elko
Washoe
Pershing
Storey
Lander
Eureka
Churchill
Ormsby
White Pine
Douglas
Lyon
Mineral
Nye
Esmeralda
Lincoln
Clark
Nye County
Mineral County
Cuervo
Au - intrusives?
(Picacho Gold)
Paradise Peak
Au - volcanics
(FMC)
Isabella
Au - volcanics
(Homestake)
Olympic Mine
Au - volcanics
(Steen)
Calvada
Au - limestone
(CoCa)
Sante Fe
limestone
(Laoana)
Simon
Ag, Zn -limestone
(Swanson)
Clay Peters
Au - limestone
(NA Degerstrom)
Mina Gold
Au - volcanics
(F.W. Lewis)

FIGURE 1

Chapter 1

1. Forward.

The Mina Gold Mine is in an area of extensive exploration. Numerous gold deposits have been explored for and developed in the immediate vicinity. The FMC Paradise Peak deposit, the Corona Santa Fe deposit, and the Clay Peters property are all within a few miles. Rawhide is on the same trend. All of these mines including the Mina Gold Mine appear to be associated with the Walker Lane Trend.

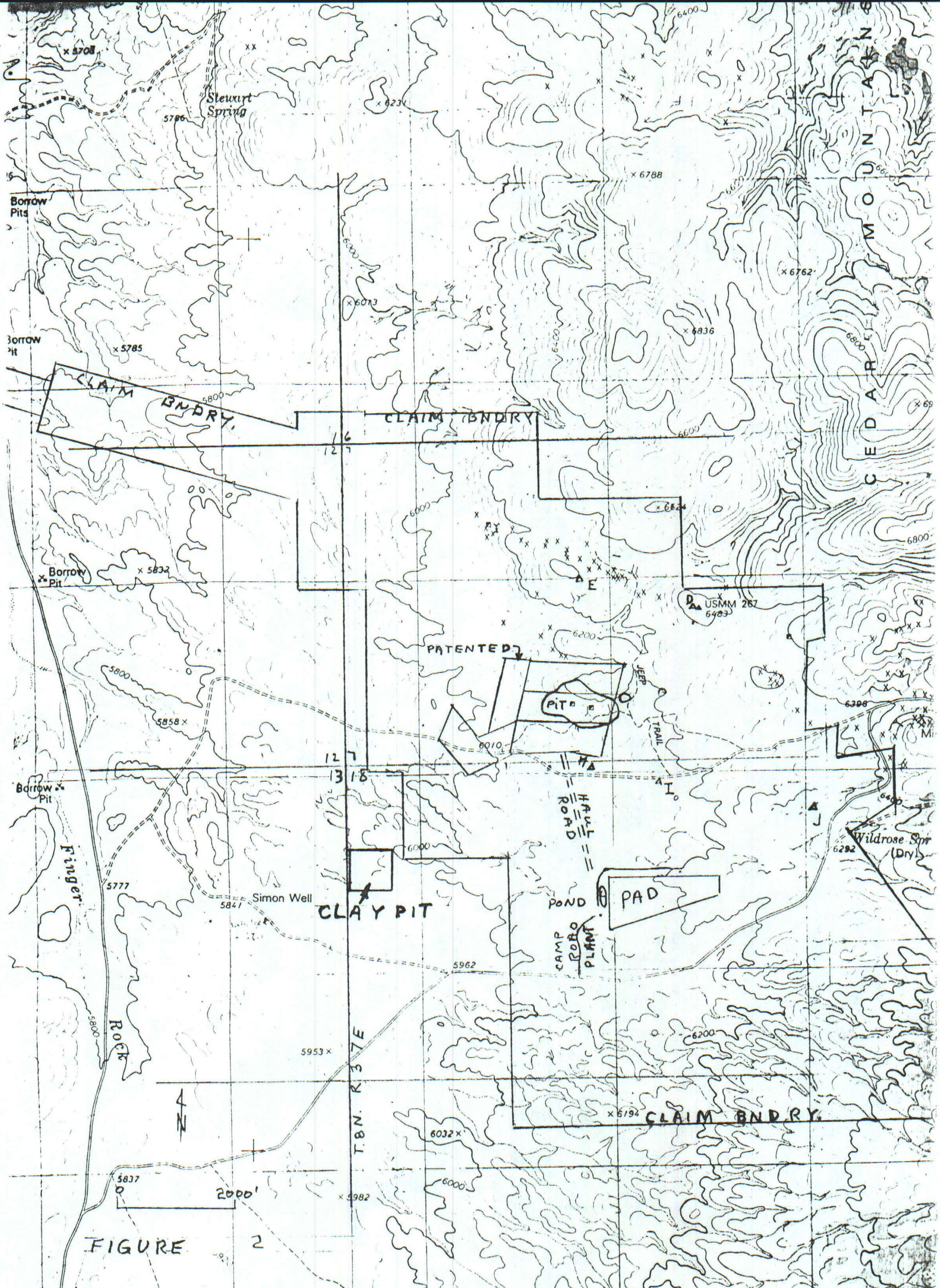
Chapter 2

2. Conclusion.

There are three developed ore bodies on the Mina Gold Mine. The tonnage has been estimated to contain 83,368 ounces of gold contained in 1,096,197 tons of gold bearing rock, for an average grade of .076 Ounces gold per ton.

3. Ore Reserve Summary.

A topographic plan map and 15 sections have been developed at a scale of 1 inch equals 20 feet. These sections are used for a preliminary ore reserve calculation. The two principle ore bearing zones known as the MONSTER MAIN ZONE, AND THE MONSTER SHAFT ZONE, together with several other features and some satellite deposits are shown on the maps. The two principle deposits are parallel and occur about 150 feet apart. They can be mined together in one pit. There are several satellite deposits some of which are expected to produce mineable ore values where they occur within the pit boundary. Another vein which is nearly parallel known as the Saddle Vein occurs easterly of the developed deposits but not enough information on it has been de-



Stewart Spring
Borrow Pits
Borrow Pit
Borrow Pit
Borrow Pit
CLAIM BNDRY.
CLAIM BNDRY
CLAIM BNDRY.
16
12 7
12 7
13 18
PATENTED
PIT
JEEP TRAIL
HAUL ROAD
USMM 267
E
D
A
I
J
Wildrose Spr (Dry)
Simon Well
CLAY PIT
POND
PAD
CAMP
ROAD
PLANT
CEDAR MOUNTAIN
Finger Rock
T.8N. R37E
N
2000'
6400
6788
6762
6836
6800
6600
6624
6483
6200
6398
6292
6010
6000
6013
6231
5786
5700
5785
5800
5832
5858
5777
5841
5962
5953
6194
6032
5837
5982

FIGURE 2

veloped to include it in ore reserve calculations. Both of the developed deposits appear to be open for further extensions at each end, and down dip. At this time a tentative mining plan has been developed to dig a pit about 500 to 600 feet wide and about 1100 feet long, and about 300 feet deep. Some refinement of the pit size and configuration should be done. The cross sections with drill holes have been plotted every 100 feet along the pit plan and values have been calculated using drill hole intercepts through the vein zones.

Section	Tons ore	Total earth	Tons waste	Ounces gold
Line 1-1'N (satellite deposit)	35,961	416,173	380,212	1,396
Line 5-5'W	127,766	854,596	726,830	6,401
Line 6-6'W	86,594	447,827	361,233	3,820
Line 7-7'W	137,922	1,275,729	1,137,807	18,198
Line 8-8'W	151,381	1,240,853	1,089,472	16,432
Line 9-9'W	126,152	1,039,980	913,836	8,469
Lin 10-10'W	61,999	1,065,653	1,003,654	6,765
Lin 11-11'W	63,615	1,058,456	994,841	8,346
Lin 12-12'W	156,654	916,230	759,576	7,230
	1,096,197	9,033,274	7,937,077	83,368

The Total ounces of gold developed are about 83,368. The Stripping ratio is about 7.3 tons of waste to one ton of ore.

Since the above calculations were made additional drilling has been completed expanding the ore reserves, but not yet added into these calculations.

4. Property Summary.

White office trailer. ($2,000)

Blue 10 X 50' Trailer. ($7,500)

Onan diesel Generator set. (15,000)

Witte Diesel Generator Set. Model 100RDA. 12.5 KVA. ($18,000).

SULLAIR diesel generator set. 25 KW. ($25,000)

CATERPILLAR generator set 3406. Model SR-4. RPM 1800, Hertz 260, 325 KVA, 260 KW, .8PF, Serial No. 48-H4999. Low connection volts 780 Amps, high connection 480 volts 390 amps, excitation 38 volts, 11.8 Amperes. Overhauled since last run. $55,000)

Detroit Gen Set, 220, 400 Amp, ($25,000)

Well, pump, and pipeline, etc. ($25,000)

New deep well and pump, etc. ($50,000)

Phone radio type ($3,500)

110 by 420 ft. heap leach with about 12,000 tons of ore assaying about .09 ounces of gold in the ore, pipe lines, tanks ponds, pumps, piping, etc. ($65,000 plus ore value of about ($573,750) ($375 gold) (recoverable 70% = $430,313) (total $495,312).

D-9 Cat, rippers. ($110,000)

Road grader. ($20,000)

912 EIMCO loader. ($37,000)

One older loader ($15,000)

175 MICHIGAN loader ($20,000)

AUTOCAR truck, water tank, pump, for spraying roads ($15,000)

EUCLID 25 ton off highway rock truck ($15,000)

HAULPACK 35 ton rock truck ($65,000)

Ford 4 X 4 Pic up with diesel fuel tank ($2,500)

BOBCAT loader, fork lift, post hole digger ($11,500)

DYNAPAC roller ($12,500)

GARDNER DENVER drill, jackleg. ($3,500)

INGERSOL RAND Track Drill, with ECM 250 drifter, steel, bits, hoses, drilling supplies. ($25,000)

1050 Sullair compressor. ($25,000)

Compressor on G. I. 6 X 6 truck. Gasoline. OK for short jobs or stand by. ($5,500) (needs repairs).

Carbon stripping plant in one Van. ($65,000)

Assay Lab, including prep equipment. ($55,000)

150 GPM portable carbon towers plant, pumps, piping. ($45,000).

Plywood shop, storage bldgs. ($7,500).

BIRDBORO-BUCHANAN Type C, 100 H. P. 30" X 42" Jaw Crusher with decking and stairway. Primary crusher blake type. Primary. ($195,000.00)

UNIVERSAL jaw crusher 18" X 30". 100 H. P. Motor. Secondary ($50,000)

Starting Gritt. ($5,000)

INDUSTRIAL CLEAN AIR dust collector with 20 H. P. Toshiba Motor, socks, and auxiliary pipe. ($35,000)

5' X 12' DILLON Double deck shaking screen with collection schutes and hoppers. ($35,000)

5' X 12' DILLON Double deck shaking screen with collection schutes and hoppers. ($35,000)

Partially structured roll agllomerator ($10,000)

Powder magazine. ($15,000)

There are about 1,300 feet of underground workings, shafts winzes, etc., as well as many trenches, about 100 acres fenced. ($110,000)

177 exploration drill holes aggregating 42,560 feet of drilling, mostly reverse circulation, plus about 400 track drill holes totaling about 10,000 feet, developing the property. Including assays, mapping, engineering. ($950,000).

Aerial Surveying, ground surveying, Engineering data, as-

says, plans, sections, maps tending to develop the property, soil geochemistry, trenching assays, etc. ($175,000)

Miscellaneous supplies, equipment, piping, underground tools. ($35,000)

Permitting, work on new leach pad area, engineering, ($50,000)

Total of the above $2,951,312

5 Patented MInes

100 Unpatented claims

Drill Proven Ore reserves approximate Gross value at $380 Gold = $31,658,169.

Chapter 5

5. Title.

The Mina Gold Mine, Inc., Company has leased the property from the owner. Title insurance has been issued on the patented mines, and the title to the unpatented claims are on file in the Mineral County Court House and the Bureau Of Land Management in Reno, Nevada.

Chapter 6

6. Location.

The property is located in T. 8 N., R. 36 E., Bell Mining District, Mineral County, Nevada. It is located on the west side of the Cedar Mountains, 2 miles east of the Finger Rock Wash road.

Chapter 7

7. Access Roads.

A good Mineral County maintained dirt road provides access 16 miles south of Highway 23 between Gabbs and Hawthorne, Nevada.

Chapter 8

8. Climate, Water.

The climate is arid and dry, with occasional snow fall in the winter months from December through March. One well is developed on the property that is only 40 feet deep. The Mina Gold Mine, Inc., Company considers this inadequate. A deeper water well has been completed in the vicinity of the leach pad, and it is expected to produce sufficient water for the leach plant, but has yet to be tested. a 10 HP stainless steel pump has been set and is to be tested soon. The driller estimated it would produce at least 35 to 40 gallons per minute, but it may go more than, that and only testing will answer if it is sufficient for a milling operation. In the hills to the east are fresh water springs that outcrop to the surface. The mine site is at 6100 feet and is considered a typical all year mining area, with leaching possible most months of the year with only occasional limitation during the coldest weather causing occasional shut down of the leaching plant. The leach site is tentatively established at 6,135 ft. elevation.

Chapter 9

9. History and Previous Work.

The F. W. Lewis Company purchased the property in the early 1960's. There have been 178 exploration drill holes drilled, for a total of 43,000 feet.

Chapter 10

10. Geology.

The main productive unit is andesite. About two thirds of the property is overlain by a tuff unit, that is thought to be post mineral. The ore does not appear to make in the tuff unit

although mineralization and alteration has been observed in it. It is thought that geochemistry might develop targets through the Esmeralda.

Chapter 11

11. Mineralization.

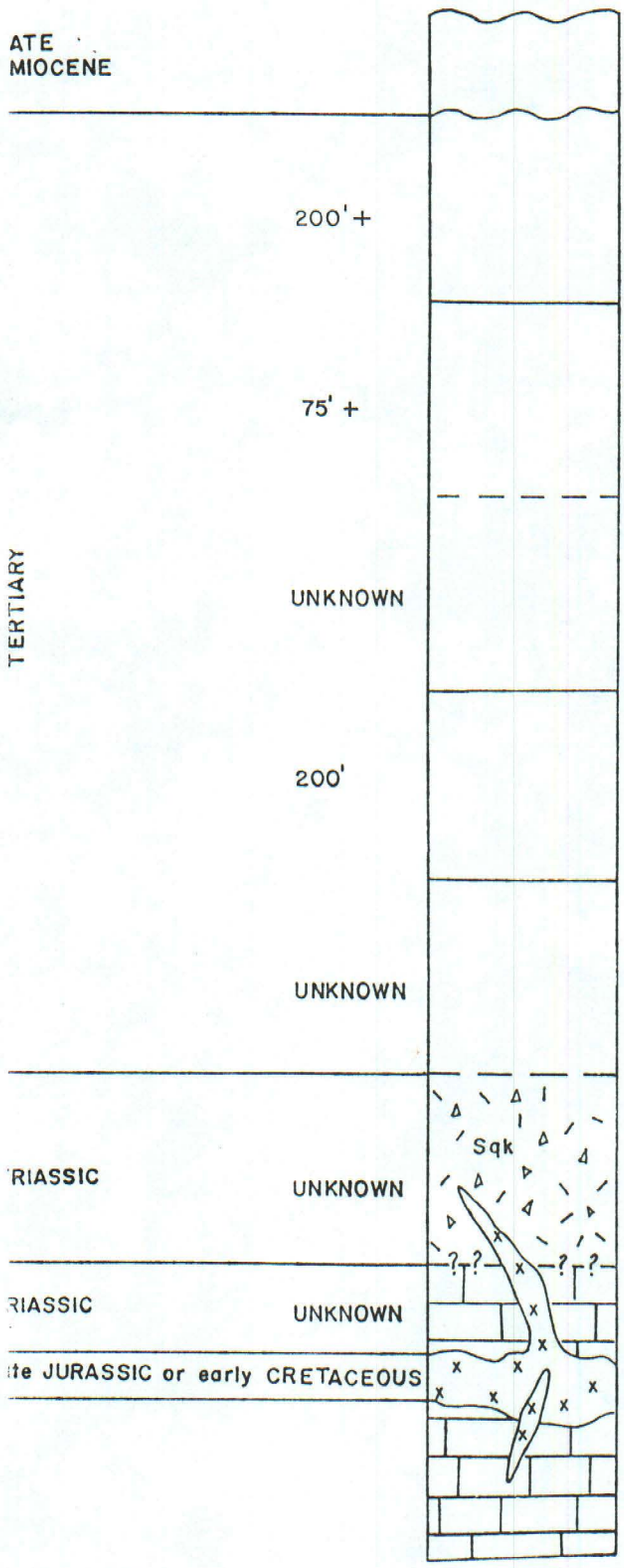
There are 11 identified regional targeted areas on the Mina Gold Mine property, and an 11th (flat fault type) of deposit.

1) Far North Prospect.
2) Down Cabin Prospect.
3) Down Cabin Extension.
4) BB 94 Zone
5) Monster Zone.
6) Monster Shaft Zone.
7) Black Cat Zone.
8) East End Prospect.
9) Far East Prospect.
10) Volcanic Vent Drill Target.
11) Flat Faults.

The 11th target listed is a type of deposit which has appeared in the drill holes near section 4-4', and others. This type of target already has proven low grade ore, and has not been explored except where holes were drilled to test the steeper structures, and they happened to hit this series of structures. While mining the steeper higher grade (so far) structures these flater structures will ad important tonnages into the pit. More work needs to be done developing these. (special attention should be paid to the insection of the Far east zone, where it dips toward the Monster zone. This target could develop a very

FIG. 2

STRATIGRAPHIC SECTION



Esmerald fm. (Mef) - lake deposits of sandstones, shales, limestones, and tuffs.

Quartz latite (ql) - gy, porphyritic lava rich in biotite. Composed of plagioclase (oligoclase), sandidine, quartz and biotite and an occasional hornblende crystal. Weathers to a brownish red color. Locally a 2-20' thick unit of dark porphyritic glass at its base.

Dacite tuff (dt) - composed of crystal fragments of plagioclase, quartz, and biotite with occ. hornblende; generally light-colored.

Fault.

Pyroxene andesite (pa) - Purplish cast when fresh, often quite altered. Spotted with numerous large (up to ¼ in diam.) plagioclase feldspar phenocrysts. A considerable quantity of smaller particles of dark minerals is also present.

Mina rhyolite (mr) - Chalk white, aphanitic, devoid of dark minerals. Locally pitted with irregular gas cavities coated with drusy quartz small phenocrysts of feldspar are common, but inconspicuous.

Mammoth andesite (ma) - Dull grey green porphyritic rock with innumerable small tubular phenocrysts of plagioclase. Locally the unit exhibits imperfect columnar structure.

Fault.

Simon quartz keratophyre (Rhyolite) - A series of lavas and breccias which occur in the immediate vacinity of the Simon Mine. Porphyritic with numerous large feldspar and quartz phenocrysts, a little chloritized biotite is also present. Feldspar is albite. Breccias contain argillite, limestone and chert fragments indicating explosive origin.

Luning limestone (R l) - dark grey, fine grained, massive. Altered to a coarse white marble near intrusives.

Granodiorite - Coarse grained. Main minerals are feldspar, quartz, biotite, and hornblende. Aplite dikes cut intrusive, limestone, and simon quartz keratophyre. Intrusives comprises the core of Cedar Mt.

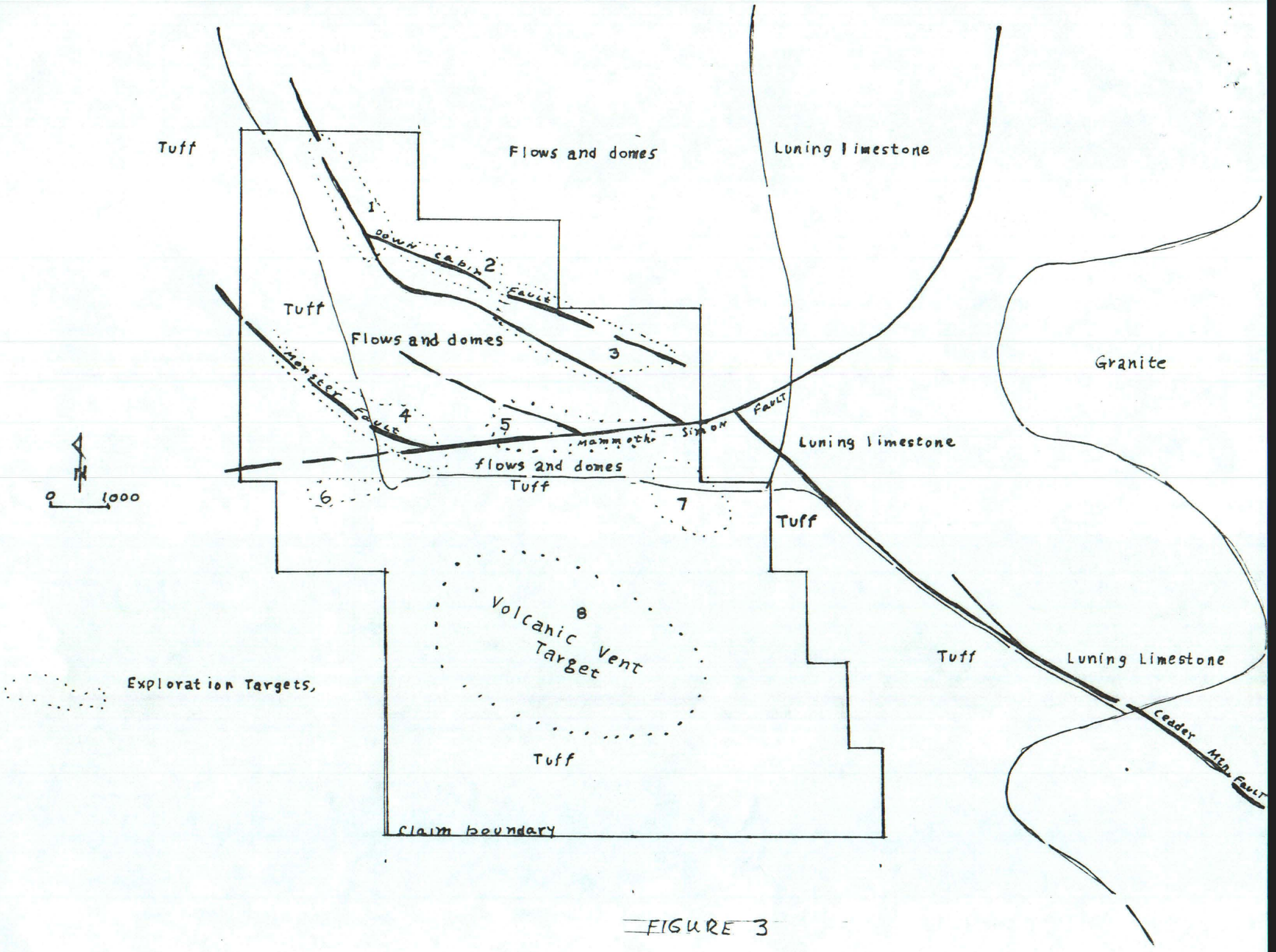
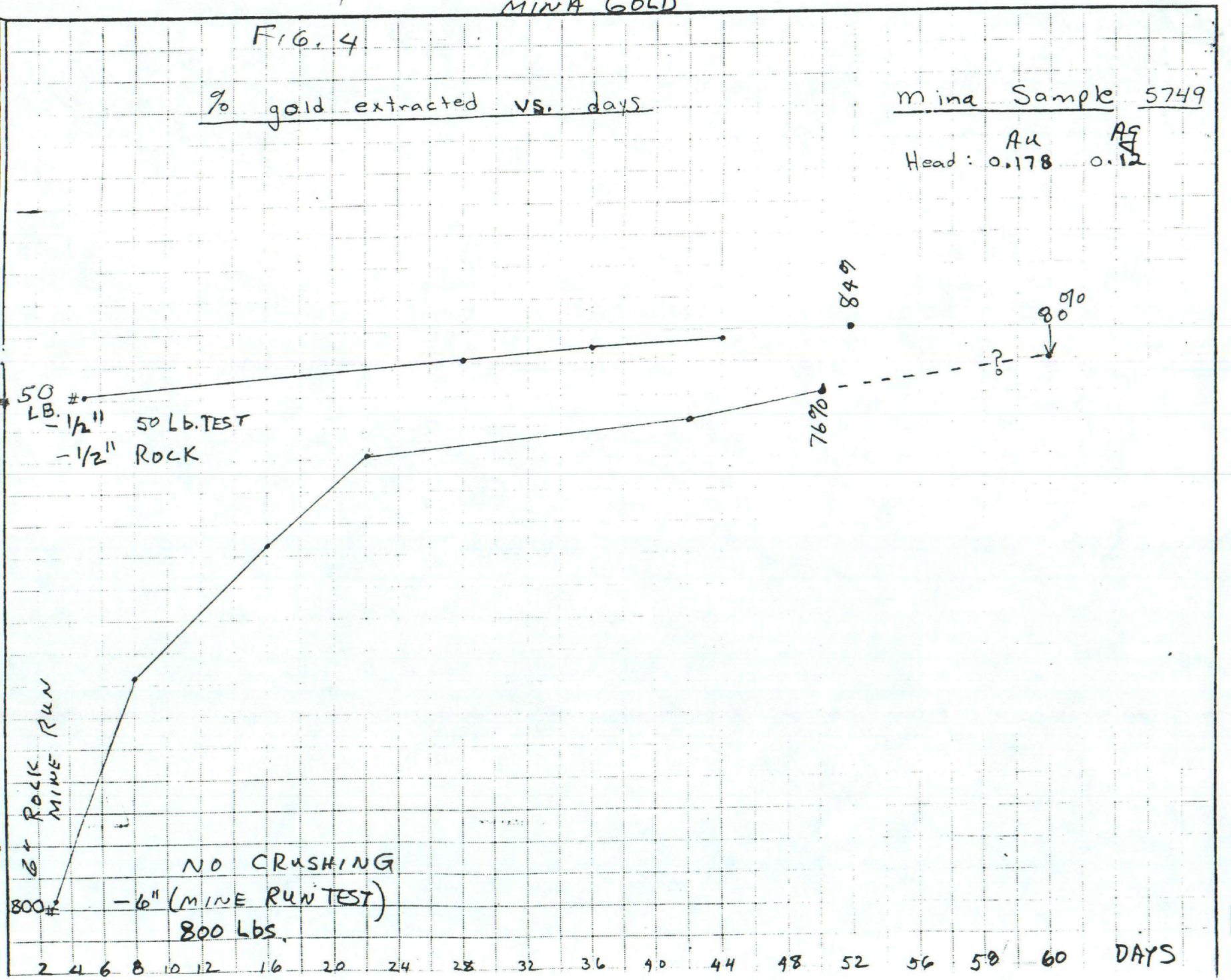

Tuff
Flows and domes
Luning limestone
1
Down cabin
2
Fault
Tuff
Flows and domes
3
Granite
Monster Fault
4
5
Mammoth - Sinbon
Fault
Luning limestone
flows and domes
Tuff
6
7
Tuff
N
0
1000
8
Volcanic Vent
Target
Tuff
Tuff
Luning Limestone
Exploration Targets,
Cedar Mtn. Fault
claim boundary

FIGURE 3

FIG. 4

1986 TESTS

MINA GOLD



LEGEND METALLURGICAL LABORATORY, INC.
125 Manuel Street
RENO, NEVADA 89502
(702) 786-3003

large tonnage.

Chapter 11

11. Metallurgy.

Several metallurgical tests have been run upon the ore. From these tests it appears that the ore is very amenable to cyanidization.

Bottle roll tests typically show that 90% of gold is extracted on 3/8ths inch grind agitated for 96 hours.

Column tests on half inch rock indicate that 84% of the gold can be extracted in 45 days.

Column tests on mine run (-6") rock indicate that 80% of the gold can be extracted in about 60 days.

Chapter 12

12. Geophysics.

Geophysics is thought to be a good supplemental method of exploring the rocks below the Esmeralda Formation both for extensions of the Monster Zone, and other targets. No geophysics have been done to date. Suggestions have also been made by various geologists to do seismic, gravity, resistivity, VLF.

Chapter 13

13. Geochemistry.

Geochemistry has been used to define several targets on the property in several areas. These Geochemical surveys have been done piecemeal over many years, but they do define targets and show mineralized portions of the property. Definite gold, mercury, arsenic, antimony anomalies help define several areas of interest. No geochemistry has been tried yet to attempt to

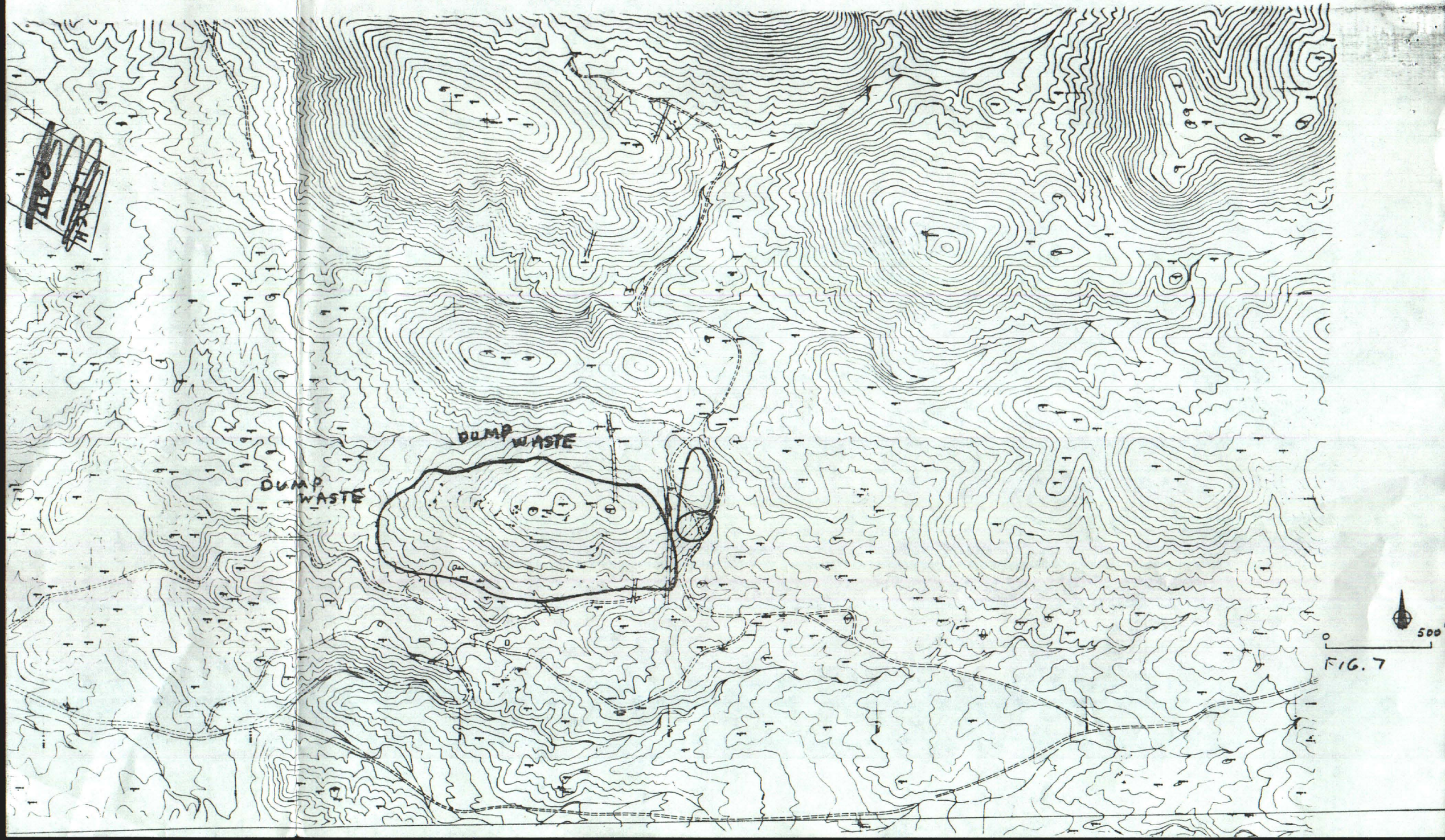


FIG. 7

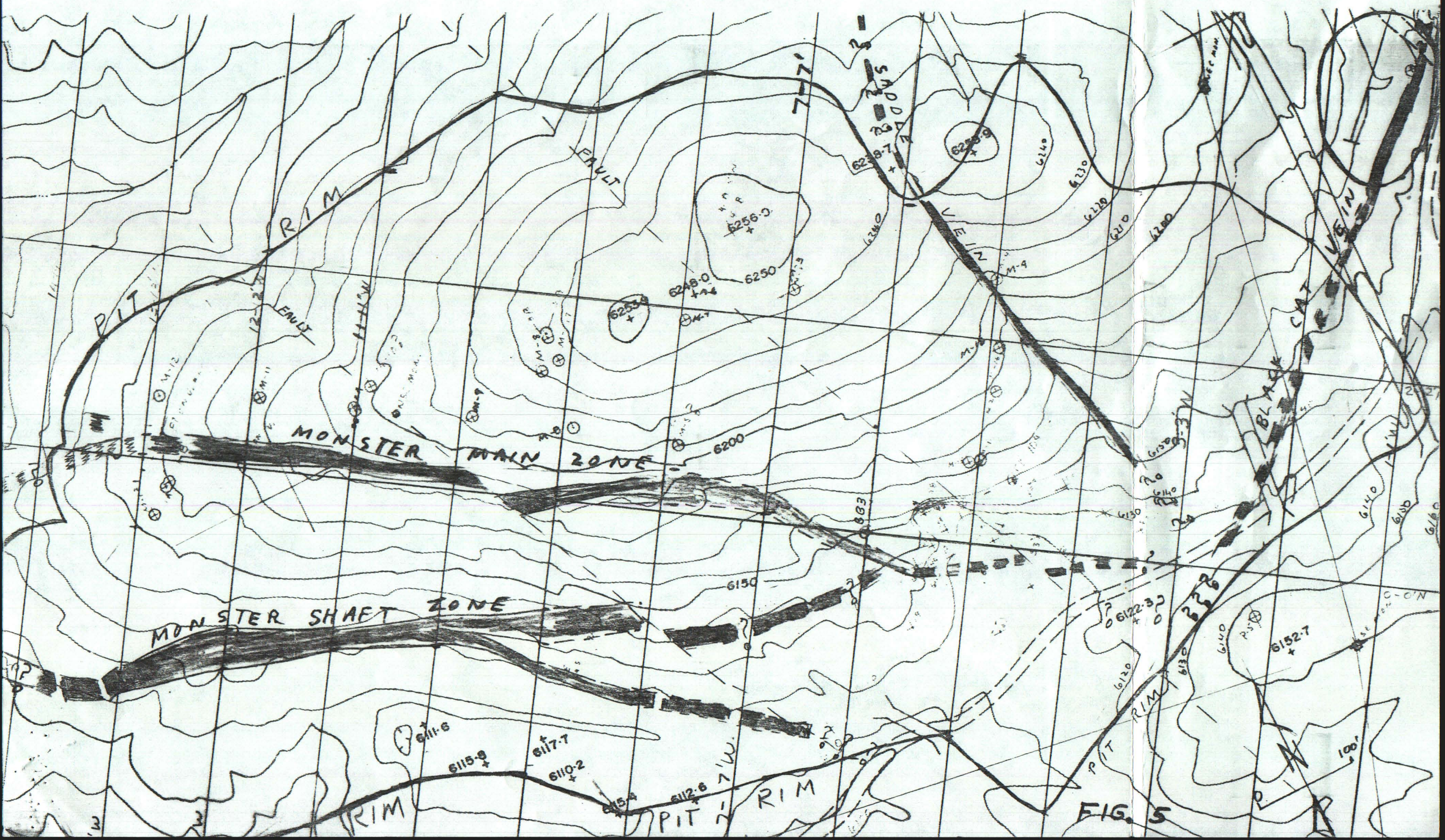
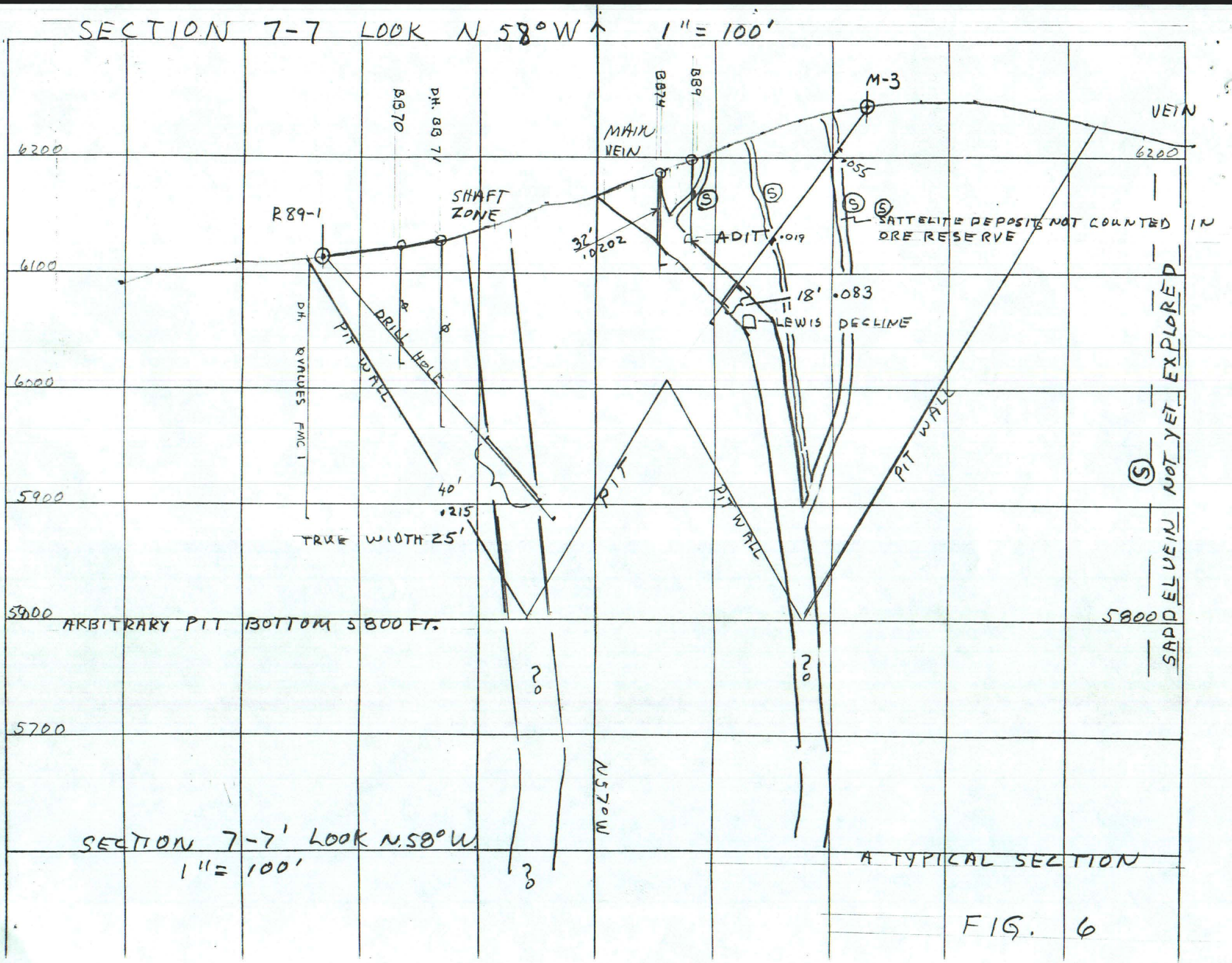

PIT RIM
FAULT
SADDLE
VEIN
6256.0
6250
6240
6230
6220
6210
6200
6248.0
6253
M-4
M-9
M-11
M-12
MONSTER MAIN ZONE
MONSTER SHAFT ZONE
BG3
6150
6140
6130
6120
6122.3
6152.7
BLACK CAT VEIN
C-O'N
6111.6
6115.8
6117.7
6110.2
6112.6
RIM
PIT RIM
100'

FIG. 5



SECTION 7-7' LOOK N.58°W.
1" = 100'

A TYPICAL SECTION

FIG. 6

define targets under the Esmeralda Formations.

Chapter 14

14. Economics.

Dave Beling, Sr. Vice President of the Hycroft Resources' Lewis - Crofoot Mine, Humboldt County, Nevada, stated in a 1989 A. I. M. E. presentation:

> "...that the direct mining, processing and administrative costs at that operation were $4.00 per ton ore. These operations include crushing 15,000 tons per day ore to 80% minus 3/8 - inch. Cyanide and lime consumptions were 0.23 and 5 pounds per ton ore, respectively. Blast holes are drilled 6.5 inch diameter on a typical 16 ft. X 16 Ft. pattern. The strip ratio was 1.7 tons waste per ton ore and all mining is accomplished with 100 - ton trucks. Fire assay head grad is 0.03 ounces per ton gold, cyanide soluble grade is 0.02 ounces per ton gold and the ultimate recovery is projected at about 75% of the cyanide soluble grad, or 0.015 ounces per ton gold. Leach pad construction costs were less than 50 cents per square foot using clay for the pad liner and plastic for lining collection ditches."

At Lewis - Crofoot the cost of mining ore and waste is 55 cents per ton. Roughly it might be estimated that at the Mina gold mine costs would be possibly about twice the costs of the Lewis-Crofoot Mine as it could not be expected that the contractor or miner could mine this deposit at such a high rate of efficiency, for such a low cost, and the two to one stripping ratio at Lewis - Crofoot Mine is much lower than the Mina Gold

Mine 7.3 to one ratio.

At the Corona gold mine (Santa Fe Deposit) 16 Miles west of the Mina Gold mine the stripping, mining, leaching cost for a ton of ore is $5.11 cents per ton mining 6,000 tons per day. Their head grade is about .03 ounces of gold per ton.

The following discussion might be reasonable as a first evaluation of the values at the Mina Gold Mine:

At the Mina Gold Mine the gross ore value is .076 oz. X $380 per oz. = $28.88 X 80% recovery on - 1 3/4 inch crushed rock = $23.10 recovered value per ton of ore mined.

An estimate of the per ton cost of mining and leaching may work out about as follows:

Costs of Mining per ton ore	$ 1.00
Cost of mining 7.5 tons of waste X .60	4.50
Costs of crushing to -2 inch Belt Agglomeration	.50
Cost of processing	.20
Cost of chemicals cement, lime, cyanide, carbon	.50
Pad, pond, piping	.25
Power and water	.10
Sample prep and assays	.05
Royalty	1.39
Reclamation	.05
Gold refining, insurance, transportation by armored car and sales	.15
Overhead, management, bookeeping, general	.05
Total	$ 8.74
Deduct gross recovered value	$23.10

Net return per ton $14.35

$14.35 X 1,096,197 tons = $15,745,774.

Potential or possible profit to be shared by contractor or miner and the Mina Gold Inc. Company might work out to a profit $15,745,745, not counting any further ore to be developed.

The cost of upgrading the leaching plant would also have to be worked into the calculation.

While mining of the developed ore is going forward, exploration of additional tonnages can be developed.

Chapter 14.

14. Disclaimer, Date and Signature.

The information contained in this assessment of the Mina Gold Mine is the opinion of the Mina Gold Mine, Inc., Company of values and economics at the Mina Gold Mine but is not meant to be a representation of any kind. Any interested party should make their own independent assessment of the assays, values, and economic circumstances surrounding this project and they should not rely on information supplied by the Mina Gold Mine, Inc., Company.

Dec. 5, 1990.

Mina Gold Mine, Inc.