



## **CONTACT INFORMATION**

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Arizona Department of Mines and Mineral Resources Mining Collection

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PRINTED: 05/09/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: ORO BELLE GROUP

ALTERNATE NAMES:

ORO BELLA  
ORO BONITO  
PATENTED CLAIMS MS 854  
PATENTED CLAIMS GEN 154  
PATENTED CLAIMS MS 1830

YAVAPAI COUNTY MILS NUMBER: 833D

LOCATION: TOWNSHIP 10 N RANGE 1 W SECTION 34 QUARTER NE  
LATITUDE: N 34DEG 10MIN 14SEC LONGITUDE: W 112DEG 20MIN 42SEC  
TOPO MAP NAME: CROWN KING - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD  
SILVER  
COPPER

BIBLIOGRAPHY:

USGS CROWN KING QUAD  
BLM MINING DISTRICT SHEET 213  
ADMMR ORO BELLE GROUP FILE  
LINDGREN, W. ORE DEPTS JEROME & BRADSHAW MTN  
QUADS USGS BULL 782 1926 P 174  
GUITERAS, J.R. GOLD MINING AND MILLING IN THE  
BLACK CANYON AREA USBM IC 6905 1936 P 42  
CLAIMS EXTEND INTO SEC. 27, 28, 34 & 35  
YAVAPAI MAGAZINE JUNE 1918 P 5 & 12 SHARLOT  
HALL MUSEUM PRESCOTT, AZ  
SPUDE, ROBERT L., ELUSIVE GOLD, IN JOURNAL OF  
AZ HISTORY, SUMMER, 1992 P 153-182

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Ore Bell, Pilgrim Claim,

Date Nov. 28th 1944

District Crown King

Engineer A. C. Nebeker

Subject: Report on present operations.

This property is under lease to Mr G. H. Manly of Crown King

Three men are employed and are under the directions of Vic Carlson.

The Pilgrim claim has been prospected by three tunnels driven in on the course of the vein. The present work is being done in the middle tunnel which is in 400 feet, and the ore is being stoped between the middle tunnel and the upper tunnel.

The vein has a thickness of 6 inches to 3 feet and is a quartz-pyrite ore carrying good values in gold. By the mining method used with sorting the grade of ore shipped runs from \$50 to \$100 per ton.

The vein makes as ~~thin~~ lenses in a fractured zone having ~~mantle~~ a schist hanging wall and a granite porphyry foot wall.

The strike of the vein is N 10 W and has a dip of 50 west with a northwest rake on the vein.

The present operator is making a car of ore in about six weeks and ships to Glakedale Smelter.

The property is located  $6\frac{1}{2}$  miles south of Crown King and the road is good but rather steep in two short spots, about half of the road was covered with snow and chains was necessary on ones car.

There are plenty of houses at the mine so the men can stay right on the property which they are doing.

*A. C. Nebeker*



**Arizona Department of Mines and Mineral Resources**  
1502 West Washington, Phoenix, AZ 85007 Phone (602) 255-3795  
1-800-446-4259 in Arizona FAX (602) 255-3777  
www.admmr.state.az.us

---

*For File*

January 6, 2003

Richard Ritter # 98673  
PO Box 3200  
Florence, Arizona 85232

Dear Richard Ritter:

We believe the Oro Belle Mine in Yavapai County continues to be owned by the Jack Ross family, also owners of Jack Ross Lincoln-Mercury, 2700 North Scottsdale Road, Scottsdale, AZ 85271 Phone: (602) 994-4500. You may want to contact the Assessors' Office of Yavapai County to verify this information.

The Yavapai County Assessor's office lists the following as the official owner and address of the property: ACQUANETTA LIMITED PARTNERSHIP & DTHC ARIZONA C/O ROSS BROWN PTR INC2999 N 44TH ST #200, Phoenix, AZ 85018. Acquanetta Ross is(was) Jack Ross's wife. The Yavapai County Assessors address is Assessor's Office, Administrative Services Center, 1015 Fair Street, AZ 86305, Phone: 928 771-3220 Fax: 928 771-3181

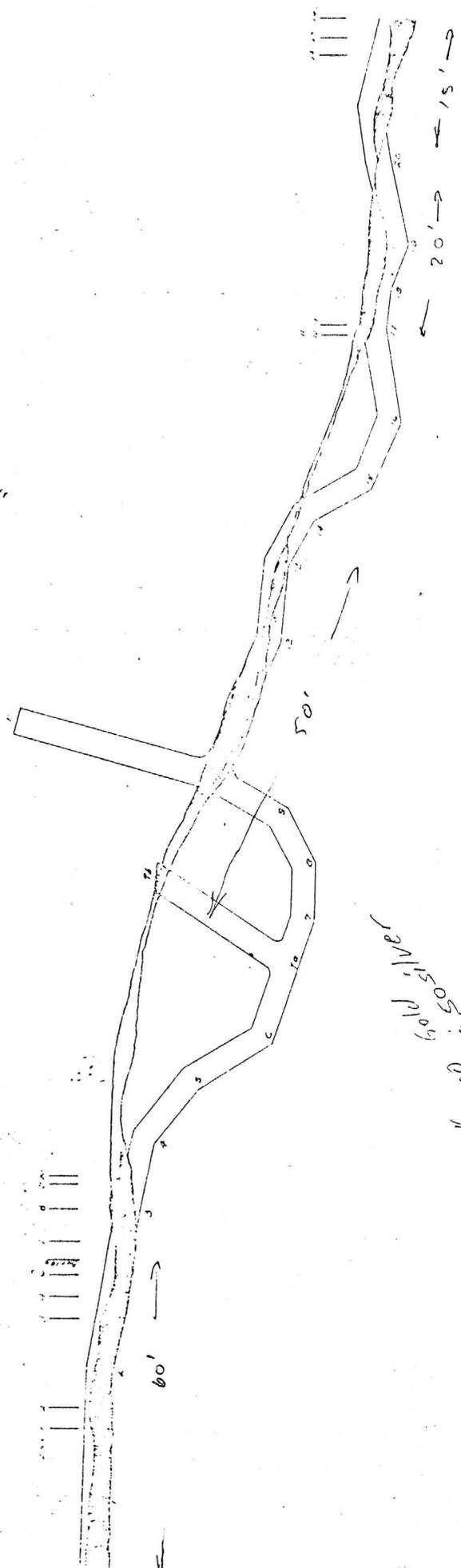
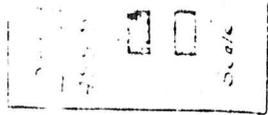
There are a number of other privately owned historic mining properties in the immediate area. The Prescott National Forest administers the public lands surrounding the private lands.

Thank you for your interest in Arizona's mines and mineral resources.

Sincerely,

Ken A. Phillips, Chief Engineer

AP.



W.D.

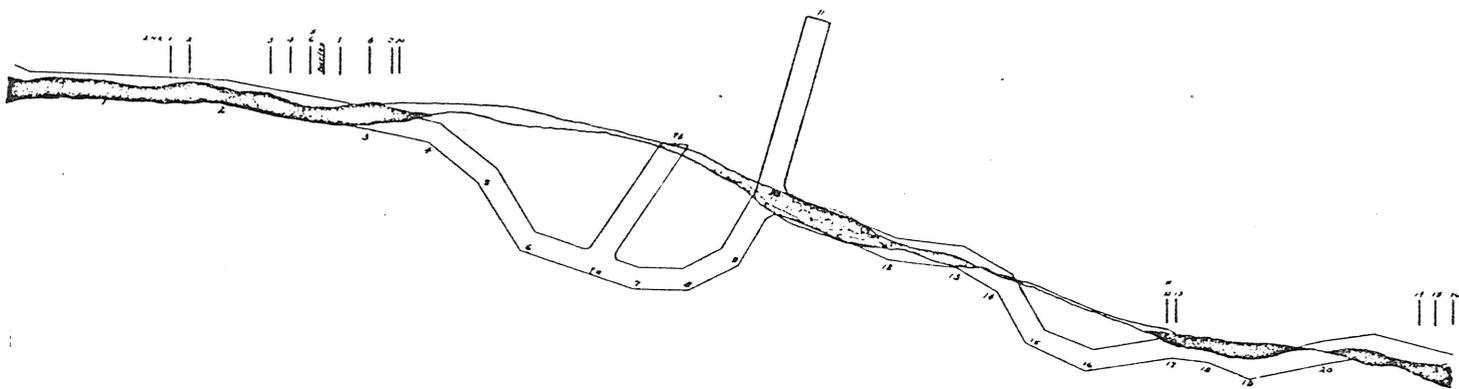
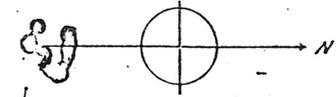
ASSAY # 00.55  
 25051/101  
 25051/101  
 25051/101  
 25051/101

ASSAY TABLE	
1	36.5' 17.61
2	26.5' 1.52
3	10" 6.06
4	12" 22.10
5	18" 12.03
6	12" 12.42
7	5" 5.70
8	36.5' 13.80
9	32" 26.01
10	34" 13.14
11	36.5' 6.55
12	24.8' 6.22
13	18.65
14	32.57
15	30" 36.24
16	12" 22.69
17	

15 56.5 12 50.12  
 Averaged 37.7" 15.63







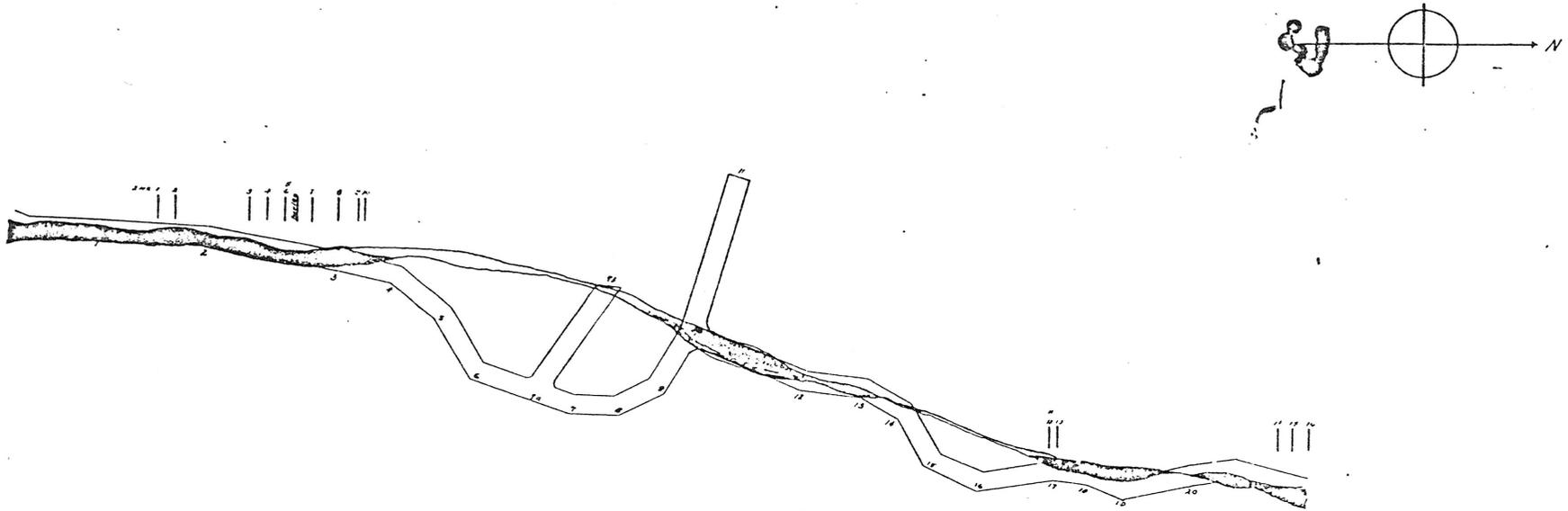
ASSAY TABLE		
2NX-1	3'	7.61
2	3'	1.52
3	40"	6.06
4	42"	22.10
5	38"	12.03
6	42"	12.42
7	52"	6.70
8	3'	18.80
9	32"	26.01
10	33"	13.14
11	3'	6.55
12	2'	6.32
13	As in A	18.65
14	3'	33.97
15	40"	36.24
16	42"	22.69
17		

2<sup>nd</sup> N. EXTENSION  
 ASSAY & TRAVERSE MAP

Ore  
 Shear

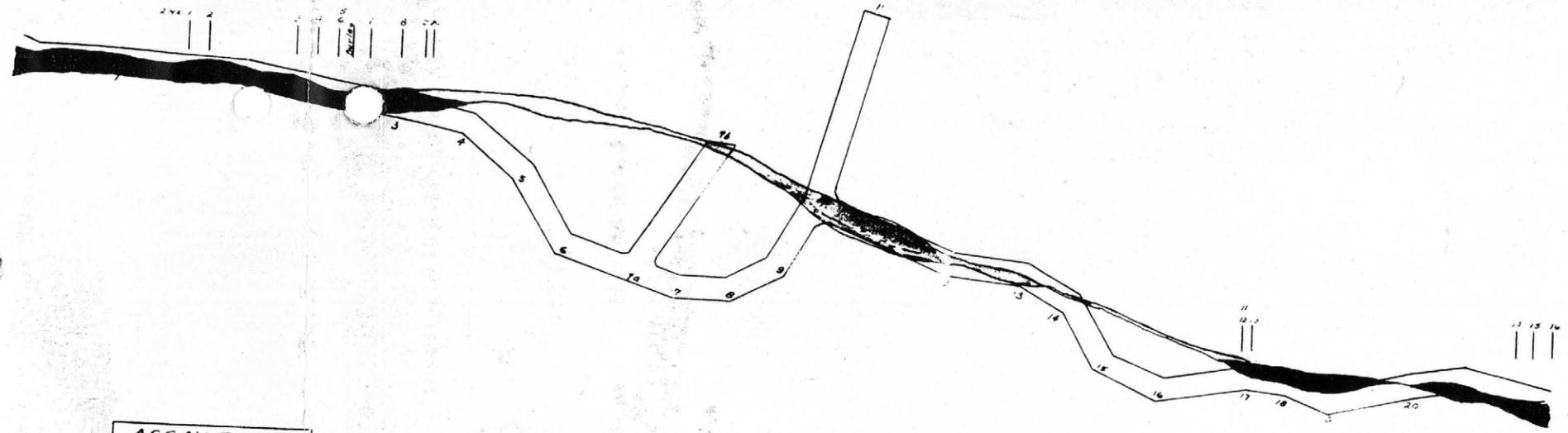
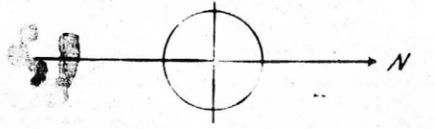
Scale 1"=20'  
 10-12-96

APPENDIX B-3



ASSAY TABLE		
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2	3'	1.52
3	40"	6.06
4	42"	22.10
5	38"	12.03
6	42"	12.42
7	52"	6.70
8	3'	18.80
9	32"	26.01
10	33"	13.14
11	3'	6.55
12	2'	6.22
13	4x4x3	18.65
14	3'	33.37
15	40"	36.24
16	42"	22.69
17		

2<sup>nd</sup> N. EXTENSION  
 ASSAY & TRAVERSE MAP  
 Ore  
 Shear  
 Scale 1"=20'  
 10-12-36



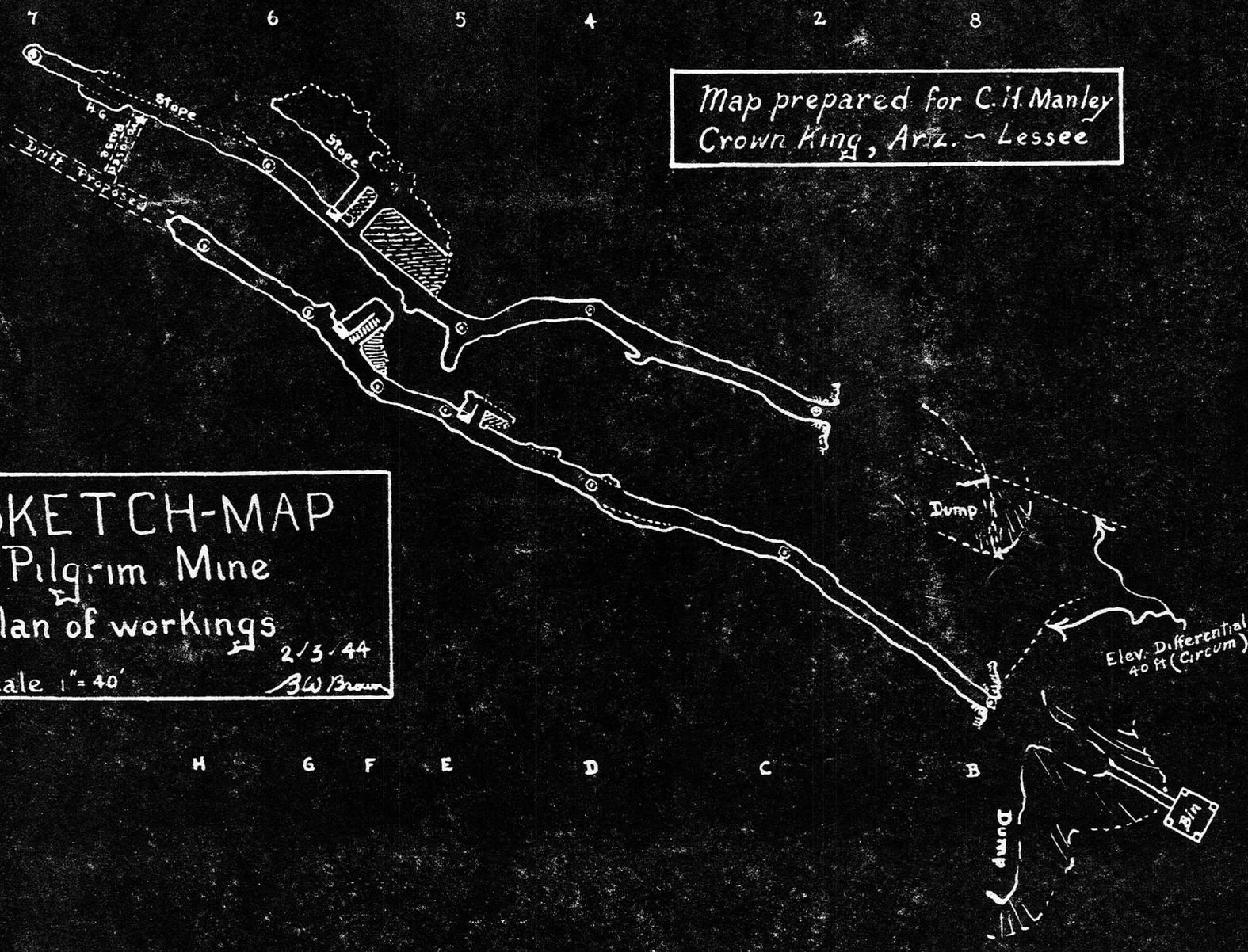
ASSAY TABLE		
2NX-1	3'	7.61
2	3'	1.52
3	40"	1.06
4	42"	22.10
5	38"	12.03
6	42"	12.42
7	52"	6.70
8	3'	18.80
9	32"	26.01
10	33"	13.14
11	3'	6.55
12	2'	6.22
13	As in A <sub>2</sub>	18.65
14	3'	33.37
15	40"	36.24
16	42"	22.69
17		

scale 1" = 20'  
10-12-36

2<sup>nd</sup> N. EXTENSION  
ASSAY & TRAVERSE MAP



Ore  
shear



Map prepared for C. H. Manley  
Crown King, Ariz. - Lessee

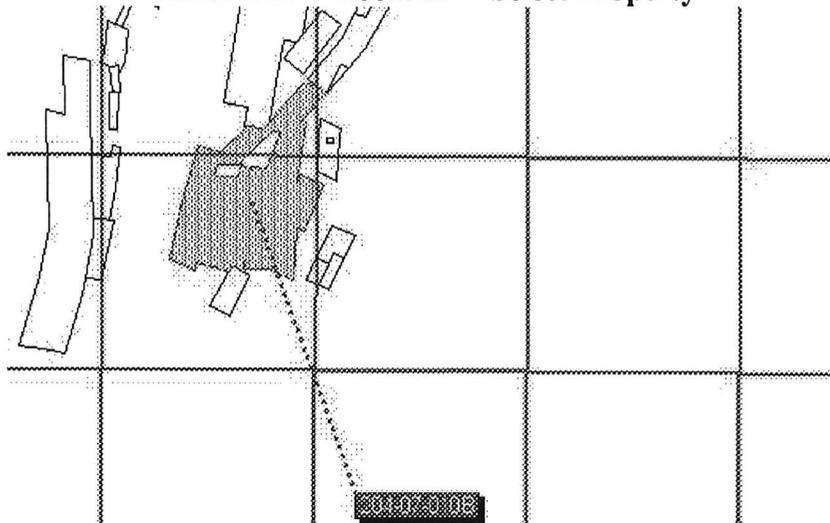
SKETCH-MAP  
Pilgrim Mine  
Plan of workings  
2/3/44  
Scale 1" = 40'  
B.W. Brown

Oro Belle Mine (P)  
Yavapai

**Locate Property Information Tool**

[GIS Home](#) | [Online Mapping Applications](#) | [Products](#) | [FAQ's](#)

Cursor will:  Zoom In  Select Property



- Search By**
- Parcel Number
- Address
- Owner Last Name
- Section/Township/Range
- Subdivision
- Street Intersection



[Print Map](#)

[Help](#)

PARCEL NUMBER:	204-07-010B
PARCEL ID:	1320407010027
OWNER:	ACQUANETTA LIMITED PARTNERSHIP &
SECONDARY OWNER:	DTHC ARIZONA C/O ROSS BROWN PTR INC
MAILING ADDRESS:	2999 N 44TH ST #200
CITY:	PHOENIX
STATE:	AZ
ZIP:	85018
SUBDIVISION:	N/A
ACRES:	227.5
2003 FULL CASH VALUE:	\$79,625
2003 LIMITED VALUE:	\$79,625
LEGAL CLASS:	02.R
ASSESSMENT RATIO:	16
2002 TAXES BILLED:	1468.3
2003 NET ASSESSED FULL CASH VALUE:	\$12,740
2003 NET ASSESSED LIMITED VALUE:	\$12,740
LAST TRANSFER DOCUMENT DOCKET:	2974
LAST TRANSFER DOCUMENT PAGE:	526
RECORDED DATE:	02/22/1995
INSTRUMENT TYPE:	6
INCORPORATED AREA:	N/A
SCHOOL DISTRICT:	CROWN KING SD #41
FIRE DISTRICT:	N/A
<b>SALE DATA</b>	
DATE OF MOST RECENT SALE:	N/A
SALE AMOUNT:	N/A
DEED TYPE:	N/A
SALE DOCKET:	N/A
SALE PAGE:	N/A

ORO BELLE GROUP

YAVAPAI COUNTY

USGS Bull. 782, p. 174

ABM Bull. 140 p. 102

ABM Bull. 137 p. 59

Pilgrim Mine (file) Yavapai County

Production to 1930 \$700,000 - major  
metal gold - J. W. Still figures  
(corres. file)

SEE: IC 6905 p. 42 (gold)

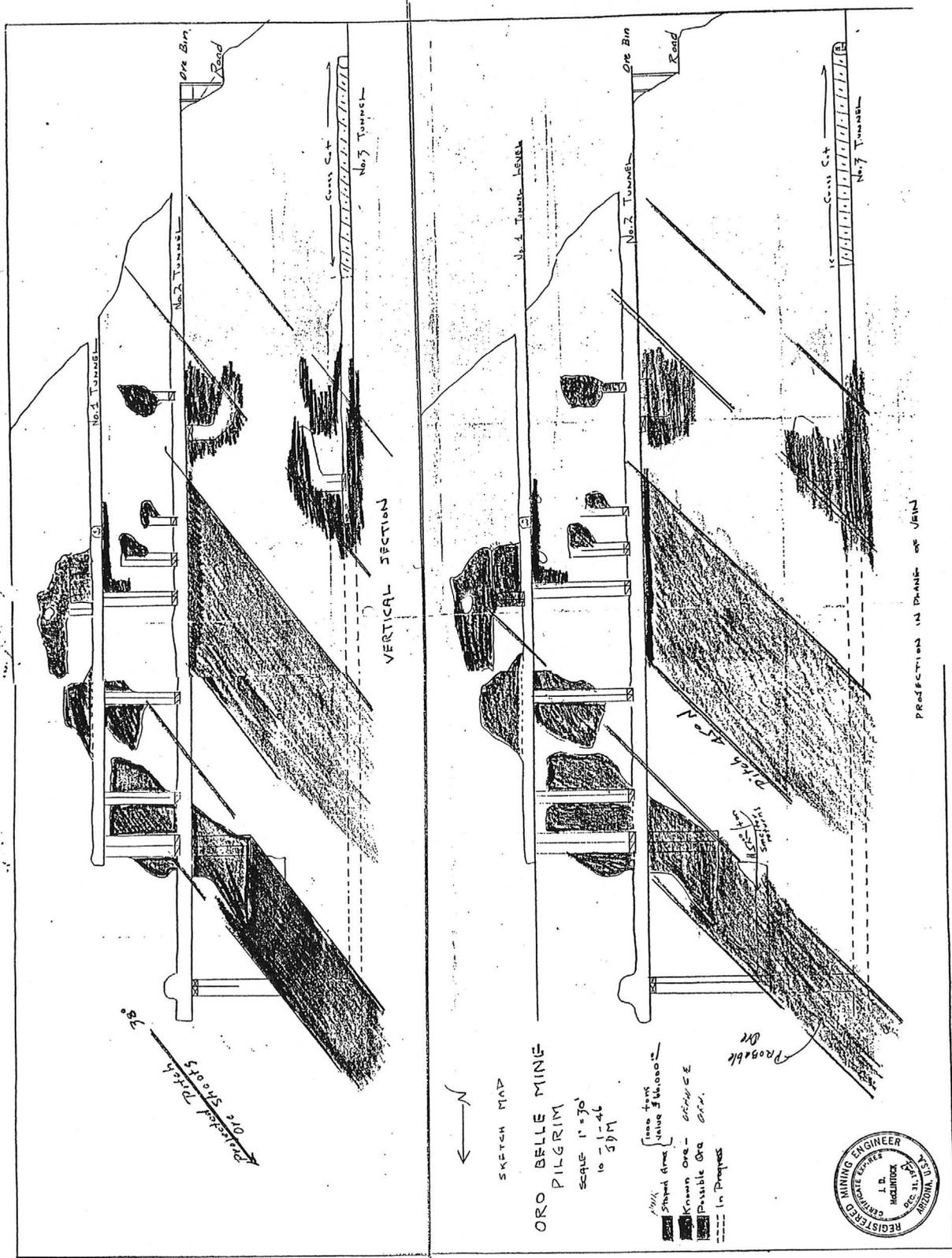
SEE: IC 8236 p. 113 (magnetite,taconite)

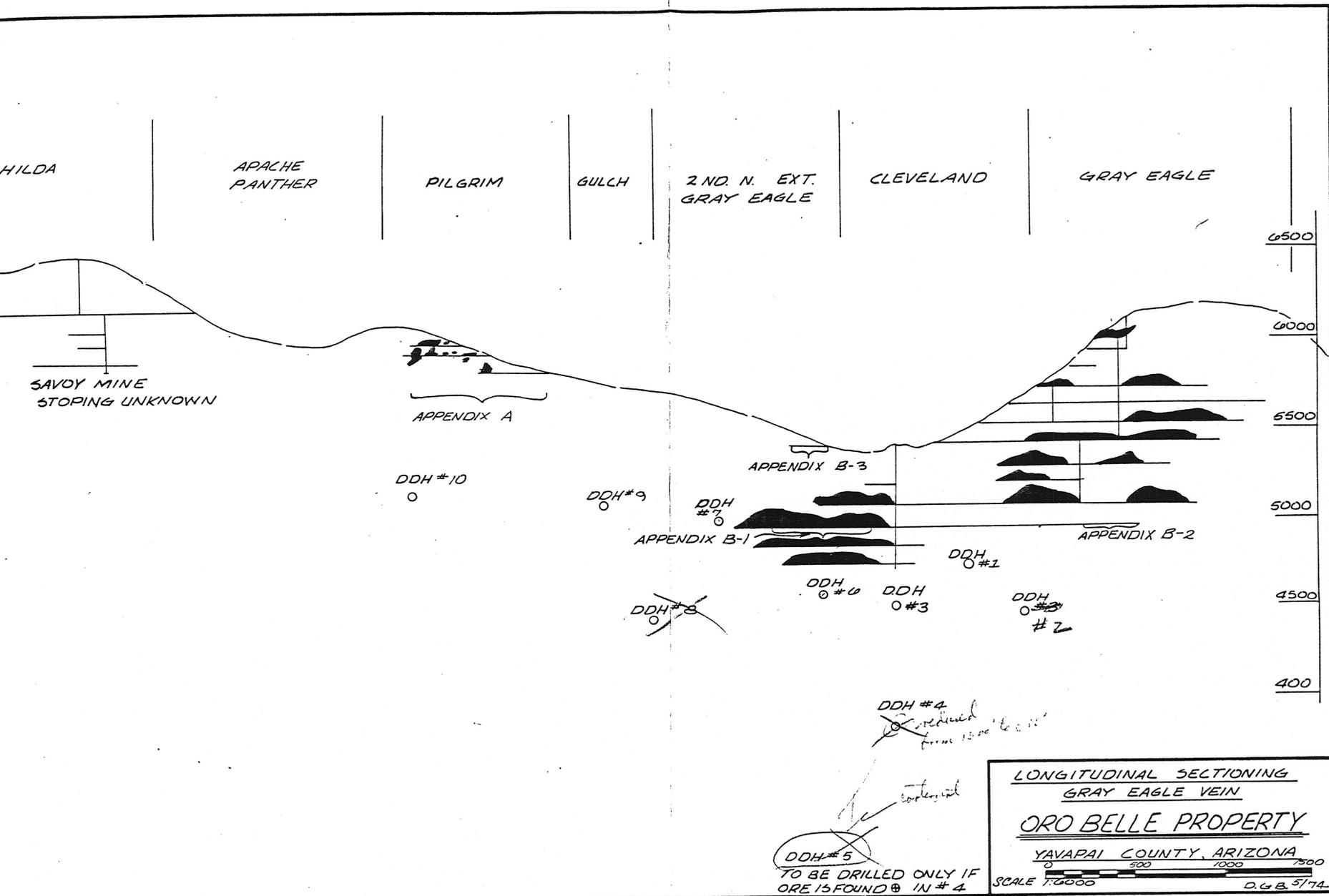
NAME OF MINE: ORO BELLE  
OWNER:

COUNTY: Yavapai  
DISTRICT:  
METALS: Au

OPERATOR AND ADDRESS		MINE STATUS	
Date:	J.D. McClintock, Box 1775,	Date:	
10/45	<del>Atkinson</del> Crown King	10/45	Applying for RFC loan
		2/46	Developing
		8/46	Idle temp.
		10/46	Developing
		4/47	Shipping

APPENDIX





HILDA

APACHE PANTHER

PILGRIM

GULLCH

2ND N. EXT. GRAY EAGLE

CLEVELAND

GRAY EAGLE

SAVOY MINE STOPING UNKNOWN

DDH #10

DDH #9

DDH #7

APPENDIX B-1

APPENDIX B-3

DDH #6

DDH #3

DDH #1

APPENDIX B-2

DDH #2

~~DDH #8~~

DDH #4

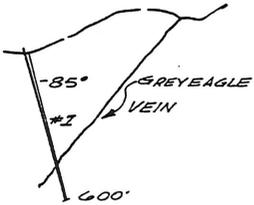
DDH #5

TO BE DRILLED ONLY IF ORE IS FOUND IN #4

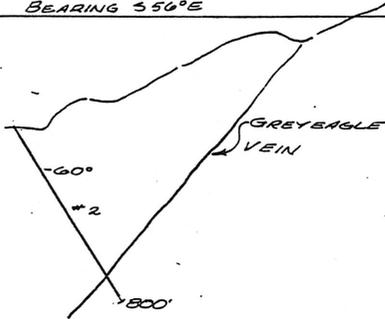
LONGITUDINAL SECTIONING  
 GRAY EAGLE VEIN  
 ORO BELLE PROPERTY  
 YAVAPAI COUNTY, ARIZONA  
 SCALE 1:6000  
 D.G.B. 5/74

PLATE #2

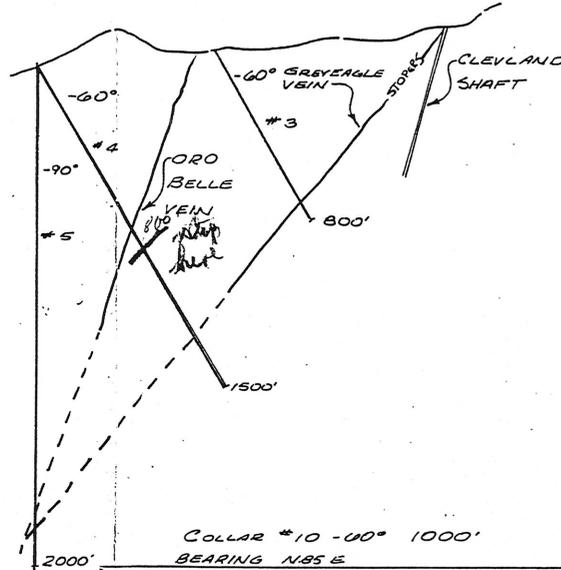
COLLAR #1 -85° 800'  
ELEV. 6000' BEARING S 56° E



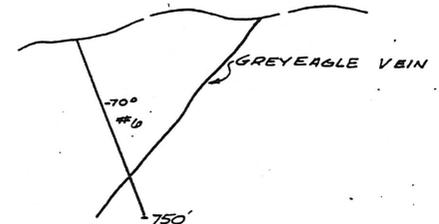
COLLAR #2 -60° 800'  
ELEV. 6000' BEARING S 56° E



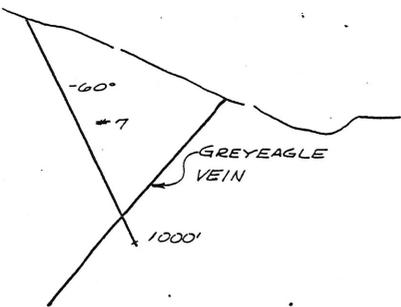
COLLAR #3 -60° 800'  
COLLAR #5 -90° 2000'  
COLLAR #4 -60° 1500'  
BEARING DUE E. COLLAR #3-60° 750'



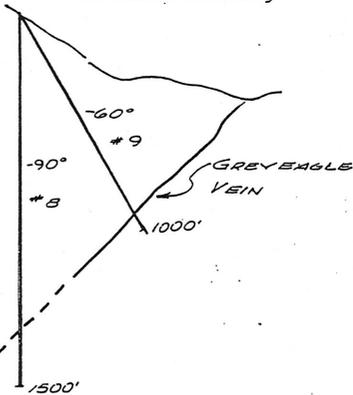
COLLAR #6 -70° 750'  
BEARING N 85° E ELEV. 6000'



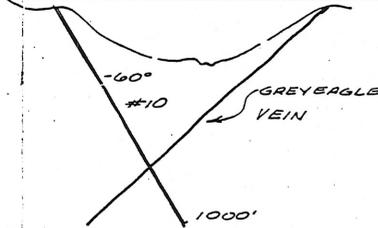
COLLAR #7 -60° 1000'  
BEARING S 30° E ELEV. 6000'



COLLAR #8 -90° 1500'  
COLLAR #9 -60° 1000'  
BEARING S 75° E



COLLAR #10 -60° 1000'  
BEARING N 95° E ELEV. 6000'



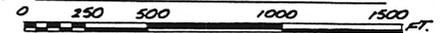
Revised  
program

#1	600
2	800
3	800
4	800
6	750
7	1000
9	1000
10	1000
<hr/>	
	6750
	@ 20
	135000

NOTE:  
TOTAL FOOTAGE 10,950 EST. COST  
219,000.00 DOLLARS  
DRILLHOLES SUBJECT TO  
CHANGE AS DRILLHOLES ARE  
COMPLETED, LOGGED, AND  
INTERPRETED

DRILLHOLE SECTIONS  
ORO BELLE PROPERTY

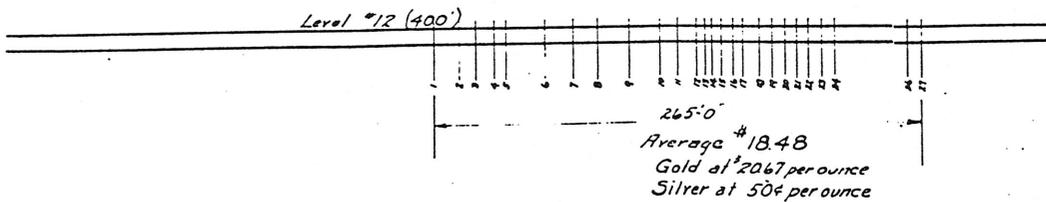
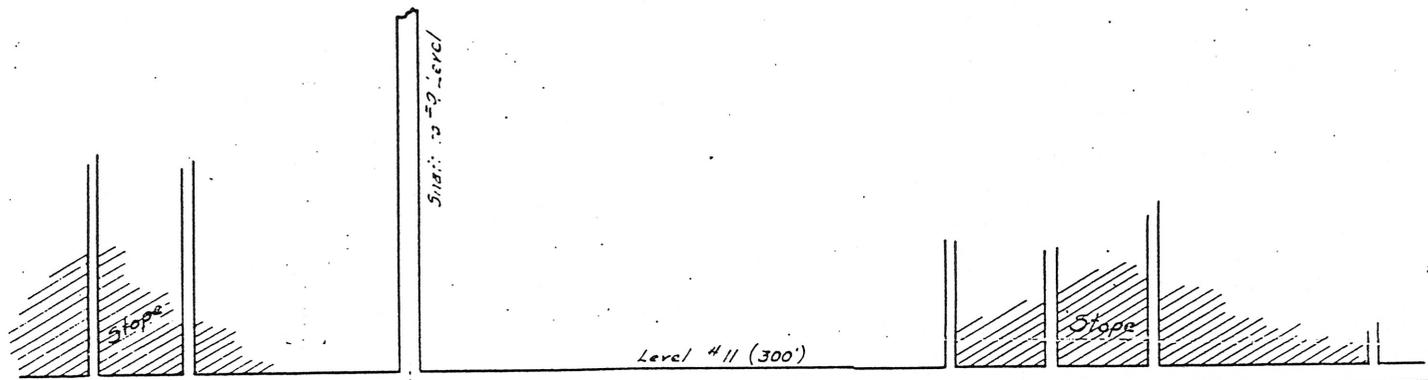
YAVAPAI COUNTY ARIZONA



SCALE 1:6000

D&B APR '74

N ← ————— S



No.	Width	Value
1		2300
2		1222
3		1060
4		992
5		600
6		1558
7	411/16	2604
8	411/16	3434
9	411/16	2540
10		3772
11	411/16	3728
12		1318
13		2268
14		2324
15		5804
16		521
17		931
18		2827
19		2487
20	No	2774
21	No	513
22		677
23		360
24		370
25		470
26		1216
27		960
Total		1348

Values based on Gold at 20.67 per ounce and Silver at 50¢ per ounce

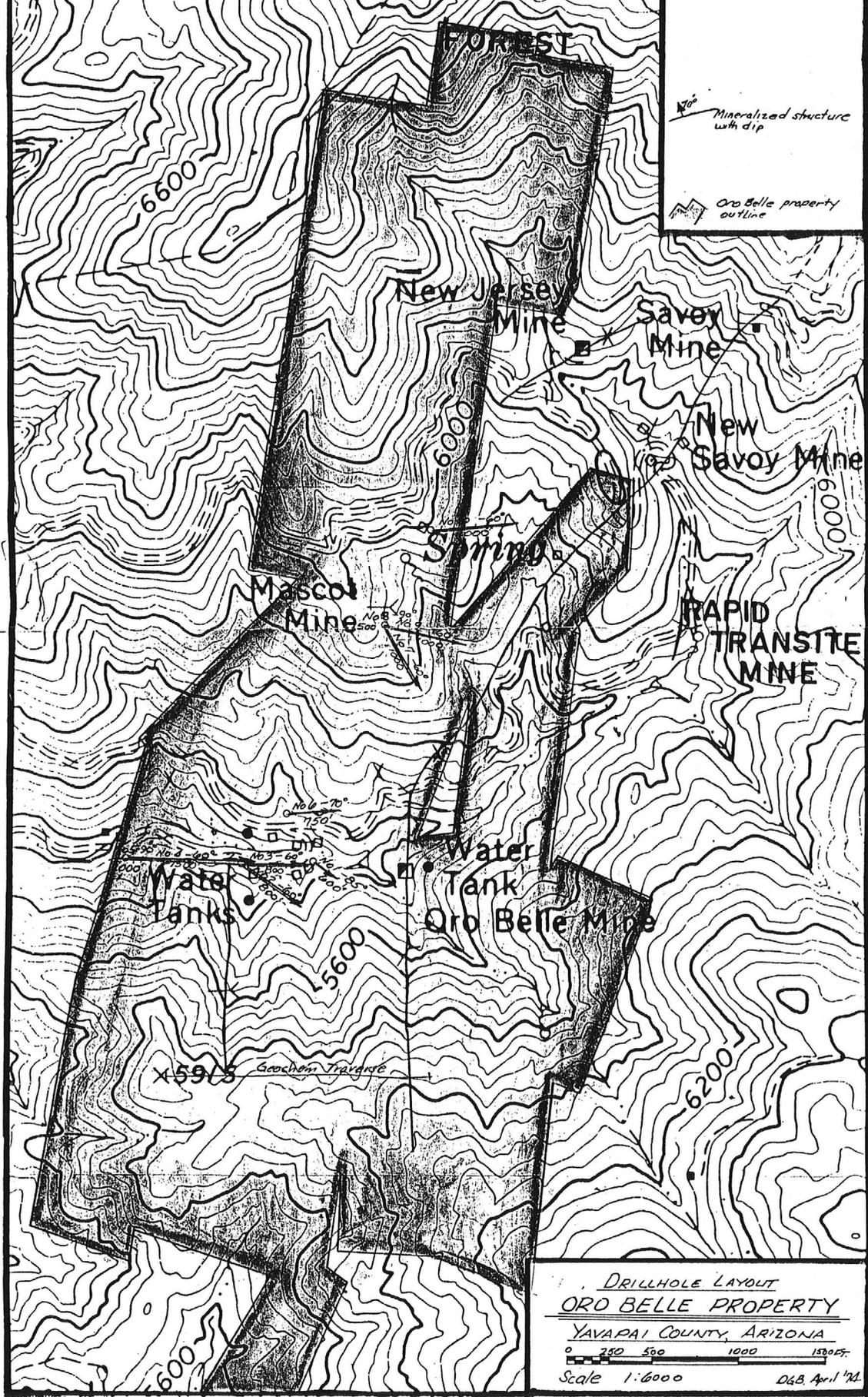
**SECTION**  
 PART OF WORKINGS SOUTH OF SHAFT  
**TIGER GOLD CO.**  
 Scale 1" = <sup>55.2</sup> 33.2  
 V. 1/5/23  
 J.S.M.



416329

NATIONAL

WITH 100' INTERVAL



Mineralized structure with dip

Oro Belle property outline

DRILLHOLE LAYOUT  
ORO BELLE PROPERTY

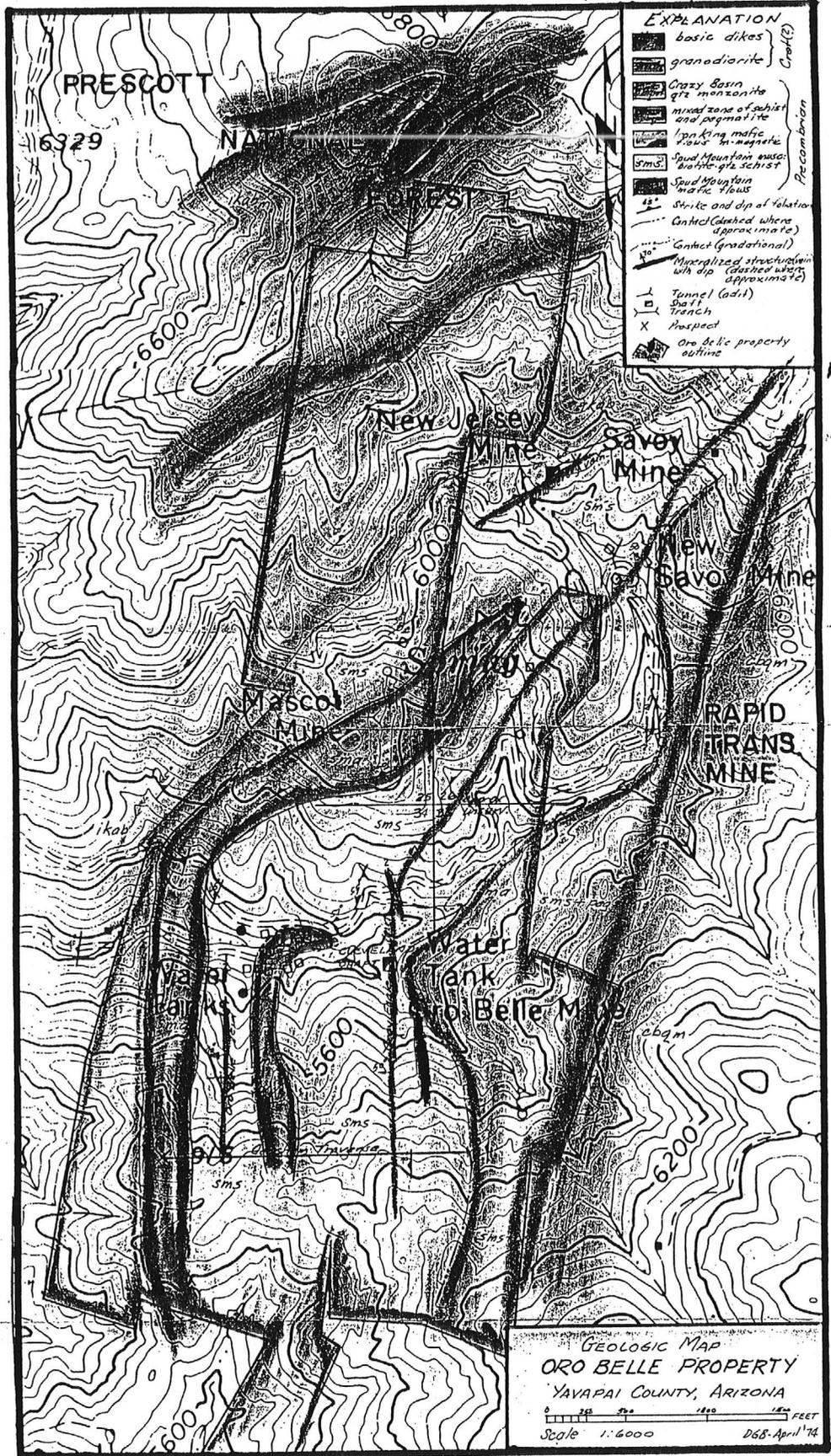
YAVAPAI COUNTY, ARIZONA

0 250 500 1000 1500 FT.

Scale 1:6000

D.G.B. April '72

PLATE # 4



EXPLANATION	
[Symbol]	basic dikes
[Symbol]	granodiorite
[Symbol]	Crazy Basin quartz monzonite
[Symbol]	mixed zone of schist and pegmatite
[Symbol]	Linn King mafic flows
[Symbol]	Soud Mountain mafic flows
[Symbol]	Soud Mountain mafic flows
[Symbol]	Strike and dip of foliation
[Symbol]	Anticline (dashed where approximate)
[Symbol]	Syncline (gradational)
[Symbol]	Myopliased structure with dip (dashed where approximate)
[Symbol]	Tunnel (adit)
[Symbol]	Shaft
[Symbol]	Prospect
[Symbol]	Oro Belle property outline

GEOLOGIC MAP  
 ORO BELLE PROPERTY  
 YAVAPAI COUNTY, ARIZONA  
 Scale 1:6000  
 D68-April 78

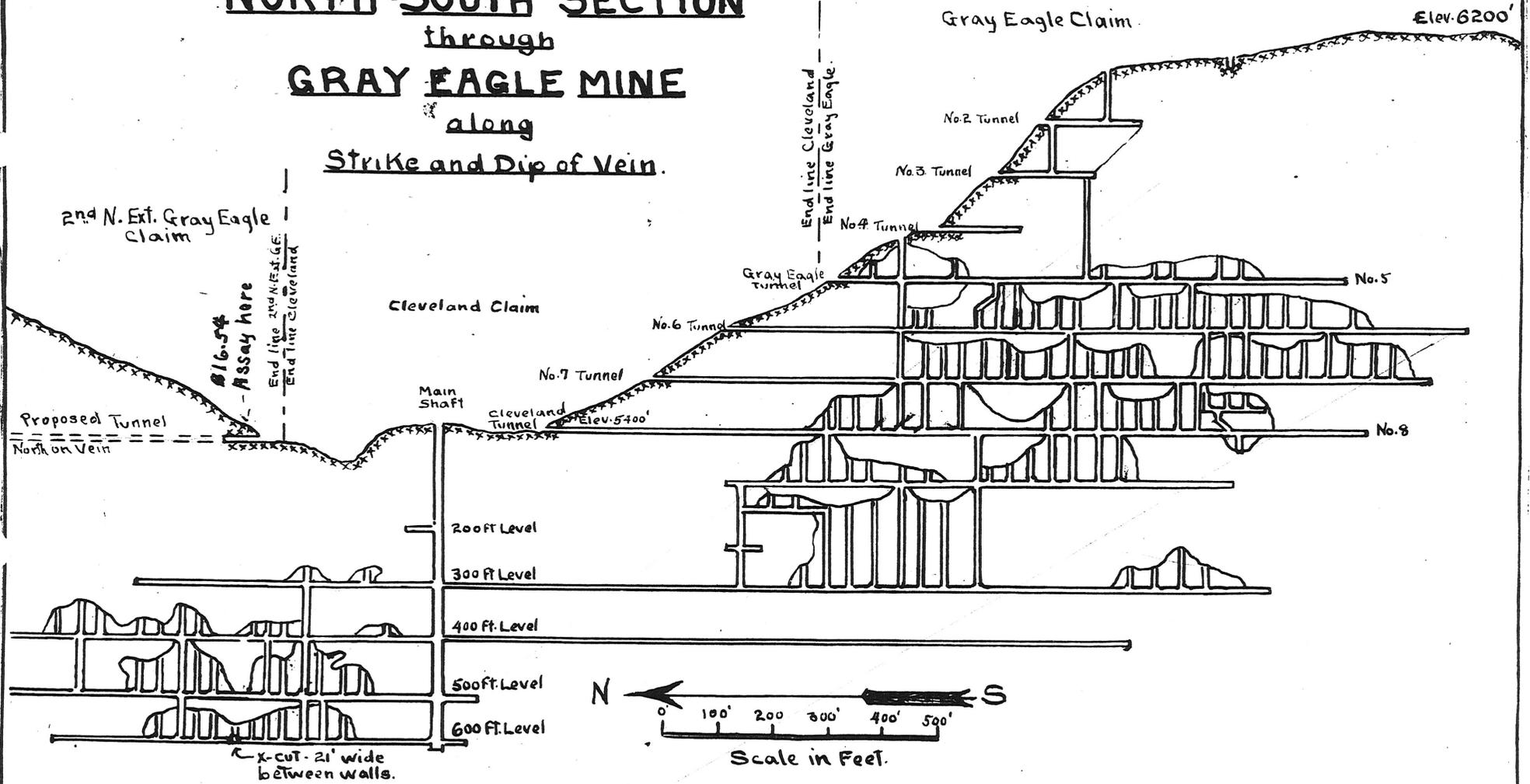
# NORTH-SOUTH SECTION

through

# GRAY EAGLE MINE

along

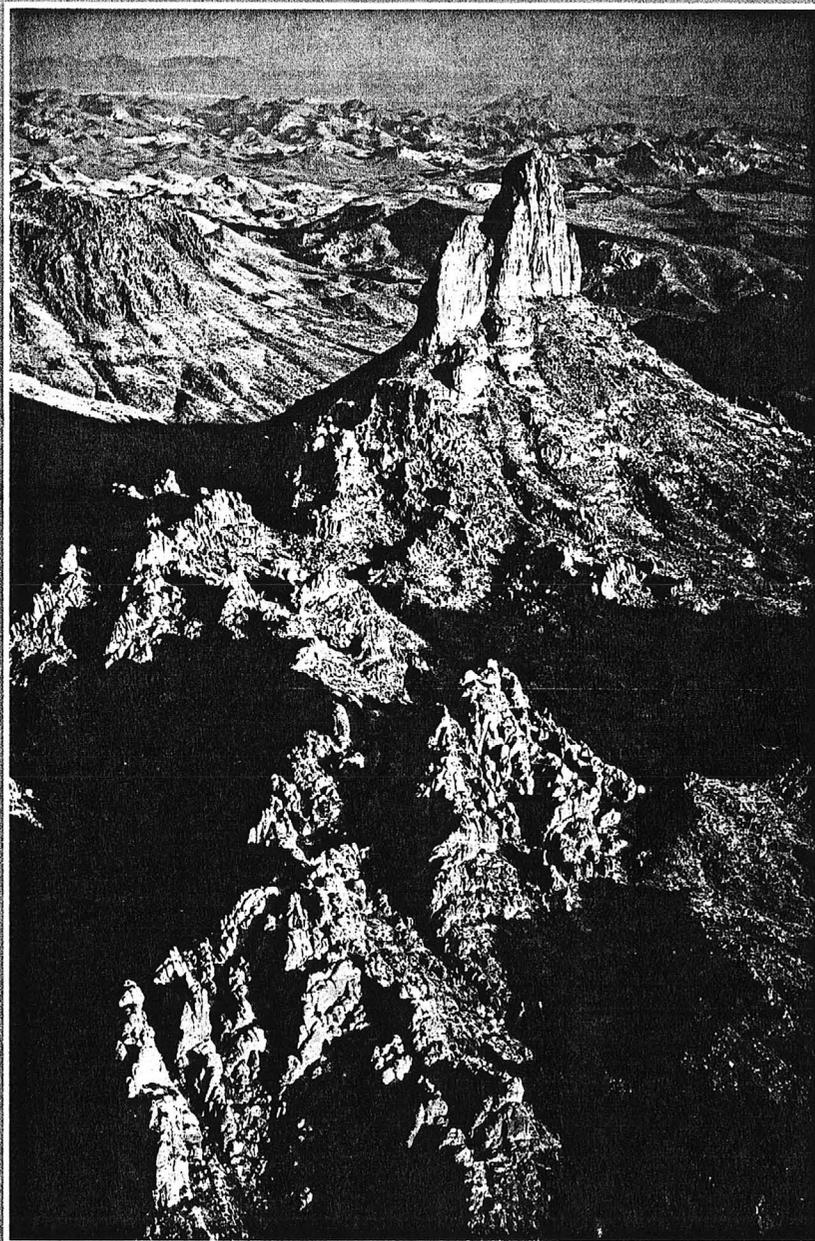
Strike and Dip of Vein.



## PLATE No. 1

Traced by  
H.E. Olund Mining Engineer.

The Journal of  
**Arizona History**



Summer, 1992

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ON THE COVER—Weaver's Needle in the Superstition Mountains. See "A Death in the Superstitions: The Fate of Adolph Ruth," by James R. Kearney. *Photograph by Peter L. Kresan, Tucson.*

*To Mason Co. in  
Yellow Bradshaw  
Dawson  
Spude*

**ELUSIVE GOLD**  
**George P. Harrington and**  
**the Bradshaw Mines**  
**1887-1922**

by  
Robert L. Spude

ON MARCH 14, 1894, George P. Harrington and his lawyer, James M. Taylor, arrived early to the Crowned King Mining Company stockholders' meeting in Taylorville, Illinois. Next came R. H. Hetherington, the company's local agent from Prescott, Arizona. Finally, Orrin F. Place, a major stockholder and the mine manager, appeared with his attorney. The announcement was brief. Place was being removed as manager, and Harrington would take his position. With a curse, Place grabbed his valise and pulled out a pistol. A struggle ensued as Taylor reached for Place's arm and was struck down. Place then lunged toward Harrington. Just as he pulled the trigger, Hetherington grabbed the hammer, catching its blow and stopping the pistol from firing. The men wrestled the gun away and held Place until the sheriff arrived to arrest the disgruntled employee. Thus began the turn of events that brought George Harrington to Arizona Territory. The forty-four-year-old mine operator would spend the remaining twenty-eight years of his life trying to extract the elusive gold metal from the Bradshaw Mountains.<sup>1</sup>

Harrington had come a long way since his decision in 1887 to invest in the Crowned King mine. A native of the prairie farm community of Edinburg, Christian County, Illinois, he

---

Robert L. Spude is chief of the National Preservation Programs Branch, National Park Service, Denver.

and the town had prospered, along with the rest of the Midwest, during the post-Civil War years. At age thirty, in 1880, he was the local banker and an elected town trustee.<sup>2</sup> Sandy-haired and blue-eyed, with a warm handshake and pleasant manner, he "was not only liked, but loved by practically everybody who came in contact with him, including myself," wrote an acquaintance. "He was plain, unassuming, and kindly toward everyone."<sup>3</sup> More important, Harrington had the confidence of the local farmers, who deposited their hard-earned cash in the respected Harrington Bank. By the 1880s, he had capital to invest, and like so many of his contemporaries, he was attracted by the lure of western gold mines. Chicago and other Illinois newspapers published glowing articles describing the bonanzas to be found. The *Inter-Ocean* and the *Chicago Mining Review*, for example, followed the construction of the Santa Fe Railroad across northern Arizona and highlighted the territory's mineral wealth.<sup>4</sup> Harrington could hardly have missed the attention.

In 1887 the Illinois banker visited Lynx Creek, near Prescott, as the guest of Francis Murphy, a partner in Frank Murphy & Company, land and mine promoters. With Murphy as his guide, Harrington quickly looked at the Lynx Creek mines but, noting the large amount of capital required, deferred investing. Murphy then introduced his guest to Noah C. Shekels and Orrin F. Place, who owned a gold prospect in the Bradshaw Mountains, forty miles to the south.<sup>5</sup> After examining assay returns at R. H. Hetherington's Prescott office, the conservative banker seemed interested. The claims were valid and the ore samples high grade. Consequently, in October and November, Place guided Harrington into the Bradshaws.<sup>6</sup>

Place, too, had an interesting background. Backed by a group of friends, he had arrived in Arizona from Chicago in 1883. He worked gold prospects in the Bradshaws with various results until one, the Crowned King, showed promise.<sup>7</sup> By 1887, he and his new partner, Noah Shekels, were looking for investors in their mine.

On Gurley Street, Harrington and Place climbed aboard a buckboard stage for the jolting ride out of Prescott along the Senator Highway. The road wound through the steep canyons and the cool pine-forested slopes and running creeks at the



*George P. Harrington.*

headwaters of the Hassayampa River. This was not the Arizona that Harrington had imagined. Instead of saguaro cactus, he saw aspen turning their golden hue; instead of dry gulches, Groom Creek and Turkey Creek ran clear and cold through the tight canyons. Along the way, Place pointed out the new Senator mill, financed by the wealthy Phelps-Dodge people of New York. He described other new operations as the stage descended the twisting road along Turkey Creek and stopped at the mining hamlet of Alexandra. There, Harrington heard more tales of the camp's rich Peck mine, discovered in 1875 by persevering pioneer prospectors. The Peck was incredibly rich, black with silver. The San Francisco concern that operated it had reaped a fortune before litigation forced the mine to close. It was just now being reopened. Everywhere one looked in Yavapai County, Place gushed, investors were developing mines as capital flowed in.<sup>8</sup>

At the Minges Brothers stables in Alexandra, the pair hired horses for the climb up Bear Creek and Homeward Bound Gulch to the slopes beneath Del Pasco Peak in the Bradshaws. Along the way, the country turned from scrub oak and brush to pines. Grey-green outcrops of rock with white quartz veins, some rich at the surface with gold, no doubt piqued Harrington's interest. Discovered nearly two decades earlier, the deposits had been little worked because of a combination of isolation, threat of Indian attack, and lack of capital. But this was changing. As evidence, Place pointed to the bustling Del Pasco property, where millionaire steamboat captain Joseph "Diamond Joe" Reynolds had bought a number of claims. Immediately, he brought in a stamp mill, built a sawmill, and now was constructing boardinghouses for workers. The Prescott press overflowed with cliches to describe the enterprise: the magic hand of capital was opening the wilderness; Diamond Joe would soon reap millions in gold. Harrington was impressed.

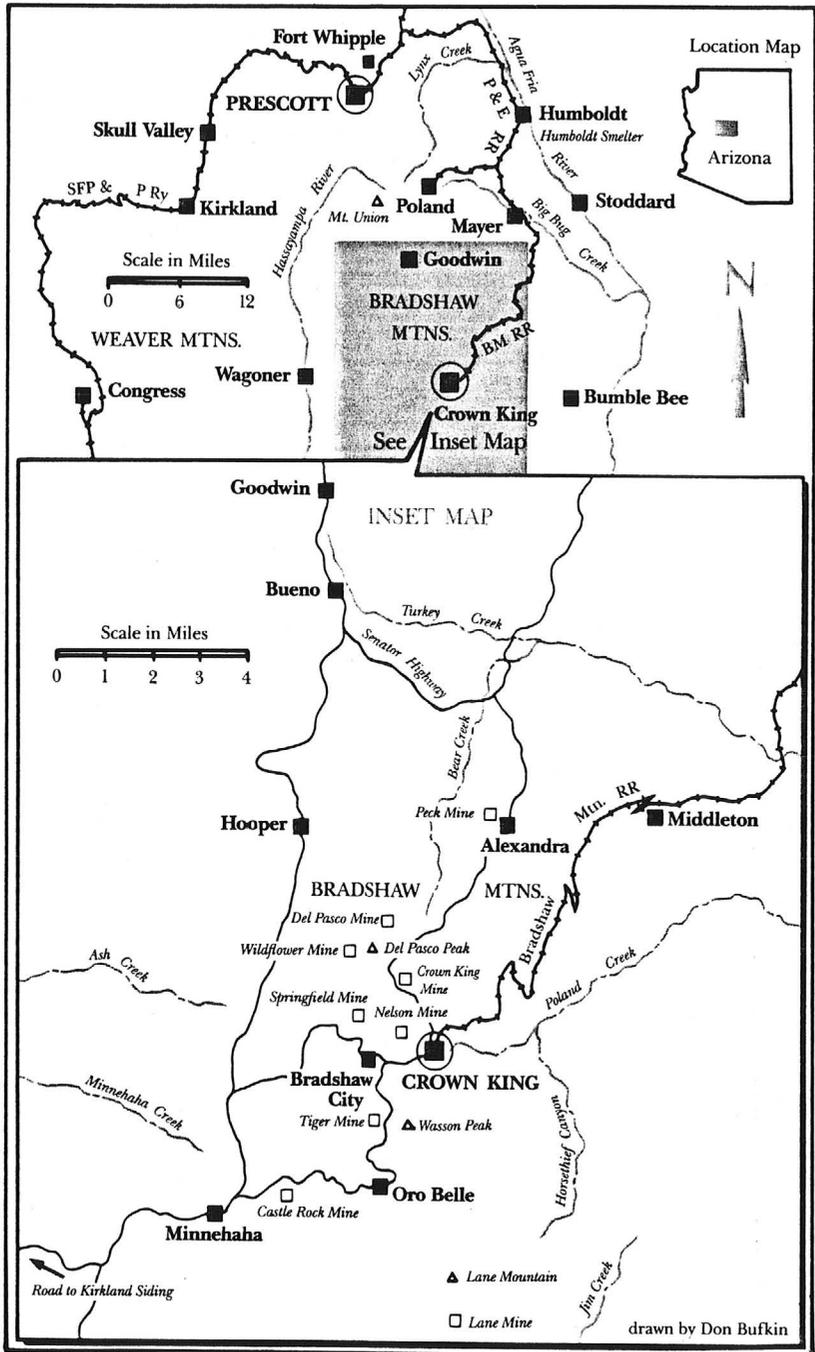
A little farther on, a twin ridge of granite and quartz, resembling a crown, signaled the men's arrival at the Crowned King. Wisconsin farmer John L. Taylor had staked the outcrop during a brief rush to the area in 1870. After separating the richest ores through an arrastra, Taylor left for greener pas-

tures and the operation ceased.<sup>9</sup> Subsequently, Place and Shekels had relocated the Crowned King outcrop and completed minimal work. Only fifty feet deep, the mine shaft already revealed rich ores. A series of pits, shallow shafts, and a 600-foot tunnel that showed ore along its entire length dotted the hillside. Candle in hand, Place led Harrington into the tunnel to a spot where wire gold sparkled in the light. Presented with samples chipped from the walls, Harrington was hooked.

From the mine, Place and Harrington rode two miles downhill to the Bradshaw Basin, a lovely vale in the cool pines at 6,000 feet. Here a hissing, wheezing mill that Place and Shekel had leased was crushing Crowned King rock. Although Harrington was more impressed by the machinery than by the beautiful setting, the waters of Poland Creek nonetheless added to the cool comfort of the mountain forest. Noah Shekels's store stood in the rough-hewn little settlement at the mill site. An early arrival with the first boom in 1871, he owned a number of claims in the Bradshaws.

As the sun set, Shekels told Harrington of his days of trial, of bringing his family into the howling wilderness and setting up the first store in Bradshaw City. The remains of the short-lived boom camp were still visible two miles south. Shekels also recounted how he had holed up in his store and fought off Indians who had attacked and killed two miners at their claim. As soon as General George Crook had removed the Yavapai, hungry miners had reopened the gold veins. These vagabond prospectors built arrastras and picked at the high-grade veins running through the hill's many outcrops. Shekels also told of the Jackson brothers—Calvin, Zodak, Solomon, and Lester—old California miners who hauled the first mill into the hills. The small four-stamper kept the boys in beans and bread on alternate days. When the rich-grade ore pinched out, the Jacksons abandoned their claims, and Shekels and others moved in.<sup>10</sup>

Now that the railroad had reached Prescott, cutting transportation costs for goods and machinery, Shekels was ready to reap the wealth. All he and Place needed was a little capital to prime the golden pump. The three men quickly reached an



agreement. Place and Shekels would "sell" their interests in the Crowned King claims and the Bradshaw Basin mill to Harrington and his Illinois friend in return for up-front cash to open the mines and improve the mill.

Back in Edinburg, Harrington retold the tales of discovery, of conquering the land, and of opportunities to reap a fortune. As proof, he held in his hand samples of gold quartz. Friends in town and at the nearby county seat of Taylorville bought into the project. More important, Reuben Wilkinson, Harrington's wealthy father-in-law, agreed to match the young banker's investment. On November 16, the investors gathered at the Harrington Bank and incorporated the Crowned King Mining Company. Shekels and Place, along with Harrington and his partners, each received one-third of the capital stock. In exchange for an undisclosed amount of cash, Shekels and Place transferred ownership in fifteen mine claims, as well as the Crowned King outcrop. Thus organized, the stockholders selected Orrin Place to manage the Crowned King properties.<sup>11</sup>

Where mining was concerned, Harrington was a babe in the woods. Shekels and Place could easily have taken him in. Eastern investors frequently fell victim to such schemes. For example, Alexandra saloon owner Ed Gobin and merchant Willet H. Robbins had salted their Bradshaw Basin claims—among them the appropriately named "Pigeon"—in order to sell them to Diamond Joe Reynolds. Reynolds purchased a big twenty-stamp mill at Chicago, but before it arrived at the mine, the fraud was revealed. As William Phipps Blake, dean of mining men, wrote in 1888, "machinery could be found for miles on the road between Prescott and Bradshaw."<sup>12</sup>

Fortunately for Harrington, the quality of the Crowned King ore was on the up-and-up. Unfortunately, Shekels and Place had been less than forthcoming in explaining how difficult it would be to work the mine. At first the partners had used amalgamation in the decade-old Bradshaw Basin mill to extract the ore. The process was inefficient. They not only lost half the gold into the tailings, but most of the valuable mercury as well. Shekels and Place used Harrington's cash to improve the mill—essentially to rebuild it—and to buy a sawmill and mine tools. When the money ran out, Place requested more



*Site of the Crowned King mill.*

funds to put in concentration tables and traveled to Chicago to buy the machinery.<sup>13</sup>

The mechanical operation of the mine was simple. The easily worked "free gold," which every miner knew disappeared at the water table, had all been extracted before Harrington's visit. The remaining gold was in a complex refractory ore, called sulphurets by the early miners because of the high sulphur content. The sulphurets found below the water line assayed high in gold values—almost \$100 per ton—but contained so many other metals (zinc, copper, lead, and iron) that the only way to extract the gold was through the precise smelting process. Because the Crowned King company was too small to build its own smelter, it shipped its ore to Colorado and paid a fee to have it smelted.<sup>14</sup>

To offset the exorbitant shipping costs, mill men in Prescott had followed the example of their Colorado predecessors by building "concentrators." A concentrator was a simple mill with a few shaker tables that washed out a portion of the dirt and left the heavier metals in a "concentrate," which was then bagged and shipped. Where the original ore was worth \$100

*Elusive Gold*

per ton, the concentrate was worth \$400. Simply put, mill men could get more gold from their ores by concentration and smelting. With Harrington's money, in 1888 Place installed four Frue Vanners, a type of concentration table, in the mill. The resulting concentrates were shipped by wagon to the railhead at Prescott and loaded on a train bound for Pueblo, Colorado.<sup>15</sup>

In October 1888, Harrington returned to inspect the Crowned King plant. At the end of the first season, Place showed the banker 146 pounds of gold amalgam worth \$46,720. The partners were euphoric and soon began making plans to further improve the mine and the mill. To reduce shipping costs, they financed a first-class road three miles to the mine and the cutting of a rough wagon trace west out of the Bradshaw Basin to the Hassayampa River. Place thought he could save still more of the extracted gold by installing gigantic metal pans, invented by old-time California mill men, that stirred the ore with the mercury. Long contact with the mercury would capture all the free gold. Harrington agreed to buy the pans and settlers, and Place closed the mill while he installed the new machinery. By the spring of 1889, the Crowned King was back in operation.<sup>16</sup>

Observers praised Shekels and Place's management of the mine. William Blake commended their success at "running ten stamps upon one of the long neglected sulphuret lodes."<sup>17</sup> Veteran miner and Phoenix saloon owner Frank Luke returned from the Bradshaws "full of enthusiasm" and pronounced the Crowned King "one of the finest properties in Arizona."<sup>18</sup> Everything looked prosperous as the ten-stamp mill pounded away, producing thirty tons of concentrate and \$10,000 in bullion per month. Territorial immigration commissioner John A. Black reported that central Arizona gold mines were experiencing a revival. In 1889, the Prescott & Arizona Central Railroad hauled 4,612,000 pounds of Yavapai County ore to distant smelters. Gold production in the territory stood at \$461,705 annually (mostly from Yavapai County) and was climbing. It reached \$4,250,000 by the turn of the century, over half of it from Yavapai County. The Crowned King was a major contributor to Arizona's export of precious metals.<sup>19</sup>

But in 1890, Harrington's hoped-for dividends were still

far in the future, while high production costs threatened disaster. Isolated in the Bradshaw Mountains, a distant forty miles by tortuous wagon road to the railroad at Prescott, the mine struggled to turn a profit. Shekels's old store now became the Crowned King company store, supplying miners' needs and saving the company revenues. A company boardinghouse furnished additional income, while a sawmill reduced timber costs. Still, the price of freighting ate deep into profits. The company paid \$80 for every ton of concentrate shipped.<sup>20</sup> A change in the route via Phoenix to the smelter at El Paso produced little savings.<sup>21</sup> While stockholders, especially Harrington, began to doubt the wisdom of their Arizona investment, Shekels and Place cast about for new ways to improve returns.

Their biggest dilemma was how to work the ores; a third of the gold was still disappearing into the tailings. A solution seemed to be at hand when the Maricopa Gold and Silver Extraction Company and its twin, the Yavapai Gold and Silver Extraction Company, developed a process using cyanide and began promoting it locally. In 1891 the Crowned King managers approached the firm to install an experimental test plant at the mill, one of the first cyanide operations in Arizona. The revolutionary process promised to increase gold yields to over 90 percent, making many marginal mines profitable. Unfortunately, the Crowned King ores, with their mixture of zinc and copper, fouled the cyanide solution. Consequently, the cyanide plant at the mine only worked occasionally and on select ores. Once again, the company had wasted money without stemming the loss of profitable metals.<sup>22</sup>

After a year of producing from high-grade ores, the value of the Crowned King deposit dwindled to under \$50 per ton—still rich, but nowhere near as promising as earlier. Costs increased as ore values dropped, and bills continued to come in. As treasurer, Harrington stood by helplessly. Using a loan from his Edinburg bank, he installed a new three-compartment shaft that would sink deep into the mountain to reach deposits that manager Place felt certain were there. Harrington's dual role as banker and mine owner was growing volatile.<sup>23</sup>

The bank loans originated from profits that Illinois farmers had deposited for safekeeping. As midwestern farm com-

munities slumped into an economic recession during the early 1890s, capital in the Harrington Bank dwindled. In 1893 the commodities market collapsed, causing a nationwide run on banks that swept hundreds of financial institutions into foreclosure. The Harrington Bank was one of the many that closed their doors in the terrible summer of 1893. Harrington, pressed for funds—he owed some \$60,000—turned to the Crowned King for gold to tide him over the crisis. When none was forthcoming, the bank went into receivership. Harrington was ruined. Meanwhile, B. A. Turner, the bank's cashier, headed a committee to collect debts and reorganize. The bank eventually reopened as the Turner Bank, with Turner also acting as assistant treasurer of the Crowned King Mining Company.<sup>24</sup>

At this juncture, Harrington joined Noah Shekels to oust Place as manager. Shekels, concerned about Place's abilities, echoed the sentiment of one mining engineer that too many "counter-hoppers," or clerks, had turned good mines into wrecks. Both he and Harrington believed that Place had wasted money on refurbishing the mill and that he had failed to produce enough ore to offset debts at the Harrington Bank, thereby forcing it into bankruptcy. To repay the Edinburg bank debts, the Crowned King stockholders named Harrington general manager to work with Shekels. Henceforth, they would operate the mine on a profitable, small-scale basis, earning enough to repay the bank loans. If this failed, they instructed Harrington and Shekels to close the mine and sell the company's assets.<sup>25</sup>

Outrage at his sudden ouster prompted Place's assault on Harrington at the 1894 stockholders' meeting. While the deposed manager was awaiting trial for attempted murder, Harrington joined Shekels at Crown King (the post office's official name for the mining camp). During 1894-1895, the new managers deliberately worked in piecemeal fashion, removing only 100 feet of ore at one time. Once the crew had ground ore out at the mill into concentrates and a gold bar, they mined another 100 feet of ore and repeated the process. Slowly, Harrington and Shekels paid off their expenses, with a small margin of profit left over. Hetherington, who superintended the work, kept the ore grade high by presorting it into first-class

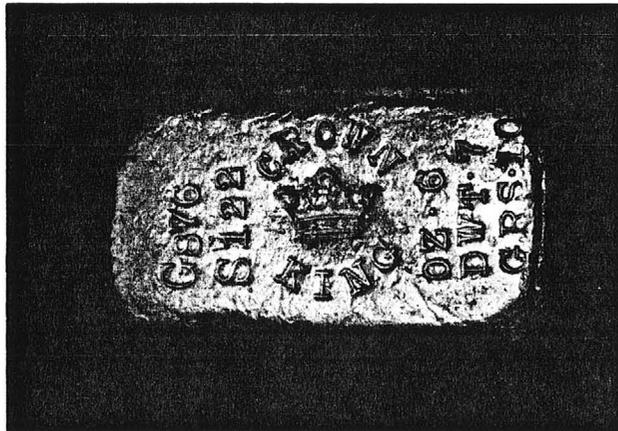
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and second-class ore piles. The former he shipped to the mill. By the end of the fiscal year, the Crowned King had produced \$360,000 in gold. Harrington and Shekels had made the mine pay.<sup>26</sup>

At Crown King, Harrington, his wife Emma, and their children— sixteen-year-old Reuben, twelve-year-old Frank, and two-year-old baby Helen—settled into a world far different from the Illinois prairie they had left behind. The last of the Yavapais wandered the Bradshaw Mountains. One Indian couple approached Emma and tried to barter for her bright, new red shoes.<sup>27</sup>

An odd lot of old bachelor miners, some more reticent than others, greeted the new arrivals. Helen befriended Elia S. "Black Jack" Junior, a Hassayamper who owned a small mine and who kept away neighbors by warning that his claim boundaries extended as far as his rifle could shoot. An avowed free-thinker, Black Jack owned an exceptional library that included the works of Voltaire and Rousseau, as well as those of the nineteenth century's "Great Atheist," Robert Ingersoll. In the

*A gold bar from the Crown King mine, worth \$115.30 in 1887, is shown at actual size.*





*Crown King, 1896. George Harrington is holding his grandson, Hugh Nelson, at the rear of the donkey. Helen Harrington sits in the middle.*

admiring eyes of the editor of the *Prescott Courier*, Junior assumed legendary proportions: his experiences as “mail carrier, guide, scout, etc. in Indian times, would, if written up, make a startling story. . . . He has often gone where others refused to go.”<sup>28</sup> Joseph Lane operated a mine near Junior. Another legend of the Bradshaws, Lane had earlier sold his claim on Lane Mountain and traveled to San Francisco, where he quickly went through thousands of dollars. His extravagances included renting an entire theater for a special one-night engagement for an audience of one. At the time of the Harringtons’ arrival, he was back in the hills, before ending his days in the Phoenix Insane Asylum. Slim Jim Heath, Fat Jack Smith, and a host of other hard-luck miners each had their own tales, and the Harringtons heard them all.<sup>29</sup>

Only a few families lived in the camp—the Shekels, the store manager’s family, and the company assayer’s family. Later, the Harringtons’ grown daughter, Esther Nelson, and her family moved to Crown King. The small group shared dances, picnics, and dangers. George shot himself in the leg in a buckboard accident, and then nearly drowned in a flash flood. Be-

cause the community lacked a school, during the winter Emma took Helen and the other children back to Illinois for their education.<sup>30</sup>

By 1897, the Crowned King was prospering. Manager Harrington and superintendent Shekels employed a competent staff of mill men and miners, introduced power drills to upgrade the works, and brought in an electric dynamo. The dynamo not only operated the lights in town and in the mine, but also powered the telephone line to Prescott. Paul Jones, a creditable mining man, oversaw work at the Crowned King. Completion of the Santa Fe, Prescott & Phoenix Railroad helped reduce freight costs. A first-class rail line, the road ran through Prescott to Phoenix, with an intermediate shipping point at Kirkland. A wagon road traversed the entire distance to the siding, over easy grades outside the Bradshaw Basin. Passenger stages still operated over the Senator Highway from Prescott, although the final miles to the mining camp were via horse trail. In 1898, the railroad completed a branch to Mayer, twenty-two miles distant, which further cut shipping costs. That same year, the company paid out its first dividends.<sup>31</sup>

The Crowned King Mining Company was becoming a showpiece operation. Under Harrington and Shekels's direction the mine was one of the richest gold producers in the territory, steadily churning out \$200,000 to \$300,000 worth of ore per year. Crown King became a much-visited locale. In the fall of 1897, the Prescott *Pick and Drill* and the Phoenix *Arizona Republican* each published lengthy descriptions of the camp. After a two-day ride, the Prescott reporter arrived in Crown King amidst a downpour. The rain, however, did not dampen his enthusiasm. "This camp," he wrote, "is one of the largest and most liberal in the country, running smoothly and quietly without ostentation, seeking no advertising, asking no favors, and paying their workmen, perhaps, the most liberally of any similar concern in the county." About 100 men worked in the mine and the mill and at nearby wood camps. The newsman described the wagon road connecting the mine and the mill as the "best constructed three miles of mountain road in Arizona," and he praised managers Harrington and Shekels for providing hard statistics on the mine operation: 700 feet of

shafts and drifts composed the working core of the mine; three tunnels cut into the mountain at 200-foot intervals; and a three-compartment hoist dropped an additional 300 feet. The mill consisted of ten 750-pound stamps and eight vanners. A 100-horsepower engine powered the machinery, which crushed twenty-five tons of rock per day. When he was asked to comment on the mine's profitability, Shekels "only smiled and replied that the company paid its bills."<sup>32</sup>

"Pittock," the *nom de plume* of the Phoenix correspondent, reported that the Crown King camp spread out over three miles from mine to mill. Bunkhouses, a carpenter shop, a blacksmith, and an ore bin surrounded the mine site, while a "whisky row"—five saloons, a barber shop, and restaurants—lined the road to the mill. At Chung Fi's restaurant, the intrepid reporter ate stuffed quail and listened to the proprietor's woeful tale about how he had prospered in Phoenix, only to lose \$6,000 in a gambling house. Ike Patrick, a Bradshaws resident for twenty-five years, operated a saloon, as did Ed Gobin, who had been in the hills since 1871.

Yet another visitor noted that the Crown King miners were "a good class of men," and he saw little drinking after payday. In fact, he claimed that the miners would rather read than drink, more so than the residents of any other camp he had visited. Below the town, near the mill, Charles French, late clerk of the territorial legislature, operated the company store, which also housed the Crown King post office. A boardinghouse nearby boasted a tennis court out front for the entertainment of mine officials. The Harrington house, the Shekels residence, and other company houses were also located near the mill and within earshot of its drum-like, constant thud of stamps crushing ore.<sup>33</sup>

Oddly, the Crowned King ore improved the deeper the miners dug. In April 1899, at the 500-foot level, the crew hit a rich, sparkling vein ten inches wide. Thereafter, the word "famous" was forever attached to the mine. A grab sample of twenty-four pounds contained half a pound of gold. The ore was so rich that guards patrolled the stope as the mineral was bagged at the mine face and shipped in special canvas-lined wagons direct to smelters. Before the year was out, the vein had

produced \$100,000 in gold.<sup>34</sup> Miner Lester Jackson reported a "revival of the old time interest and that in every section of the Bradshaws the mining element were to a man very excited over the strike."<sup>35</sup> A sample of the ore was sent to Illinois and another was displayed in the window of the Prescott National Bank. The strike, at such a depth, heightened expectations that rich ore might exist below the water table. Many were willing to take the gamble, and another mining boom erupted in the Bradshaws.

Harrington and Shekels were caught up in the gold fever. Each speculated on nearby claims and, backed by midwestern money, began prospecting for new ore deposits. In 1898, Harrington and a group of Springfield, Illinois investors formed the Star Mining Company and opened an extensive operation. Later known as the Springfield mine, it consisted of tunnels, shafts, and even a mill to work the ore. Harrington also joined Shekels in reopening the Tiger mine, the famed silver bonanza of the 1870s. Now the partners refitted the old mill to work gold ores as well as silver. They also used the Tiger mill to test ores from many small mines in the area, always in the hope of discovering another Crowned King.<sup>36</sup>

In the midst of all this renewed activity, Orrin Place reappeared. One of his first acts was to sue Shekels and Harrington for "wrongful appropriation" of the Crowned King's proceeds. He claimed that the pair had paid themselves high salaries (\$1,200 per month each), while squandering some \$100,000 per year in mine proceeds that should have been paid out in dividends, instead of the nominal amounts the stockholders were actually receiving. Place also charged that Shekels had unlawfully usurped the presidency of the company; Place, not Shekels, should rightfully be president. Shekels counter-sued and, by 1899, the case was before the territorial supreme court. The justices ordered the company's books seized and began an audit. In the meantime, operations at the mine and mill virtually ground to a halt. Only known ore reserves could be worked, and no new development was to take place until the court had rendered its decision.<sup>37</sup>

In the middle of the suit, Harrington and Shekels tried to sell their interest in the Crowned King for \$300,000. Place,

*Elusive Gold*

however, obstructed the purchase, thereby ensuring that the mine would close before the pair could profit from it. In May of 1901, the company paid its last dividend out of a total of \$242,760 distributed on an estimated \$1,500,000 worth of gold produced. The operation closed down, even as the court struggle continued. Regardless, Harrington's job as manager was at an end.<sup>38</sup>

Even as his adventure with the Crowned King wound down, Harrington plunged into new projects, grubstaking prospectors in the hope that one would uncover a new mine. He also prospected on his own—half seriously, half as a lark. Prescott editor and onetime miner John Marion captured the romance of the search for buried wealth. As he looked out his window one fall, Marion wrote: "Glorious weather for going into the mountains, boiling the hard hearted beans and hunting up deposits of gold, silver, copper and lead." It's easy, he continued: "You take a donkey, load him down with provisions, tools, bedding and a little stimulant, put your gun across your shoulder and go into the deep woods." "We like prospecting," the newspaperman concluded, "but Fate has divorced us from it and detailed us to scratch down stuff for 'wise' men to pick out pieces."<sup>39</sup> Harrington probably echoed the sentiment, as he relied on others to find lodes that he would then buy and manage.

Prospectors in the Bradshaw Mountains lived vagabond lives, subsisting on dried corn, beans, and the fresh scent of deer. In the summer they hunted for precious metals among the cool pines of the mountain top, and in winter they searched the lower elevations along Humbug and Castle creeks, which drained the southern slopes. Mostly they looked for rich oxidized outcrops, or "blossom rock," that indicated the presence of gold. After testing the ores with horn spoons and metates, enterprising miners staked their claims and worked the ores slowly with an arrastra until they struck the "cursed sulphurets." Then they tried to sell their discoveries to capitalists like Harrington, who could afford to work the more complex ores. As one miner explained, "Dozens of prospectors in the Oro Belle [Crown King] region were grubstaked by Harrington and anyone at all who came along and asked for a job or a meal



*"Day shift at Oro Belle Mine. About 1890."*

was taken care of.”<sup>40</sup>

In this manner, Harrington acquired Lindley Abel's mining properties in Eagle Gulch, two miles south of Crown King. Abel had spent twenty years—"the best years of his life," as one reporter put it—opening his claims, and they looked promising. Harrington obtained options as well on Prescott saloon owner Patrick Kearny's Cleveland claim and on the holdings of the Oro Bella company, a New York concern that had shut down its Arizona operation in 1893. In the fall of 1900, he sent his sons Frank and Rueben, with a small crew of miners, to test the mines and operate the old mill at the Oro Bella camp (which the Illinoisans pronounced "Oro Belle").

The following spring, the new owner started up the mill and crushed a few tons of rock. The product looked good, the openings at the mine showed promise, and Harrington was eager to capitalize on the opportunity. With his sons, some of his former Crowned King partners, and a new group of investors (mostly members of the Illinois Grocers Association), he formed the Tiger Gold Company. The name reflected the shareholders' initial plans to include Noah Shekels's Tiger mine and mill. The old merchant, however, had retired to Los Angeles, leaving Harrington to pursue mining interests alone in the Bradshaws.<sup>41</sup>

At this juncture, Harrington could have capitalized on his reputation for making the Crowned King a dividend payer and used it to bilk investors. Fraudulent activities were not uncommon in the Crowned King area.<sup>42</sup> To his credit, Harrington stayed on the honest path and focused his energy on developing the Tiger Gold property. During 1902-1903, he upgraded the mill to twenty stamps and added the latest concentration tables. Underground, 8,000 feet of tunnels exposed a vein of commercial-grade gold. In 1904, just as the Tiger Gold was swinging into full production, the railroad was extended from Mayer to Crown King, via a series of spectacular switchbacks. That same year, the company paid its first dividends, and Harrington was praised for developing yet another Bradshaw Mountain bonanza.<sup>43</sup>

The Harrington family, meanwhile, divided their time between the sawmill camp in the cool pines of Ash Creek, the

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house at Crown King, and the company buildings at Oro Belle. Located only two miles from the railhead, Oro Belle was far different and far less isolated than Crown King had been in the 1890s. The mining community built a school, and Helen Harrington took sixth-grade classes there. The town also had a butcher, a baker, a barkeep, and a seamstress, as well as a Chinese restaurant. The train made travel to Oro Belle and the other Bradshaw mining camps easy and comfortable. Midwestern investors, including the Illinois stockholders of the Tiger Gold, arrived in special cars. "Pumpkin-rollers" with cash, they funded a host of new operations near Oro Belle, including the Gazelle Gold Company, managed by Harrington's son Frank, and the Castle Rock Gold Company, supervised by son Reuben.<sup>44</sup>

Harrington was in his glory at Tiger Gold. Roscoe Willson, one of the miners and mill hands, noted the financier's gentlemanly manner, his custom of wearing overalls, and how he won the respect of the workers by taking on all kinds of jobs, from the office to the dumb end of a number-two shovel

*The ruins of the Tiger Gold Company store.*



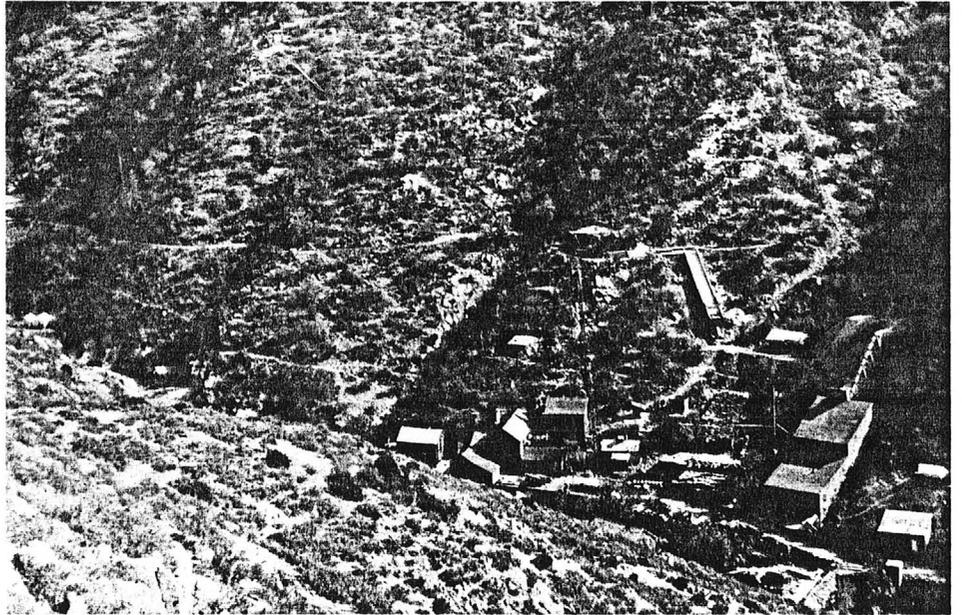
*Elusive Gold*

screening tails on a hot summer day. "Harrington was one of the finest men who ever came to Arizona," Willson gushed.<sup>45</sup> He was a good boss.

Harrington had big plans for the Tiger Gold Company, including a railroad running from Oro Belle to Crown King and connecting up with the Bradshaw Mountain line. Work commenced on a deep, level tunnel cross-cutting the Tiger Gold Company veins. If there was enough water in the tunnel, Harrington proposed building a smelter to work the ore in the entire district.

But, no matter how good a manager, Harrington could not control the changes occurring around him. The Humboldt smelter, which had served the district, closed following the Panic of 1907, forcing Harrington to assume the additional expense of shipping the Tiger Gold concentrates to El Paso. Backers who balked at the cost of his plans became further dismayed when the mine stopped paying dividends. Finally, Harrington tried to sell the Tiger Gold property to wealthy New Yorker investors. The deal fell through when the Illinois stockholders demanded more money than the New Yorkers were willing to pay.<sup>46</sup>

Harrington next turned to Frank M. Murphy. Two decades earlier, the Murphy brothers—Frank and Nathan—had introduced Harrington to Arizona, and the Illinois banker stood in awe of their spectacular rise to prominence. Nathan Oakes Murphy had been territorial secretary before serving two terms as governor and a single term as delegate to Congress. Brother Frank had opened the rich Congress mine and built the Santa Fe, Prescott & Phoenix Railroad and its various branches, including the line to Crown King. In 1902 he had formed the Development Company of America, which operated a dozen mining properties across the territory and in Mexico. He also purchased more than fifty mines in central Arizona, which he integrated into an extensive operation centered around the Humboldt smelter and his railroads. In 1906 he organized the Yavapai Consolidated Gold-Silver-Copper Mining Company to incorporate the richest mines in four mining districts, including the Crown King. Harrington worked with Murphy to bring Shekels's old Tiger mine, the Tiger Gold Company, and the



*Oro Belle camp, 1902.*

Crowned King Mining Company properties into the fold.<sup>47</sup>

Shekels and his Prescott partners readily sold the Tiger mine to the new firm, but Harrington faced problems with the Tiger Gold crowd. His Illinois backers, concerned about the lack of dividends and demands for more cash to expand operations, replaced Harrington with a tough-minded engineer, T. N. Schlesinger. When Schlesinger tried to cut costs, the miners went on strike until Harrington returned to restore order. Even so, his tenure was short-lived. Lacking the support of the stockholders, and with ore reserves dwindling, Harrington finally resigned. Without his active involvement, the Tiger Gold Company remained outside Murphy's nascent mining empire. During the Harrington years, from 1903 to 1908, the mine had produced \$784,969; thereafter, production plummeted and eventually ground to a halt following a 1912 cave-in.<sup>48</sup>

Harrington had better luck with the Crowned King. The three feuding partners—Shekels, Place, and Harrington—were still wrestling in court when Place died in 1907, leaving behind \$8,000 in unpaid lawyers' fees. To pay off the company's debts, the court ordered the Crowned King into bankruptcy and in-

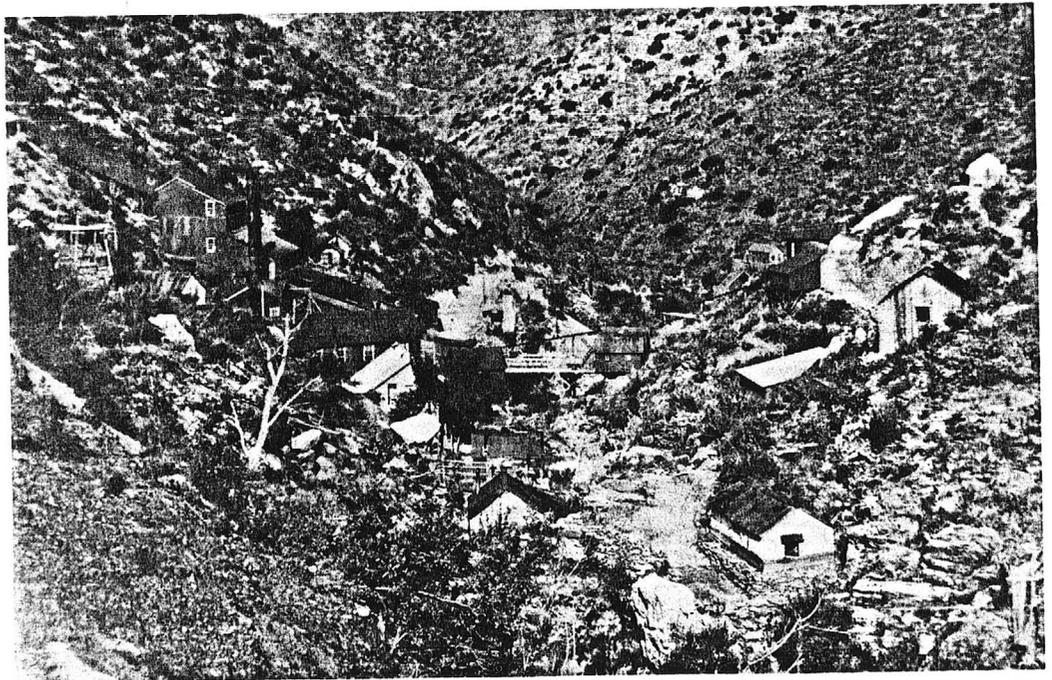
*Elusive Gold*

structed the receiver to accept Frank Murphy's \$75,000 offer, a far cry from the bonanza's former value. On September 15, 1909, the Crowned King Mining Company was transferred to Yavapai Consolidated, and Harrington exchanged his Crowned King shares for stock in the new company. As shareholder and manager of the Yavapai Consolidated, he was back in charge of the Crowned King.

Pushing ahead, Harrington installed a tramway to the Wildflower mine, re-timbered the Crowned King, and pumped water out of the old Tiger shaft and refurbished its mill. He also converted the Crowned King mill to a 100-ton concentrator, ready to mill ore and ship concentrate to the Humboldt smelter. In all, Harrington supervised some sixty-four claims that included all the promising veins within a four-mile radius of Crown King.<sup>49</sup>

The Humboldt smelter, one of the best designed in the Southwest but idle since 1907, was the key to the company's successful operation. During 1910-1911, Murphy refitted the plant, and the smelter once again began reducing ores to

*Oro Belle, 1905.*



road. His ambitious empire in central Arizona had come to naught.

In the wake of this disaster, the Yavapai Consolidated limped along under Harrington's management. Murphy was able to disentangle the Bradshaw mines from the collapse of the Development Company of Arizona, but without capital to upgrade equipment, the property lay idle until he leased it to another promoter in 1915. Once again, the Crowned King had slipped from Harrington's hands.<sup>53</sup>

Now in his seventies, Harrington became the sage of Crown King. He returned to his home in the basin and served as justice of the peace. But the mining bug was still with him, as he occasionally worked with his son-in-law Jack Sweet, Helen's husband, at the Nelson mines. Although the Nelson operation worked on the Crowned King lode, Harrington never found the patch of rich ore that he still believed lay hidden beneath the pine-covered slopes of the Bradshaws. On February 11, 1922, at age seventy-four, the old man died.<sup>54</sup>

By then, the gold-mining era in Arizona had also passed. High operating costs in the inflationary World War I years and the 1920s had closed down moderate-sized mines like the Crowned King, Tiger Gold, and Yavapai Consolidated. Also, the government fixed the low price of gold at \$20 per ounce, dealing the final blow to the industry.<sup>55</sup> As Big Copper increasingly dominated Arizona's mining world in the early 1900s, small-time investors could no longer enter the game, develop their own mines, and hope to profit as Harrington had. Instead, investors found that it was safer to buy stock in a copper conglomerate and let the mining engineers calculate the profits to be extracted from lower and lower grades of ore. The system worked. Once again, dividends flowed into midwestern banks and into the pockets of stockholders who never ventured from their hometowns. It was much more prosaic than gold mining, but it was safer too.

Unfortunately, historians have ignored the approximately 400 gold operations that struggled to turn a profit in Arizona at the turn of the century.<sup>56</sup> Harrington was one of many midwestern bankers and small-town businessmen who invested in the fickle mining industry and were swept up in the American

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belief that with a little luck and determination, anyone could strike it rich. Some prospered, while many more gambled and lost. As historian Rodman Paul recently wrote: "All over the West men who had made money grubstaked prospectors. Mining was more than a business; it was a state of mind, a way of life."<sup>57</sup> Nearly every Arizona governor of the period owned a gold mine; most small-town Arizona businessmen invested their spare cash in gold-mine shares.<sup>58</sup> George Harrington's tale was that of everyman, of the dream of extracting riches from the earth, either in the Arizona deserts or in the forested hills of the Bradshaw Mountains. He simply invested more than most.

### NOTES

<sup>1</sup>*Taylorville Breeze* (Illinois), quoted in *Arizona Journal-Miner* (Prescott), March 21, 1894.

<sup>2</sup>Dorothy D. Drennan and Helen B. Broverman, *Illinois Sesquicentennial Edition of Christian County History Book 1, 1880* (Jacksonville: Production Press, 1968), pp. 274-75; Newton Bateman, Paul Selby, and Henry Fowkes, *Historical Encyclopedia of Illinois and History of Christian County* (Chicago: Munsell Publishing Company, 1918), pp. 697, 748.

<sup>3</sup>Roscoe Willson, "Oro Belle Mine Strike Around 1905 Recalled," *Arizona Republic*, clipping (1951), in Roscoe Willson Collection (RWC), Arizona Historical Foundation (AHF), Tempe.

<sup>4</sup>See *Chicago Mining Review*, quoted in *Arizona Weekly Journal-Miner* (Prescott), November 9, 1887.

<sup>5</sup>Noah C. Shekels's name has been variously spelled "Sheckels," "Sheckells," "Sheckles," and "Shekles." "Shekels" is the spelling that appears on the records of the Crowned King Mining Company filed with the territory.

<sup>6</sup>Helen Harrington Sweet reminiscence, in Edith Keller et al., "This Booklet was Compiled by Edith Keller, teacher, and Pupils of Crowned King School" (1957), manuscript, in Crown King School. *Arizona Weekly Journal-Miner*, November 9, 1887.

<sup>7</sup>*Prescott Weekly Courier*, March 3, 1883; March 15, 1884. *Arizona Weekly Journal-Miner*, October 13, 1886; June 8, October 19, 1887. Within a year after his arrival in Arizona, Place had been involved in a lawsuit over mining claims—a foreboding of the future.

<sup>8</sup>The information in this and the following paragraphs is compiled from *Arizona Weekly Journal-Miner* and *Prescott Weekly Courier*, 1888-89; and from Sweet reminiscence.

<sup>9</sup>*Prescott Weekly Courier*, January 26, October 10, 1884. Sweet reminiscence.

<sup>10</sup>Biographical information on Shekels is compiled from Alonzo E. Davis, "Pioneer Days in Arizona by One who was There," Arizona Collection, Hayden Library, Arizona State University (ASU), Tempe. Davis was Shekels's partner at Bradshaw City in 1871. See also, *Weekly Arizona Miner* (Prescott), July 1, 15, 1871; May 25, 1872; March 25, August 30, November 22, 1873; January 23, May 1, 1874; April 9, 1875; February 21, April 25, October 30, 1879; April 1, 1881. *Prescott Weekly Courier*, May 26, 1883; May 2, 1888. John and Lillian Theobald, *Arizona Territory Post Offices & Postmasters* (Tempe: Arizona Historical Foundation, 1961), pp. 59, 72-73, 86. Robert L. Spude, "A Land of Sunshine and Silver: Silver Mining in Central Arizona, 1871-1885," *Journal of Arizona History*, vol. 16 (Spring, 1975), pp. 29-76. Noah Shekels's Prescott home still stands. See Billy G. Garrett, comp., *The Territorial Architecture of Prescott, Arizona* (Prescott: Yavapai Heritage Foundation, [1979]), inventory form 112.

### *Elusive Gold*

<sup>11</sup>The Crowned King Mining Company was incorporated at \$6,000,000. The 600,000 shares (at \$10 per share) were divided as follows: Shekels, 200,000 shares; Place, 200,000; Harrington, 100,000; and Reuben Wilkinson, 100,000. Crowned King Mining Company, in Defunct Corporation Files, Department of Library, Archives and Public Records, Phoenix. *Arizona Weekly Journal-Miner*, November 9, 1887; January 25, February 15, 1888. Information on Reuben Wilkinson is in Drennan and Broverman, *Illinois Sesquicentennial Edition of Christian County History Book 1*, pp. 246-47.

<sup>12</sup>*Engineering and Mining Journal* (San Francisco), December 22, 1888.

<sup>13</sup>*Arizona Weekly Journal-Miner*, February 15, March 28, April 4, May 2, August 29, 1888. Sweet reminiscence.

<sup>14</sup>On geology, see Waldemar Lindgren, *Ore Deposits of the Jerome and Bradshaw Mountains Quadrangles, Arizona* (Washington: U.S. Geological Survey Bulletin 782, 1926). On smelting, see James E. Fell, Jr., *Ores to Metals: The Rocky Mountain Smelting Industry* (Lincoln: University of Nebraska Press, 1979).

<sup>15</sup>A concentrator similar to the one at the Crowned King was in use at Lynx Creek. For a detailed description, see Willard S. Morse, "Milling Arizona Gold-Ores with a 'Colorado' Stamp-Mill," *Transactions of the American Institute of Mining Engineers*, vol. 25 (1896), pp. 130-36; and *Arizona Weekly Journal-Miner*, August 29, 1888. A description of concentration milling is in Otis E. Young, Jr., *Western Mining: An Informal Account of Precious-Metals Prospecting, Placering, Lode Mining, and Milling on the American Frontier from Spanish Times to 1893* (Norman: University of Oklahoma Press, 1970). Early local success of the concentrator is described in *Prescott Weekly Courier*, March 29, 1884. On Crowned King, see *Arizona Weekly Journal-Miner*, May 2, August 8, 29, September 26, October 10, 1888; *Engineering and Mining Journal*, December 22, 1888.

<sup>16</sup>*Arizona Weekly Journal-Miner*, October 17, 31, December 19, 1888.

<sup>17</sup>*Engineering and Mining Journal*, December 22, 1888.

<sup>18</sup>*Arizona Republican* (Phoenix), August 9, 1890. See also *Arizona Weekly Enterprise* (Phoenix), September 5, 1891.

<sup>19</sup>John A. Black, *Arizona, The Land of Sunshine and Silver, Health and Prosperity, the Place for Ideal Homes* (Tucson: N.p., 1890), pp. 18-25; *Report of the Director of the Mint upon the Production of the Precious Metals in the United States During the Calendar Year 1898* (Washington: Government Printing Office, 1899), pp. 62-63. Also see *ibid.*, 1900, pp. 71-80.

<sup>20</sup>*Arizona Weekly Journal-Miner*, May 2, 1888.

<sup>21</sup>*Arizona Republican*, August 11, 1890.

<sup>22</sup>*Arizona Journal-Miner*, May [?], 1892, in Crown King Clipping Files (CKCF), Sharlot Hall Museum (SHM), Prescott. Prospectus of Gold and Silver Extraction Company, in H. A. W. Tabor Collection, Colorado Historical Society, Denver, describes subsidiary companies and the cyanide plant at Crowned King. See also Thomas Tonge, "The Cyanide Process for Gold Ores in Western America," *The Engineering Magazine*, vol. 14 (January, 1898), pp. 652-64.

<sup>23</sup>Sweet reminiscence. *Arizona Weekly Enterprise*, September 5, 1891. The foibles of investment are discussed in Clark C. Spence, *British Investments and the American Mining Frontier, 1860-1901* (Ithaca, New York: Cornell University Press, 1958), pp. 77-120, and in Joseph E. King, *A Mine to Make a Mine: Financing the Colorado Mining Industry, 1859-1902* (College Station: Texas A&M University Press, 1977), *passim*. For the sometimes disastrous relationship between mining and banking, see Grant H. Smith, *The History of the Comstock Lode, 1850-1920* (Reno: University of Nevada Press, 1943), pp. 188-89. The Bank of Arizona's investment in a mine near Prescott is mentioned in Paul Hughes, *Bank Notes* (Phoenix: First National Bank of Arizona, 1971), p. 26.

<sup>24</sup>Sweet reminiscence. Bateman et al., *Historical Encyclopedia*, pp. 690-97, 748. The detailed records of the Rich Hill Placer Company (1890-1895) and the Gold Bug Mining Company (1889-1894), in Eben Erskine Olcott Papers, New York Historical Society, New York City, reveal much about the period in which the Crowned King Mining Company operated.

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- <sup>25</sup>John F. Blandy, "The Mining Industry of Arizona in 1893," *Engineering and Mining Journal*, February 10, 1894. The quote is from Blandy, "Mining in Yavapai County, Arizona," *ibid.*, February 27, 1897. See also *Arizona Gazette* (Phoenix), World's Fair Edition, 1893, p. 11.
- <sup>26</sup>Undated newspaper clipping [1894], in CKCF. *Engineering and Mining Journal*, February 27, 1897.
- <sup>27</sup>Sweet reminiscence.
- <sup>28</sup>*Prescott Weekly Courier*, March 1, 1884; May 1, 1885.
- <sup>29</sup>Sweet reminiscence. Miner Roscoe Willson knew many of the same old-timers. His descriptions appear in *Arizona Republic*, March 14, 1948; December 25, 1949; April 5, 1970; June 13, September 12, 1971, copies in RWC. See also Roscoe Willson, *No Place for Angels: Stories of Old Arizona Days* (Phoenix: Arizona Republic, 1958), pp. 220-23.
- <sup>30</sup>Sweet reminiscence.
- <sup>31</sup>*Arizona Republican*, September 11, October 3, December 22, 1897, in CKCF. John F. Sayre, *The Santa Fe, Prescott & Phoenix Railroad* (Boulder, Colorado: Pruett Publishing Company, 1991), *passim*.
- <sup>32</sup>*Pick & Drill* (Prescott), September 25, 1897.
- <sup>33</sup>*Arizona Republican*, June 21, November 21, 1897, in CKCF. See also the Crown King listings in J. A. Caruth, *Business Directory of Arizona and New Mexico for 1897* (Las Vegas, New Mexico: Daily Examiner Printing, 1897).
- <sup>34</sup>*Arizona Weekly Journal-Miner*, February 8, 15, 22, 1899; May 30, 1906. *Mining & Scientific Press*, February 18, April 8, 1899. *Report of the Governor of Arizona to the Secretary of the Interior, 1899* (Washington: Government Printing Office, 1897), p. 307.
- <sup>35</sup>*Mining and Scientific Press*, February 18, 1899.
- <sup>36</sup>*Arizona Republican*, November 25, 1897. *Mining and Scientific Press*, June 18, 1898. *Arizona Journal-Miner*, October 10, 1898; August 1, 1899. *Arizona Weekly Journal-Miner*, December 20, 1899.
- <sup>37</sup>Sweet reminiscence. *Arizona Journal-Miner*, April 29, September 1, 11, 1898; March 7, August 1, 1899. *Engineering and Mining Journal*, November 19, 1898. *Arizona Weekly Journal-Miner*, May 30, 1906.
- <sup>38</sup>The dividends total is from *Mining Reporter* (Denver), January 2, 1902. See also CKCF, especially the remarks of treasurer B. A. Turner in clipping of November 24, 1915. Production statistics for the Crowned King vary, and because of the lawsuit over accounting, accurate figures were never determined. Sweet reminiscence estimates \$1,500,000, while Lindgren, *Ore Deposits*, p. 168, places total production at \$1,200,000. Lindgren's figure is most often cited. See Eldred D. Wilson, J. B. Cunningham, and G. M. Butler, *Arizona Lode Gold Mines and Gold Mining* (Tucson: Arizona Bureau of Mines Bulletin 137, 1934; reprinted 1967), pp. 55-60, and Morris J. Elsing and Robert E. S. Heine-man, *Arizona Metal Production* (Tucson: Arizona Bureau of Mines Bulletin 140, 1936), pp. 101-102.
- <sup>39</sup>*Prescott Weekly Courier*, October 30, 1885.
- <sup>40</sup>Willson, "Oro Belle Mine Strike Around 1905 Recalled."
- <sup>41</sup>Quote is from *Arizona Republican*, July 26, 1898. Sweet reminiscence in *Arizona Republic*, August 12, 1962. *Arizona Weekly Journal-Miner*, May 10, 1902. *Prescott Prospect*, Special Edition, 1904. Robert L. Spude, "Oro Belle, Mining Camp of the Bradshaw Mountains," manuscript, Arizona Historical Society (AHS), Tucson. In 1973 the Oro Belle camp was donated to AHS, which still owns it.
- <sup>42</sup>The American economy prospered and investments in western mines skyrocketed during the decade 1897-1907. In 1902, the year the Tiger Gold Company was incorporated, 150 mining companies were organized in Arizona. Many unsavory promoters took advantage of gullible midwesterners eager to own a share of a gold mine. The most outlandish in the Crowned King area was Henry B. Clifford, who bought a number of unproductive claims plus the Peck mine, another silver bonanza of the 1870s. In his

## *Elusive Gold*

promotions, he pointed out geologic similarities between his properties and some of the biggest producers in the West. All he needed was capital. Clifford listed as directors a group of congressmen who knew nothing about mining, but whose names lent credence to the "Great Peck Mining Company." Meanwhile, he strutted about in fancy clothes and was known as the "Dude of Wall Street." Like so many others, Clifford's fraud never came before the courts, but it collapsed in the economic crash of 1907. George Smalley, "The Spenazuma Mining Swindle," *Arizona Historical Review*, vol. 2 (April, 1929), pp. 86-102. *Arizona Journal-Miner*, January 24, June 20, December 12, 1903; February 23, April 5, 22, 1904; June 4, July 26, 1905; February 4, April 29, 1906; June 8, 1911. *Arizona Republican*, January 13, 1913. After fleecing investors, Clifford told how it was done in his book *Rocks in the Road to Fortune or the Unsound Side of Mining* (New York: Gotham Press, 1908). Arizona's frauds paled in comparison to those in adjacent California and Nevada. See Richard E. Lingenfelter, *Death Valley & the Amargosa: A Land of Illusion* (Berkeley: University of California Press, 1986), pp. 208-333; and George Graham Rice, *My Adventures With Your Money* (Reno: Nevada Publications, 1913). A typical, but smaller-scale, Bradshaw mine promotion and fraud is described in Frank Crampton, *Deep Enough: A Working Stiff in the Western Mine Camps* (Denver: Sage Books, 1956), pp. 143-85.

<sup>43</sup>*Arizona Journal-Miner*, April 28, November 12, 1903; May 3, 25, June 1, November 11, 1904; January 11, 1905.

<sup>44</sup>Sweet reminiscence. Virgie Robbins and Catherine Bozarth, "A Teacher of 1906," in *Echoes of the Past* (Prescott: Yavapai Cow Belles, 1955), pp. 32-41. *Arizona Journal-Miner*, May 25, 1904. Spude, "Oro Belle."

<sup>45</sup>Willson, "Oro Belle Strike Around 1905 Recalled."

<sup>46</sup>*Arizona Journal-Miner*, January 11, May 10, November 1, December 13, 1905; March 11, November 7, 1906; January 30, 1907; February 8, September 16, 1908. Spude, "Oro Belle."

<sup>47</sup>Unfortunately, there is no biography of Frank Murphy. For an outline of his career, see "Memoirs of William Field Staunton," Special Collections, University of Arizona Library, Tucson. George Harrington to Frank Murphy, June 26, 1907, quoted in William P. Crawford and Gene C. Carpenter, "Preliminary Investigations of Oro Belle Group Claims Prepared for Jack and Acquanetta Ross, Phoenix, Arizona," 1968, copy in AHS. Murphy also purchased Diamond Joe Reynolds's old claims, which were now valuable. He transferred the particularly rich Wildflower to Yavapai Consolidated.

<sup>48</sup>Willson, "Oro Belle Mine Strike Around 1905 Recalled." Spude, "Oro Belle." Crawford and Carpenter, "Preliminary Investigations of Oro Belle Group Claims," assess the total production of the Tiger Gold Company (1903-1912) at \$964,753. This figure is based on company records. Lindgren, *Ore Deposits*, p. 174, estimates the total production at \$700,000.

<sup>49</sup>*Arizona Journal-Miner*, September 6, October 24, 28, 1909; January 18, September 15, 1910. Walter Harvey Weed, *The Copper Handbook, 1910-11*, p. 1843; *ibid.*, 1912-13, p. 983. CKCF.

<sup>50</sup>*Arizona Journal-Miner*, February 2, 1909; April 10, 1910; November 9, 1911. Weed, *Copper Handbook, 1910-11*, pp. 638-39.

<sup>51</sup>*Arizona Journal-Miner*, February 16, March 12, December 4, 1909; February 22, May 28, September 27, 1910; January 1, February 16, April 4, August 10, 27, November 24, 1911; March 20, 1912. Sweet reminiscence. Cunliff would later be wordsmith for the Arizona constitution.

<sup>52</sup>Staunton, "Memoirs," pp. 227-68.

<sup>53</sup>*Arizona Journal-Miner*, October 2, 1910; February 2, July 9, 1911; February 28, 1912. Poland Mining Company and Congress Consolidated Mining Company annual reports, in AHF.

<sup>54</sup>Sweet reminiscence. Harrington obituary, courtesy Carol Patrick, SHM.

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<sup>55</sup>*Arizona Mining Journal*, June 15, 1925, pp. 41-42. Charles H. Dunning, *Arizona's Golden Road* (Phoenix: Southwest Publishing Company, 1961), p. 45; Charles H. Dunning and Edward H. Peplow, Jr., *Rock to Riches: The Story of American Mining . . . Past, Present and Future . . . as Reflected in the Colorful History of Mining in Arizona, the Nation's Greatest Bonanza* (Phoenix: Southwest Publishing Company, 1959), pp. 130-31. Dunning was a Prescott mining engineer before and after World War I.

<sup>56</sup>Arizona history texts jump from the gold rushes of the 1860s and the Tombstone mining boom to copper mining. See, for example, Bert M. Fireman, *Arizona, Historic Land* (New York: Alfred A. Knopf, 1982); Marshall Trimble, *Arizona: A Panoramic History of a Frontier State* (Garden City, New York: Doubleday & Company, 1977); Lawrence Clark Powell, *Arizona* (Nashville: American Association for State and Local History, 1977); Madeline Paré and Bert M. Fireman, *Arizona Pageant: A Short History of the 48th State* (Tempe: Arizona Historical Foundation, 1965); and Rufus K. Wyllys, *Arizona: The History of a Frontier State* (Phoenix: Hobson & Herr, 1950).

<sup>57</sup>Rodman W. Paul, *The Far West and the Great Plains in Transition, 1859-1900* (New York: Harper & Row, 1988), p. 254.

<sup>58</sup>For a listing of Prescott-area businessmen with mining interests, see Russell H. Millward, *Arizona Mining Directory: A Directory of Arizona's Mines, Mining Districts, Owners or Operators and Postoffice Addresses (Yavapai County)* (Prescott: Arizona Mining Directory, 1903), copy in Barry Goldwater Collection, ASU. Arizona governors with gold- and silver-mining investments include Lewis Wolfley (1889), John N. Irwin (1890), Nathan Oakes Murphy (1892, 1898), Louis C. Hughes (1893), Benjamin J. Franklin (1896), Myron McCord (1897), Alexander O. Brodie (1902), Richard E. Sloan (1909), George W. P. Hunt (1912-1919), Thomas E. Campbell (1919-1923). Joseph H. Kibbey (1905), who led the 1906 fight to tax mines, may be the exception.

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**TAB**

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*Abstracted  
10/21/80*

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine  Oro Belle Mine

Date September 3, 1980

District  Tiger District

Engineer Ken A. Phillips

Subject  Yavapai County

On September 3, 1980 the writer made a reconnaissance visit to the Oro Belle Mine in the Tiger District, Yavapai County. The visit was made in the company of Lance Ross and Andy Jackson who supplied transportation to the property.

Messrs. Ross and Jackson report they hold a lease option on the property from the owners Jack and Acquanetta Ross (Lance Ross' father and mother). Ross and Jackson are interested in determining the potential of the property as an exploration-development-production project. They are not knowledgeable in mining.

PREVIOUS STUDIES AND DATA

The property has been the subject of numerous consulting engineers' reports and is discussed in published technical literature on the region. An extensive file has been assembled on the property at the Arizona Department of Mineral Resources. Coe and Van Loo Consulting Engineers of Phoenix have completed a detailed technical study of the property for a previous client. This study includes base maps, detailed geology and a proposed exploration program including the locating of drill sites.

CLAIM GROUP

The Oro Belle group of claims consists of 24 patented mining claims located in the Tiger Mining District of Yavapai County, Arizona. Many of the claims are less than the standard 600' x 1500' in size. All claims are located in Township 10 north, range 1 west, and occupy portions of unsurveyed sections 26,27,34 and 35. The contiguity of these claims is shown on the attached map. General location for the Oro Belle groups is approximately 3 miles southwest of the town of Crown King.

The patented claims reported to be part of the Oro Belle group are listed below:

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> Alley             | <input type="checkbox"/> South Oro Bonito       | <input checked="" type="checkbox"/> Gulch   |
| <input type="checkbox"/> South Oro Belle              | <input type="checkbox"/> North Oro Bonito       | <input checked="" type="checkbox"/> Pilgram |
| <input checked="" type="checkbox"/> Central           | <input checked="" type="checkbox"/> Ash Springs | <input type="checkbox"/> Arizona Mascot     |
| <input type="checkbox"/> Grey Eagle                   | <input type="checkbox"/> Wire Gold              | <input type="checkbox"/> Arizona Mascot # 2 |
| <input type="checkbox"/> Extension Grey Eagle         | <input type="checkbox"/> Royal                  | <input type="checkbox"/> Arizona Mascot # 3 |
| <input checked="" type="checkbox"/> Cleveland         | <input checked="" type="checkbox"/> Lookout     | <input type="checkbox"/> Arizona Mascot # 4 |
| <input checked="" type="checkbox"/> Oro Bonito        | <input type="checkbox"/> Sunar                  | <input type="checkbox"/> Arizona Mascot # 5 |
| <input type="checkbox"/> West Extension of Oro Bonito | <input checked="" type="checkbox"/> Growler     | <input type="checkbox"/> Arizona Mascot # 6 |

The Ochre patented mine shown in William P. Crawford's report as part of the Oro Belle is owned by Margaret Iffland of Phoenix. (See Ochre DMR mine file, Tiger Dist.). Another misconception of ownership involves the Tiger Mine. The Oro Belle Mine group does not include the Tiger Mine, which appears to be located on a parallel structure 3,500 feet to the west. However, the operating history of the Oro Belle Mine does include operations by a Tiger Gold Company.

## CONFLICTING CLAIMS

Unpatented claims have been located on portions of the Oro Belle Group:

The Dagger #5 Tunnel Site was located at the portal of the Andy Jackson Tunnel by a Jeffrey H. Ross (not related to Oro Belle Owners) of Phoenix. The notice is recorded in Book 1252, page 465 with the Yavapai County Recorder. The notice states the portal is in Sec. 26, 9N, R1W, but I suspect it is actually in Sec. 34 or 35.

The Cherry Tree Placer is located on Humbug Creek below the (north of) the main shaft. Most of the location notice was deteriorated beyond recognition.

Neither claim can acquire any rights on patented ground.

## HISTORY, GEOLOGY, AND PAST DEVELOPMENT

Operating history, general geology and past development, are adequately discussed in the William P. Crawford report.

## OPEN WORKINGS

During the reconnaissance visit only two open workings were found. All others were either caved or flooded. For purposes of discussion these two open workings are labeled the Andy Jackson Tunnel and the Lance Ross Tunnel. See map.

The Andy Jackson Tunnel is likely one of the drifts on the Cleveland or Gray Eagle patents, (possible #3 tunnel or #4 tunnel). The tunnel strikes S50°W. and is completely in vein material at the portal. The vein strikes 55°W, dips steeply to the west and measures 16 feet in width at the portal. The vein material consists of fractured quartz, and limonite. The portal is open and in good condition.

The Lance Ross Tunnel is located on the north slope of the mountain which forms the south side of Humbug Creek. The portal is exposed in a road cut on the hill. The tunnel strikes S45°W. The portal is timbered, and on the vein near the hanging wall. The vein strikes S90°W, dips 71°W, and is approximately 30 feet wide. The vein consists of altered quartz diorite (?), quartz, copper oxide minerals, pyrite and sparse sphalerite. Chloritic alteration is evident in the quartz diorite. The tunnel might lie west of the patented claim group.

Above and about 150' south east of the Andy Jackson Tunnel is the dump from a more extensive working which is possibly the Gray Eagle Tunnel. The portal is completely caved, but the tunnel appears to strike south. Material on the dump includes pyrite in schist and galena in quartz.

The actual amounts and values of the ore produced from these claims is not known because of the lack of adequate records from previous operators. All of the data of record is presented in Tables 1 through 5 of Crawford.

## ORE RESERVES AND POTENTIAL

No ore reserves can be measured or calculated because of the lack of sufficient data pertaining to the workings at depth and the amount of ore that might have been left in place in old workings. Any ore would have to be mined by underground methods.

because of the vein nature of the ore body. It will be necessary to undertake a drilling program to determine the potential existence of adequate ore below levels of previous mining. Such potential, if found, would require extensive sampling to prove or disprove its value as ore. Underground work necessary for sampling would also be of value toward the development of any ore proven. The following conclusions can reasonably be made.

1. There is definitely mineralization bearing gold, silver, copper, and lead ores of varying types in the area of the Oro Belle Claim Group.
2. The mineralization is all located in vein type deposits with a steep dip ranging from 50 to 75° in a westerly direction.
3. Large tonnages have been mined out in the past which indicates its value as an ore producing area.
4. Because of the general methods of mining at the times these claims were operated, only the high grade ores were typically extracted and large tonnages of low grade ore have been reportedly left in place.
5. It is presumed that nearly all underground workings have collapsed and caved and some have been flooded with water. Few of the old workings would be available for re-entry without considerable cost.
6. The data already available on the Oro Belle group is complete to a point such that the next step requires drilling.

#### SUGGESTIONS

In view of the above conclusions, the following suggestions may be made:

1. The information, reports, maps, and evaluations made by Don Bryant and Coe and Van Loo Consulting Engineers should be obtained and reviewed as to their application under the current economic climate and in light of available exploration risk capital. This information is believed to include detailed geologic mapping, a proposed drilling program and an economic scenario.
2. A drilling program be undertaken to determine the potential of ore below the lowest level of previous workings.
3. The Andy Jackson and Lance Ross tunnels be surveyed, mapped, and sampled where mineralization is exposed.
4. If step 2 indicates a reasonable potential for ore with depth, the old working should be cleaned out or new workings driven to obtain detailed samples.

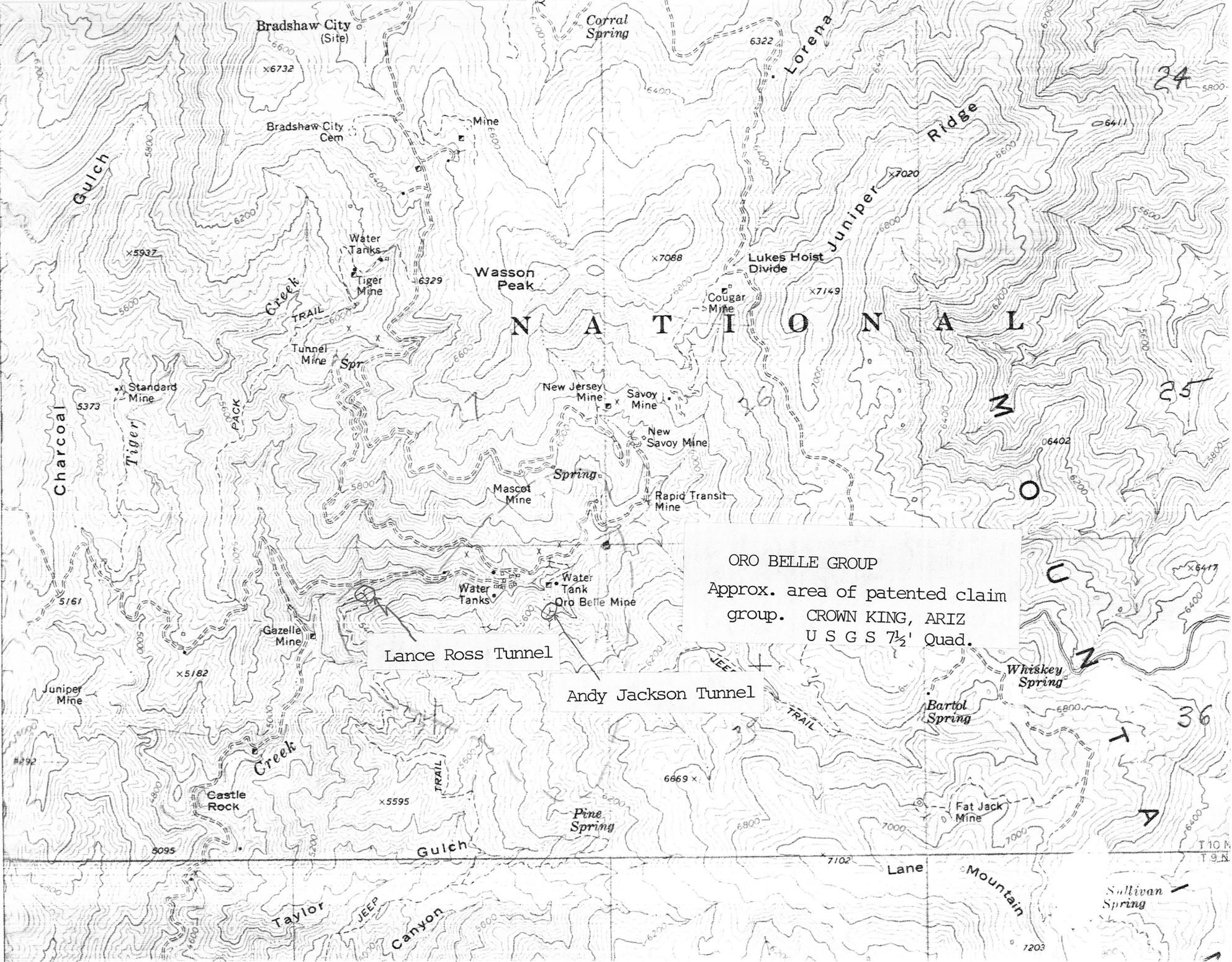
3552 III NW  
(MINNEAPOLIS)

83

3782

3721

3780



ORO BELLE GROUP  
 Approx. area of patented claim  
 group. CROWN KING, ARIZ  
 U S G S 7½' Quad.

Lance Ross Tunnel

Andy Jackson Tunnel

24

25

36

T 10 M  
T 9 N



Unbranded 1-12-80 mfw.

COMMODITIES Gold - Silver - Copper - Lead - Zinc

ID NO. \_\_\_\_\_ DATE September 3, 1980

PROPERTY SUMMARY

*Ken A. Phillips*

- I. MINE NAME: ORO BELLE AKA; Barrod Mining Co.  
 AKA; Oro Belle - Tiger AKA; Tiger Gold Co.  
 AKA; \_\_\_\_\_ AKA; \_\_\_\_\_
  
- II. LOCATION: T 10 N R 1 W Sec(s) 26,27,34,35 UTM; \_\_\_\_\_  
 ELEV.; 5400 DIST.; Tiger STATE; Arizona CO.; Yavapai  
 DIRECTIONS; \_\_\_\_\_  
 Topographic Quadrangle: Crown King 7 1/2"  
 \_\_\_\_\_ Map Attached / /
  
- III. OWNERSHIP: Name; Jack & A. Ross Phone; \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date of Information; September 3, 1980 Leased by Lance Ross and Andy Jackson  
 DBA; Anmar Development Title Report Attached / /
  
- IV. PROPERTY: Patented mining claims (24) in Prescott National Forest.  
Some claims less 600' X 1500'  
 \_\_\_\_\_ Date of Property Status; \_\_\_\_\_ Map Attached XX
  
- V. HISTORY: First Located; 1870 Operated; 1870 - 1917  
 Remarks; Operated as a high grading underground mine.  
 \_\_\_\_\_ Report(s) Attached / /
  
- VI. PAST PRODUCTION: \$964,753.12 primarily from gold.  
 \_\_\_\_\_ Detailed data in Crawford, William P. 1968  
 \_\_\_\_\_ Schedule(s) Attached / /

VII. WORKINGS: See Crawford, William P. 1968  
Two open adits were found on the September 3, 1980 visit.  
Map Attached / /

VIII. GEOLOGY: Deposit Type; Vein Vein Strike; N 5° W  
Distance; 3000 - 4000 Width; 3' - 27' Dip; 50-75° W Age;  
Host Rock; Granite, gneiss, schist Age; Pre-Cambrian Ore  
Control Structural, possibly syngenetic  
Existing Report(s) Attached / / Report Based on New Examination Attached / /

IX. MINEROLOGY: Economic Minerals; Gold, silver, chalcopyrite, galena  
Gossan Minerals; Limonite, quartz  
Alteration; Sericitic  
Gangue; Quartz, Pyrite  
Petrographic Study; Report(s) Attached / /

X. METALLURGY: Report(s) Attached / /  
Method of Determination; Metallurgical Reports Attached / /  
Remarks;

XI. SAMPLE DATA: Needed Sampling Technique;  
Drilling to determine potential of structure.  
Underground workings needed to obtain proper sampling.  
Samples Taken By; Number of Samples;  
Date; Assay Report(s)/Maps Attached / /  
Drilling; Needed Type; Total Footage;  
When Drilled; Drilling/Report Attached / /

XII. GEOCHEMISTRY: Type; Type Anomalies;  
Report(s)/Map(s) Attached / /

XIII. GEOPHYSICS: Type; Anomalies;  
Report(s)/Map(s) Attached / /

XIV. AERIAL PHOTOGRAPHY: \_\_\_\_\_ Photo Attached / /

XV. RESERVES: Proven; \_\_\_\_\_ Calculations Attached / / Probable; \_\_\_\_\_  
Calculations Attached / / Possible; \_\_\_\_\_ Calculations Attached / /  
Total; \_\_\_\_\_ Calculations Attached / / Potential; \_\_\_\_\_  
Calculations Attached / /

XVI. ECONOMICS: Mine Life; \_\_\_\_\_ Yrs. Annual Production; \_\_\_\_\_  
Capital Outlay; \_\_\_\_\_ Time; \_\_\_\_\_  
Operating Cost; \_\_\_\_\_ /Yr. \_\_\_\_\_  
Gross Annual Income; \_\_\_\_\_ DCF/ROI; \_\_\_\_\_  
Metal Prices Used; \_\_\_\_\_  
Sensitives; \_\_\_\_\_ Report(s) Attached / /

XVII. REFERENCES:

Author; Crawford, William P. Title; Oro Belle Claims Engineering Report  
Date; 1968 Abstracted By; K.A. Phillips Date; 1980  
Status; Available from Arizona Department of Mineral Resources  
Remarks; Proposed drilling project may be too ambitious for potential value  
of data expected to be received.

Author; Lindgren Waldemar Title; USGS Bulletin 782\*  
Date; 1926 Abstracted By; K.A. Phillips Date; 1980  
Status; Out of print.  
Remarks; \* Ore deposits Jerome and Bradshaw Mountains Quadrangle, Arizona.

Author; AZ Dept of Mineral Resources Title; Oro Belle Mine File, Tiger District  
Date; Various Abstracted By; K.A. Phillips Date; 1980  
Status; Available for review and copy at Arizona Department of Mineral Resources  
Remarks; \_\_\_\_\_

XVIII. REMARKS:

Property needs drilling to determine if mineralization extends to depth below lowest level of previous workings. If potential ore is indicated by drilling, detailed sampling (necessitating new or reconditioned shaft and drifts) will be required to prove or disprove ore.

# Dudley L. Davis

Mining Consultant

Registered Engineer

Arizona 3038 : Nevada 2546

Registered Geologist

California 2473

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La Jolla, Calif. 92037  
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337 Colorado Avenue  
Grand Junction, Colo. 81501  
(303) 243-2512

## ORO BELLE EXPLORATION

Exploration of the Oro Belle group of claims described in the accompanying geologist's report is to be conducted in two stages. Stage two will be dependent, in part, on the results of Stage one. All work will be done on contract except for supervision.

### Stage I

1. Preliminary engineering and claim surveying.....	\$20,000.00
2. Road work and drill site preparation.....	30,000.00
3. Sampling surface exposures and assays.....	10,000.00
4. Diamond drilling (see Exhibit A), 11,000 linear ft.	550,000.00
5. Drill core mapping and assay of samples.....	20,000.00
6. Preliminary metallurgical testing of ore.....	30,000.00
7. Supervision of program and evaluation of results..	25,000.00
8. Miscellaneous and contingent expense (25%).....	<u>16,125.00</u>

Stage I Total Budget...\$701,125.00

### Stage II

Assuming results of Stage I are favorable, Stage II will follow.

1. Repair the Cleveland shaft to open the 600 ft. level.....	\$300,000.00
2. Drive crosscuts into the hangingwall, prepare drill stations.....	50,600.00
3. Diamond drill to check vein to the 1000-foot level.....	200,000.00
4. Assaying, metallurgical testing and supervision.....	40,000.00
5. Miscellaneous and contingencies (25%).....	<u>7,500.00</u>

Stage II Total..... \$ 477,100.00

TOTAL PROPOSED EXPLORATION BUDGET...\$1,178,225.00

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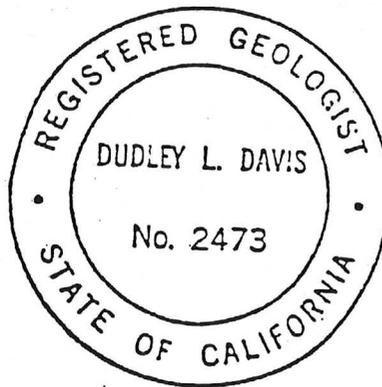
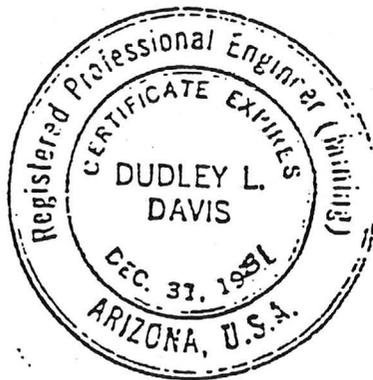
S U M M A R Y R E P O R T

CRO BELLE GROUP CLAIMS

Yavapai County, Arizona

February, 1981

Dudley L. Davis



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## S U M M A R Y R E P O R T

### ORO BELLE GROUP CLAIMS

Yavapai County, Arizona

February, 1981

Dudley L. Davis

#### Introduction

The Oro Belle group of patented lode locations consists of 24 mining claims in the Tiger Mining District of Yavapai county, Arizona. They are situated in Sections 26, 27, 34 and 35, T. 10 N.; R. 1 W.; Gila and Salt River Base and Meridian. (Figure 1) Present ownership of the Ora Belle group of claims is understood to be vested 70 per cent with Jack Ross, etal, and 30 per cent in the Mormon church. The Oro Belle group is approximately 3 miles southwest of the town of Crown King. Figure 1 shows the general locations of Crown King and the Oro Belle group of claims. This report is prepared for presentation with a "Regulation A" application for sale of securities.

#### History

The Oro Belle vein was discovered in 1870 and mined on a small scale until about 1887 when the Ora Belle Mining Company was

# Dudley L. Davis

Mining Consultant

Oro Belle Claims

February, 1981

organized. In 1890, Richard S. Barnes of New York City became president of the Oro Belle Mining Company. No records are available of the operations of the Oro Belle Mining Company; however, it was reported by Mr. Barnes that the operation was very profitable. Mr. F. E. Harrington operated the Oro Belle Mining Company from 1900 until 1908. It was during this time that Mr. Harrington's son, J. Ruben Harrington, explored the Grey Eagle vein and began mining operations there in 1902. At the same time, the Tiger Gold Company was organized and managed by George P. Harrington. In 1905 the Tiger Gold Company became the leading gold producer in the State of Arizona. Tables 1 through V present production data available to the writer.

In 1908 control of the Oro Belle Mining Company passed into the hands of a Springfield, Illinois grocers' group; and, from that date until approximately 1912, operations were conducted under their supervision. According to reports, very little profit was made during this time. In 1912, the 500 and 600-foot levels of the mines caved and operations were discontinued. In 1913, Mr. Richard Barnes foreclosed on the mortgage he held. Because of his death in 1913, the claims came under control of the Barrod Mining Company. From 1913

BRADSHAW GOLD AND SILVER MINES

Among the numerous claims and mines of the Bradshaw Mountains the Crowned King holds a prominent place. It is opened by tunnel and shaft. The ore is pyritic and is worked in a 10-stamp mill nearby. As much as possible is collected on the plates and the concentrates collected by eight Frue vanners are shipped to smelting works. Wood and water are abundant.

The Luke mine is about 2 miles south of the Crowned King mine. Seven men are employed, and it produces about a carload of ore a month. The last shipment carried about 600 ounces of silver to the ton of ore. The ore is packed to a wagon road upon burros and thence is hauled by wagons to the railroad at Phoenix. There are three veins-the Lorena, Congar, and Eclipse. The shaft on the Lorena is 300 feet deep with three levels.

The Rapid Transit mine is located less than a mile south of the Luke. It is opened by tunnels. The ores have been worked partly at the Oro Bella mill, and partly at the Old Tiger mill. Several shipments of bullion have been reported. The last two bars were valued at \$1,800.

The Oro Bella, Oro Bonito and Grey Eagle mines are upon well-formed gold-bearing quartz ledges and are equipped with a mill, but for some reason these properties have been allowed to lie unworked for years. All these veins produced rich gold ore at and near the surface. The oxidized ores were all rich in free gold, and the bright, clean sulphides which come in below give good results by assay. It would appear that these ores could be successfully concentrated, and that the concentrates could be successfully treated on the spot by chlorination, or by the cyanide process.

The New Jersey is reported among other promising veins. The Tiger mine, a large and rich lode of silver ore, celebrated in the earlier days of mining in the Territory was worked to a depth of about 350 feet and has since stood idle. It was well equipped with powerful machinery and with a mill which still stands, but the village which formerly grew up about the mine and mill has fallen into ruins and has mostly disappeared.

The famous Peck mine is also in the Bradshaw district. It was a large producer of silver, and is credited with an amount equal to \$1,000,000 in value when an ounce was worth \$1. It is reported that this mine is to be reopened.

The Del Pasco is another property of historic record, upon which a tunnel is now being run to tap the veins at a greater depth.

## GEOLOGICAL REPORT

ORO BELLE CLAIM GROUP  
YAVAPAI COUNTY, ARIZONA  
May 9, 1974LOCATION

The Oro Belle property, consisting of 24 patented lode claims in the Tiger mining district, Yavapai County, Arizona is about 2 miles south of the town of Crown King. Access to the area, perched high in the Bradshaw Mountains, is by 27 miles of unpaved road beyond the Bumble Bee exit of the Black Canyon Highway (U.S. Interstate 17). The last three miles of the road is in poor condition but adequate for an exploration program consisting of drilling, trenching, surveying and geological mapping. The names, survey or plat numbers and location of the 24 patented claims are shown on Plate 1. The entire claim group is in Sections 26, 27, 34 and 35 of Township 10 North, Range 1 West.

HISTORY

Since 1870, mining in the Bradshaws has produced gold and silver with copper and minor tungsten. The Oro Belle vein was discovered and first mined in 1870 on a small scale when the Oro Belle Mining Company was formed. From 1890 to 1900, the Oro Belle was mined extensively but no records of this production

-2-

are available. Richard S. Barnes, President of the Oro Belle Company during this period, reports that the operation was very profitable. Control of the Oro Belle Mining Company was acquired by the famous Harrington Brothers from 1900 to 1908. Development of the Grey Eagle vein with production from unoxidized sulfide ores started in 1902. Records of operation on the Grey Eagle vein (Cleveland, Grey Eagle, 2nd North Extension and possibly Pilgrim claims) have apparently been saved and are presented in the discussion on production. Control of the Oro Belle passed in 1908 to a group of Illinois grocers whose efforts were essentially unsuccessful causing the mine to be closed in 1912. The property was returned to Richard S. Barnes in 1912 by mortgage foreclosure. Since that time, only small largely unsuccessful leasing operations have been attempted. Foster F. Naething, later to be instrumental in the discovery of the San Manuel mine, worked small parts of the upper workings of the Grey Eagle vein from 1913 to 1917. In 1939, Naething worked the 350 level on the Grey Eagle but no production is recorded. From 1942 to 1947, numerous attempts were made to produce ore from the upper levels of the Grey Eagle vein on the Pilgrim claim. The man apparently in charge of this work was J.D. McClintock, a registered mining engineer by the State of Arizona. The present owner is J. Ross of Phoenix, Arizona who, with partners, acquired the property from Barnes' heirs.

## PAST PRODUCTION AND DEVELOPMENT

Records of the production history of the Oro Belle group of patented claims are quite scarce. The only official estimate of \$700,000 for gold and silver is reported by W. Lindgren in U.S. Geological Survey Bulletin 782 (Page 174). Records of apparent authenticity are preserved in a 1934 report by Foster F. Naething. A copy of this report is presently in the files of the Department of Mineral Resources, State of Arizona, Phoenix, Arizona. Naething's records were compiled from original mine and mill records owned by A.G. Montier, in Hollywood, California. Mr. Montier was employed at the Grey Eagle mine from 1905 to 1911. According to this data, total gross production in 1903-1912 alone was 82,115 tons of ore from which was extracted \$964,753.16 of gold and silver. This indicates that the total value of production from the claim group could have been in excess of one and a half million dollars. Also included in these records were longitudinal sections along the Grey Eagle vein showing extent of the workings including the stopes. The Grey Eagle was worked over a strike length of 2500 feet and to a depth of 600 feet below the lowest outcrop. Plate 2 is a copy of one of these original longitudinal sections with a few additions reported at a later date (McClintock, 1946). The Cleveland shaft was sunk 600 feet in the footwall of the vein in pegmatite and quartz monzonite (?). The shaft is presently caved and full of water. The water is apparently making along the schist-intrusive contact and may be useful to future

operations. Other than the locations of old dumps, absolutely nothing is known regarding work on the Oro Belle vein. Evidence of considerable work on the Grey Eagle vein within the confines of the Pilgrim claim are indicated on maps found filed with the State of Arizona Department of Mineral Resources. These maps were stamped with the signature of J.D. McClintock, registered mining engineer and dated October 1, 1946. The maps are included in this report as Appendix A to show the extent of stopes and possible ore. A value of \$52.00 per ton is indicated in a small heading below stoped ground. Other properties on the Grey Eagle structure to the north of the Pilgrim claim have produced gold and silver. The amount of production, however, is unknown except for several carloads of high grade enriched (?) silver ore with gold and considerable lead. At the present time, the shallow workings of the New Savoy mine are being reopened by local miners.

No ore reserves can be measured because of the lack of adequate data pertaining to and accessibility to the underground workings. Fortunately, however, records of assay results for two sections of the old mine have been preserved but slightly altered. These maps, though prepared by Naething in 1934 and not included in his 1934 report, were found in the files of the Arizona Department of Mineral Resources. Apparently Naething had access to the original plans from which he scaled the widths and converted the assays to dollar values as of 1934 (\$20.67/oz Au and \$0.50/oz Ag). One set was less significant than the other as no widths were given with its assays. Copies of Naething's

original maps are included as Appendix B-1 and B-2. One other section of assay information was found in the State of Arizona files dated October 30, 1936 but the author's signature is illegible. A copy of this map is included as Appendix B-3. The location of these three sets of assays are shown on Plate 2. Ore cannot be blocked out on the basis of these assays, but the values certainly indicate that further work is justified in view of present gold and silver prices. In order to make these values more meaningful, the present writer determined the ratio of silver to gold from the battery heads in 1905 as reported in Naething's 1934 Table III. Using this ratio of 8:1, the known price for gold and silver at the time of the report and the reported dollar value, the following assays were reconstructed:

<u>Set</u>	<u>Location</u>	<u>Length</u>	<u>Width</u>	<u>Oz Au</u>	<u>Oz Ag</u>
Appendix B-1	N 400 L	570'	539"	1.5	12.0
Appendix B-2	S 400 L	265'	Unk.	.75	6.0
Appendix B-3	Adit 2nd Ext.	±145'	377	.40	3.0

It should be emphasized that the three areas are inaccessible and the assays cannot be verified or rechecked!

GEOLOGY

As part of the general survey of the Oro Belle claim group, several days were spent mapping the aerial geology, locating the mineralized structures or veins and noting the marked corners, if any, of claims. The results of this work are presented on Plate 3. The basis for the location of the claim boundary is

based on a Brunton survey of one corner and is sufficiently accurate for this study but not for future work. The dominant geologic unit is the Precambrian Yavapai schist which seems to be constrained structurally by the Crazy Basin quartz-monzonite and the Crown King granodiorite. The subdivisions of the Yavapai schist present in the Oro Belle area are the Iron King and Spud Mountain volcanics of the Big Bug group. The dominant Spud Mountain formation, sms, is a series of sediments, mostly shales and silts, which have been metamorphosed to a muscovite-biotite-quartz schist. The mineralization explored to date is completely restricted to this schist unit. In fact, the structures seem to be completely conformable to the foliation of the schist. The Iron King volcanics are metamorphosed auesitic and basaltic flows which contain abundant magnetite.

The mineralized structures are persistent, vary in width from 3 to 20 feet and have a north to northeast strike with dips of 50 to 75° to the west. The outcrops are generally leached of gold, silver and most of the copper, though carefully selected samples may assay as ore. At depths of 100 to 200 feet, primary sulfides carrying gold and silver are encountered. The primary mineralization consists of pyrite with some chalcopryrite with minor galena in massive quartz gangue. The gold values are intimately associated with the pyrite and chalcopryrite. During this study, several samples of mineralization taken from the dumps indicated that the ore is massive, coherent and should

core well when diamond drilled. These samples when assayed contained gold in amounts varying from 0.1 to 1.31 oz with significant silver and copper (see Appendix C).

The persistent occurrence of copper with the gold in the Tiger mining district has been noted by several writers. In extensive recent trenches about one mile west of the Oro Belle, the present writer observed that the copper mineralization extended many tens of feet from a central structure into the wall rock. The possibility that the presence of copper would provide a geochemical tool for locating hidden or leached mineralized structures was tested during this mapping program. A geochemical soil sampling traverse with sites every fifty feet was run over the Oro Belle and Grey Eagle veins in the southern part of the claim group (Plate 3). The results of this survey (Appendix C) pinpointed the location of the Grey Eagle and the Oro Belle veins.

During the compilation of available information for this report, a recent aeromagnetic map (USGS GP 758) covering the Oro Belle area was obtained and found to show a significant relationship of the Oro Belle mineralization to the Lincoln, DeSoto and Bluebell mines (Figure 1). All these areas lie on the strike of the Grey Eagle and are associated with well-marked  $\pm 3000$  gamma highs. The magnetic high near Wasson Peak is probably due to the magnetite-rich Iron King metavolcanics. The DeSoto and Bluebell mines have been the major producers of copper

ore with gold and silver values in the Bradshaw Mountains and are currently being reopened. The relationship is not understood but may be due to the favorability for mineralization of certain formations associated with the magnetite-rich Iron King volcanics. Hopefully, this indicates that with further work, the Oro Belle area may also become a copper producer. Certainly, analyses of samples taken during this study show a significant content of copper.

### CONCLUSIONS

Past production from veins with the continuous character and type of mineralization shown by the gold and silver veins of the Oro Belle claim group indicates that chances for new ore at depth justify an extensive exploration program. The type of vein material observed during this study should core with adequate recoveries if diamond drilled with good equipment, large core sizes and good mud techniques. Additional veins or mineralized structures can be delineated by copper soil geochemical sampling techniques. In all likelihood, some ore could be produced from shallow workings on the Pilgrim, but modern economics require a sizeable tonnage of blocked ore before an adequate mining and milling program can be justified. This large tonnage would only be indicated or inferred on the basis of diamond drilling. Eventually, a program of underground exploration will be required to provide proven ore!

### RECOMMENDATIONS

The recommendations for further exploration on the Oro Belle property fall into several different categories:

- Engineering
  - Surveying
  - Site Preparation
  - Traverse and Line Cutting
  - Supervision

- Diamond Drilling

- Geochemical Sampling

- Geologic Mapping, Core Logging and Interpretation

- Metallurgical Testing

The accurate location of the claim boundaries is of prime importance and will require bringing in a section corner from two and a half miles to the southeast. With establishment of accurate control, the drill sites should be located as well as other landmarks not included on the USGS topographic sheet (1969). The drill sites have been located to require little if any new road but better grades may be required. Although the claims are patented, the area is within National Forest and excessive cat-work may cause complications at this time. Establishment and cutting of grid lines will make the geochem survey more useful besides facilitating the taking of samples and geologic mapping. The only available useful aerial photographic coverage available is at a scale of 1:33000 and wholly inadequate for good planning and detailed geologic mapping. Control should be established for an aerial survey contract to provide topographic coverage at a scale of 1:6000 or 1:3600.

The diamond drilling program is designed to test most of the possible extensions of known mineralization along the Grey Eagle vein without the necessity of building new roads. Two of the holes will also test the Oro Belle vein at depth. Plates 4 and 5 illustrate the program with a plan showing the location and bearing of the holes and cross sections for each hole with the vein trend. The total footage is 10,950 feet in 10 holes. The actual location of the holes is subject to change as information is gained from each preceding hole. As mentioned

previously, the core should be fairly large to ensure good recovery and also possibly a better sample. An ideal size would be NX or even Longyear's HQ. The intersections of the proposed holes with the Grey Eagle vein are shown on Plate 2. The diamond drill hole should be logged carefully for other veins, depositional features and flow directions in the volcanics. The mineralized core should be split and analyzed for gold, silver, and copper. Daily supervision will be required.

The geochemical sampling program should be planned carefully to check the entire sms unit for blind or leached ore zones. The fifty foot spread between samples should be checked as the program progresses to determine if the distance can be increased. The distance between traverses should not be less than five hundred feet. The traverses or grids should be oriented normal to the foliation which is probably parallel to the veins. The elements to be analyzed should be copper and lead with occasional checks for gold and silver. The number of samples should be about four or five hundred.

Additional geologic mapping should be done on USGS aerial photographs (1:33000/1968) presently ordered and scheduled for delivery in June. Of special interest are features related to the mode of deposition of the sediments and their relation to the interbedded volcanics. The other features such as structures and mineralized or leached zones will be mapped and sampled. The new large scale photos, when available, should be used to continue

and to increase the amount of detailed mapping in order to decipher the pre-metamorphic stratigraphy. This is of prime importance because of the obvious relation of ore to certain units within the Yavapai schist on a regional basis as indicated by the aeromagnetic survey (1972). Other geologic duties include core logging and interpretation of the geochemical survey.

Metallurgical testing should be done on splits of the core when sufficient mineralization of interest has been intercepted. The testing should be a minor program and used only to determine if drastic metallurgical problems are likely and the distribution of the different metal values.

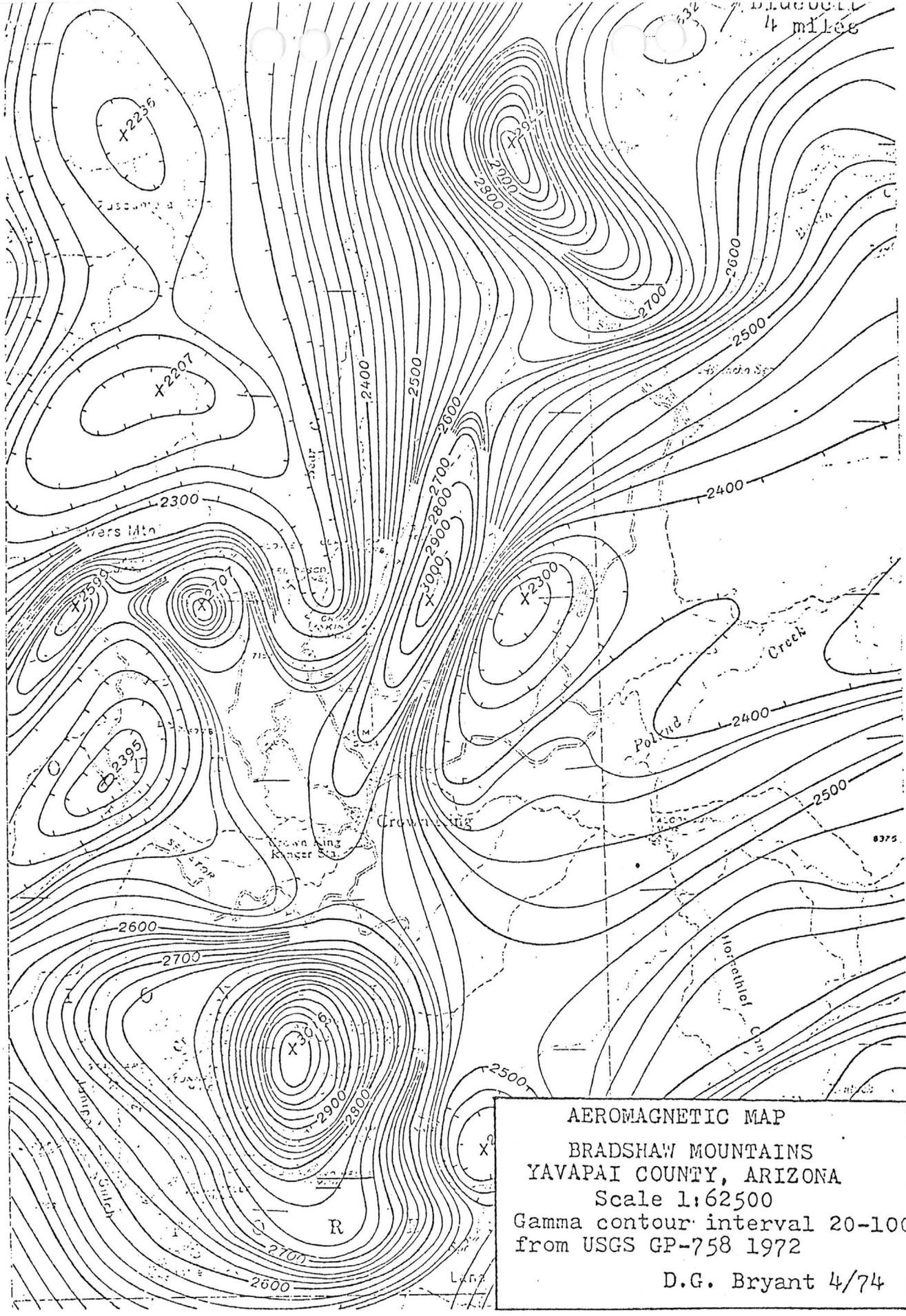
The above program will cost \$276,500.00. The expenditures can be broken down as follows:

Engineering	
Supervision	\$ 5,000.00
Surveying	2,500.00
Site Preparation	1,500.00
Traverse and Line Cutting	1,500.00
Aerial Photography	5,000.00
Diamond Drilling	
Diamond Drilling Contract	219,000.00
Supervision	18,000.00
Assay	5,000.00
Geochemistry	3,500.00
Geology	15,000.00
Metallurgy	<u>500.00</u>
Total	\$276,500.00

POSSIBILITIES

Although absolutely no ore can be blocked out on the basis of available information, knowledge of past production, probable mining techniques of the early 1900's and the results of the present examination indicates that material which may be ore under present economic conditions was probably left in pillars, in the walls and not developed at depth. Given the reported width of the veins, the proposed drilling program, if successful, could suggest a tonnage that would support a reasonable operation with sufficient life to justify the funds required to prove, mine, mill and refine material, if ore.

4 miles



AEROMAGNETIC MAP  
 BRADSHAW MOUNTAINS  
 YAVAPAI COUNTY, ARIZONA  
 Scale 1:62500  
 Gamma contour interval 20-100  
 from USGS GP-758 1972  
 D.G. Bryant 4/74

APPENDIX B-1

<u>No.</u>	<u>Width Ft.</u>	<u>Value</u>	<u>No.</u>	<u>Width Ft.</u>	<u>Value</u>
1	6.0	200.00	40	6.5	25.47
2	6.0	133.00	45	6.0	10.37
3	5.0	112.00	49	6.0	7.28
4			52	5.0	31.22
5	5.0	270.00	55	5.0	12.16
6	5.5	270.00	59	4.0	11.30
7	6.0	106.00	60	6.5	15.00
8	5.5	31.00	61	6.0	--
9	5.0	12.00	62	5.5	--
10			63	5.0	--
11			64	4.5	23.80
12	4.5	61.46	65	4.0	--
13	6.0	18.85	66	4.0	--
14	6.5	1.84	67	6.0	30.32
15	6.5	3.84	68	6.0	20.34
16	6.0	27.01	70	5.0	29.32
17			71	5.0	64.40
18			72	4.5	24.90
19	6.5	2.34	73	5.0	23.00
20			74	5.5	28.20
21	5.5	10.66	75	7.0	5.82
22	5.0	25.86	76	7.0	--
23	5.0	8.52	77	6.5	4.82
24	5.5	8.94	78	6.0	26.06
25	6.0	7.64			
26					
27					
28	5.0	17.52			
29	4.5	--			
30	4.5	19.78			
31	4.5	28.42			
32					
33	4.5	8.48			
34	4.5	3.24			
35	4.5	5.36			
36	5.0	--			
37	5.0	4.75			
38	5.5	25.42			

Width Scaled from Original Assay Plan

Values based on Gold at \$20.67 per ounce and silver at \$0.54 per ounce.

At present metal prices average value would be approximately \$55.65.

May 2, 1943



SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

Job No. 10025

May 3, 1974

D. G. Bryant  
 Coe & Van Loo  
 4550 N. 12th Street  
 Phoenix, Arizona

Analysis of 40 Soil and 7 Rock Chip Samples

Item	SOIL Sample No.	Cu (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
1.	OB-1	365	4	10	75
2.	2	690	2	10	75
3.	3	250	4	10	70
4.	4	45	2	45	55
5.	5	40	2	50	120
6.	6	25	2	60	75
7.	7	60	4	10	60
8.	8	320	4	35	110
9.	9	30	2	10	65
10.	10	20	2	10	55
11.	11	20	4	10	50
12.	12	15	4	5	75
13.	13	25	2	10	70
14.	14	30	4	5	55
15.	15	15	2	5	75
16.	16	50	2	10	60
17.	17	35	2	10	65
18.	18	65	2	10	60
19.	19	30	2	10	80
20.	21	35	2	10	70
21.	22	35	4	5	75
22.	23	35	2	10	85
23.	24	35	2	10	60
24.	25	50	4	10	80
25.	OB-26	55	2	15	85

?

Oro Belle

Oro Belle

Oro Belle

Item	SOIL Sample No.	Cu (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
26.	OB-27	60	2	15	90
27.	28	50	2	15	80
28.	29	45	2	10	85
29.	30	50	2	10	70
30.	31	160	2	45	95
31.	32	620	4	940	350
32.	33	120	4	15	85
33.	34	45	2	10	85
34.	35	45	4	10	95
35.	36	35	2	20	95
36.	38	35	2	10	95
37.	39	35	6	10	80
38.	OB-40	30	2	10	75
39.	OB-0	155	2	10	60
40.	OB-Tx	120	2	15	70

*Gray Eagle* (bracketed next to items 30-36)  
*Gray Eagle* (bracketed next to items 31-33)

Item	ROCK Sample No.	Au (ppm)	Ag (ppm)	Cu (ppm)
41.	OBR-1	7.5	18.	8,100 Pilgrim dump schist Cu
42.	2	.50	30.	2,100 Gray Eagle leached vein
43.	3	.26	.2	40 " " " "
44.	4	<.02	.2	30 urmin. biot. schist
45.	5	45.	70.	9,300 Pilgrim dump pyr. schist
46.	6	1.4	6.6	60 ZND NEXT dump Pit No 2
47.	OBR-7	4.9	7.7	2,000 ZND NEXT dump Nol (leached)

1 troy oz = 34.285 ppm

*Charles E. Thompson*  
 for Charles E. Thompson  
 Chief Chemist

DONALD GLASSELL BRYANT

7060 South Gray Court  
 Littleton, Colorado 80123 303 794-1335

Born: June 21, 1927, 6'2", 185 pounds, in good health.  
 Married: Sally Ann Schminke (B.S. Geol. 1950 Univ. of Arizona)  
 Children: Ellen Gene (16); Stephen Milnor (14); Elizabeth (12);  
 and Edward Glassell (6).

## EDUCATION:

Inglewood U.H.S., Los Angeles, California, 1945  
 University of Arizona, Tucson, Arizona, B.S. Geol. Engr., 1954  
 California Inst. of Technology, Pasadena, California, M.S. Geol.,  
 1955  
 Stanford University, Palo Alto, California, Ph.D. Geol., 1964  
 Dissertation: Intrusive Breccias and Associated Ore of  
 Warren (Bisbee) Mining District, Cochise County, Arizona  
 University of Arizona, Tucson, Arizona, Professional Geologist,  
 1967

## EXPERIENCE:

6/45-10/49	U. S. Navy - Hon. Discharge
10/49-6/54	Univ. of Arizona
6/54-9/54	Asst. Geol., Bear Creek Min. Co.; Geologic Recon. Mapping of Traverse Range, Utah
9/54-6/55	California Inst. of Technology
6/55-5/56	Geol.-Chief Mine Geologist, Cerro de Pasco Corp.; Geologic mapping and exploration planning at the Morococha Mine, Peru
5/56-9/62	Resident Geologist, Phelps Dodge Corp.; Geologic Mapping, exploration and development planning, and ore reserve estimation at the Copper Queen (Bisbee) branch. Initiated and developed geologic mapping procedures for the Lavender open pit mine.
9/62-2/64	Stanford University
2/64-8/65	Research Geologist, Bear Creek and Kennecott Mining Company; developed, investigated and applied various exploration techniques for copper and molybdenum in North and South America.
8/65-5/70	Chief Geologist, Molybdenum Corporation of America. Directed development and exploration of the Questa moly ore body in New Mexico. Demonstrated by application of exploration techniques error of previous concepts of limited extent of open pit ore, initiated a major drilling program (\$1,000,000), which has added in excess of 100 million tons of

Basic Professional Data  
DONALD GLASSELL BRYANT

EXPERIENCE (Continued...)

proven ore and continues to add important ore. Planned and directed the exploration programs for lode and placer deposits in Canada, U. S., Mexico, and Brazil. Emphasis was on alloy, base and precious metals. Coordinated geologic-mineralogic studies of the Questa and Mountain Pass ore bodies. Discovered and acquired large surface vanadium prospect in northcentral Nevada. Development drilling proved +25,000,000 tons of + 0.2% V2O5.

6/70-4/71

District Manager, Holt, Inc., Geologic-Mining Consultants associated with McPhar Geophysics, Toronto, Canada.

4/71 -

Geologic Consultant

PUBLICATIONS:

Geology and ore deposits of Warren mining district: In Geology of the porphyry copper deposits, Southwestern North American, p. 189-203, 1966.

Intrusive breccias associated with ore, Warren (Bisbee) mining district, Arizona; Econ. Geol., vol. 63, no. 1, p. 1-12, 1968.

Geology of the Questa molybdenite deposit, Taos County, New Mexico: in Guidebook, 17th Field Conference, New Mexico Geol. Soc., p. 51-56.

Exploration Methods: Earth Resources, Forum Lectures; Voice of America, 1970.

ORGANIZATIONS:

Society of Economic Geologists, Geologic Society of America, American Institute of Mining and Metallurgical Engineers, Sigma Xi, Tau Beta Pi, American Association of Petroleum Geologists, American Institute of Professional Geologists.  
Registered Professional Geologist (California) No. 2651  
Registered Professional Geologist (Arizona) No. 8081

CLIENTS:

Arizona-Colorado Land and Cattle Co. Phoenix, Arizona  
Arkansas Louisiana Gas Co. Shreveport, Louisiana  
Cappaert Industries, New Orleans, Louisiana  
Centennial Development, Salt Lake City, Utah  
Chevron Oil Co., San Francisco, California  
Coe and Van Loo, Consulting Engineers, Phoenix, Arizona  
Ditchburn, Riddell and Kirby, Toronto, Ontario  
Equity Mining Capitol Ltd., Vancouver, British Columbia  
Great Plains Development, Co., Calgary, Alberta  
Homestake-Wyoming Partners, San Francisco, Calif.  
International Mining Corp., New York, New York  
Natural Resources Development Co., Kenver, Colorado  
Occidental Minerals, Inc., Denver, Colorado  
Pincock, Allen and Holt, Inc., Tucson, Arizona  
San Luis Mining Co., Tayoltita, Durango, Mexico  
Susquehanna Corp., Denver, Colorado  
Texas Gulf Inc., Denver, Colorado

REFERENCES:

J.C. Bennett, Chairman  
Centennial Development Co.  
Eureka, Utah 84628

Charles F. Park, Jr.  
School of Earth Sciences  
Stanford University  
Stanford, California 94305

P.H. O'Neill, President  
International Mining Corp.  
280 Park Avenue  
New York, New York 10017

Robert L. Breedlove, Chief Geologist  
Arkla Gas Co.  
418 Market St., Rm. 518  
Shreveport, Louisiana 71101

J.J. Brummer, Exploration Manager  
Minerals Division  
Canadian Occidental Petroleum, Ltd.  
161 Eglinton Ave., East  
Toronto, 12, Ontario, Canada



## INTRODUCTORY STATEMENT

Oro Belle Mining Company, Inc. (the Company), with offices located at \_\_\_\_\_, Mesa, Arizona (telephone 602-\_\_\_\_\_), was incorporated as an Arizona corporation on \_\_\_\_\_, 1974, for the purpose of exploring and, if warranted, developing mining properties. The proceeds from the sale of the shares of stock offered herein will be used by the Company as stated herein (see "Use of Proceeds").

The mineralization of main exploratory interest is gold and silver with copper being of lesser interest. While the Company has not completed any significant geological examination or exploratory work on its claims to serve as a basis for extensive exploration, it proposes to conduct preliminary exploratory work including mapping, sampling and drilling on its claims located in the State of Arizona, near the town of Crown King, in search of economically significant mineralization. The proposed exploration program is based upon a report made by an independent consulting geologist and is based only on limited sampling. The Company proposes to retain the services of an independent consulting engineering firm and an independent consulting geologist associated with the firm to plan, direct and supervise the over-all program.

DONALD G. BRYANT

MINING AND MINERAL EXPLORATION CONSULTANT

7060 SO. GRAY COURT  
LITTLETON, COLORADO 80123  
(303) 798-3192

September 28, 1974

Mr. Jack Ross  
P.O. Box 1069  
Mesa, Arizona 85201

Dear R. Ross:

It is now almost October and the opportunity to make a significant attempt to start the Ore Belle project should be made. In your letter of May 17, 1974 were statements that are in error regarding the work that we, Coe and Van Loo and myself, did for you as commissioned by your Harold Rand and George Mariscal. The major error, however, was the assumption that my report was not positive and favorable. The chances for success relative to most exploration projects are quite good and certainly adequate to ensure a successful floating of a stock in this age of strong gold prices.

Several times in your letter of May 17, 1974 you state that the report cost exceeded your expectations. Apparently you have misunderstood or have been misinformed as to the original estimate for a feasibility was \$5000.00. The original conference and examination took two days. The next meetings took place after a delay of two days in Phoenix because of a communications break in your organization. At this time, "five" more days in the field ("AT THE SITE") were authorized. Even with the loss of two days, the final report was finished under the estimated cost not "several times the agreed limits".

At the afternoon meeting with George Mariscal and Harold Rand after our rather brief conversation in the morning, I was asked if I and Coe and Van Loo would accept a delay until July in order for you to finalize arrangements to form a company to issue stock. I checked with Coe and Van Loo who decided that a delay was acceptable but not dependent on the issue. Mr. Mariscal had stated that it was legal to include these report expenses as part of the use of proceeds, but I disagreed, feeling that they should be paid before any issue of stock. My opinion was affirmed by the SEC during our Washington conference. As you probably know by now, some consideration is being

given to legal action to obtain satisfaction of our claims. Regardless of your claims to the contrary, my work was authorized by your manager Harold Rand who is still in your employ and therefore a legitimate spokesman. If he wasn't, he should have been dismissed.

But more importantly, I wish to reiterate that, with the primaries over, you should push ahead to float the Oro Belle issue because of a good possibility of success.

Sincerely yours



Donald G. Bryant

254 2 0 7214

## RISK FACTORS

The following are some of the risk factors in the purchase of shares of stock of the Company offered herein:

1. The Company is newly formed and has not generated any operating income.
2. The shares being offered herein will have real value only in the event discoveries of substantial bodies of commercial ore are made, and there is no assurance of such discoveries.
3. There are not any known commercially mineable ore bodies on the claims. Should any such ore bodies eventually be discovered, it is not the Company's intention to engage in mining operations. The Company will attempt to negotiate an operating agreement with a well-financed operating company and would in such event retain only a minor interest. Even if the proposed exploration program is successful, the program is not of a nature that any results could serve to establish the existence of commercially mineable ore bodies. At best, the results would warrant additional exploration. In such event, additional funds would be required, and there is no assurance that such funds will be available.
4. Access to the Company's property is by 27 miles of unim-  
proved road off the Black Canyon Highway

6. The Company has agreed to pay certain stockholders of the Company \$100,000 out of the proceeds of the Offering as a partial repayment of funds advanced to the predecessor of the Company (see "Use of Proceeds" and "Transactions of Management with the Company").

7. As a result of inquiries by the Consulting Geologist for the Company, it appears that existing environmental regulations will not affect the Company's proposed exploration program. In the event that additional environmental regulations are promulgated in the future, however, such could adversely affect the exploration program (see "Environmental Matters and Regulation").

8. Presently the Company has a deficit working capital position (see the Statement of Assets and Liabilities).

## RISK FACTORS

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4. Access to the Company's property is by 27 miles of unimproved road from the Bumble Bee, Arizona exit of the Black Canyon Highway (Interstate 17). The road is usable the year round and is adequate for an exploration program. The property, which has been worked previously, contains shafts and underground workings which are caved, flooded and inaccessible. Also, although there is limited surface water available on the property, this may not be sufficient, and the Company may have to haul water to conduct its exploratory drilling. This could add materially to the cost of the diamond drilling program.
5. Although the price of gold has increased substantially in recent years, there has also been a substantial increase in the cost of mining. The Company will have to locate a deposit of sufficient tonnage and grade to warrant the expenditure necessary to enter into a large scale relatively low cost mining operation, and there is no indication of such a deposit at the present time.

6. The Company has agreed to pay certain stockholders of the Company \$100,000 out of the proceeds of the Offering as a partial repayment of funds advanced to the predecessor of the Company (see "Use of Proceeds" and "Transactions of Management with the Company").

7. As a result of inquiries by the Consulting Geologist for the Company, it appears that existing environmental regulations will not affect the Company's proposed exploration program. In the event that additional environmental regulations are promulgated in the future, however, such could adversely affect the exploration program (see "Environmental Matters and Regulation").

8. Presently the Company has a deficit working capital position (see the Statement of Assets and Liabilities).

## PROPERTIES

The property consists of 24 contiguous patented claims, aggregating approximately 469 acres, known as the Oro Belle Claim Group, located approximately 2 miles south of the town of Crown King in Yavapai County, Arizona. The patented claims are owned by the Company. Within the claim block is a small patented claim comprised of approximately \_\_\_\_\_ acres. Although this claim will not affect the exploration program of the Company, it may create a nuisance problem in connection with any future operations of the Company (see "Titles").

### History and Present Development.

Reportedly, the property was first staked in 1870 and was worked extensively but sporadically by a series of owners until 1912. Thereafter, the property was sporadically worked on a small scale until 1947. The Company does not have any firsthand knowledge of the operations nor to what degree they were profitable.

A United States Geological Report dated 1926 estimates that the total production of possibly hand-sorted ore of the Oro Belle Claim Group was approximately \$700,000. The Company is unable to confirm this estimate, which may be inaccurate. Work on the claims was terminated in 1912, and the usual reason for such termination of operations is the failure to discover ore of sufficient grade and quantity. Again, no commercial ore body is known to exist on the property.

Access to the Company's property is by 27 miles of unimproved road from the Bumble Bee, Arizona exit of the Black Canyon Highway (Interstate 17). The road is usable the year round and is adequate for an exploration program. Also, although there is limited surface water available on the property, this may not be sufficient, and the Company may have to haul water to conduct its exploratory drilling. This could add materially to the cost of the diamond drilling program.

The property, which has been worked previously, contains shafts and underground workings which are caved, flooded and inaccessible. These workings include one inclined 600-foot shaft and reportedly over 15,000 feet of drifts with considerable stoping.

## Geology.

The mineralization of primary exploratory interest is gold and silver with copper being of lesser interest.

The predominant rock type in the area of the Oro Belle Claim Group is Pre-Cambrian schist, which has been subjected to extensive faulting, folding, alteration and intrusion.

The most significant features of the property are two veins containing gold, silver, copper and lead in a siliceous gangue. Production was obtained from these veins. Apparently, at least one of these veins extends the full length of the property.

Although random surface sampling over the property by the Consulting Geologist revealed the existence of sporadic gold, silver and copper mineralization, the sampling was not sufficiently systematic, and the values not continuous enough to permit any estimate of dimensions and grade. The work did suggest targets for further exploration, which the Company proposes to accomplish.

## Proposed Exploration.

The Company has retained the services of Coe & Van Loo Consulting Engineers, Inc., and Donald G. Bryant, Consulting Geologist, to act as its consultants in the planning, direction and supervision of the exploration of the claims of the Company.

The proposed exploration program is designed to determine whether or not economic mineralization exists on the property. The Company plans to drill approximately 8 holes varying from 600 to 1,000 feet in length for a total of 6,750 feet at an estimated cost of \$135,000. Assuming the necessary drill rigs and personnel are available, the proposed exploration program should take between 6 to 12 months.

In conjunction with the drilling program, the Company proposes to conduct a geochemical (soil sampling) survey over areas of interest on the claims. A geochemical survey can only determine whether certain elements are present in higher concentration than normally found in the general area.

The Company proposes to conduct a ground survey to establish the precise location and limits of its property.

The Company plans to undertake geological mapping of the property to search for additional areas of potential exploratory interest. To assist the geological mapping, the Company plans to contract for a low altitude aerial photographic survey of the property.

All of the proposed exploratory work, surveying and drilling will be carried out by independent contractors or consultants for the Company. Several of such independent contracting firms are doing business throughout the Southwest. The Company does not anticipate encountering any difficulty in obtaining the services of such contractors to perform exploratory work for it. Work of this type is contracted on a "bid basis", and the Company's consultants, being experienced in the field, are familiar with the rates normally charged for such work.

Titles.

The Company believes that the patented mining claims that it has acquired have been obtained in compliance with the mining laws of the United States and of the State of Arizona. The Company is not aware of any conflicts of the claims with other claims. When a mining claim is patented, there is an affirmative government grant under which legal title vests in the usual concept of real property ownership. Although the Company has not obtained title opinions or title insurance with respect to its patented mining claims, to the best of the knowledge of the management of the Company the claims are valid. However, since title opinions have not been obtained, there is no assurance that title to the patented mining claims is without defect.

## ENVIRONMENTAL MATTERS AND REGULATIONS

The activities of the Company are regulated by various federal, state and county agencies, including the Forest Service, an agency of the United States Department of Agriculture, and the Environmental Protection Agency, an agency of the United States Department of the Interior. As a result of inquiries by the Consulting Geologist, it appears that environmental regulations could adversely affect the exploration program and any additional exploration programs or mining and milling operations.

USE OF PROCEEDS

The net proceeds of the Company, after expenses, are estimated to be \$325,000. The Company proposes to use these proceeds in the following order of priority:

1. Current payable to Consulting Geologist.....	\$ 5,000.00
2. Partial repayment of funds advanced by certain shareholders of the Company to the predecessor of the Company (1)...	100,000.00
3. Administrative, office and travel expenses (2).....	5,000.00
4. Site preparation.....	1,500.00
5. Consulting Engineer:	
Ground Survey.....	\$2,500.00
Line Survey.....	1,500.00
Supervision.....	<u>5,000.00</u>
Total Consulting Engineer.....	9,000.00
6. Laboratory Testing.....	5,000.00
7. Aerial Photography.....	5,000.00
8. Diamond Drilling:	
Contractor (6,750 feet at \$20 per foot).....	\$135,000.00
Supervision .....	10,000.00
Assay.....	<u>5,000.00</u>
Total Diamond Drilling.....	150,000.00
9. Geochemical Sampling (500 samples at \$7 each).....	3,500.00
10. Consulting Geologist.....	10,000.00
11. Funds not specifically allocated (3)....	<u>35,500.00</u>
Total.....	<u><u>\$325,000.00</u></u>

- (1) See "Transactions of Management with Company".
- (2) Travel expenses incurred by officers and directors in connection with the Company's business will be reimbursed to them. Also, one of the shareholders of the Company will, at the prevailing rate, provide bookkeeping and accounting services from an individual employed by that shareholder.
- (3) There will not be any foreseeable need for these unallocated funds unless the results of the initial exploratory work are favorable, or unless unforeseen costs are incurred in the planned drilling program due to insufficient water on the Company's properties or inaccurate estimates of the costs of the program. At the present

time, no alternate uses are planned. If, however, the actual costs of the proposed exploration program are greater or less than estimated, these funds will be decreased or increased accordingly.

Any proceeds not immediately used will be held in savings accounts, certificates of deposit, treasury bills or similar forms of short-term deposits and investments until needed.

ORO BELLE GROUP

YAVAPAI COUNTY

NJN WR 8/19/88: Paul McVay reported he is representing the Ross Estate which owns the patented portions of the Oro Belle (file) and Gray Eagle (file) mines in Yavapai County. He was attempting to determine the mineral and surface value for the claims so they may be sold.

-----

NJN WR 9/2/88: Paul McVay, 5721 E. Voltaire, Scottsdale, Arizona 85254, 996-4694, visited on behalf of Jack and Aquanetta Ross as part of an effort to determine the sale of the claims which comprise the Oro Belle (file) and Gray Eagle, Yavapai County. Although he indicated the Ross' would like to sell the property to obtain the maximum revenue, a short term arrangement on the mineral portion of the property would also be considered.

-----

ORO BELLE GROUP

YAVAPAI COUNTY

Jack Ross of Mesa has the Oro Belle and the dozer work by Basin Mining Co. is on the same steep hill but about 1 mile south of Oro Belle. FTJ WR 6-24-66

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Learned that Great American Industries have pulled out of the Copper Stack-Oro Belle area and were examining Copper Basin area. FTJ WR 3-24-67

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KAP WR 12/26/80: Lance Ross reports he plans to form a public corporation to explore and develop the Oro Belle Mine, Tiger District, Yavapai County.

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KAP WR 1/23/81: Lance Ross reported that he along with Andy Jackson and Jack Ross (of Jack Ross Lincoln Mercury Agency) plan to form a corporation and obtain investors to drill and explore the Oro Belle Mine, Tiger District, Yavapai County. The venture will be known as the Golden Crown Mining. Dudley L. Davis, a mining consultant, reported that he is preparing a mine report on the Oro Belle property for use in preparing an investment promotion.

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KAP WR 1/20/84: During a visit to numerous mica occurrences in the southeastern Bradshaw Mountain passed through the site of Oro Belle and the Oro Belle mine property. No activity was apparent however, the property is large.

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NJN WR 1/31/86: In the company of James Bond, visited and sampled the dumps of the Pilgrim (f) and Oro Belle (f) both in Yavapai County. The sample locations, descriptions and results will be added to the files.

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NJN WR 2/7/86: James Bond (c) called and reported that the Ross's, owners of the Oro Belle (f) patented claim group, Yavapai County, were interested in Mr. Bond submitting a proposition on the property. Mr. Bond reported he would see what kind of backing could be arranged in Houston and if favorable would attempt to lease the property.

---

FILE ORG B L R

May 29, 1974

Mr. Donald G. Bryant  
c/o Floyd Miller Enterprises  
Northway, Alaska 99764

Dear Don:

We called Longyear. They said the HQ core would cost \$12.00/L.F. for the 0-500' and \$14.00/L.F. from 500' to 1000'.

Lo Loss mud, they haven't heard of Saipan Mud, would add 50 to 75¢/L.F.

Figure a water truck at \$400/mo plus cost of water. Also mobilization and demobilization and hourly costs at \$35.00 per hour for cementing etc.

They didn't talk about per dieum and would want to finalize a quote when ready. They can get on the job in about 1 month to 6 weeks.

We planimeter an area of 468 acres.

Assume roads exclusive of drilling.

Very truly yours,

COE & VAN LOO  
Consulting Engineers, Inc.

H. Mason Coggin, P.E.

HMC:dp

CUNNINGHAM, GOODSON & TIFFANY, LTD.

ATTORNEYS AT LAW

August 27, 1974

Mr. Jack Ross

Re: Oro Belle Mining Company -  
Regulation A Exempt Offering

Description of Services:

February, 1974 - Conference with Bill, Carl and Harold re offering.  
Tel. con. with SEC.

March, 1974 - Tel. cons. with SEC and Harold Rand. Tel. cons. with Hugh Norman (SEC) and Harold. Tel. cons. with Harold, Bill and engineers. Tel. con. with mining engineer. Tel. con. with Harold Rand. Tel. con. with Harold. Tel. con. with Harold re status.

April, 1974 - Tel. cons. with Harold and Bill. Tel. cons. with Percy Coe and Harold re geology report. Conference with Harold Rand and engineers. File review and organization for offering. Preparation of timetable, letter of intent, letters to Harold Rand and Engineer, and tel. con. with Harold. File review; conference with Harold, letter to states re qualification, and tel. con. with SEC (San Francisco); preparation of offering circular book. Tel. con. with Hugh Norman (SEC) and file notes. Tel. con. with Harold and Carl re front money; tel. con. with Coe and Harold; tel. cons. with Don and Harold. Conference with Harold, Jack Ross and George Mariscal. Tel. con. with Harold re status. Tel. cons. with George Mariscal and Bill Strawther. Tel. con. with Don Bryant. Tel. con. with Don Bryant. Conference with representatives of broker and company re offering. Tel. con. with Harold.

May, 1974 - Tel. con. with Bill; file review. Tel. con. with Harold. Tel. cons. with Geo. Mariscal and Harold re "go ahead"; tel. cons. with Don Bryant and Harold. Tel. con. with Jack Ross; conference with Percy Coe and Don Bryant to review report and preparation of offering circular language and prior review of file. File review, preparation of offering circular sections and letters to SEC engineer and Jack Ross; conference with Percy Coe. Tel. con. with Harold; review Bryant report. Tel. con. with Don Bryant's secy. Tel. con. with Harold re letter from Jack Ross; tel. cons. with Geo. Mariscal and Harold; tel. con. with Don Bryant. Tel. cons. with Harold, Don Bryant and SEC re trip and meeting. Travel and conference with SEC Engineer and Don Bryant in Washington, D.C. Tel. con. with Harold; file notes. Conference with Transfer Agent prospect. File review, preparation of revised offering circular sections and letters to Hugh Norman and Jack Ross. Tel. cons. with Harold and Bill re meeting.

CUNNINGHAM, GOODSON & TIFFANY, LTD.  
ATTORNEYS AT LAW

August 27, 1974

Mr. Jack Ross

Re: Oro Belle Mining Company -  
Regulation A Exempt Offering

Description of Services (contd.):

June, 1974 - Tel. con. with Percy Coe re acreage and drilling costs; Tel. con. with Bill re offering. Conference with Geo. Mariscal and clients and bill and Carl re offering, and letter of intent; tel. cons. with George and Bill. Tel. cons. with Harold, George and Bill Strawther.

July, 1974 - Tel. cons. with SEC representative, Harold Rand and Don Bryant re status; tel. con. with George Mariscal. Tel. con. with Harold. Tel. con. with Harold. Tel. con. with Percy Coe.



10. <u>Cementing and plugging, 90 hours</u> @ \$18.00	0.24
11. <u>Drilling fluids and additives, 1690</u> bags @ \$3.36	0.84
12. <u>Standby time, 200 hours @ \$16.00</u>	0.47
13. Core boxes, 270 @ 1.40	0.06
Total	\$ 20.04

The foregoing costs are based on current prices and 6750 feet of HQ core drilling of 8 holes varying from 600 to 1000 feet in depth as outlined in the enclosures to your letter of May 29, 1974 to Mr. Hubert Norman of the Securities and Exchange Commission and geologist Don Bryant's report on the property dated May 9, 1974. In preparing the estimate three international drilling firms were consulted and their basic costs adjusted to the specific conditions found at the Oro Belle property with regard to geology, access and water availability.

It is believed that the prices quoted are safely conservative and it is possible that some reduction in costs would be realized at the time the work is actually performed. However, based on past experience in such matters, I believe it would be unrealistic at this time to count on completing the drilling for less than \$20.00 per foot.

Very truly yours,

COE AND VAN LOO  
Consulting Engineers, Inc.

P. E. Coe

PEC:jp

August 9, 1966

Mr. James E. Warne, Jr.,  
2525 East Indian School Road  
Phoenix, Arizona

Dear Mr. Warne:

MEMORANDUM RE SAVOY TUNNEL

Mr. H. S. Childs, Phoenix, Arizona, has suggested certain exploration and repair projects at the Savoy Tunnel, Tiger Mining District, Yavapai County, Arizona. These include core drilling below the tunnel level; reopening and repairing the Savoy Tunnel; driving several crosscuts near the present face; excavating a hoist station and sinking a winze for mining below the Savoy Tunnel.

The accessible Savoy workings were inspected August 4, 1966 by J.E. Warne, Jr., H.S. Childs and W. P. Crawford. At a point about 200 feet from the portal the Savoy Tunnel is filled with broken material from the sides and back. The back of the tunnel is held by pipe spiling which displays no deformation. Fresh air and water are passing the muck pile which Childs thinks might extend for 15 - 50 feet. Following the caved section the tunnel should be open and in fair condition for perhaps 1,000 feet. Beyond this point the tunnel enters the stoped area and may require major repairs.

An oxidized vein carrying free gold is exposed about 50 feet inside the tunnel. A shallow winze at this point would serve as a drill station and core drilling and tunnel repairs could progress without interference. Childs has two men whom he recommends highly. They worked on the last Savoy repairs and are familiar with the Savoy surface equipment. These two could work toward reopening the tunnel; Martinovich and Crawford could do the core drilling near the portal.

There are several items which require checking:

Has Childs lease on the Savoy been cancelled by Wilkerson? Have the

monthly rental payments to Wilkerson been made or are these in arrears? Will the Public Service Company furnish electrical energy to the Savoy and is this bill delinquent?

If the drilling equipment is still at Burntwater we can "poor boy" shallow holes on the oxide vein and I believe I have sufficient EX bits and reamers to make several hundred feet of hole. I believe you know Slim Wilkerson and you can find out whether Hank still has a lease on the Savoy. If you do not know Slim, either wait until I return or you can call Dale Milner at Equipment Sales, Alpine 8, -7151 and dump it on his shoulders and he will find out. At one time the lease required a monthly rental of \$350 which went to Wilkerson and I imagine this is delinquent. If the lease is moribund there is no point in our doing anything further - unless Wilkerson needs a couple of good engineers.

De SOTO MINE

This looks like a fouled up deal. I am working up some rough figures but I think they need engineering advice, both mining and civil, before they need construction figures.

W. P. C.  
William P. Crawford

Re Fort Misery

The list of military camps, forts, etc in Arizona does not show any military establishment in the area around Humbug Creek. Nor is there any mention of such a post in Connor's account of the Walker Party who settled and prospected in this area after 1862. The only reference is in Charles Dunning's book "Rocks to Riches", page 69, wherein it is stated that in Prescott there was only one miner's boarding house, appropriately called "Old Fort Misery." It was run by a lady known as Virgin Mary.

However, regardless whether it was a fort or not it should be an interesting place.

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY (SHORT FORM)

May be Reproduced

May Be Inserted Into Mine File Or Added To "Rumor Page"

1. Information from: Bob Coblio

Address:

2. Phone:

3. Mine: ORO BELLE GROUP

4. ADMMR Mine File: Oro Belle Group

5. County: Yavapai

6. MILS Number: 833D

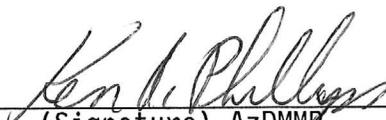
7. Operational Status:

8. Summary of information received, comments, etc.:

Mr. Coblio reported that he is interested in doing exploration work on the Oro Belle mine if an acceptable deal can be arranged with the owners. One of the difficulties is that a number of individuals are involved in the ownership and each must approve of any deal. He is particularly interested in the wide breccia zones along the vein structure on the southwest portion of the property.

Mr. Coblio provided a copy of a 1981 report by Dudley L. Davis for inclusion in the file.

Date: Oct. 5, 1988

  
\_\_\_\_\_  
(Signature) AzDMMR



# Values Unlimited Milling, Inc.

PRODUCTION DIVISION  
P. O. Box 367 - Cotopaxi, Colorado 81223 - (303) 275-2890  
MARKETING DIVISION  
(303) 783-9231



Hal Harper  
3414 W. Wahalla Lane  
Phoenix, Arizona 85027

November 12, 1986

Dear Hal,

As you know, on November 6 & 7, 1986, I had the pleasure of visually observing the mine dumps on the Oro Belle Properties. I also performed some limited pan tests of soil samples from what I considered to be the main dump on that property.

Visual observation is, by no means, a scientific approach to determining the material quantity contained within mine dumps. However, due to my years of experience and the obvious size of the dumps, I would venture an underestimated guess as to their quantity, as follows:

Main Oro Belle dump - >50,000 s/tons  
2 dumps located in gulch, above and behind Oro Belle - >20,000 s/tons  
3 dumps located above, down gulch from Oro Belle - >25,000 s/tons  
Total - >95,000 s/tons

Pan tests of the material samples extracted from the immediate main dump area, indicated the following:

- Sample #1. Orange/yellow material taken from trail made from dump material and leading away from main dump. Appears to carry substantial free milling Au.  
+/- 0.5 ounces per ton.
- Sample #2. Grey material (schist) obtained from upper outer perimeter on main dump. Appeared weak in Au content.  
- 0.01 ounces per ton.
- Sample #3. Orange/yellow material taken from upper outer perimeter of dump. Good free milling gold present.  
+/- 0.3 ounces per ton.
- Sample #4. Orange/yellow material taken from near bottom skirt of dump. Fair free milling gold present. +/- 0.2 opt.

All free milling gold observed in the above crude tests ranged in size from below 40 mesh to perhaps as fine as 300 mesh.

It was also noticed that the grey schist gneiss which covers the main dump, and which contained the least free milling gold, as indicated by these tests, appeared shallow in depth and may only represent a superficial layer covering the main dump. Without in-depth trenching or pipe sampling, this would be difficult to determine. However, past experience has revealed that old dump values vary by layers, due primarily to ore shipping capabilities, and economic practicality of their milling procedures during those times.

It is especially interesting to note that no abundance of mill tailings appears to be present at the site, nor is there evidence that large quantities of tails had been washed down the gulch. This leads to speculation that minimal milling was accomplished at the site and the bulk of the ores transported elsewhere for processing.



# Values Unlimited Milling, Inc.

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Page 2

In the recent studies we have made of past gold mining and milling operations, certain interesting facts emerged. 1. That the smelting ores generally carried upwards of 3 ounces per ton, dependent on distance to the smelter. 2. It was not economically feasible to mill and concentrate ores with a gold content of less than  $\frac{1}{2}$  ounce per ton. The latter being true to as late as 1916. This, of course, does not reflect consideration for other values.

In light of the foregoing speculations, I, personally believe that the Oro Belle mine dumps project excellent potential. Because, if only one half of the accessible dump ore was of millable grade-47,500 tons- and the average Au recovered from this tonnage was 0.25 ounces per ton, 11,875 troy ounces would be recovered in less than two years, yielding a gross of \$4,750,000, and a net of at least \$3,000,000, using \$400 per ounce as a base selling price of gold.

Again, I thank you for the opportunity to observe this obviously prospectively profitable location.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Chad', with a long horizontal line extending from the end of the signature.

C. R. Knowlton II  
Chief Engineer

## Mine Visit Report

Mine - Oro Belle (f) and Pilgrim (f)  
County - Yavapai

Date - 1/30/86  
Engineer - N. J. Niemuth

In the company of James Bond of West Virginia a visit was made to the Oro Belle Mine area with the purpose of reviewing the above properties for possible lease by Mr. Bond. Thus a one day reconnaissance was made to examine the dumps, tailings, and/or workings of the Oro Bonito, Pilgrim, and Grey Eagle veins.

Current access roads of the property are in need of repair. We were forced to walk from Forest Road 192 to the various workings. It would only take some blade work to widen them enough to be driven.

The tailings in the mill area were deposited in the creek. Erosion has now removed all but a few tons.

The Oro Bonito vein structure is west of the Grey Eagle vein as shown on the attached map. From the main creek 3 dumps can be seen to the south. The lower 2 were visited and the middle one (elevation 6500') sampled (#28110). The dump material consisted mostly of quartz vein and schist material mostly oxidized, but some sulfides were seen. They were pyrite, arsenopyrite, sparse galena and chalcopyrite. Total tonnage of the dumps is difficult to estimate due to the 2-1 slopes, but is likely in excess of 5,000 tons. No open adits were seen at the lower 2 levels.

The Grey Eagle vein structure has a large dump (+100 x100 x50d ft.estimated) at the site of the Cleveland shaft and at least 3 more dumps on the slope to the south. Samples were taken of the main dump (#28113), underground on the level above the dump (#28111), and from the 4th level dump (#28112). See the attached sample sheet for description of the samples. The level that was open is caved 118' south of the portal. This caved area was bad ground when last mined as evidenced by the amount of cribbing and lagging present. The vein on this level goes from 10' wide and sheared near the portal to pinching 40'south. From there to the caved area there is a large amount of slickenslides from faulting and fissuring.

Although not shown on the Crown King topo map there are three dumps and presumably three drifts at the Pilgrim mine. I have added their locations to the attached map. The three dumps are estimated to total over 5,000 tons. Additionally there is a ore bin at the lower dump which contains some material. Samples were taken from the bin as well as from the upper and lower dumps (28114-6). At two of the drifts the wooden portal timbers were visible and it appeared the portals could be easily reopened with a little work. Vein material here was similar to that at the

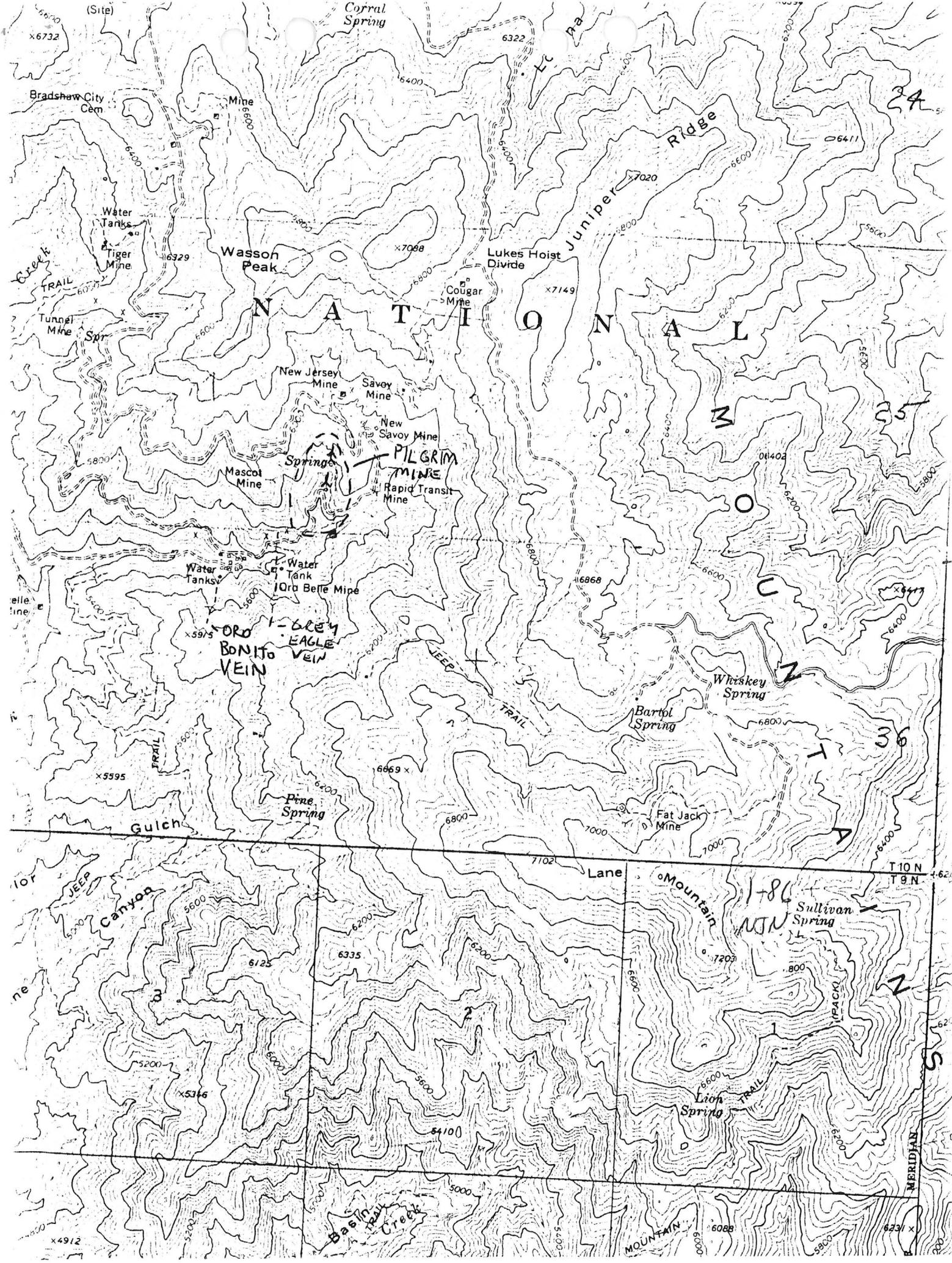
Oro Bonito and Grey Eagle except for siderite being more common  
and pyrite cementing fractures in the vein and schist material.

OroBelle(f)

MINE - Oro Belle and Pilgrim  
COUNTY - Yavapai

DATE 1/30/86  
ENGINEER - NJN

SAMPLE #	Au oz/ton	Ag oz/ton	LOCATION & DESCRIPTION
28110	.05	nil	Oro Belle - Oro Bonito dump at 5600', composite of 1" minus material from top of dump
28111	nil	nil	Oro Belle - Grey Eagle vein 48" across vein structure, underground, 25' south of portal, qtz hematite and limonite stained
28112	.035	nil	Oro Belle - Grey Eagle vein, 4th level dump sample, 1" minus
28113	.072	.17	Oro Belle - minus 1/2" grab from SE area of main Cleveland dump includes limonite stained and "mud" material
28114	.192	.26	Pilgrim - lower ore chute, material all oxidized
28115	.268	.67	Pilgrim - upper dump, select vein and sulfide material
28116	.232	.28	Pilgrim - lower dump, 4' vertical cut, fine oxidized material



SKYLINE LABS, INC.

SPECIALISTS IN EXPLORATION GEOCHEMISTRY

12090 WEST 50TH PLACE • WHEAT RIDGE, COLORADO 80033 • TEL.: (303) 424-7718

REPORT OF ANALYSIS

Job No. 10025-A

May 8, 1974

Coe & Van Loo  
4550 N. 12th Street  
Phoenix, Arizona 85014

Attention: D. G. Bryant

Analysis of 6 Pulp Samples

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Item	Sample No.	Au (oz/T)	Ag (oz/T)
1.	OB-6	<.005	<.01
2.	OB-8	<.005	<.01
3.	OB-32	.076	.59
4.	OBR-1	.24	.40
5.	OBR-2	.052	.83
6.	OBR-5	1.32	1.94

---

Charles E. Thompson  
Chief Chemist

John Phoenix  
Office

Crown King, Arizona,  
July 23, 1947

Mr. A.C. Nebeker,  
Department of Mineral Resources,  
Prescott,  
Arizona.

Dear Mr. Nebeker,

separate  
cover

Enclosed herewith is tracing of sketch map of the Pilgrim Section of the Oro Belle Mine which you requested.

I have made some indications in color, which are important but which will not reproduce. If copies are made some one will have to insert the colored portions later in order to make the story complete.

You might add to your notes on this property that the total production to date has been recorded as \$1,250,000, accumulated since 1899. The production of the Pilgrim section of the mine is only recent. It amounts to about \$75,000. First work in these tunnels was only begun shortly before the war and, of course, during the war nothing much could be accomplished.

As we get deeper on this north side, the ore shoots seem to improve in grade. I believe that we have established their "habit" very definitely and further work in the No. 3 Tunnel bears this out.

Another round since you were here shows continuation of the ore on the hanging wall side and its apparent increase in width.

On the section herewith, you will note the theoretical projection of three ore shoots. These have, in part, been proven of existence as to depth. I have no doubt but that we can establish the fact by ore shipments within the next few weeks.

I think you are now acquainted with the situation physically and financially. I should like to develop the financial situation to the point where ~~to the point to where~~ as much could be done as the situation warrants. I feel that I could justify the expenditure of \$50,000 and give the capital an excellent run for the money. Naturally, there is no ore "blocked" and there never will be, as it is not that kind of a vein.

There is no chance of putting a valuation upon it. A certain person with a certain frame of mind will certainly make some quick money out of it if, I suppose, they are struck at "the" certain time.

Sincerely yours,

J.D. McClintock

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine <sup>Pilgram</sup> Oro Belle, Pilgram Claim.

Date July 22nd, 1947.

District Tiger (Crown King)

Engineer A.C. Nebeker

Subject: Operations.

In November, 1944 I made my first visit to the Oro Belle, it was being worked under lease contract by Mr. G. H. Manly, and work was being done in tunnel No. 2, ore being stoped above No 2 tunnel and was about 400 feet in from the portal, by careful mining and doing some hand sorting ore was shipped carrying silver values and gold value from \$50.00 to \$100.00 per ton. shipments going to the Clarkdale smelter.

I visited this property again July 22nd, 1947. The property is now worked by Mr J. D. McClintock and is being done in the NO 3 tunnel which is about 110 feet below No 2 tunnel on the dip of the vein. The tunnel is in about 230 feet and the face is now in what appears to be the first ore shute. (The attached map shows this very well)

The vein is a fractured zone with a width of 5 to 6 feet, and the pay ore making in this zone is from 4 inches to 5 feet. The ore is a gold carrying pyrite. The vein has the same strike as in the upper tunnel, (N 10 W) dipping 45 west. The hanging wall of schist and the foot wall probable diorite.

The attached map, furnished by Mr McClintock, shows the downward extension of the ore shuts and also how the lenses re-occur along the strike of the vein.

Equipment consists on the Pilgram claim, a portable compressor, ore bin, shop, drills and cars, on the south camp at the main deep shaft a two stage compressor, double drum hoist, several buildings which can take care of a good size operation.

Three men employed at present and it is planned to put on another shift right away.

The property is open for an operating deal.

