

CONTACT INFORMATION

Mining Records Curator Arizona Geological Survey 1520 West Adams St. Phoenix, AZ 85007 602-771-1601 http://www.azgs.az.gov inquiries@azgs.az.gov

The following file is part of the

Arizona Department of Mines and Mineral Resources Mining Collection

ACCESS STATEMENT

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

QUALITY STATEMENT

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

PRINTED: 02/01/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: MERCURIA GROUP

ALTERNATE NAMES:

GILA COUNTY MILS NUMBER: 344

LOCATION: TOWNSHIP 7 N RANGE 9 E SECTION 4 QUARTER SE LATITUDE: N 33DEG 58MIN 24SEC LONGITUDE: W 111DEG 26MIN 17SEC

TOPO MAP NAME: RENO PASS - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY: MERCURY

BIBLIOGRAPHY:

ADMMR MERCURIA MINE FILE FAICK JN GEOL ORO MINE MAZATZAL MTNS USGS BULL 1042-4 1958 SEE MAP USBM IC 8252 MURCERY POTENT US 1965 P 65 LAUSEN C & ED GARDNER QUICKSILVER RESOURCES AZ AZBM BULL 122 1927 P 93-94

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: MERCURIA GROUP

ALTERNATE NAMES:

GILA COUNTY MILS NUMBER: 344

LOCATION: TOWNSHIP 7 N RANGE 9 E SECTION 4 QUARTER SE LATITUDE: N 33DEG 58MIN 24SEC LONGITUDE: W 111DEG 26MIN 17SEC

TOPO MAP NAME: RENO PASS - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

MERCURY

BIBLIOGRAPHY:

USGS RENO PASS QUAD

FAICK JN GEOL ORO MINE MAZATZAL MTNS USGS

BULL 1042-RR1958 SEE MAP

USBM IC 8252 MURCERY POTENT US 1965 P 65 LAUSEN C & ED GARDNER QUICKSILVER RESOURCES AZ AZBM BULL 122 1927 P 93-94

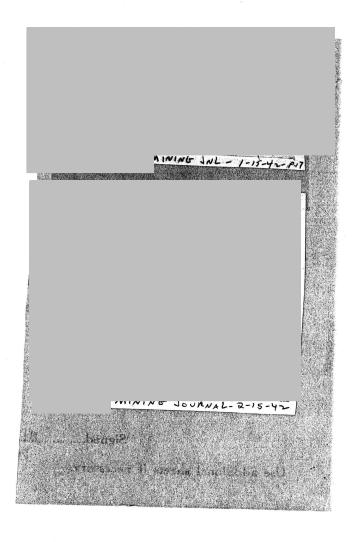
ADMR MERCURIA MINE FILE

REFERENCES

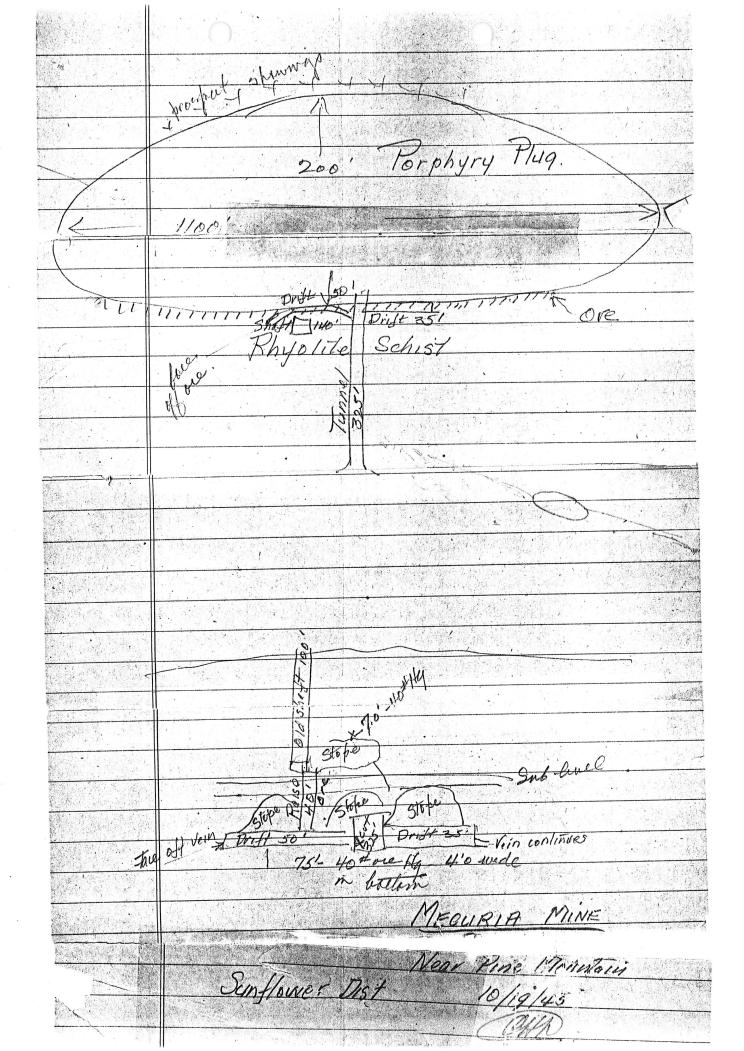
E. & M. J. July, 1965 p. 100

IC 8252 p. 65

ABM Bull. 122, p. 68, 93



Ord went mc ond founde Gu Youx m 0 1.49 L. Sakara (4) 1



Do Not Reposture

GILA COUNTY

NJN WR 5/20/83: Jean Meyer, Box 1827, Showlow. Arizona 85961, called seeking information on the Mercuria Mine, Gila County. He reported he and some other people were being asked to buy an interest in the mine. They were shown assays reporting up to 6 ounces of gold per ton from J & J Refining in Mesa, which has made them suspicious of the investment.

RRB WR 11/11/83: Tom Lisle of T.E. Lisle & Associates, Ltd. 422-470 Granville St. vancouver, B.C. V6C 1V5, was in to look at the Mercuria Mine file, Gila County. He has claims that may be interested in acquiring the property.

NJN WR 11/28/86: Clay Sourant (c) reported that he and his aunt, Nancy O'Brien (c) are now the owners of the Mercuria (file) Gila County, having inherited it from his grandfather, Dick Robbins (c) who is now deceased. Mr. Sourant, who works for Pioneer Materials, was interested in the property's mercury and decorative and building stone potential. Additionally, they would like to patent the property.

NJN WR 1/30/87: Clay Sourant (c) brought in a report on the Mercuria Mine (file) Gila County by Nick Carusso. He plans to do some sampling and put together a submittal on the property emphasizing its precious metal potential.

Do Not Reproduce

Went to Robbins Mercuria mine where the caretaker said Mr. Robbins was in Phoenix having an eye operation; the mine was down. GW WR 2/25/72

Went into Dick Robbins mercury mine where he said he had it leased to some Mesa people who had done nothing. GW WR 2/28/73

Buster Pendergast, Rt. 1, Box 31, Tolleson for mercury reduction plant information. wants a 100 TPD Gould rotary for Mercuria mines. FTJ WR 8/3/73

Mr. Pendergast, who is interested in the Mercuria mercury mine, wanted reduction information. Suggested he send for furnace information from Gordon I. Gould in San Francisco and Nichols Engineering in New York for multiple hearth furnace information. Made copies of costs and mining methods of an underground mercury mine. FTJ WR 8/8/73

Mr. L.A. "Buster" Pendergast, Rt. 1, Box 31, Tolleson, 85353, 934-4631, was in to see the file on Dick Robbins' Mercuria mine in the Sunflower District. He has hopes to operate the property for mercury. KAP Report dated 8/13/73

Mr. Pendergast, Tolleson, who has leased Mr. Robbins Hg properties NE of Sunflower, was in for advice on recovering Hg. It was suggested that, particularly in the beginning, it would be a good idea to lease the old Rattlesnake Gould type furnace nearby. He said he was having some flotation and NaS_2 tests conducted. GW WR 8/8/73

Buster Pendergast suggested he may have the Mercuria ore tested for other minerals than cinnabar. Told him a spectrographic may tell him enough for less cost than chemical analysis. FTJ WR 11/15/73

Mr. Pendergast, Tolleson, did some development and exploration work on the Marcuria mine of Dick Robbins northeast of the old Ord quicksilvermine. GW AR 73-74

Phone call from Buster Pendergast regarding Mercuria Hg mine. He had Tonto Mining & Miling Company mill a few tons and received about $1\frac{1}{2}$ oil barrels of concentrates. When concentrates were reduced in mercury furnace, he recovered about $1\frac{1}{2}$ qts. of Hg. He said he thought condenser system leaked. He is now going to try leaching copper on a small property near Wickenburg. FTJ WR 3/18/75

Reno Paus 71/2 TTN, R9E

Mercuria is idle.

At the Mercuria Richard Robbins, Payson hoped to get a test-drill program going before long. The drill crew was to be in early November. Robbins was not available at the mine or retort at the time of the late October visit. Only a very few flasks of quicksilver reportedly were produced. It is not known if the drill program materialized.

The lessee, D. J. Palmer, 130 K. McKelleps Road, Mesa and partner (Palo Verde Mining Co.) were exploring, intermittently for ore. They reportedly had very little, according to Tom Bolich of the Big Sam Mining Co., and Carlson's caretaker. They erected a small retort sometime back and this was completed in early October but has operated only briefly

early October but has operated only briefly.	
LAS Quarterly Report - 12/31/66	
Interview Richard Robbins at the Mercuria. He had just completed a drilling project which he said turned up some ore. He intends to mine and truck ore to Grimes reduction plant.	
FTJ WR 6/30/67 develop and mine the Mercur	cia
Mr. Nick Carouso is obtaining finances to explore, develop and mine the Mercur mercury property.	
It is reported that only minor development work, and assessment work is being being done at the mercury mines in the area. They specifically mentioned the Mercuria mine being operated by Mr. Richard Robbins. Mr. Caruso is hopeful of soon getting the Mercuria back into production.	a ng
CLH WR Payson trip report 2/27/68	
Mr. Nick Caruso, P.O. Box 579, Payson, Arizona 85541 and a consulting partner have been working on a flotation process to concentrate the cinnabar ore at the Mercuria Mine in the Mazatazal Mountains near Sunflower.	
CLH WR 4/13/68	
Some development work was done at the Mercuria Mercury Mine in the Mazatzal Mountains. Experimental work is being done on a flotation process to concentrate the cinnabar ore.	
CLH Quarterly Report 4/1968	
Visited Mercuria Mine. Gate locked with a sign on it "Sold". FTJ WR 6/27/69	
Visited Mercuria Mine gate closed. Mrs. Robbins said Dixilyn Corp. is negotiating for the Mercuria. (FTJ WR 10/31/69)	
Mercuria is idle. FTJ WR 2/27/70	

MERCURIA MINE

DoNot Reproduce

GILA COUNTY SUNFLOWER DISTRICT

Conference with Mrs. Richard Robbins, in Payson 10/28/65

Mrs. Robbins said that Dick Robbins and Oliver Brunson are further sinking the winze that was started some years ago. This is about 200 feet in the main adit and follows a promising zone of good ore. The area above the winze is partially stoped. So far the winze muck has run 6-8 pounds at Hg and is being retorted.

Mrs. Robbins also said that Thompson had not done any of the required development work, stipulated in the option, so was out. The last retorting results were good. The winze will be sunk to considerably great/depth eventually.

MEMO LAS 10/28/65

Conference with Mrs. Richard Robbins, 2/23/66, at Payson.

According to Mrs. Robbins, Richard and Oliver Brunson were doing some retorting and had ceased underground work because of heavy ground caused by the heavy rains. They are preparing to open up a rhyolite blowout near and above the tunnel portal, that they believe contains fair ore. This was recently uncovered with a cat. The retorts according to Mrs. Robbins, produces about 14 lbs. per run and about a flask, or a little more, per week, when worked steadily. Extraction is good although the ore requires considerable lime in its treatment. The grade of the rhyolite ore is not yet certain nor is the extent of the blow-out known as yet.

An attempt to reach the mine was foiled by wet road from the Pine Mountain road to the Mercuria.

MEMO LAS 2/23/66 _____

Visit and Conference with Richard Robbins 6/29/66

A new prospect tunnel has been driven to intersect a rhyolite-porphyry-schist transverse fault contact near the camp. The tunnel is in 80 feet and now is beginning to hit a little Hg mineralization. They hope to find a lens at about 100 feet. Little production has been had during the second quarter. Other than the tunnel considerable bulldozer trenching was done between the camp and the Mercuria Mine, not much was seen in the cuts, but there were a few iron-stained zones that might bear some further looking.

Memot LAS 6/29/66

Visit and conference with James Popovich

No one was at the mine, but evidence of recent activity was evident. Later it was
learned from Popovich that Richard Robbins, owner, and some outsiders were preparing
to do some exploration drilling. Since no contact was made with Robbins, this
will have to be verified later on. Previously Oliver Brunson and Robbins were driving
a tunnel toward a contact with a rhyolite dike.

MEMO - LAS - 10--2566

MERCURIA MINE & RETORT

Do Not Reproduce

SUNFLOWER DISTRICT GILA COUNTY

Interview with Mrs. Richard Robbins, Payson

Mrs. Robbins said that they had been to the Mercuria Mine two weeks ago. The new retort has a capacity of about 3,000 to 4,000 pounds of ore per day and it so far has been run only for tests. Some difficulty with the firing jet had to be resolved, otherwise it appears to be doing well. The ore that was tested, is reported to run about 7-8 pounds per ton. The Mercuria ore contains considerable native mercury and as well as calamel and cinnabar. Therefore, it has to be mined with care in order to prevent loss of the native mercury. Reserves are reported to be appreciable.

Hugh Nichols and Oliver Bronson have a lease on the Mercuria from Richard Robbins.

MEMO LEWIS A. SMITH 6/27/63

Interview with C. O. Carlson, 10/7/63.

dature 1963 - 3 mm working

Carlson said that Oliver Brunson and Hugh Nichols were still ironing out "bugs" in their 2-ton retort, and that they had uncovered some very good ore.

MEMO LAS 10/7/63.

Conference with Mrs. Robbins, Payson 2/27/64

Mrs. Robbins said that Hugh Nichols and Oliver Brunson had not renewed their lease, on the Mercuria Mine. The lease terminated Jan. 1, 1964. They had no funds to continue. Richard Robbins, Payson, owns the mine.

MEMO LAS 2/27/64

5 Pointe Mining Co. repetedly have the nice the property = P. Mr. Brunen sprating is for the same Co. . MERCURIA GROUP

Do Not Reproduce

MARICOPA COUNTY SUNFLOWER DIST.

A postcard from Bill Grimes (Sunflower Dist, Maricopa-Gila Counties) indicated that the Pine Mountain, Little Daisy, Mercuria and Onieda mines and the Rattlesnake and Onieda mills are active in the Sunflower area. All of these operations are periodic.

LEWIS A. SMITH, Weekly Report - 9-30-60

MEMO

MERCURIA MINE

SUNFLOWER DIST.

Interview with Gordon Grimes.

Mr. Grimes stated that development work was continuing. He said that they had driven a drift around a caved area and had eventually encountered some very good ore. They sunk a winze in this shoot for 40 feet and, since it was still in ore, they were going to go down further.

Lewis A. Smith, 10-5-61

Mr. Bronson stated that Hugh Nichols and Oliver Bronson (his brother) were still doing development work at the Mercuria. He also stated that they, with Richard Robbins (owner) were well backed. They have developed some good ore which runs well in native mercury, after having reentered the old Mercuria workings. The Rattlesnake mill will probably handle some of this. Dick Robbins was not at home in Payson for further comment.

Memo - Lewis A. Smith - 2-7-62 - Interview with William Bronson.

Mr. Robbins stated that development work is continuing at the Mercuria Mine with satisfactory results. The ore contains a large percentage of native mercury.

Conference with Dick Robbins, Payson - 6-6-62. - Lewis A. Smith Active 10-62 3 men working

Gordon Grimes said that Hugh Nichols, of Globe, leased and optioned the Mercuria and was planning the erection of a retort. Oliver Brunson and he are working there. This was varified by others. The past two years of exploration had developed some reserves of good ore.

Interview with Gordon Grimes at Rattlesnake Mill

MEMO- Lewis A. Smith 2-27-63

MERCURIA GROUP

MARICOPA COUNTY SUNFLOWER DIST.

Pine Mountain and Mercuria are owned by George Cline of Tonto Basin.

LEWIS A. SMITH Wr - 6-11-59

The Mercuria Group is entirely owned by Richard (Dick) Robbins of Payson. Active.

LEWIS A. SMITH Memo 10-13-59

Three men are working development and clean up at the Mercuria, owned by Dick Robbins of Payson. According to Robbins the old workings are in bad shape in places. He hopes to discover new ore areas.

LEWIS A. SMITH CF - Sunflower - 10-7-59

MARICOPA COUNTY SUNFLOWER DIST.

Colonado

According to MINING YEAR BOOK 1958" the WESTMINISTER CORPORATION purchased the MERCURIA MERCURY PROPERTY in 1957. (Westminister Corp., Denver, Colo.)

See: "MERCURY DEPOSITS IN GILA COUNTY" (In Geology Reports file)

See: "QUICKSILVER (Mercury) RESOURCES OF ARIZ."
Arizona Bureau of Mines Bulletin 122, p 93

ARIZ. Republis

Sunday. October 27. 1957_

INFORMATION FOR FILES

FROM: JOHN H. JETT, DIRECTOR

Date: June 10, 1983

The following information was obtained from Jim Matt, State Mine Inspector's Office.

01.

Mr. Robbins, owner of Mercuria Mine (Gila County) is no longer alive. The mine is being worked by a Mr. Mel Spragere, Box 493, Payson, Arizona, under a company name of West Ventures, Ltd. (a limited partnership). He is working the mine for gold. Surface material is being fed into a crusher then a grinder, then tabled. The grinder (?) appears to be a piece of thick wall pipe about 8" in diameter and $2\frac{1}{2}$ ft. long. It stands vertical and a shaft goes through the pipe. There are three "fins" spaced equally along the shaft. There is about a 3/8 clearance between the fin and the inner wall of the pipe. There is a side discharge with a screen of 100 mesh over the discharge exit from the pipe. The pipe has steel shot within the cylinder. It is operated at a very high RPM, with a 50 HP motor.

Only one assayer has been able to report any gold. Mr. Spragere stated this resulted from the other assayers using the fire method.

Mr. Matt also reported that Bob Ross and Floyd Bleak (sp?) have sold the Zulu (unconfirmed as yet).

Pad aff

DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mercuria Mine Mine

6/23/65 Date

District Sunflower Dist. Gila County

Lewis A. Smith Engineer

Subject: Visit and Conference with Oliver Brunson and Frank Thompson 6/23/65

The Mercuria is being operated by Frank K. Thompson, Morgan Hill, Calif. (near the New Almaden Quicksilver Mine) and Oliver Brunson, under an option from Richard Robbins, Payson, owner.

At present 6 men, including Thompson, are mining and retorting 3 tons per day. The head grade is about 7-8 pounds per ton. The ore is being extracted from a small open pit about 100 feet above the "Main" adit portal. The retort is at the adit elevation. The ore consists of thin bedded white to light gray, sericitic schist, impregnated by cinnabar, a small amount of native mercury, and probably some mercury chlorides. It borders a rhyolite blow out. The ore is reduced to minus two inches in a crusher and then is charged into 6 cylindrical retorts that are 12 inches in diameter and 12 feet long. They are in a battery mounted in a fire box constructed of fire brick in a similar manner to the mounting of boilers. Heat is applied to the outside of the retorts and is said to average 800 deg. F. and this heats the retorts to a cherry-red heat. The overall firing box is about 15 feet long, 9-10 feet high, and 12 feet deep. The retorts are pitched at 10-15 deg. Each retort holds $\frac{1}{4}$ ton, the heat length is 6 hours, each charge being $1\frac{1}{2}$ tons. Two charges are made daily making a 12-hour run of 3 tons. On 6/22/65, according to Thompson the 3 tons yielded 20.5 lbs. of Hg. or close to 7 lb. per ton, showing a good extraction. However, with such a small tonnage Thompson does believe he can make much profit. He therefore hopes to install a concentrating plant so as to reduce the volume of feed to his retorts, and also desires to increase the number of retorts. The gas from the retorts is taken out at the upper end and conveyed to water condensation vats. The gas is free of dust. Acidity due to sulphur is reduced by using CaO flux in the retorts. The Main adit is partially blocked by old stoping at the ore zone where spilling is believed necessary to reopen the area. It was suggested that it might be better to drive a drift around this area. Oliver Brunson said that some very good ore was cut off. This was also verified by Tom Bolich, he also worked here. Thompson stated that a wide rhyolite dike crossed the schist, just west of the mine camp, about $\frac{1}{2}$ mile W of the mine. This was generally sampled and ran $1\frac{1}{2}$ to 3 lbs of Hg to the ton. It was felt that rhyolite-schist contacts should also be prospected.

Carlson stated that the Mercuria, Pine Mountain and National were operating. Thompson, Morgan City, California, who had been operating the Mercuria, did not fulfill the option terms, and is out. Carlson said he heard that Richard Robbins and Oliver Brunson would work the property for the time being. Lothmannn & Bysart of Albuquerque who had been exploring the Saddle Mtn. Mine are doing nothing and Carlson was unable to contact them.

LAS WR 9/7/65

DEPARTMENT OF MINERA. RESOURCES STATE OF ARIZONA FIELD ENGINEERS REPORT

Mine Mercuria Mine

Date February 8, 1961

District Sunflower Dist., Maricopa Co.

Engineer Lewis A. Smith

Subject: Interview with Gordon Grimes

Recent work has been carried out by Oliver Brunson and two men. A drift is being driven around caved workings. Some very good ore was encountered recently at the face and in the drift floor. It is planned to continue the drift into the old Mercuria working where considerable ore still remains. When the drift is finished a winze on the new ore showing will be sunk. Oliver Brunson and Herb Nicols are now negotiating with Dick Robins for a lease option deal by which the two men could acquire the property. According to Grimes, Brunson & Nicols plan to erect a retorting plant, if ore development proves sufficient to warrant one. In the meantime the Rattlesnake Mill will handle the ore if desired by them.

DEPARTMENT OF MINERAL STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mercuria Group Mine

Date

February 3, 1960

SUNFLOWER DIST., Maricopa County District

Engineer

Lewis A. Smith

Subject:

Gordon Grimes stated that Dick Robbins of Payson, had leased the Mercuria to Oliver Brunson and Gus Packard of Tonto Basin. Brunson has repaired the main adit and now is into some of the old workings. They found that the drifts and old stopes were in bad shape and would require considerable work to place them in proper condition to work. Some ore has been sighted in this area. Grimes believes he has a new zone, as indicated by a strong concentration of typical orange limonite, which may develop. He will test this soon.

DEPARTMENT OF MINERA RESOURCES

FIELD ENGINEERS REPORT

Mine Mercuria Mine

Date

October 5, 1960

District S

Sunflower District, Maricopa-Gila Co.

Engineer

Lewis A. Smith

Subject: Interview with Dick Robbins, owner, at Payson.

Mr. Robbins stated that Oliver Brunson and Hugh Nichols of Tonto Basin, were leasing the Mercuria. They are sinking a shaft, near the old winze (now inacessible) which is calculated to give access to the older workings. The shaft is now down to 40 feet and at 50-55 feet a crosscut will be driven to connect with an old 207 foot tunnel. This should not be far, according to Robbins. Two drill holes were once sunk, but no core was obtained. The holes were sunk to 60 and 230 feet respectively. Ore was struck at 100 feet in the deeper hole, indicating 130 feet or more of ore depth. The ore was estimated at 4-8 pounds per ton. The equipment consists of a Waugh hoist and 800 pound bucket. The mineralized zone has been traced for 5000 feet over a width of 100 feet. The grade of this zone fluctuates considerably. A 160 foot shaft, which once connected with the adit is now inacessible. The old stopes have some 7-8 foot (diameter) pillars of good ore. These pillars are 100 feet high. Mr. Robbins said he could not say as to whether the pillars are still intact as it has been several years since he had seen them. The present work is calculated to find this out.

Grifsif
Reynolds

90 Sa Robbins

IN H 5-8 711

funtadale

MERCURIA QUICKSILVER

Location: One mile south of Pine Mountain, 80 miles northeast of Phoenix.

Samples	
No. 1	Face of east drift - 3'.
No. 2	Top of east drift - 10'from face - 3'.
No. 3	Face of west drift - 20' west of raise - 5'.
No. 4	West face on 100' level - 5'.
No. 5	East face of stope above 100' level - 4'.
No. 6	East stope above 100' level.
No. 7	30' above lower level - 3'.
No. 8	East of main tunnel on floor - 4.
No. 9	West of main tunnel on floor - 4.
No. 10	70° east of shaft on apex of vein.

September 18, 1945

Mr. Arthur Bowen Dallas, Texas

Dear Arthurs

Ed Sweeney came in this morning and showed me your wire inquiring about the Reynolds quicksilver mine in the Mazetzels.

We do not have any detailed reports on this mine in the office but do know it very well by reputation. It has been spoken of for many years as among the very best of the quicksilver prospects in that vicinity, or in fact in Arizona.

Lausen's A.B.M. report in 1926 mentions it as an outstanding prospect. We understand that subsequent developments have well proven these theories.

It seems that in this instance there is a large intrusive plug, and that the contact of this plug with the country rock on the south side had produced a vein of ore averaging about four feet wide with proven values around 20 pounds (1.0%) in mercury. Development by shaft (140*) and tunnel cutting the vein at 140 feet have proven an ore shoot of considerable length and the above size and value.

Nothing has been done below this or around the rest of the perimiter of the plug, which appears to have equal possibilities. No doubt some simple dismond drilling would prove the situation easily and quickly.

It looks very good, and I plan in the near future to have our field engineer make a more detailed examination.

In the meantime I can only say that it is well worth investigation.

We would be very glad to cooperate with any of your friends who might care to consider it.

Yours very truly.

Chas. H. Dunning Director

WILKINSON ASSAYS

CERTIFICATION REPORT

PHONE (714) 823-4607 8849 SIERRA AVENUE, FONTANA, CALIFORNIA 92335 • **SINCE 1967** PRODUCER OF 999.7 GOLD METALLURGIST REFINER CHEMIST VALUE PER TON OZS. PER TON GRAMS PER TON WEIGHT USED DATE PRICE PER OZ. CHARGE CHEM + FIRE 107, 5/31/89 \$ 519 5.4 90,43 0 5,00 GOLD 0 412.80 SILVER 5.00 COPPER LEAD 36.00 Ħ 4558 0 2,0 **PLATINUM** 10,00 IRIDIUM RHODIUM PALLADIUM

DICK NobbiAS
Submitted by

TUNGSTEN URANIUM

> NO NAME Sample

Duan Wilkinson Assayer

Assay based on specimens left at lab, only

way based on specimens left at lab. only

PA-

Based on assay ton of 2,000 lbs.

Based on assay ton of 2,000 lbs. Thanks

WILKINSON ASSAYS

CERTIFICATION REPORT

8849 SIERRA AVENUE, FONTANA, CALIFORNIA 92335 • SINCE 1967 • PHONE (714) 823-4607
ASSAYER • CHEMIST • METALLURGIST • REFINER • PRODUCER OF 999.7 GOLD

CHEM)- FIRE	CHARGE	WEIGHT USED	DATE	PRICE PER OZ.	OZS. PER TON	GRAMS PER TON	VALUE PER TON
GOLD	4.00	107,	5/10/19	#348	J	8,4	# 67,44
SILVER	1.00	LL.	L'II	\$8.17		1,1	. 38
COPPER						8	
LEAD			·				
PLATINUM			1			<u> </u>	
IRIDIUM			- 4		youha	FMICRO	MGOLDI
RHODIUM					1.		
PALLADIUM		¥					
TUNGSTEN	1			1	<u> </u>	<u>, </u>	-
URANIUM			1		<u> </u>	<u> </u>	
Dicker	in la !	611	MICH	CHAIA	WUNT_	Duane U	lilkinson
Si	bmitted	by	į.	Samile	•	ASSA	yoi

WILKINSON ASSAYS

CERTIFICATION REPORT

8849 SIERRA AVENUE, FONTANA, CALIFORNIA 92335 • SINCE 1967 • PHONE (714) 823-4607

ASSAYER • CHEMIST • METALLURGIST • REFINER • PRODUCER OF 999.7 GOLD

CHEM FIRE	CHARGE	WEIGHT USED	DATE	PRICE PER OZ.	OZS. PER TON	GRAMS PER TON	VALUE PER TON
GOLD	5,00	107,	5 रा १०	\$519	0	5,4	\$ 90,43
SILVER	5.00	+1	11	412,80	0	1.3	,53
COPPER		9					
LEAD							
PLATINUM	10.00	11	· M	\$ 558.	0	2,0	\$ 36.00
IRIDIUM							
RHODIUM	-						
PALLADIUM				/			
TUNGSTEN							
URANIUM							
Dick su	bmitted			NO NA. Sample	ME	Duan Assay	ullkinner
	Assav ba	sed on specimens	left at lab. o	niv •	Based on assay to	n of 2 000 lbs	

WILKINSON ASSAYS

CERTIFICATION REPORT

8849 SIERRA	A AV	ENUE, FONT	ANA,	CALIFORNIA 92335	•	SINCE 1	967	•	PHONE	(714)	823-460
ASSAYER	•	CHEMIST	•	METALLURGIST	•	REFINER	•	PRO	DUCER	OF 999	.7 GOLD

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
CHEM - FIRE	CHARGE	WEIGHT USED	DATE	PRICE PER OZ.	OZS. PER TON	GRAMS PER TON	VALUE PER TON
GOLD	4.00	107	5/10/19	\$248.	1	8,4	4 67,44
SILVER	1.00	Ш		\$8.17		1.1	`. a &
COPPER							
LEAD				1			
PLATINUM						e	
IRIDIUM					you has	FMICRO	M GOLD.
RHODIUM	1 :				1.		
PALLADIUM			,			ine.	
TUNGSTEN		,			·	x (
URANIUM			17/3		1. 1.		
hie was	Sim la F	sh so to	MER	CHATA	MINT	Duane U	lilkimon
Dick	bmitted	by /	7	Samue		Assay	/er

Based on assay ton of 2,000 lbs. Thanks

June 24, 1946,

CHAS. A. DIEHL AGGAY

815 North First Street

This Certifies That samples submitted for assay by Dep't of Mineral Resources, ntain as follows per ton of 2000 lbs. Avoir. Phone 3-4001 P. O. Box 1148

				MARKS
		## ##	04 10 10 to C	F
	49			Ounces Ten
				th:
				-
				<u>, </u>
				Ounces Hundths
			6. q	-
				11
		- 14		Of Gold and Silver
				11
		588	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	MERCU
•••				TRY
				-
				Z P S S Z Z Z Z
				- 11

Charges 8 25,00

Assayer ARIZONA ASSAY OFFICE

MERCURIA QUICKSILVER

Location: One mile south of Pine Mountain, 80 miles northeast of Phoenix.

Samples	
No. 1	Face of east drift - 31.
No. 2	Top of east drift - 10 from face - 3.
No. 3	Face of west drift - 20' west of raise - 5'
No. 4	West face on 100* level - 5*.
No. 5	East face of stope above 100° level - 4°.
No. 6	East stope above 100' level.
No. 7	30* above lower level - 3*.
No. 8	East of main tunnel on floor - 41.
No. 9	West of main tunnel on floor - 4.
No. 10	70° east of shaft on apex of vein.

November 19, 1945

Mr. William Reynolds Sunflower, Arizona

Dear Mr. Reynolds:

I just wanted to tell you that I enjoyed and appreciated the inspection of your Mercuria Mine a short while ago.

While I did not look this over with the point of view of making a report or getting down to exact data, my impression was that it was a prospect of unusual merit.

I say this because it has the geological make up that would lead one to believe he might find just the things that your development work did find.

By this I mean that primarily you have a large intrusive mineralizing perphyry plug in a district where quicksilver is prevalent. Around the contact of this plug with the neighboring schist there appears to be a mineralization of mercury in the schist. Your crosscut tunnel that cut this contact at a depth, as I recall, of 140 feet showed a contact zone some four to seven feet wide of commercial mercury ore.

I would not hesitate to advise anyone to further examine, explore or develop this condition or property.

Thank you again for the opportunity of looking at one so really good.

Yours sincerely,

Chas. H. Dunning Director

CHD: LP

CC: Mr. Ed Sweeney

C

P

Department of Mineral Resources State of Arizona 304 Arizona Title Building Phoenix, Arizona

November 19, 1945

Mr. William Reynolds Sunflower, Arizona

Dear Mr. Reynolds:

I just wanted to tell you that I enjoyed and appreciated the inspection of your Mercuria Mine a short while ago.

While I did not look this over with the point of view of making a report or getting down to exact data, my impression was that it was a prospect of unusual merit.

I say this because it has the geological make up that would lead one to believe he might find just the things that your development work did find.

By this I mean that primarily you have a large intrusive mineralizing porphyry plug in a district where quicksilver is prevalent. Around the contact of this plug with the neighboring schist there appears to be a mineralization of mercury in the schist. Your crosscut tunnel that cut this contact at a depth, as I recall, of 140 feet showed a contact zone some four to seven feet wide of commercial mercury ore.

I would not hesitate to advise anyone to further examine, explore or develop this condition or property.

Thank you again for the opportunity of looking at one so really good.

Yours sincerely,

/s/ Chas. H. Dunning

Chas. H. Dunning Director

C

P

Department of Mineral Resources State of Arizona 304 Arizona Title Building Phoenix, Arizona

November 19, 1945

Mr. William Reynolds Sunflower, Arizona

Dear Mr. Reynolds:

I just wanted to tell you that I enjoyed and appreciated the inspection of your Mercuria Mine a short while ago.

While I did not look this over with the point of view of making a report or getting down to exact data, my impression was that it was a prospect of unusual merit.

I say this because it has the geological make up that would lead one to believe he might find just the things that your development work did find.

By this I mean that primarily you have a large intrusive mineralizing porphyry plug in a district where quicksilver is prevalent. Around the contact of this plug with the neighboring schist there appears to be a mineralization of mercury in the schist. Your crosscut tunnel that cut this contact at a depth, as I recall, of 140 feet showed a contact zone some four to seven feet wide of commercial mercury ore.

I would not hesitate to advise anyone to further examine, explore or develop this condition or property.

Thank you again for the opportunity of looking at one so really good.

Yours sincerely,

/s/ Chas. H. Dunning

Chas. H. Dunning Director

413 Home Builders Bldg.

June 17, 1942

Mr. Robert G. Lord 6238 DeLongpre Avenue Hollywood, California

Dear Mr. Lord:

Many thanks for your letter of June 9; and I look forward to seeing you again in Phoenix shortly as you say.

Regarding the Reynolds Mercuria mine, I am unable to give you any specific information. I understand, however, from rumors,

that the property is still in the hands of Mr. Raynolds and that the people who had a lease are no longer operating. I believe the

property is now open for negotiations, and understand that Mr. Reynolds is with the mine at the present time.

Yours very truly,

J. S. Coupal, Director

JSC:GS

DEPT. MINESAN DESCRIPTION OF THE PROPERTY ARIZONA

ROBERT G.LORD 6238 De Longpre HOLLYWOOD, CAL.

June 9th, 1942.

Mr.J.S.Coupal, Director.
Dept. of Mineral Resources
Capitol Building
Phoenix, Arizona.

My dear Mr.Coupal:-

It has been many moons since I have laid eyes upon you, but I am hoping that it will not be much longer. In other words, I am contemplating a trip to Phoenix VERY soon.

As you will recall, I have been interested in Reynold's Mercuria Mercury Mine. In fact, my partner, Omer Supple, had some people there who bought it OR rather started out to buy it, but there was a great deal of internal trouble and NOW I don't know WHAT the condition of affairs are relative to the mine.

Will you inform me(confidentially) what might be the present situation at that mine. I am presuming that you hear from time to time relative to most of the mining activities of the state; particularly in your county.

I would like to know if they are operating and who are at present interested in it. It may be that the mine reverted to Reynolds on account of lack of money on the part of those who did put SOME money in it.

Will consider it more than a mere favor if you will give me any information as to the conditions there NOW.

I want to treat my communication to you on a confidential way, for the time being. Will be in to see you when I reach Phoenix — which will be soon, I believe.

with my best personal wishes to you I beg to remain, Sinceraly yours,

DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA

OWNERS MINE REPORT

Cunata

Mercuria Sunflower District

Former name

Owner / W. Reynotels V

Operator

President

Mine Supt.

Principal Metals

Production Rate

Power: Amt. & Type

Operations: Present

Location Magazal Morth of Mr. Chaf. Address Peyson amone

Date

Address

Gen. Mgr.

Mill Supt.

Men Employed

Mill: Type & Cap.

Operations Planned

Number Claims, Title, etc.

Five, Mercuria

Description: Topog. & Geog. Lee Beneau of Mins.

one hundred foot

Mine Workings: Amt. & Condition

with 75 ft cross out.

Geology & Mineralization

Lee Buseau of drouptwin.

Ore: Positive & Probable, Ore Dumps, Tailings

Mine, Mill Equipment & Flow Sheet

Road Conditions, Route

Bush Highway 3 miles Junflower sanger Station

Water Supply

Brief History

Special Problems, Reports Filed

Remarks

If property for sale: Price, terms and address to negotiate.

Layrold for details

Use additional sheets if necessary.

MM-31

DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA OWNERS MINE REPORT

Date

Mine

Mercuria

District

Sunflower

Location Mazarzal North of Mt. Ord

Former name

Owner

Wm. Reynolds

Address Payson, Arizona

Operator

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Cinnabar

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present

MERCURIA

Hg

Maricopa

7 - 2

T7N.R9E

Operations Planned

Wm. Reynolds, Box 364, Scottsdale

145

Number Claims, Title, etc. Five, Mercuria

Description: Topog. & Geog.

See Bureau of Mines description

Mine Workings: Amt. & Condition

One hundred foot shaft with 75 ft. crosscut.

Passes in. Sermoids for details

Ore: Positive & Probable, Ore Dumps, Tailings

Mine, Mill Equipment & Flow Sheet

Road Conditions, Route Off Bush Highway 3 miles north of Sunflower ranger station

Water Supply Good

Brief History

Special Problems, Reports Filed

Remarks

If property for sale: Price, terms and address to negotiate.

Property is for sale - contact Mr. Reynolds for details

. O BE LETT FLABAR FOR CONTINUE OF SECTIONS

Signed Bill Reynolds

Per Jos. Akren

-: ...MM-32

DEPARTMENT OF MINERAL RESOURCES MINE OWNER'S REPORT

Date

6. Address (Owner)

8. Address (Operator)

15. Production Rate

16. Mill: Type & Cap.

17. Power: Amt. & Type

9A. President, Operating Co.

14. Principal Minerals Cinnabar

Mercuria Mine

2. Location Mazatzal North of Mt. Ord.

Payson, Arizona

Mining District & County Sunflower

Former name

Owner

Wm. Reynolds

Operator

President, Owning Co.

Gen. Mgr.

Mine Supt.

Mill Supt.

Men Employed

Operations: Present

. Operations: Planned

. Number Claims, Title, etc.

Five, Mercuria

. Description: Topography & Geography

See Bureau of Mines description.

2. Mine Workings: Amt. & Condition

One hundred foot shaft with 75 ft. crosscut.

Dre: Positive & Probable, Ore Dumps, Tailings

Dimensions and Value of Ore body

Mine, Mill Equipment & Flow-Sheet

Road Conditions, Route

Off Bush Highway 3 miles north of Sunflower ranger station.

Water Supply

Good

Brief History

Special Problems, Reports Filed

Remarks

If property for sale: Price, terms and address to negotiate.

Property is for sale--contact Mr. Reynolds for details.

32. Signature (Signed) Bill Reynolds Per Jos. Akren

Use additional sheets if necessary.

PRELIMINARY EXAMINATION

MERCURIA MINE (†)

GILA COUNTY, ARIZONA

TABLE OF CONTENTS

	•	Pag
INTRODUCTION		1
CONCLUSIONS AND RECOMMENDATIONS	• •	. 1
LOCATION AND DESCRIPTION		1
SURROUNDING PROPERTIES	1	2
OWNERSHIP		2
GEOLOGY		``3
MINERALIZATION		3
POTENTIAL ORE RESERVE .		4
HISTORY OF DEVELOPMENT		4
GEOPHYSICAL SURVEY		5
DRILLING AND EXPLORATION DEVELOPMENT		5
ORE TREATMENT		5
ETMANCIAI DEGUIDONENT		6

INTRODUCTION

The Mercuria mine group is being examined, by Mr. N. II. Carouso, with two basic evaluation criteria in mind; one, the ore potential, in order of magnitude; and two, the metallurgical requirements for ore treatment.

An attempt will be made to correlate known data from nearby mercury properties with the data compiled during this preliminary examination of the Mercuria group.

II

CONCLUSIONS AND RECOMMENDATIONS

The property offers a very favorable target area for evaluation by the Induced Polarization geophysical method, and has the potential of being a moderately sized mercury producer.

Laboratory testing indicates the ore can be successfully treated by the flotation method. This produces a concentrate that can be treated by conventional pyrometallurgical method or by more efficient chemical reduction and refining methods.

The exploration program should be designed in two phases. Phase I, would be the geophysical survey by the Induced Polarization method, and should indicate the extent of continuity and depth of mineralization. This phase could also include a ground magnetic survey, because of the associated magnetite in the ore. Phase II, would include drilling, both from surface and underground, some bulldozing and underground development necessary to test and correlate all favorable geophysical anomalies and to determine the magnitude of proved ore reserves.

The financial requirement for Phase I, should not exceed \$3500. Phase II, would be dependent on the outcome of Phase I, however, a realistic estimate to accomplish both phases would require a budget of \$25,000.

III

LOCATION AND DESCRIPTION

The Mercuria group of 13 contiguous unpatented mining claims is situated in the Sunflower Mining District, Gila County, Arizona, an unsurveyed area, approximately 55 miles northeast of Phoenix. The area is accessible from Phoenix, via State Highway 87, then by approximately

4 miles of graded dirt road. Snow and rain, during January, sometimes renders the dirt road hazardous to vehicular travel.

The mine camp facilities include 2 cabins, 1 permanent tent structure, kitchen and shower. Springs in the area presently supply ample water for camp use. Water development potential is favorable for a milling operation.

Elevations on the property average about 5000 feet. The terrain is mountainous and is transected by steep, youthful canyons. However, access to and travel within the area is easily accomplished due to a well developed system of roads.

SURROUNDING PROPERTIES

In the general area, sporadic production has come from four other mercury mines. They are the Ord mine, 2½ miles southeast; The Rattlesnake mine, 2 miles southeast; the Pine Mountain mine, 4/5 mile northwest; and the Sunflower mine, 3½ miles southwest. These surrounding properties all have essentially the same approximate strike and dip of the formations and the mineralization is comparable.

Geographically, therefore, the Mercuria group occupies a very favorable, center of activity, position.

. IV OWNERSHIP

The Mercuria group of 13 contiguous unpatented lode mining claims situated in the Sunflower Mining District, Gila County, Arizona, an unsurveyed area, is owned by C. R. Robbins and Delsie D. Robbins, husband and wife, and Renec Lee Adams, a divorced woman, with Delsie D. Robbins her Attorney in Fact, are recorded in the office of the County Recorder of Gila County, Arizona, as follows:

Name of Claim	Docket	Page
Delano No. 1	46	465
Delano No. 2	46	466
Delano No. 3	46	467
Delano No. 4	46	468
Delano No. 5	46	469
Mercuria No. 1	39	225
Mercuria No. 2	. 39	226
Mercuria No. 3	39	227
Mercuria No. 4	39	228
Mercuria No. 5	.39	229
Mercuria No. 6	39	535
Mercuria No. 7	39	536
Mercuria No. 8	39	537

The claims are valid mining claims with annual assessment work performed and recorded.

V

GEOLOGY

The area is composed dominantly of a thick sequence of metamorphosed shale, grit, sandstone, and conglomerate that are assigned to the Alder group of the Precambrian Yavapai series. In the Mercuria mine area the Alder group is composed mainly of fine-grained shaly units, which have been metamorphosed predominantly to phyllite and locally to schist.

The region was covered by extensive volcanic flows during Tertiary and Quaternary time, but subsequent erosion has, over most of the area, re-exposed the Precambrian rocks.

Rhyolitic rocks, some massive and blocky and others porphyritic to felsitic in texture, all somewhat schistose, are observed in the area.

A mafic dike, with dark-brown weathered surface exposure, tentatively named basalt, trends northerly along the eastern margin of the Mercuria group.

The regional strike of the rock units, on the property, is N 55° E, and the dip averages about 60° NW., however, the dip steepens locally and some beds are almost vertical. Foliation is nearly parallel to the bedding in most places.

The rocks have undergone considerable deformation as indicated by the crumpled nature of the phyllite, and by inconspicuous faults and shear zones that are parallel to the foliation. These faults and shear zones are important structural features because of the influence they no doubt have had on the control of ore deposition.

MINERALIZATION

Mercury mineralization occurs quite predominantly in the sericite schist. Sericitization of the schist and deposition of mercury mineralization are probably closely related. Cinnabar (HgS), is the main mercury ore mineral present.

In the surface deposits, very fine-grained cinnabar is disseminated through the scricite schist, and it is expected that the average grade would run about 4 pounds mercury per ton. Underground, higher grade coarser grained cinnabar mineralization is found more often in shear zones and embedded in quartz veins.

The areal extent of known mineralization at this property is quite extensive, approximately 6000 feet east-west and 2000 feet north-south. Within this area, there exists the potential of developing milling ore both from surface and underground mining.

POTENTIAL ORE RESERVE

Eased on surface and underground showings of mercury mineralization, the writer estimates a minimum ore potential of approximately 1,500,000 tons of possible average 4 pounds per ton mercury ore. With a very conservative estimate of \$2.00 per pound mercury net profit, the property should produce a minimum net profit of \$12,000,000, during its productive life.

VI

HISTORY OF DEVELOPMENT

This property had its greatest development and production effort during the 1940's and early 1950's. However, during the past ten years or so, it has been prospected and developed to a limited extent. The interested parties, it has been reported, all had agreed that a reduction facility should be constructed on the property, however, except for small capacity, batch-type retorts, this was never accomplished.

It appears obvious to the writer, during this preliminary examination, that the property warrants a reduction plant, due to the potential ore observed.

In the past year, quite extensive road building and contour cutting has been accomplished, which has exposed previously unknown mercury mineralization. Also, wagon drilling, has proved that the ore persists at depth. A rock chip sampling program, both surface and underground, with the samples tested by the Willemite screen method, and recorded as "G" (good), "F" (fair), "T" (trace), and "O" (none), was conducted recently and the results were spray painted at the sample sites. No matter how crude this method may sound, it does offer a reliable semi-quantitative indication of mercury mineralization.

There is approximately 1200 feet of underground development at this property.

VTT

GEOPHYSICAL SURVEY

It has been observed that the higher grade mercury mineralization is associated with disseminated pyrite and some magnetite. Because of the associated pyrite, it is felt that an Induced Polarization geophysical survey should generate significant data to effectively design a drilling program.

The Induced Polarization geophysical survey could be completed in approximately 10 days, for an expenditure of approximately \$3000.

The magnetite observed with the ore could also give significant exploration data by performing a ground magnetic survey. This survey could be accomplished for an expenditure of approximately \$500.

VIII

DRILLING AND EXPLORATION DEVELOPMENT

Depending on the geophysical survey data, drilling could be initiated to correlate geophysical data with drill hole samples.

Choice of drilling method would be core drilling, as it is believed that the most reliable information would be obtained. Regardless of the drilling method used, much care must be taken to assure reliable sampling in this type of formations.

Bulldozing to prepare drill sites and to uncover near surface indications, would be required. Also some underground work to secure areas for drilling would be required.

IX

ORE TREATMENT

The grade of mercury ore expected from near surface mining will probably average about 4 pounds of mercury per ton of ore. It can be expected that deeper ores will be higher grade, however, with resultant higher cost of mining.

Previous operations at this property and the other mercury properties in this district, have all relied on the pyrometallurgical method of roasting the ore to extract the mercury from the cinnabar mineral. The writer feels that this method of extraction is economically unfeasible for the average grade of ore found in this district. There must be some validity in this opinion, because at present, even

with a favorable mercury price, none of the properties are in operation.

A realistic approach to this situation is to first concentrate the cinnabar mineral by flotation and then treat the concentrate by chemical reduction and refining. The final product would be of high purity and could be sold as instrument or medical grade mercury as the market demands.

The writer has had previous experience with the ore from this property. Two years ago, on a consulting basis, he developed a flux for successful pyrometallurgical treatment of specific complex ore, and also conducted successful flotation studies to produce a cinnabar concentrate.

X

FINANCIAL REQUIREMENT

The following preliminary breakdown would be dependent on the outcome of the exploration program, and would generate cash flow:

Exploration to prove ore reserves	\$25,000
Beneficiation Plant50 TPD (Design potential500 TPD)	75,000
Water Development and Reclamation	35,000
Mining Equipment Surface (Payments for 6 mos. lease-purchase) Underground	23,760 15,000
Contingency	10,000
Royalty payments 6 mos.	6,000
· · · · · · · · · · · · · · · · · · ·	
	\$189,760

This report was prepared by:

nicholas H. Caroceso

Nicholas H. Carouso

PROFORMA FOR MERCURIA MINE. Gila County, Arizona

FIFTY (50) TONS PER DAY OPERATION

Average Grade = 0.2% or 4 pounds mercury per ton

Expected mill recovery = 95%

Pounds of mercury per day = 50 T x 4 lb. x 0.95 = 190

Average sale price (virgin crude) per pound mercury = \$6.30

Gross dollars per day = 190 x \$6.30 = \$1,197.00

*Gross dollars per day - refined mercury = 190 x \$13.00 = \$2,470.00

FINANCIAL REQUIREMENT TO CASH FLOW - 6 months

Exploration (Indicated ore reserves) Beneficiation Plant (50 TPD) includes refining Water Development & Reclamation Mining Equipment	\$ 30,000.00 75,000.00 40,000.00
Surface (Payments for 6 mos. lease-purchase)	23,760.00
Underground	15,000.00
Contingency .	10,000.00
Royalty payments - 6 mos.	6,000.00
•	\$199,760.00

OPERATING COST PER DAY AFTER COMPLETION OF FACILITIES

Beneficiation Plant (50 tons @ \$4.00 per ton) Mine Plant	\$200.00
Surface (75%) ore production @ \$4.50 per ton Underground (25%) ore production @ \$15.00 per ton	225.00 188.00
	\$613.00

Gross dollars per day Less operating cost	Virgin Crude \$1,197.00 613.00	Refined * \$2,470.00 613.00
Total income per day	\$ 584.00	\$1,857.00
Payout period after start of	,	

production 13.1 months 4.1 months

Annual gross income expected (338 days) based on refined mercury \$627,666.00 - Excluding Management and Taxes (Depletion Allowance Not Included)

Note: All mercury produced at this property will be refined chemically pure grade. Virgin crude is the product listed in daily price quotations.

PROFORMA FOR MERCURIA MINE Gila County, Arizona

ONE HUNDRED (100) TONS PER DAY OPERATION

Average Grade = 0.2% or 4 pounds mercury per ton

Expected mill recovery = 95%

Pounds of mercury per day = 100 T x 4 lb. x 0.95 = 380

Average sale price (virgin crude) per pound mercury = \$6.30

Gross dollars per day = 380 x \$6.30 = \$2,394.00

*Gross dollars per day of refined mercury = 380 x \$13.00 = \$4,940.00

FINANCIAL REQUIREMENT TO CASH FLOW - 6 months

Exploration (Indicated ore reserves)	. \$ 30,000.00
Beneficiation Plant (100 TPD) includes refining	150,000.00
Water Development & Reclamation	40,000.00
Mining Equipment	• •
Surface (Payments for 6 mos. lease-purchase)	23,760.00
Underground	15,000.00
Contingency	20,000.00
Royalty payments - 6 mos.	6,000.00
	\$284,760.00

OPERATING COST PER DAY AFTER COMPLETION OF FACILITIES

Eeneficiation Plant (100 tons @ \$3.00 per ton)	\$300.00
Mine Plant	
Surface (75%) ore production @ \$3.50 per ton Underground (25%) ore production @ \$15.00 per ton	263.00 375.00
	\$938-00

Gross dollars per day Less operating cost	Virgin Crude \$2\\\394.00 938\\00	Refined * \$4,940.00 938.00
Total income per day	\$1,356.00	\$4,002.00

	.*	
Payout period after start of	of .	
production	8.1 months	2.7 months

Annual gross income expected (338) days) based on refined mercury \$1,352,676.00 - Excluding Management and Taxes (Depletion Allowance Not Included)

 Note: All mercury produced at this property will be refined chemically pure grade.
 Virgin crude is the product listed in daily price quotations.

PROFORMA FOR MERCURIA MINE Gila County, Arizona

THREE HUNDRED (300) TONS PER DAY OPERATION

Average Grade = 0.2% or 4 pounds mercury per ton

Expected mill recovery = 95%

Pounds of mercury per day = 300 T x 4 lb. x 0.95 = 1140

Average sale price (virgin crude) per pound mercury = \$6.30

Gross dollars per day = 1140 x \$6.30 = \$7,182.00

*Gross dollars per day of refined mercury = 1140 x \$13.00 = \$14,820.00

FINANCIAL REQUIREMENT TO CASH FLOW - 6 months

Exploration (Indicated ore reserves). Beneficiation Plant (300 TPD) includes refining Water Development & Reclamation Mining Equipment Surface (Payments for 6 mos. lease-purchase) Underground Contingency Royalty payments - 6 mos.	\$ 30,000.00 425,000.00 75,000.00 37,560.00 20,000.00 50,000.00
, and a property of those	6,000.00 \$643,560.00

OPERATING COST PER DAY AFTER COMPLETION OF FACILITIES

Beneficiation Plant (300 tons @ \$2.50 per ton) Mine Plant	\$ 750.00
Surface (75%) ore production @ \$3.00 per ton Underground (25%) ore production @ \$15.00 per ton	675.00 1,125.00
	\$2,550.00

Gross dollars peredayteen of Less operatingacost	Virgin Crude \$7,182.00 2,550.00	Refined * \$14,820.00 2,550.00
Total income per day	\$4,632.00	\$12,270.00
Payout period after start of		

Payout period after start of production 5.3 months 2.0 months

Annual gross income expected (338 days) based on refined mercury \$4,147,260.00 - Excluding Management and Taxes (Depletion Allowance Not Included)

* Note: All mercury produced at this property will be refined chemically pure grade.

Virgin crude is the product listed in daily price quotations.

.. MERCURIA MINE

WAGON DRILLING OF MINERALIZED AREA

DRILL HOLE NO.	ATTITUDE	DEPTH	REMARKS
1 (Test hole)	Vertical	70'	This hole was to test the drill.
2	E	901	Good surface show and all the way.
3	NW	901	Fair
4	SW	90'	Good to 301
5	NW	135	Encountered ore at 851, bottomed in
6	N	110	Encountered ore at 851, bottomed in
7	NW	80 •	Iron pyritewater at 80'
8	NW ·	90'	Fair
9	SE	60'	60! into "Water Tunnel" and ore
10	NE @ 45°	100'	100' metacinnabarite (?)
11	N Horizontal	120'	30' to ore, bottomed in ore
12	NW Horiz.	132	132' in good ore
13	NW Horiz.	801	80' in good ore
14	NH Horiz.	120 '	60' to ore, 30' in good ore
15	SE 6 55	851	Blank
16	N .	75'	Ore at 25', bottomed in ore
17	E # 55°	55 '	Water at 55'
18 .	₩ @ 55°	90 '	Ore at 40', fair for 50'
19	5E @ 450	100	Blank
20	NW Horiz.	152'	Encountered ore at 25', bottomed in
21	NE # 60°	105'	Encountered ore at 25', bottomed in (Best ore at bottom of hole)

Note: At site of #20 and #21, previous drilling (1956) discovered very good ore at 200 -235, at this depth the bit was lost.

This data was furnished by Mr. Dick Robbins, as he panned all cuttings at five foot intervals, during this drilling effort.

MAP OF DRUCE AVAILABLE TAM: CLAY ISURENT