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The following file is part of the

Arizona Department of Mines and Mineral Resources Mining Collection

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04/23/99

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: CHASE

ALTERNATE NAMES:

PATENTED CLAIMS MS 283
PATENTED CLAIMS MS 1556
PATENTED CLAIMS MS 2401

YAVAPAI COUNTY MILS NUMBER: 1150A

LOCATION: TOWNSHIP 12.5N RANGE 2 W SECTION 36 QUARTER NE
LATITUDE: N 34DEG 25MIN 50SEC LONGITUDE: W 112DEG 25MIN 00SEC
TOPO MAP NAME: GROOM CREEK - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

SILVER
LEAD
ZINC
COPPER
GOLD

BIBLIOGRAPHY:

USGS GROOM CREEK QUAD
BLM MINING DISTRICT SHEET 245
ADMMR CHASE MINE FILE
CLAIMS EXTEND INTO SEC. 31 T12.5N-R2W

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
MINE OWNER'S REPORT

Date June 28, 1946

1. Mine Rocky Mountain Mines, Inc.

2. Location 11 miles S.E. Prescott

3. Mining District & County Hassayampa Dist., Yavapai County

4. Former name

5. Owner Rocky Mountain Mines, Inc., a corporation

6. Address (Owner) Box 844, Prescott, Ariz.

7. Operator Idle

8. Address (Operator)

9. President, Owning Co.

9A. President, Operating Co.

10. Gen. Mgr.

14. Principal Minerals Gold, silver, lead, zinc

1. Mine Supt.

15. Production Rate

2. Mill Supt.

16. Mill: Type & Cap.

3. Men Employed

17. Power: Amt. & Type

8. Operations: Present

9. Operations: Planned

0. Number Claims, Title, etc. About 160 acres lode claims; about 1/2 patented and 1/2 unpatented.

1. Description: Topography & Geography Property is located in a trough, about half-mile wide, with altered granite as a hanging wall and diorite foot wall.

2. Mine Workings: Amt. & Condition
1 shaft, 330' open to 160 level.
2 raises, 50' open
1 tunnel, 400' open
Tunnel attempted to cross cut but did not reach its goal.
Stopes in raises.

Geology & Mineralization

Porphyry veins traverse the trough, 4 big veins form a junction on the property.

Ore: Positive & Probable, Ore Dumps, Tailings 100 tons blocked out or in sight. Probable: 3,000,000 tons.

A. Dimensions and Value of Ore body Ore from 18 in. to 5 ft. in width. 7 cars shipped to El Paso averaged \$39.60 per ton with no pay for zinc.

Mine, Mill Equipment & Flow-Sheet

Road Conditions, Route Good.

Water Supply Excellent. Timber to waste.

Brief History Was developed for a while by Chase Mines, Inc. Guy J. Johnson examined property for Homestake Mine of Lead, S.D., and in his report said: "Figuring the five veins as continuous for the length of one claim, and for an average width of 4', to the depth of 1,000' and at 10 cu. ft. per ton, would give us 3,000,000 tons or ore. I think one would be very conservative in calculating the run of mine ore at at one-fourth of the shipping grade." 1/4 of \$39.60.

Special Problems, Reports Filed

Remarks References: Hap Milles, Mgr., Shattuck Denn Mng. Co., Humboldt, Ariz.
Lawrence B. Wright, M.E. and Geologist, and consultant for many mines in U. S. and Canada and formerly chief geologist for Homestake at Lead, S. D. 206 Sansome St., San Francisco, Calif.

If property for sale: Price, terms and address to negotiate. Will sell on a royalty basis for \$150,000 to be paid within 10 years.

32. Signature.....Rocky Mountain Mines, Inc.
by J. Andrew West, Secy.-Treas.

Use additional sheets if necessary.

C O P Y

DEPARTMENT OF MINERAL RESOURCES

FIELD ENGINEERS REPORT

MINE - YAVAPAI AREA

DATE: Feb. 24, 1954

TO: R.I.C. MANNING, Director

ENGINEER: Mark Gemmill

SUBJECT: Present Activities

1976 - Lois Merritt Ward
300 Williamson Valley Rd
Prescott, Az 86301
Present owner of Mineral
Rights - Black Lode Mine,

May 27, 1957

↓ ROCKY MTN. MINES, INC.

YAVAPAI COUNTY

No information on this property.

MARK GEMMILL

MAPS - Upstairs in the flat storage area - third drawer

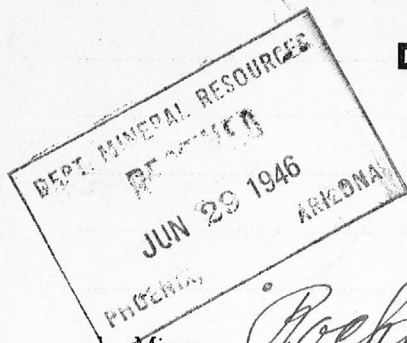
MISCELLANEOUS

References:

Hop Mills, Mgr. Shattuck
Dunn Mining Co., Humboldt Ariz

Lawrence B. Wright, M. E. & Geologist
and Consultant for many
mines in U.S. & Canada,
and formerly Chief geologist
for Homestake at Lead S.D.

206 Sapporne St.
San Francisco, Calif



DEPARTMENT OF MINERAL RESOURCES

State of Arizona

MINE OWNER'S REPORT

Date June 28-1946

1. Mine: Rocky Mountain Mines Inc.

2. Location: Sec. Twp. Range. Nearest Town Prescott

Distance 1 1/2 miles Direction SE Road Condition good

3. Mining District & County: Hassayampa in Yavapai

4. Former Name of Mine:

5. Owner: Rocky Mountain Mines Inc. a Corporation

Address: Box 844 Prescott Ariz

6. Operator: J. C. Lee

Address:

7. Principal Minerals: Gold, silver, lead, zinc

8. Number of Claims: about 160 acres Lode Yes Placer

Patented about 1/2 patented Unpatented 1/2 unpatented

9. Type of Surrounding Terrain: Property is located in a trough

about half mile wide with altered granite as a hanging wall and diorite foot wall

10. Geology & Mineralization:

Porphyry veins traverse the trough, 4 big veins form a function on the property

11. Dimension & Value of Ore Body:

Ore from 18 in to 5 ft in width. 7 cars shipped to El Paso averaged \$39.60 per ton with no pay for zinc

12. Ore "Blocked Out" or "In Sight":

100 tons

Ore Probable:

3,000,000 tons

13. Mine Workings—Amount and Condition:

No.	Feet	Condition
Shafts. 1	330 ft	open to 160 level
Raises. 2	50 ft	open
Tunnels. 1	400	open
Crosscuts.	tunnel	attempted to cross cut but
Stopes. in raises		did not reach its goal

14. Water Supply:

Extellent
tunnel to waste

15. Brief History:

was developed for a while
by Chase Mines Ltd.

Mr. J. Johnson examined property for Homestake
Mine of Lead S.D. and in his report said:
"Figuring the five veins as continuous for the
length of one claim, and for an average width of
4 ft. to the depth of 1000 ft. and at 10 cu. ft. per ton,
it would give us 3000000 tons of ore. I think one
would be very conservative in calculating the
amount of mine ore at one fourth of the stripping grade."

16. Signature:

Rocky Mountain Syndicate
by J. Andrew West Secy-Treas.

17. If Property for Sale, List Approximate Price and Terms:

will sell on a royalty basis for \$150,000 to be
paid within 10 years

DESCRIPTION OF MINING PROPERTY

OF

ROCKY MOUNTAIN MINES, INC.

YAVAPAI COUNTY, ARIZONA.

FOREWARD:

The owners of the following described mining property have purchased this property with a view to personal, private operation. The company has been formed merely as a vehicle for the conduct of the business.

PERSONNEL:

The present owners consist of -

Lawrence B. Wright, Consulting Mining Geologist,
Toronto and New York.

Guy J. Johnson, Mining Engineer, and Consultant,
Helena, Montana.

J. L. McLaughlin, Contractor and Construction Engineer,
Great Falls, Montana.

J. Andrew West, Attorney,
Prescott, Arizona

PROPERTY:

Consists of 5. patented and 7. unpatented mining claims, located in a proved mineral area fourteen miles southward from Prescott, Arizona, in the Bradshaw Mountains. The interest purchased consists of 100% in 8. claims, including the patented Black lode (No. 283) on which the main outcrops and workings are located, and 16.66% in 4. patented claims (1556 and 2401), three in Survey 1556, one in Survey 2401.

DEVELOPMENT:

Consists of a vertical shaft, sunk to a depth of 330. feet and lateral work on the 100.' and 160.' levels. The 300.' level is undeveloped. Some shallow workings on parallel veins have produced good grade shipping ore in the past, 285. tons having averaged close to \$34.00 per ton.

Equipment consists of office, five small dwellings and one fifty-man bunkhouse and cookery, the original cost of which is estimated at about \$30,000.00.

PAST PRODUCTION:

A mill has never been on the property. Ore has been shipped direct to smelting plants from the limited operations so far. A complete record of production is not available, but some of the later

shipments are listed in the Johnson report given herewith. The grade of ore shipped has been such as to suggest a very profitable milling grade. Ore can be shipped to aid in financing development and mill construction, if necessary.

COMMENTS ON THE GUY J. JOHNSON REPORT:

This report was made when the Sheldon Superior Company controlled the property. References to the "Company" do not apply at this time.

Johnson's estimate of ore reserves is regarded as a speculative possibility and until additional mine development is carried out, and present ore faces extended, an accurate estimate is not possible. The engineers, however, are of the opinion at this time that substantial tonnages exist, and that development on and below the 300. ft. level will result in substantial ore additions.

The G. J. Johnson report was written long before Mr. Johnson had any thought of being an interest party, and was therefore not influenced thereby.

GENERAL STATEMENT:

The two above named consultants have been familiar with the property for the past fourteen years and (with their associates) recently acquired title

when the property became available through failure of former owners to do that which was necessary to maintain it.

The object of the owners in offering to divide their interests is to enable them to undertake at once the equipment, development and operation of the mine on a scale seemingly merited by the occurrence of several veins, some with known ore of commercial grade, little explored to date.

No public offering of shares in the company is contemplated.

The present owners recognize the necessity of surrendering up to 60% of the capital stock, but prefer to have a hand in the operation in protection of their substantial investment and continuing interest.

At present a small crew is engaged in preparing the 160. ft. level for further work. It is of interest that these workmen have recently made a request to be allowed to mine and ship crude ore on a royalty basis. This, so far, has been denied.

The present owners are able to carry on operations on a limited scale, but prefer to invite participation of stronger financial aid to engage in a broader and hence probably more profitable operation.

The report of Mr. Guy J. Johnson, copy of which follows herewith, is taken from the files which accompanied property purchase. This report was made for principals who at the time were in search of a larger property but to whom, nevertheless, this property was recommended. Mr. Johnson, upon being informed that the property was available, brought the other associates into the venture. Mr. Lawrence B. Wright recently visited the property for the purpose of confirming the presence of vein occurrences and commencing work of organization and preparing the mine for further operation.

The recent check sampling results are shown herewith and check closely in total metal value with previous sampling.

A sketch map of the mine as opened at present, together with some geology and a vertical projection, are shown.

While the veins are extensive, reaching in some instances for several thousand feet along the outcrop, the ore shoots are not always continuous. However, there is sufficient vein length on this property so that a nominal percentage of mineralized length would result in substantial tonnages of ore above that now in sight.

It is the opinion of Mr. Guy J. Johnson and the writer that the property will respond very well to development and that there is little doubt of the possibility of recapturing any investment required with substantial profit.

Lawrence B. Wright

March, 1941.

SOUTHWESTERN ENGINEERING CORPORATION

METALLURGICAL DEPARTMENT

SEPT. 24, 1927

Report of test conducted on sample of
ore submitted by Bluford H. J. Balter,
1201-A Pacific Mutual Building, Los
Angeles, California.

SOUTHWESTERN ENGINEERING CORPORATION

1221 HOLLINGSWORTH BUILDING,

LOS ANGELES, CAL.

Lot #1805

SOUTHWESTERN ENGINEERING CORPORATION

METALLURGICAL DEPARTMENT

SEPT. 24, 1927

Report of test conducted on sample of ore submitted by
Bluford H. J. Balter, 1201-A Pacific Mutual Building,
Los Angeles, California.

LOT #1805

The sample received was a sulphide ore of
very high iron content which, when crushed, assayed
as follows:

Gold.....	.02 oz. per ton
Silver.....	3.6 " " "
Copper.....	6.3 %
Iron.....	19.0 %

TEST "A"

A sample of the ore was ground in the ball
mill with lime and Aerofloat and treated by flota-
tion. The results of the test indicate that for
every 100 tons of ore treated of a similar character
and assay, there would be produced:

24.0 Tons of Flotation Concentrate

ASSAYING

CONTAINING

Gold	.11 oz. per ton	90% plus of the Gold
Silver	10.3 " " "	80.2% of the Silver
Copper	23.2 %	91.3% of the Copper
Iron	33.3 %	40.3% of the Iron

TEST "B"

The test was conducted in an attempt to
increase the copper recovery and to further retard
the iron.

The results of the test are approximately the same as obtained in Test "A" and would indicate that upon treatment of 100 tons of ore there would be produced:

24.32 Tons of Flotation Concentrate

ASSAYING

CONTAINING

Gold	.08 oz. per ton	90% plus of the Gold
Silver	9.9 " " "	77.8% of the Silver
Copper	23.7 %	91.6% of the Copper
Iron	30.4 %	38.7% of the Iron

A sizing test of the flotation tailing indicates the grinding as follows:

	Wt %
Plus 60 Mesh	1.2
Minus 60 plus 80 Mesh	2.3
Minus 80 plus 100 Mesh	8.0
Minus 100 plus 150 Mesh	15.0
Minus 150 plus 200 Mesh	13.3
Minus 200 Mesh	60.2

CONCLUSION:

The results of the tests indicate that the ore is amenable to treatment by flotation.

SOUTHWESTERN ENGINEERING CORP.

By C.H. Corbun

LAWRENCE B. WRIGHT

CONSULTING MINING GEOLOGIST

NEW YORK, N.Y.

TORONTO, ONT.

100 FT. LEVEL

ROCKY MOUNTAIN MINES INC.

Prescott, Arizona.

Assays by Abbot A.Hanks, Inc.

Dec. 1940

30. Ft. To An Inch

Vertical
Shaft.

High backs

Small
Stope

Raise

No.	Inches Width	Oz. Gold	Oz Silver	% Pb
1.	42.	0.09	4.31	12.52
2.	48.	0.01	4.99	1.50
3.	72.	0.03	4.97	4.41
4.	60.	Tr.	3.80	1.00
5.	60.	0.04	10.96	5.11
6.	48.	0.02	4.68	0.30
7.	60.	0.03	7.17	1.20
8.	60.	0.05	6.25	1.30
9.	84.	0.09	10.31	0.10
10.	72.	0.01	5.19	0.10
11.	42.	0.01	5.19	3.01
12.	36.	0.03	2.17	0.10
13.	14.	0.01	9.79	12.23
Weighted Avg 1-12. Inch		0.035	6.09	2.32
Composite #1 to 12. Inch		0.04	5.56	2.91
"			Cu	1.53
"			Zn	9.64

TEST MADE TO DETERMINE THE POSSIBILITY
OF PRODUCING
A LEAD CONCENTRATE AND A ZINC CONCENTRATE

<u>R E C O V E R Y</u>				
	<u>% Ag</u>	<u>% Pb</u>	<u>% Zn</u>	<u>% Fe</u>
Lead Concentrate -	<u>95.52</u>	<u>88.68</u>	4.70	10.85
Lead Middlings -	1.96	8.99	8.51	7.02
Zinc Concentrates -	0.91	0.15	<u>75.32</u>	6.89
Zinc Middlings -	0.57	0.78	6.77	13.57
Tails -	<u>1.04</u>	<u>1.40</u>	<u>4.70</u>	<u>61.67</u>
	100.00	100.00	100.00	100.00

This test was made on typical ore by a
Coeur d'Alene metallurgist at the instance of Mr. Guy
J. Johnson.

FINANCIAL PROPOSAL

Our investment to date amounts to approximately \$12,000. We will give a 60% interest in the Company for an expenditure for the following work. The purchasers of the 60% interest agree to finance whatever program is indicated as a result of this preliminary work.

Outline Of Work To Be Done

	<u>Est. Cost</u>
1. Haul in portable equipment, i.e.: Air compressor, hoist, pumps, machine drills (2), etc.	\$ 1,500.
2. Unwater shaft to 300 feet.	350.
3. Drive 300-foot level 220 feet north, and 100 feet south.	4,800.
4. Drive crosscuts, or Diamond drill to test parallel and branch veins. 200 ft. crosscuts @ \$10, or 700 feet horizontal and 45 deg. drilling.	2,000.
5. Repair buildings, clean out caved areas, sampling, and assaying, and supervision	3,350.
6. Contingencies, other exploration, assessment, etc.	<u>6,000.</u>
	<u>\$ 18,000.</u>

L. D. CLARK'S ASSAYS

(By Chas. O. Parker & Co., Denver, Colo.)

DECEMBER 5, 1939

<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Oz. Silver</u>	<u>% Copper</u>	<u>% Lead</u>	<u>% Zinc</u>
1.	0.29	3.99	1.05	9.70	2.70
2.	0.06	5.92	1.35	5.40	10.20
3.	0.08	5.72	0.95	2.60	6.30
4.	0.06	5.40	1.85	4.90	19.20
5.	0.10	8.70	1.90	0.50	2.00
6.	0.04	3.84	1.90	1.10	2.00
7.	0.18	10.90	2.20	4.60	3.30
8.	0.06	5.70	1.30	1.60	3.70
9.	0.12	0.28	0.50	0.60	1.25
10.	(0.50)	2.18	4.10	0.50	1.85
Average	0.110	5.263	1.710	3.150	5.250

Clark did not report sample widths, therefore an arithmetic average is used. However, his samples were cut in much the same manner and represent the same block of ground at the 100. ft. level horizon.

Five surface samples from various exposures along the veins, he had assayed for gold only. The results were:

	0.08 oz.
	0.07 "
	0.04 "
	0.12 "
	<u>0.04 "</u>
Average	0.07 oz.

COMPARISON OF AVERAGES

	<u>L. B. WRIGHT</u>		<u>L. D. CLARK</u>		<u>PRICES USED</u>
Au.	0.035 oz.	\$ 1.225	0.110 oz.	\$ 3.850	\$35.00
Ag.	6.090 oz.	4.263	5.263 oz.	3.684	.70
Pb.	2.32 %	2.320	3.150 %	3.150	.05
Cu.	1.53 %	3.060	1.710 %	3.420	.10
Zn.	9.64 %	<u>9.640</u>	5.250 %	<u>5.250</u>	.05
		\$20.508		\$19.354	

CHASE MINE

YAVAPAI COUNTY

RRB WR 1/30/81: Fred Popozich, City of Prescott, Engineering Division, 445-3500, Ext. 273, called to see if we had any information on the Edna May, Ninety-Six, and McKinley Claims in Yavapai County. They were found under Chase Mine. These claims are reportedly owned by the City of Prescott which has been approached by a private company to investigate the feasibility of developing them.

COMMODITY SUBTYPES C41
GEN. ANALYTICAL DATA C43
COM. INFO. COMMENTS C50

* SIGNIFICANCE

PRODUCER
MAJOR PRODUCTS MAJOR C41
MINOR PRODUCTS MINOR C41
POTENTIAL PRODUCTS POTEN C41
OCCURRENCES OCCUR C41

NON-PRODUCER
MAIN COMMODITIES PRESENT C11
MINOR COMMODITIES PRESENT C12
OCCURRENCES OCCUR C41

* PRODUCTION

PRODUCER
PRODUCTION YES (circle) PRODUCTION SIZE SMALL MED LGE (circle one)

NON-PRODUCER
PRODUCTION UND NO (circle one)

* STATUS

EXPLORATION OR DEVELOPMENT

PRODUCER
STATUS AND ACTIVITY A20 4

NON-PRODUCER
STATUS AND ACTIVITY A20

DISCOVERER L20
YEAR OF DISCOVERY L10
PRESENT/LAST OWNER A12
PRESENT/LAST OPERATOR A13
EXPL./DEV. COMMENTS L110

DESCRIPTION OF DEPOSIT

DEPOSIT TYPE(S) C40
DEPOSIT FORM/SHAPE M10
DEPTH TO TOP M20
DEPTH TO BOTTOM M30
DEPOSIT SIZE M15
STRIKE M70
DIRECTION OF PLUNGE M100
DEP. DESC. COMMENTS M110

DESCRIPTION OF WORKINGS

Workings are: SURFACE M120 UNDERGROUND M130 BOTH M140 (circle one)
DEPTH BELOW SURFACE M160
LENGTH OF WORKINGS M170
DESC. OF WORK. COM. M220

GEOLOGY

AGE OF HOST ROCK(S) K1
HOST ROCK TYPE(S) K1A
AGE OF IGNEOUS ROCK(S) K2
IGNEOUS ROCK TYPE(S) K2A
AGE OF MINERALIZATION K3
PERT. MINERALS (NOT ORE) K4
ORE CONTROL/LOCUS K5
MAJ. REG. TRENDS/STRUCT. N5
TECTONIC SETTING N15
SIGNIFICANT LOCAL STRUCT. N70
SIGNIFICANT ALTERATION N75
PROCESS OF CONC./ENRICH. N80
FORMATION AGE N30
FORMATION NAME N30A
SECOND FM AGE N35
SECOND FM NAME N35A
IGNEOUS UNIT AGE N50
IGNEOUS UNIT NAME N50A
SECOND IG. UNIT AGE N55
SECOND IG. UNIT NAME N55A
GEOLOGY COMMENTS N85

GENERAL COMMENTS

GENERAL COMMENTS GEN

REFERENCE 1 F1 < USGS GEOL. SURV. MAP 60 997

REFERENCE 2 F2 < AR. DEPT. MIN. RESOURCES FILE DATA

REFERENCE 3 F3 < USGM- ARGMT FILE DATA

REFERENCE 4 F4 < ARGMT CLIPPINGS FILE

RECORD IDENTIFICATION

RECORD NUMBER B10 RECORD TYPE B20 X, 1, VM DEPOSIT NUMBER B40
REPORT DATE G1 8.1.81 INFORMATION SOURCE B30 1.2 FILE LINK IDENT. B50 USGM 004 025
 YR. MO.
REPORTER(SUPERVISOR) G2 DEW HT, Ed (last, first, middle initial)
REPORTER AFFILIATION G5 AGLMT SITE NAME A10 SHELDON SUPERIOR MINE
SYNONYMS A11 CHASE MINE

[illegible]

UTM

NORTHING A120 < 3810100 >

EASTING A130 < 369400 >

ZONE NUMBER A110 < +12 >

*ACCURACY

ACCURATE ACC (circle)

ESTIMATED EST < MAIN WORKINGS TAKEN TO BE ON
BLACK LODGE CLAIM >

GEODETIC

LATITUDE A70 < - - - - - N >

LONGITUDE A80 < - - - - - W >

CADAstral

TOWNSHIP(S) A77 < 4, 2, 5, N : : : : : > RANGE(S) A78 < 0, 0, 2, W : : : : : >

SECTION(S) A79 < 36 : : : : : >

ION FRACTION(S) A76 < NE OF NE, NW OF NE

IRIDIAN(S) A81 < GILL AND SALT RIVER >

POSITION FROM NEAREST PROMINENT LOCALITY A82 < 1.4 MILES NORTH-WEST OF MT. UNION LOOKOUT
LOCATION COMMENTS A83 < SHELDON SUPERIOR = CHASE PROPERTY MAIN WORKINGS ON CHASE PROPERTY ON BLACK LOBE CLAIM

✓ CHASE MINE

H. W. Gould & Co. has taken a lease on this property and have a small crew at work on cleaning up and exploration. Malcolm B. Gould is in charge of the operation - address 1100 Mills Tower, San Francisco, D. L. Nevens, Box 1622, Prescott, is foreman at the mine.

Note: It is a little hard to understand the renewed activities in these properties in view of recent drops in lead and zinc. However they all do have a fair percentage of gold, silver and copper, in addition to the lead-zinc content. There should be some news items among these.

H. W. GOULD & CO. (LESSEE)

2-24-54

MINE: CHASE MINE, Yavapai County

In charge of Operation - Malcolm B. Gould
1100 Mills Tower
San Francisco, Calif.
Foreman of Mine - D. L. Nevens
Box 1622
Prescott, Ariz.



CHASE MINE

Mining World 4/1954

SHATTUCK DENN MINING CORP.
IRON KING BRANCH
HUMBOLDT, ARIZONA.

Nov. 16, 1944.

Mr. Thomas Bardon, Pres.,
Shattuck Denn Mining Corp.,
120 Broadway,
New York City.

Dear Mr. Bardon:

Since my return from the Tennessee Mine I have summarized our sampling, extending over the past several months, and prepared a map of the property of the Rocky Mountain Mines, Inc., commonly known as the Chase Mine.

Following is a brief report on the mine, and the sample map will follow under separate cover.

Yours very truly,

H.F. Mills.

Report on Rock Mountain Mines, Inc.

Location

This group of claims is located on the headwaters of the Hassayampa River, 11 miles from Prescott. Seven miles of the distance is on the paved Senator Highway. A dam, part of the Prescott water supply system, is built across the Hassayampa about one mile below the property.

Extent

The group consists of six patented claims and eight unpatented claims. They are:

Black Lode Claim	owned 100%.
McKinley	" in part.
Hassayampa Lode	Undivided $\frac{1}{2}$ interest.
Rancho "	" "
Water Fall "	" "
Big Four "	" $\frac{5}{6}$ "
Anaconda)	
" #1)	
" #2)	
" #3)	
Anaconda Annex)	Full interest unpatented.
Inspiration)	
Inspiration #1)	
Black Extension)	

History

It is known that some shipments were made from surface to the Pickrell mill, on the Hassayampa a short distance away. Later, the owner, a Mr. Webster, optioned the property to the Colorado Gold Mining & Milling Company who sank a 350' vertical shaft and who probably developed the 100' and 200' levels. In 1925 Mr. Andrew West and associates acquired the property and shipped seven cars, some 280 tons from various places which averaged:

Av. 0.14 Ag. 15.8oz. Pb. 15.5% Cu. 2.8%. Zinc was assayed on only one car, the assay being 10.7%.

At that time the mine was known as the Sheldon Superior. In 1928 the mine was optioned to the Chase Mines, Inc., and since then has been known as the Chase Mine. The Chase Company erected a number of miners cabins, an office and a large bunk house. They drove a crosscut tunnel from just above the Hassayampa 420' in a southeasterly direction to cut the vein system at depth, and did some 760' of drifting on the veins and intersected the shaft at 165' below the collar. It appears that ore was very scarce at this horizon, and the property was returned to the owners.

Rocky Mt. Mines Inc., is a syndicate consisting of Mr. West, Lawrence Wright and Guy Johnson.

Geology.

This area is marked by a number of fissures and shear zones, dipping steeply to the east, striking about N.40°E., and converging slightly to the north. The veins cut thru a complex of Pre-Sambrian schists and diorite and may be associated with and somewhat parallel to later quartz porphyry dikes. The footwall country to the northwest, a massive diorite, has been crosscut farther south from the northwest by the old Senator tunnel. The Senator production came from an area farther south west on the strike of these same formations. The Sheldon Mine is several miles north east of the Chase but is on a vein system somewhat west of the projected strike of the Chase.

Equipment.

There is no machinery on the property. Improvements consist of a small timber headframe over the shaft, and a number of well constructed buildings. The property is covered with good pine timber.

Development.

The drainage and exploratory tunnel driven by the Chase people has recently been repaired by Mr. West, and it and the shaft are in good shape. Maps and assays of old work are not available. Some letters from Mr. Colwell, who was engineer for the Chase people give some information from a report by J.A. Humphries, E.M. written in January 1920. The following are extracts:

" On the 100 ft. level a composite sample was taken representing a value of 5 1/2 ft. ore to be \$10.00 per ton.

" The 200 ft. level shows a decided improvement both in width of vein, which has increased to 5 ft. and an increase to an average value of \$20.00 per ton.

" No development was done on the 300 ft. level, it being cut only by a crosscut at the shaft. The vein is shown to be 8 ft. wide with a value of \$11.60 per ton."

At present the 100' level is open for 210' north of the shaft and a short distance south of the shaft. The back of the drift shows a good body of complex lead-zinc-copper ore with a maximum width of nine feet. The north end of the drift has been stopped, probably for lead-gold-silver values.

The 200 ft. level is reported to be 300 feet long with values chiefly in copper. Unfortunately this level is under water. It is reported that the eight feet of ore on the 300 ft. level assayed \$6.00 (0.30) in gold.

Other noteworthy items are a shaft 120' north of the

main shaft, from which it is reported 30 tons of \$27.50 ore were shipped. On the #2 vein which is about 160 feet in the hanging wall of the shaft vein is an inclined shaft 87' deep. This is some 350 feet south of the main shaft. It is reported that 300 tons of ore were shipped from this shaft, assaying

Gold 0.14 Silver 15.5 Lead 14.4 Copper 2.0%

Milling.

The ore is coarsely crystallized and can be selectively floated. A test by Mr. Johnson, made in 1942 indicated 95.5% lead recovery in a concentrate representing 10% of the head weight, assaying Gold 0.34, silver 34.0 lead 38.8%, iron 17%. The zinc concentrate amounted to 15% of the head weight, contained 75% of the zinc in a product assaying silver 2.2, lead, trace, zinc 53.4% and iron 7.3%.

Ore possibilities.

It is evident that the Chase company had expectation of finding valuable orebodies when they drove the adit tunnel. On the 100 level above there is a good shoot of ore in place, and evidently there has been stoping to the north of this. On the 200' level, and only about 30 ft. separates the bottom of the adit level from the back of the 200' level drift, the old reports indicated that the ore, mostly copper had been drifted on for about 300 feet. Yet the only ore on the 165' adit level is in a small showing just north of the shaft. Here the length is some 25 feet, maximum width about three feet and about 50 sq. feet of area.

Ore in this district occurs in lenses and shoots within the vein. It may be surmised that the 165' level marks the approximate bottom of the shoot exposed on the 100' level, and that the 200' level is in another shoot, whose chief metal is copper, lying at a lower elevation, or else the old reports are untruthful. It is possible, tho very unlikely, that a body of copper ore several hundred feet long could develop within the next 30 feet below the tunnel. The section of the tunnel along the vein had to be closely timbered and in places spiled, and it is possible that this may be a soft leached zone over an ore body.

The east or #2 vein has not been prospected at depth. While there are indications of ore on this vein at the south end of the claim, and the inclined shaft on this vein had produced some good ore, surface outcrops of this vein on the northern part of the claim contain very little gold. We do get some indicative gold assays from the #1 vein on surface, but at the 165' level we might say there is no ore in this #1 vein. Consequently then it seems rather hopeless to prospect for ore in the #2 vein when the croppings of this vein in the vicinity of the tunnel workings shows so little value at surface.

I believe that the adit ~~was~~ was extended to a

(4)

point at which it was expected to intersect the east vein at depth. The end of this crosscut is largely filled with a gouge material which may be the east vein.

It would be fairly easy to pump the shaft down to the 200' level, discharging the water out the tunnel. However if the same soft and heavy ground is encountered on the 200 level as on the 165' level, the drift on the 200 will either be closed or it will be expensive to put in shape for sampling. There is so little stopping ground available between the 200' level and the tunnel level that even were ore found on the 200 level it would be better to go to the 300' level and develop it.

Conclusion.

From the appearance on surface and on the 100' level, the prospect certainly indicates that it is worthy of exploration. However, the 165' level, either by coming at a poor vertical zone, or possibly between two shoot or lenses, is so disappointing in it's entirety that there is little room for optimism of doing any further work at depth.

Yours very truly,

H.F.Mills.

ORE SETTLEMENT

SHATTUCK DENN MINING CORPORATION

Iron King Branch

MILL, HUMBOLDT, ARIZONA

Bought of **H. W. Gould & Co.**
 Address **1100 Mills Tower, San Francisco 4**
 Name of Mine **Sheldon-Superior** *(check)*
3 loads

.....**June 21**....., 194/54
 Mill Lot - - -
 Shipper's Lot - - **17**
 Date Received.....**June 1 - 2**....., 194/54

Gross Weight 22.163 Tons		PAYABLE Metal Content MAIL	
% H ₂ O	2	Gold	Ozs.
Dry Weight 21.720 Tons		Silver	Ozs.
		Lead	Lbs. .142
		Zinc	Lbs. .108
		Copper	Lbs. .30

PAYMENTS

Assay			Pay For	Pay For	Price	AMOUNT	
						Per Ton	Total
Gold	.05	oz.	65%	.0325	32.80	1.07	
Silver	6.7	oz.	80	5.36	.75	4.02	
Lead	4.8	%	85	4.08	1.42	5.79	
Zinc	4.8	%	70	3.36	.38	1.95	
Copper	2.1	%	80	1.68	3.60	6.05	
					Total	18.88	410.07

DEDUCTIONS

Base Mill Charge		4.50				
Units Lead @						
Sampling and Assaying						
		Total Deductions - - -			4.50	97.74
					14.38	312.33
MILL RETURN						
Hauling by Humboldt Truckers						
22.163 tons @ 3.50, 222 \$77.57, tax 3%, \$2.33						79.90 <i>CV 18040</i>
CHECK TO						232.43 <i>CV 18041</i>

ROYALTY TO BE PAID TO LESSOR BY LESSEE

Approved.....*N. F. Wells*

ORE SETTLEMENT

SHATTUCK DENN MINING CORPORATION
Iron King Branch
MILL, HUMBOLDT, ARIZONA

Extra copy

Bought of **H. W. GOULD & CO.**
 Address **1110 Mills Tower, San Francisco 4**
 Name of Mine **Sheldon-Superior**
12 loads

..... **March 26, 1944**
 Mill Lot - - -
 Shipper's Lot - - **4**
 Date Received **3/12 to 3/20**, 19**44**

		PAYABLE	
		Metal Content	<u>EMI</u>
Gross Weight	85.435 Tons	Gold	Ozs.
% H ₂ O	2	Silver	Ozs.
Dry Weight	83.726 Tons	Lead	Lbs. .130
		Zinc	Lbs.
		Copper	Lbs.

PAYMENTS

Assay			Pay For	Pay For	Price	AMOUNT	
						Per Ton	Total
Gold	.06	oz.	80%	.048	32.80	1.57	939.41
Silver	2.70	oz.	92	2.484	.85	2.11	
Lead	2.80	%	95	2.660	1.35	3.59	
Zinc	3.30	%	-	-	-	-	
Copper	1.16	%	92	1.0672	3.70	3.95	
Total						11.22	
DEDUCTIONS							
Base Mill Charge				4.50			
Units Lead @							
Sampling and Assaying							
Total Deductions - - -						4.50	376.77
MILL RETURN						6.72	562.64
Hauling by Lessee							
tons @							
CHECK TO							562.64

ROYALTY TO BE PAID TO LESSOR BY LESSEE

Approved *N. F. Mills*

ORE SETTLEMENT

SHATTUCK DENN MINING CORPORATION

Iron King Branch

MILL, HUMBOLDT, ARIZONA

Bought of **H. W. Gould & Co.**
 Address **1100 Mills Tower, San Francisco 4**
 Name of Mine **Sheldon-Superior**
9 loads

June 4, 194/54
 Mill Lot - - -
 Shipper's Lot - - 16
 Date Received **5/27-28-29-30**, 194/54

		PAYABLE	
		Metal Content	<u>EMI</u>
Gross Weight	62.338 Tons	Gold	Ozs.
% H2o	2	Silver	Ozs.
Dry Weight	61.091 Tons	Lead	Lbs. .14
		Zinc	Lbs. .105
		Copper	Lbs. .30

PAYMENTS

Assay		Pay Per Pay Per	Pay For	Price	AMOUNT	
					Per Ton	Total
Gold	.045 oz.	65%	.02925	32.80	.96	
Silver	7.30 oz.	80	5.84	.75	4.38	
Lead	3.15 %	85	2.6775	1.40	3.75	
Zinc	6.25 %	70	4.375	.536	2.35	
Copper	2.10 %	80	1.680	3.60	6.05	
Total					17.49	1068.48
DEDUCTIONS						
Base Mill Charge			4.50			
Units Lead @						
Sampling and Assaying						
Total Deductions - - -					4.50	274.91
MILL RETURN					12.99	793.57
Hauling by Humboldt Truckers						
62.338 tons @ 3.50, \$218.18 tax 3% 6.55						224.73
CHECK TO						568.84

ROYALTY TO BE PAID TO LESSOR BY LESSEE

Approved..... *N F Y Mills*

ORE SETTLEMENT

SHATTUCK DENN MINING CORPORATION
Iron King Branch
MILL, HUMBOLDT, ARIZONA

Bought of **H. W. GOULD & CO.**
 Address **1110 Mills Tower, San Francisco 4**
 Name of Mine **Sheldon-Superior**
5 loads

March 9, 1945
 Mill Lot - - -
 Shipper's Lot - - 3
 Date Received **Feb. 24 - Mar., 3 1945**

		PAYABLE	
		Metal Content	
Gross Weight	35.697 Tons	Gold	Ozs.
% H ₂ O	2	Silver	Ozs.
Dry Weight	34.983 Tons	Lead	Lbs.
		Zinc	Lbs.
		Copper	Lbs.

PAYMENTS

Assay			Deduct Pay For	Pay For	Price	AMOUNT	
						Per Ton	Total
Gold	.06	oz.	80%	.048	32.80	1.57	
Silver	4.80	oz.	92	4.416	.85	3.75	
Lead	5.30	%	95	5.035	1.26	6.34	
Zinc	1.25	%	-	-	-	-	
Copper	1.50	%	92	1.38	3.70	5.11	
Total						16.77	586.66
DEDUCTIONS							
Base Mill Charge			4.50				
Units Lead @							
Sampling and Assaying							
Total Deductions - - -						4.50	157.42
MILL RETURN						12.27	429.24
Hauling by Mayer Trucking Co. (part)							
21.43	tons @ 3.50, 75.01, tax 3%, 2.25		77.26				
CHECK TO							351.98

Royalty to be paid to Lessor by Lessee

Let 8/10

March

Approved *[Signature]*

ORE SETTLEMENT

SHATTUCK DENN MINING CORPORATION

Iron King Branch
MILL, HUMBOLDT, ARIZONA

Bought of **H. W. GOULD & CO.**
Address **1100 Mills Tower, San Francisco 4**
Name of Mine **Sheldon-Superior**
8 loads

May 13, 1945
Mill Lot - - -
Shipper's Lot - - 11
Date Received **4/30, 5/3, 5/5, 1945**

		PAYABLE	
		Metal Content	
Gross Weight	61.965 Tons	Gold	Ozs.
% H2o	2	Silver	Ozs.
Dry Weight	60.726 Tons	Lead	Lbs. .1400
		Zinc	Lbs. .1025
		Copper	Lbs. .300

PAYMENTS

Assay			Product Pay For	Pay For	Price	AMOUNT	
						Per Ton	Total
Gold	.08	oz.	65%	.052	32.80	1.71	
Silver	12.50	oz.	80	10.000	.75	7.50	
Lead	4.50	%	85	3.825	1.40	5.36	
Zinc	6.50	%	70	4.550	.50	2.28	
Copper	2.96	%	80	2.368	3.60	8.52	
Total						25.37	1540.62
DEDUCTIONS							
Base Mill Charge			4.50				
Units Lead @							
Sampling and Assaying							
Total Deductions - - -						4.50	273.27
MILL RETURN						20.87	1267.35
Hauling by			Shipper				
tons @							
CHECK TO							1267.35

Royalty to be paid to Lessor by Lessee

CV. 17889
5/13/54
[Signature]
Approved *H. F. Mills*

ORE SETTLEMENT

SHATTUCK DENN MINING CORPORATION
Iron King Branch
MILL, HUMBOLDT, ARIZONA

Market Prices

Lead 1400
Zinc 1025
Copper 300

Bought of H. H. Gould & Co.
Address 1100 Mills Tower San Francisco 4
Name of Mine Sheldon Superior
9 Loads

May 27, 1954
Mill Lot - - -
Shipper's Lot - - 13
Date Received 7/4 7/14 5/18, 1954

		PAYABLE	
		Metal Content	
Gross Weight	62.665	3.68 Gold	2.39 Ozs.
% H ₂ O	2	528.14 Silver	422.51 Ozs.
Dry Weight	61.412	5650 Lead	4802 Lbs.
		7369 Zinc	5159 Lbs.
		3046 Copper	2437 Lbs.

PAYMENTS

Assay		Pay For	Pay For	Price	AMOUNT	
					Per Ton	Total
Gold	.06 oz.	65	.039	32.80	1.28	78.61
Silver	8.60 oz.	80	6.880	.75	5.16	316.88
Lead	4.60 %	85	3.910	1.40	5.47	335.92
Zinc	6.00 %	70	4.200	.50	2.10	128.97
Copper	2.48 %	80	1.984	3.60	7.14	438.48
			Total		21.15	1298.86

DEDUCTIONS

Base Mill Charge	4.50		
Units Lead @			
Sampling and Assaying			
Total Deductions - - -	4.50	276.35	
MILL RETURN <u>28.370 tons hauled by Lessee</u>	16.68	1022.51	
Hauling by <u>Humboldt Truckers</u>			
<u>34.295 tons @ 3.50 - 120.03 + 3% tax 3.60</u>		123.63	17934
CHECK TO		898.88	17935

Royalty — Royalty to be paid to Lessor by Lessee

Handwritten signature

Approved.....

CHASE . MINE

Yavapai County, Arizona

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ROCKY MOUNTAIN MINES INCORPORATED

Yavapai County, Arizona

INTRODUCTORY REMARKS:

The following is a report on a silver-lead-zinc mine which also contains copper and gold, and which has some tonnage of ore developed. Much development work has been done and there are improvements and facilities useful in operation. The property was purchased about 15 years ago by the present owners on the strength of a report made by Guy J. Johnson E. M. for the Homestake Mining Company. That company did not option the property because their major interest was in gold rather than the base metals. The untimely demise of Mr. Johnson created a situation which dictated that the best policy for the owners was to lease or sell the holdings. The mine has never been put into production except for 260 tons of crude ore shipped to smelters by previous owners.

Title to the claims and improvements rests with Rocky Mountain Mines, an Arizona Corporation which is wholly owned by, -

- ✓ Mrs. Guy J. Johnson, Seattle, Washington.
- ✓ J. Andrew West, Prescott, Arizona.
- ✓ J. L. McLaughlin, Great Falls, Montana.
- ✓ Lawrence B. Wright, San Francisco, Calif.

The last named, writer of this report, is an independent consulting mining geologist and engineer; a member of the American Institute of Mining and Metallurgical Engineers, the Mining and Metallurgical Society of America, is a registered professional engineer, practicing professionally since 1931*.

This report is based upon a number of examinations and visits by the writer, consolidated with excerpts from the Johnson report, sampling data L. D. Clark E. M., geophysical work by Radiore Co. and results of an examination by the U. S. Bureau of Mines in 1949.

* (See Who's Who in Engineering)

LOCATION AND ACCESSIBILITY:

The property and improvements are located 13 miles southeast of Prescott, Arizona, and are readily accessible by graded and paved highway. From Prescott one travels about 7 miles over paved highway, 5 miles over graded road, and the last mile, a branch county road, leads up the east bank of Hassayampa creek to the mine.

CLIMATE AND ELEVATION:

The climate is excellent for continuous operation at the elevation of the mine which ranges between 6500 and 7000 feet. There is some snowfall during the late winter months but it seldom reaches a depth that would block access to the property.

POWER, WATER AND TIMBER:

Electric power is available. The high voltage line serving the area passes within a few yards of the Black claim. The usual commercial rates as set for the district would apply.

It is estimated that sufficient water is available from nearby springs and from Hassayampa creek, as well as the mine workings, to provide for a concentrating plant with a capacity up to 100 tons per day. Some reclamation and storage measures would be required to insure a constant and adequate supply. There is a large storage reservoir just below the property which was a unit of the Prescott water system. It is understood the City now obtains its water from other sources and there is a possibility that this facility could be made available if needed.

There is an excellent stand of timber on the claims. This has not been cruised, but the value of the stand amounts to many thousands of dollars. There is more than enough for mining and plant requirements for a long period of operation.

THE PROPERTY:

The property is composed of five patented mining lode claims, five unpatented lode claims and two small fractional claims, in all covering about 200 acres. The main development is on the Black Lode Claim (Mineral Survey No. 283). This claim is protected on the southeast by two other patented claims, the Big Four, M.S. #2401 and the Hassayampa, M.S. #1556. These three claims, together with the Inspiration (not contiguous), contain the bulk of the mineralization as now exposed or known. There are some worthwhile exposures on the other claims that have not been prospected or developed to any appreciable extent. Rocky Mountain Mines Inc. owns 100% of the Black and Inspiration claims and the Anaconda group of four unpatented claims, and also 100% of the two fractional claims. It is the writer's understanding that the Company owns approximately 90% of the other claims, (Big Four, Hassayampa, Ranch and Water Fall. Patent or M.S. Nos. 2401, 1556, 1556, and 1556 respectively); that the small outstanding interest is virtually unclaimed with the title probably in the hands of heirs unknown. —

Thus Rocky Mt. Mines Inc. has full ownership of the ground containing the mine and upon which the improvements are situated, and five other full claims, and, owns a major interest in the remaining "Buffer" claims, which in themselves have prospective mineral value.

DEVELOPMENT:

Considerable development work has been done. There is on the Black claim a vertical, two compartment shaft with headframe, sunk to a depth of 330 feet. A short level is driven at 60 feet depth, a longer level at 100 feet which best exposes the ore, and a long level at 160 feet, which also exposes ore and which connects with an adit reaching to the surface on the southeast bank of Hassayampa creek. Below the 160 level there is a short drift into the ore at the 200 foot level. At the

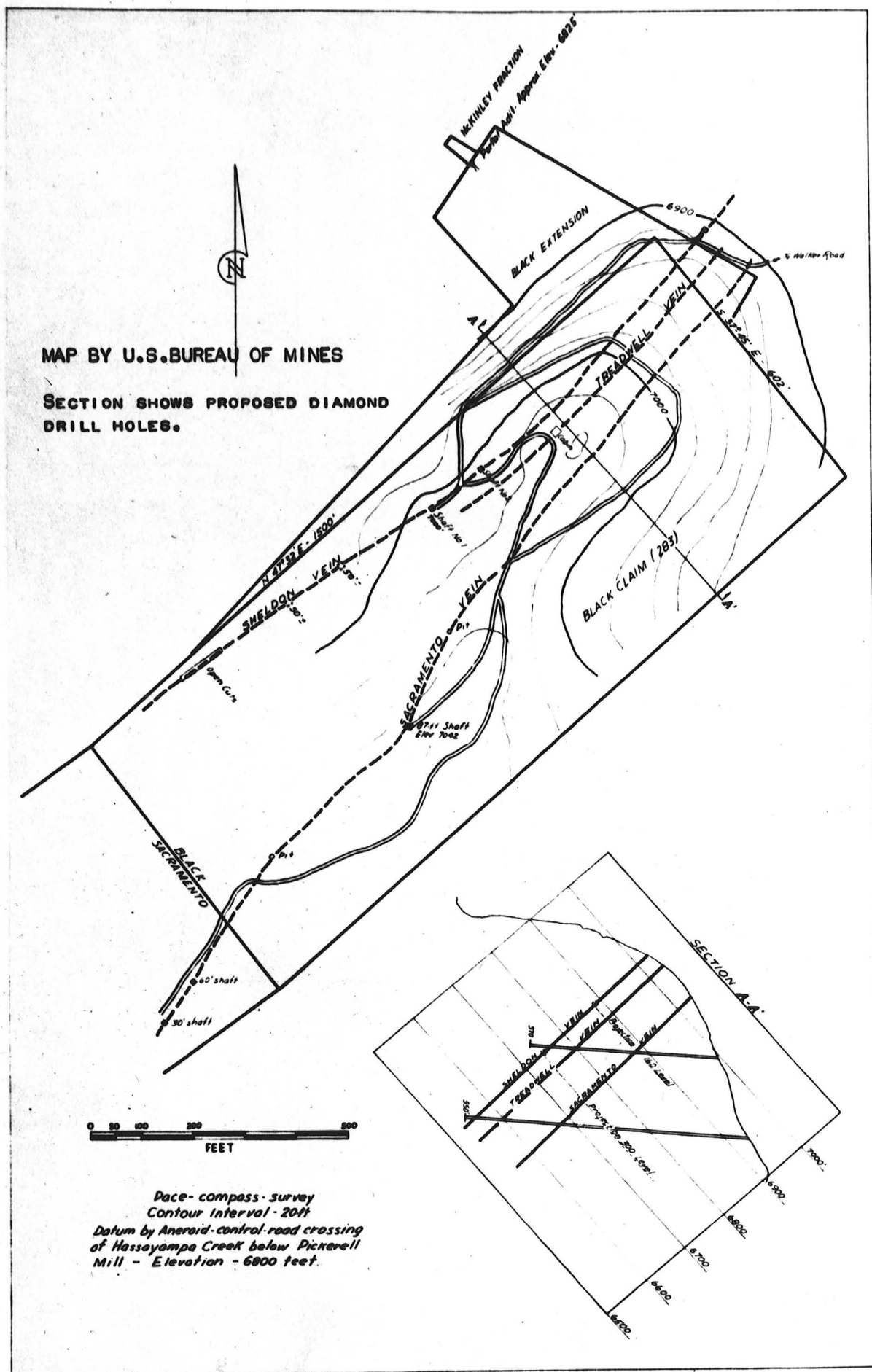


Fig. 3- Surface features and cross section, Rocky Mountain Mines, Arizona.

300 foot level no lateral development has been done. The lateral work totals 1200 feet, which with the shaft amounts to an expenditure of close to \$45,000, for underground work alone. This work was done in connection with the development of the Sheldon vein which extends far to the south where it was highly productive in earlier times.

Other development of importance is the 87 foot shaft on the Sacramento vein roughly paralleling the Sheldon through the Black claim. From this shaft 260 tons of crude ore were taken yielding a profit of \$25. per ton some years ago when zinc was not paid for. This is the only recorded production from the property of Rocky Mt. Mines Inc. This little explored parallel vein may prove to be the most important on this property.

The Treadwell vein is unexplored. It lies between the Sheldon and Sacramento and is exposed on the 160 level. East of these three veins are some broad quartz, gold bearing outcrops.

There can be seen on the several claims a number of pits that were dug on a series of veins by early locators in search of gold. These shallow pits cannot be classed as development, but they serve in pointing the way to veins that may later be found to contain the metals now being sought.

There is a broad sulfide zone with some copper on the southernmost claim. This remains to be explored.

IMPROVEMENTS:

The surface improvements consist of, in addition to the timber headframe over the 330 shaft, a two story combination boarding and bunk house which needs repair. There are five small buildings - an assay office, three dwellings and a combination cookery with living quarters for kitchen staff. These buildings are in good repair unless damaged by recent storms. There are water lines reaching to each building; also

electricity - electric wiring. The camp can be rehabilitated at a nominal cost in comparison to the value of the buildings so as to accommodate up to 50 men. The value of these improvements in their present condition is estimated at \$25,000.; replacement value \$60,000.

GEOLOGY:

The relatively high elevations mentioned above connotes mountain building. Here, the Bradshaw Range generally forms one flank of what is known as the Walker trough. The veins, such as the Sheldon and the Sacramento, dip steeply eastward in the direction of the axis of the "trough". The somewhat unusual length of vein structures relates itself to the magnitude of the controlling structure. By the same token, magnitude of depth is indicated, although the ratio of various minerals in the veins may vary. These structural features, broad in their scope, give good reason for persistent exploration in such an area. It is likely to be rewarded as now being experienced at the Iron King Mine to the northeast.

The veins at Rocky Mt. Mines are essentially an emplacement of quartz and sulfides of iron, lead, zinc, copper and, containing gold and silver. Their trend is close to 50 degrees east of north, dip southeastward 80 degrees. They are emplaced in shear zones that cut through slaty sediments and massive dioritic rocks. There are present some intrusions of granodiorite and later intrusions of (Tertiary) acid porphyries. The whole geologic setup is good.

ORE VALUE:

The value of an ore containing mixed minerals changes with the market price for the minerals contained. The value of this ore is greater today than when the claims were located by gold prospectors; greater than during World War 1 or 2.

The average of samples taken by the writer on the most accessible exposure on the 100 level of the Sheldon vein was as follows,-

Gold	0.035 ounces per ton (\$35.)	\$ 1.22
Silver	6.09 " " " (0.90)	5.48
Lead	2.32 per cent, @ .19 cents	8.81
Zinc	9.64 " " @ .17 "	32.77
Copper	1.53 " " @ .25 "	<u>7.65</u>
(Assays by Abbot A. Hanks Inc., S. F.)		\$55.93

Independent sampling of the same ore shoot by L. D. Clark, E. M.,

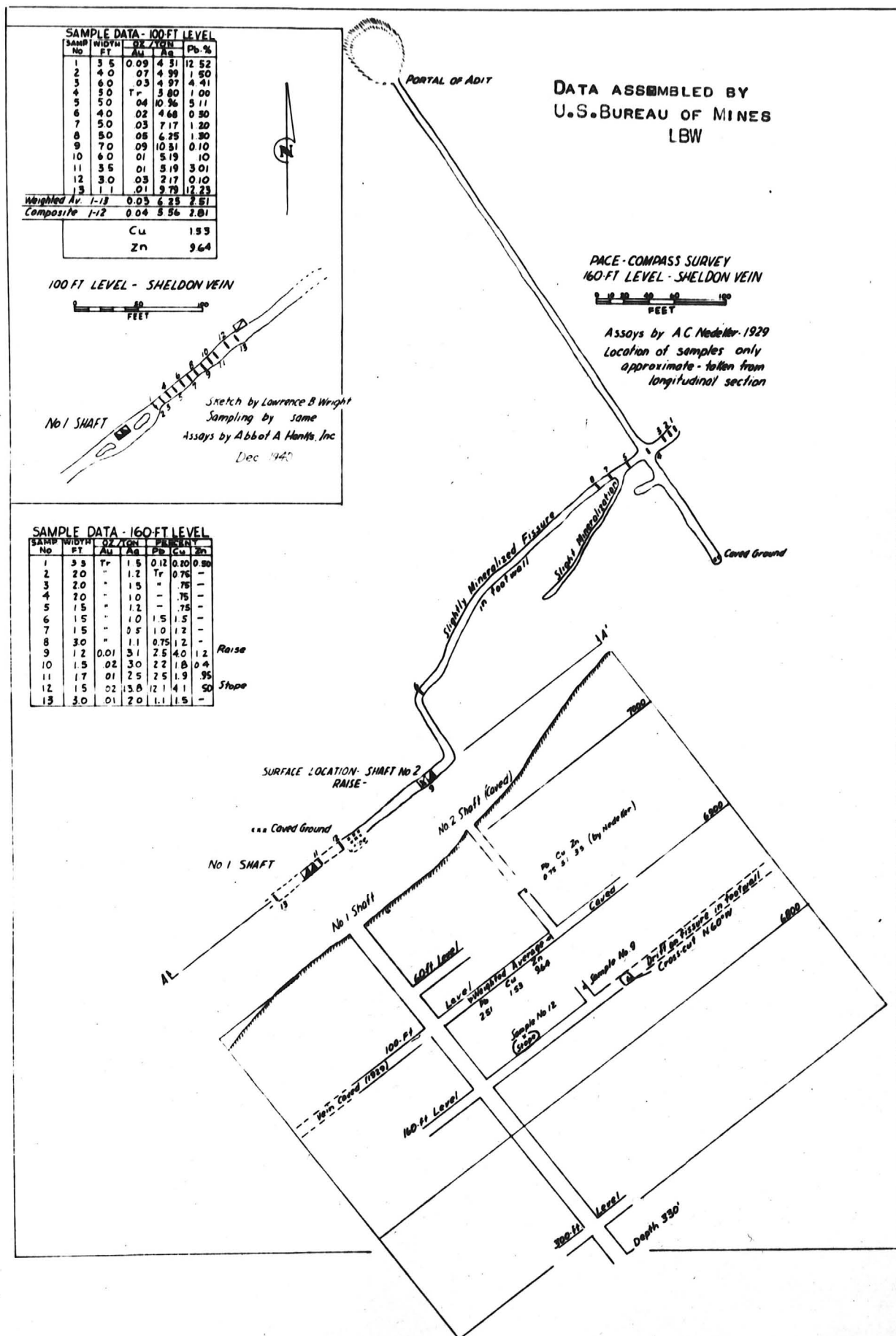
Gold	0.11	\$ 3.85
Silver	3.7	3.33
Lead	3.1	11.78
Zinc	5.2	17.68
Copper	3.4	<u>17.00</u>
(Assays by C. O. Parker & Co. Denver)		\$53.64

.....

The average metal content paid for by American Smelting & Refining Co. for the 260 tons shipped from the Sacramento vein was,-

Gold	0.177	
Silver	14.84	
Lead	13.33	
Zinc	-----	Not paid for.
Copper	1.53	
At above prices		<u>\$77.85</u>

Note: The prices used for lead and zinc are less than the current market prices.



The assay and settlement results shown on page 6 show the ore to be of a grade that would allow for a \$6. to \$8. per ton mining cost, a \$3. per ton milling cost, which are current costs for moderate scale underground operations today, and still leave over forty dollars for freight on concentrates and treatment charges before profits. Average freight and treatment costs should not exceed \$16. per ton. Thus, at least \$20. plus per ton profit is indicated on ore of this grade after concentration and shipment to appropriate smelting plants.

DEVELOPED ORE:

Developed ore in the mine is exposed on the 100 level for a length of 100 feet and an average width (or thickness) of five feet. This ore extends to at least 80 feet above the level and is exposed in a crosscut on the 160 level. There is therefore approximately 7,000. tons safely indicated in this shoot. On the basis of Clark's sampling (the lowest) the gross estimated value is \$375,480.00.

In addition to this, the Sacramento vein has been shown to contain ore of a higher average per ton value, but this cannot be said to be ore that is developed. We feel confident that more ore of comparable tenor exists in this vein but cannot at this time ascribe to it a value. Two years ago on the extension of this vein on the adjoining Sacramento claim, a number of carloads were shipped with reportedly excellent results.

This showing places the property in the mine class, and out of the prospect class, and hence further exploration and development is thoroughly justified on the basis of the present showing.

PROSPECTIVE ORE:

Unless the Prospective Ore outlook was good, there would be little incentive to spend money except for taking out the present ore. However an examination of the possibilities for additional ore discloses a number of features that are favorable. The broad geological features have been mentioned. To these should be added the fact of continuity of veins throughout the Black claim and beyond. Presented herewith is a geophysical map made by the Radiore Company. This map shows the Sheldon vein (Indication No. 1), the Sacramento vein (Indication No. 2), an intermediate vein, the Treadwell (Indication No. 3). Also indications 4 and 5, which are in reality extensions of the others, plus Indication No. 6, which is a footwall spur of the Sheldon vein cut only in the 160 level adit and unexplored. This geophysical work did not go beyond the Black claim.

In the report by Guy J. Johnson, Mining Engineer, the outlook is summarized as follows,-

Page 4 - PROBABLE ORE: "Where opened up, the veins vary from three to eight feet in width. The shipping grade ore varies from a few inches to four feet in width where observed. A mile and a half to the N. W. the Sheldon Mining Co. is down to the 1050 level on a single vein that has approximately the same strike, and all the physical characteristics of the veins on the Black claim. The Sheldon Superior people claim that this vein can be traced without interruption to the Hassayampa"

Note: By "The Hassayampa" Johnson meant across the Black Claim. He mentions 5 veins, and has included others on the buffer claims mentioned in the beginning, and he goes on to say.

"Figuring the five veins as continuous for the length of one claim, and for an average width of four feet, to the depth of one thousand feet, and at ten cubic feet per ton, would give us three million tons of ore. I think one would be very conservative in calculating the run-of-mine ore at one fourth of the shipping grade."

The last sentence is interpreted to mean that the ore in the veins, where it was not rich enough to ship to smelters without prior treatment, would be rich enough to be concentrated on the property at a profit.

The above opinion of Guy J. Johnson cannot be discounted by any information gained since his report in so far as the depth possibilities of the veins are concerned. In this present report, however, it is held that the veins as now exposed do have some stretches along their trend that would not be profitable to mill even at present high prices for metals. Therefore with this in mind if one discounted the Johnson appraisal 50% there would still be a rich prospective target. The reward for an extensive development program could be worth the risk. The situation might be more clearly expressed by considering that the \$375,000, worth of ore involving a length of 100. feet is contained in 1/14 of the length of one claim to a depth of 160 feet. Any multiplication factor of this small area which might be chosen leads to an attractive overall prospective gross value. The writer is at present inclined to ascribe a possible factor of 10 as a reasonable appraisal of the prospective value. To test this out requires an extension of the 300 level together with some crosscutting or drilling into parallel veins, and at depth.

METALLURGY:

Tests have been made on the ore. They show a clean concentrate of lead sulfide can be made; that a clean concentrate of zinc sulfide can be made, and that the copper sulfides can also be separated from the lead and zinc. The gold and silver are distributed between the copper and lead concentrates. Therefore, a three way product would be

marketed in three directions. The products would result from crushing and grinding the ore, followed by selective flotation. Concentrates from the three steps would be shipped to the nearest smelting plant accepting the type involved.

Mineralogically, the ore is coarsely crystalline. This permits relatively clean separation of the constituent minerals, a feature not enjoyed by the Iron King Mine whose ore is finely crystalline and difficult to separate. Their constituent minerals are the same as in Rocky Mt. ore. The texture is very much finer. The grade is similar.

SOME HISTORY AND BUREAU OF MINES REPORT:

When Guy J. Johnson engineered the purchase of this property it was his idea to start operating it about 1940. He was considered a very good mine operator. However he was drafted into war work which overtaxed his health to such an extent that he passed away in 1943.

Two of the owners have never seen the property and Mr. West who lives in Prescott is past 70 years of age. This may give the reader some idea as to why the property is available.

During the war Mr. West leased the property to an organization who termed themselves Western Engineering Company. This lease was terminated abruptly when it was discovered that the organization was not an engineering company and that the performance clause for underground work was not put into effect. They did do some rehabilitation work at surface, but left the 160 adit in poor condition.

Following the Western Engineering lease, an effort was made to interest the U. S. Bureau of Mines in doing some exploratory work on the claims. Their engineers made a comprehensive surface survey of the property, but did not go underground, although others have done so since.

However, the Bureau states as follows, based on a surface examination, -

"The property appears to justify further investigation by your company or private parties who might be interested. However, in view of the limited funds available and the backlog of approved projects, it is doubtful whether it could be recommended at this time for exploration by the Bureau of Mines."

(Signed) J. H. Hedges, Chief,
Tucson Branch
Mining Division (July 25, 1949)

It will be noted that the date of this letter was before the later appropriations which set up the Defense Minerals Administration. Rocky Mt. Mines has made no further request for assistance from the government.

IN CONCLUSION:

The writer wishes to state that his interest amounts to one-fourth equity in the subject company and that therefore this report is that of an interested party. With that in mind, the facts have been presented as found with adequate corroboration, and the personal opinions herein expressed have been those as would be given to any client presenting a similar problem.

It can only be concluded that the property justifies a major expenditure in exploration and development which has a very good chance of leading into a profitable operation.

Respectfully submitted,

March 1, 1952.

Lawrence B. Wright,
401 - 41st Avenue,
San Francisco 21, California.

Dec. 1- 1953

Property now operated by H. W. Gould and Co.,
1100 Mills Tower, San Francisco 4, Calif. under a Lease and Option to
purchase. Ore is being trucked to Iron King Mine at Humboldt, Ariz.
until further development justifies the building of a mill on the
property.

ROCKY MOUNTAIN MINES INC. CLAIM MAP

YAVAPAI COUNTY, ARIZONA.

Showing Main Veins and Neighboring Claims.

600 ft. To An Inch.

Compiled By L. B. Wright

For February 1952 Report.

