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PRINTED: 12/16/2003

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: MOWRY MINE

ALTERNATE NAMES:

BRONCO
EASTERN EXT. ENTERPRISE
ENTERPRISE
PATAGONIA

SANTA CRUZ COUNTY MILS NUMBER: 44C

LOCATION: TOWNSHIP 23 S RANGE 16 E SECTION 15 QUARTER ALL
LATITUDE: N 31DEG 25MIN 44SEC LONGITUDE: W 110DEG 42MIN 19SEC
TOPO MAP NAME: HARSHAW - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

MANGANESE
SILVER

BIBLIOGRAPHY:

AZBM BULL. 180, P. 218 (GIVES RESOURCE EST.)
USBM IC 7990 MN DEPOSITS OF EASTERN ARIZ.
P. 159-160 (DESCRIBES PROPERTY)
AZBM BULL. 115, P. 13
AZBM BULL. 127, P. 91
AZBM BULL. 140, P. 100
USGS BULL. 582, P. 302
ADMMR MOWRY MINE FILE
BOOK V - A.L. FLAG VANADIUM REPORTS
ADMMR MAPS IN FLAT STORAGE, DRAWER 5

PRINTED: 03/22/2002

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STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA 85007



March 13, 1969

Robert H. Snyder
Cohasco Inc
321 Broadway
New York, N. Y. 10007

Dear Mr. Snyder:

We have your March 7th letter concerning the Mowry Silver Mining Company. Nothing in our files pertaining to the Mowry mine gives the name of Mowry Silver Mining Company. During the 1880s the property was owned by Messrs. Steinfeld (also spelled Steinfelt) and Swain, two business men from Tucson. It is possible they called their company by that name.

One of the best sources of information about the mine is U. S. Geological Survey Bulletin 582, Mineral Deposits of the Santa Rita and Patagonia Mountains, Arizona. The bulletin is out of print, but you probably can find one in a local library. Another source of information is a thesis by George Edward Smith, The Geology and Ore Deposits of the Mowry Mine Area, Santa Cruz County, Arizona, 1956. This was written for his Masters degree at the University of Arizona in Tucson. We enclose page 2 from this thesis which we have photocopied showing some of the ownership and history of the Mowry mine.

Arizona Bureau of Mines Bulletin # 173, Bibliography of the Geology and Mineral Resources of Arizona also gives the following:

- Brinsmade, R.B.: Lead-silver deposits of Mowry, Arizona: Mines and Minerals, v. 27, no. 12, p. 529-531 (1907)
Fontana, B. L. : The Mowry mine, 1858-1958: Kiva, v. 23, no. 3 (1958)
Prout, J. W.: The silver-lead deposits of the Mowry mine, Mowry, Santa Cruz County, Arizona: Univ. Ariz., MS Thesis, 18 pg. maps (1907)
Schrader, F. C.: The Mowry mine of Arizona: Min. Sci., p. 28-34, (Aug. 1915).

It is just possible that the Arizona Pioneers' Historical Society, 949 E. 2nd, Tucson may be able to furnish you with information about the principals of the company provided you can furnish them the name or names of the original company personnel.

If you feel we can be of further service, please do not hesitate to write us.

Yours vdry truly,

FRANK P. KNIGHT, Director

by:

Adm. Assistant.

PE
Encs

MOWRY MINE

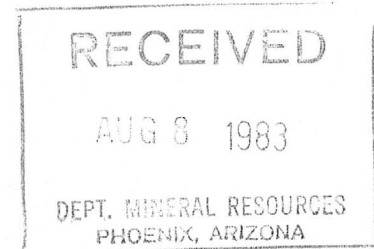
SANTA CRUZ COUNTY

Production from the Mowry mine, Harshaw district, Santa Cruz Co., reported to the U.S. Bureau of Mines:

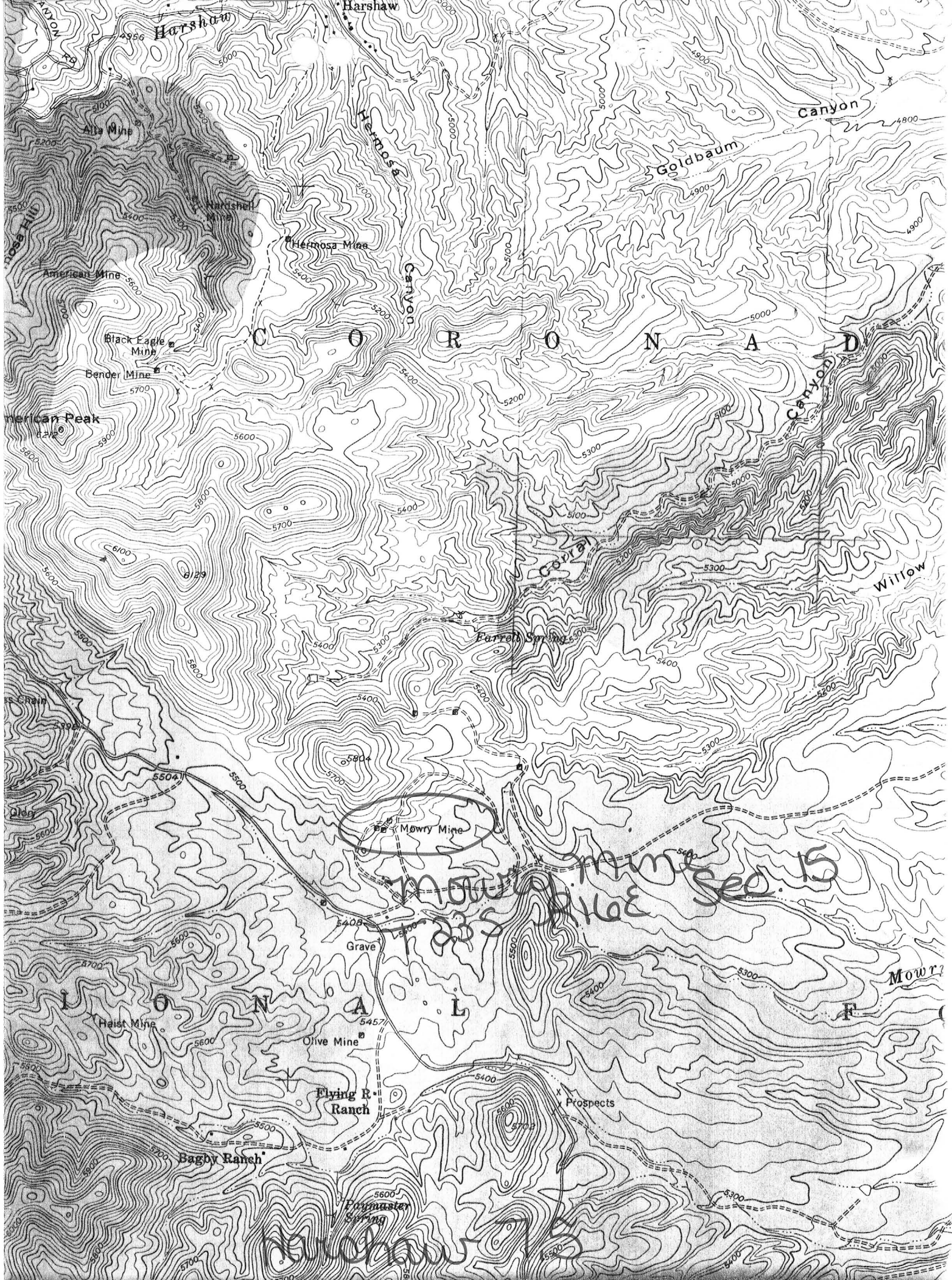
Production reported during years: 1864, 1893, 1901, 1905-07, 1918-20,
1922, 1924-31, 1936-37, 1941-44,
1947-52

Cumulative Totals: 145,647 tons of ore treated, yielding:
9,505 pounds of copper
8,228,879 pounds of lead
21,250 pounds of zinc
374,656 ounces of silver
100 ounces of gold

Cumulative value of silver = \$318,915
" " " gold = 2,511



M N Greeley
8/1/83



MOWRY MINE

SANTA CRUZ COUNTY

ABM Bull. 115 p. 13
ABM Bull. 127 p. 91
ABM Bull. 140 p. 100

USGS Bull. 582 p. 302

IC 7990 p. 159

Arizona Mining Journal Issues of
June 1919 p. 79, Dec. 1919 p. 31,
Jan 1920 p. 42 ; June, 1918, p. 42, 43;
March, 1919, p. 29

U.S. Smelting Refining & Mining Co. has
changed to UV Industries

Book V-V - A.L. Flagg vanadium reports

Desert Magazine June 1967 p. 36

Lead-Silver Deposits of Mowry, Arizona.
By R. B. Brinsmade. M&M Vol 27 p. 529

Mining Statistics West of the Rocky Mountains.
By R. W. Raymond, 1874 p. 389 Willis library

ABM Bull. 180, p. 218

Eagle-Picher (geology file) (George M. Fowler report)

MAPS upstairs in the flat storage area in Drawer Five

See also: Golden Gate (formerly Bullwhacker) (file)

AKA: Patagonia Mine, Enterprise Mine, Bronco, Eastern Extension Enterprise

MILS Santa Cruz Index #44C

Harshaw 7.5 (included in file)

MOWRY MINE

SANTA CRUZ COUNTY

United States Refining & Mining Co. is reported to be still holding the many claims that they have around the Mowry mine. GWI QR 12-31-70

Mine visit - Mowry Mine (Us Smelting & Getty Minerals) no one around. GWI WR 9/9/71

Mine visit. Mowry mine, no sign of activity. (US Smelting reported dickering with Norandex.) GWI WR 5/21/72

U.V. Industries was reported to be drilling between Washington Camp and American Peak but did turn the Mowry mine back to the owners. GWI AR 73-74

Telephone call to Joe Wise of Rosario in regard to ownership of the Mowry Mine. He reported that it belongs to a retired school teacher living in Tucson. GWI WR 8/22/74

Tubac

MG WR 8/26/83: Visited the Mowry mine in Santa Cruz County. There is no activity at this property and there is no equipment. There is a medium size slag dump at the old smelter site.

Mine visit to the Mowry Mine. Mr. McFall of Scientific Mining, and C.A. Mark geologist for U.S. Mining & Smelting Co., who have an agreement with Scientific Mining. GWI WR 11-11-67

Visited the Mowry mine south of Patagonia. Signs of geophysical activity, drilling and road building. No one around. GWI WR 3-9-68

Mine visit to the Mowry mine - no one around. GWI WR 7-6-68

United States Mining and Smelting Co. is doing exploration at the Mowry mine. They appear to have most of the area between Simplot's Washington Camp and Asarco's Harshaw project. GWI QR 6-1968

Mine visit to U.S. Smelting, Mowry Project, one drill working at Mowry. GWI WR 9-7-68

Active Mine List Oct. 1968 - Expl.

U.S. Smelting and Refining Co. continued drilling on their project at and near the Mowry Mine. GWI QR 12-1968

Active Mine List April 1969 - Expl. U.S. Smelting & Refining, J.F. Bickford, Geol.

The U.S. Smelting Company is still evaluating the Mowry project. It is understood that the ore found presents a difficult metallurgical problem. GWI QR 3-1969

Active Mine List Oct. 1969 - Sec. 15, 23S, 16E

U.S. Smelting and Refining Co. - continued exploration at the Mowry Mine but at a considerably reduced rate from previously. GWI QR 9-1969

Visited the Mowry mine - no one around. GWI WR 1-12-70

U.S. Smelting & Refining Co. is still exploring the Mowry mine area, and probably most of the area between the Simplot holdings and Asarco Harshaw project that extends south to American Peak. GWI QR 2-27-70

Visited Mowry mine, USM&R Co., no one around. GWI WR 5-9-70

Active Mine List May 1970 - Expl. - U.S. Smelting & Refining - J.F. Bickford, Geologist

It is reported that U.S. Smelting is keeping up their many claims around and including Mowry mine. They have an office at Harshaw. GWI QR 6-30-70

Active Mine List Oct. 1970 - Expl. - J.F. Bickford

MOWRY MINE NOTES, OCT 1992
S.R.Titley

The old workings of this mine may be viewed from the surface as a linear group of caved stopes along the ENE-striking vein. The observer should be extremely careful at this site because of this caving and stay away from any opening - and do not get near the fences that protect these openings. There are plenty of samples in rock piles along the vein trace. At this writing, remnants of some adobe buildings at the old town site of Mowry are still present and the "stone-masoned" powder building still stands near the outcrop of the No. 4 orebody.

The actual date of discovery of the Mowry vein is unknown and it may have occurred some time in the 18th Century by unknown prospectors who left behind a number of shallow pits and trenches. But it was "rediscovered" by a Mexican prospector at about the time of the Gadsden Purchase and sold for virtually nothing to a group of investors headed by Lt. Sylvester Mowry about 1858. The mine evolved from the presence of exposed rich, (enriched) silver-lead ores, the dominant metal production through some 50 years of intermittent mining. Elsing and Heinemann (1936) report a production value from 1858 to 1930 of about \$1,000,000 in currency of the time - derived from 10,000,000# of Pb at about \$0.05/# average and from about \$500,000 worth of Ag. Granger (1960) reports a production of \$1,500,000. Through much of its significant mining life, the Mowry is said to have been geared to production of about 100tpd.

The mine has a storied history, some of which is described by Granger (1960) and Schrader (1915). Important points of this history stem from its discovery to the imprisonment of Lt. Mowry for some 6 months after the U.S. Government seized the workings in 1862, for ostensibly selling Pb to the confederacy. (Mowry was unsuccessful in regenerating interest in the mine after the Civil war and is said to have died penniless in London a few years later (Granger, 1960). Raphael Pumpelly, at the time a chemist/metallurgist with the "Santa Rita Mining Co." is said to have known and visited the property during early years of its operation.

Withdrawal of troops from Ft. Crittenden during the Civil War resulted in renewed dangers from Apaches and mining stagnated until the 1870s during and following which mining was carried out intermittently until the early part of the Century. Mining of Mn ores took place for a brief period of time during the mid 1950s under DMEA encouragement, and Ventures Ltd. is said to have had an interest in the property at that time. Schrader states that the property consists of 20 patented mining claims.

Rich silver ores were processed both on site where bullion and local coinage was produced, and in Europe by way of wagon transit of Ag and Pb bars to Yuma. Some specimen quality material is said to have been shipped to London during this early period. Lead ores at Mowry, as well as from other mines in the Patagonia and Santa Rita Mountains were smelted locally during the late decades of the 19th century in Alum Canyon, Patagonia, and Duquesne. The ores at Mowry during the late 1800s are said to have yielded more than \$100/ton at prevailing prices, an ore-grade value cut-off that was commonplace in this region at this time.

The mine comprises a group of fault-controlled ore shoots of veins and carbonate replacement ores in a 75m wide shear zone marking the fault boundary between Precambrian granitic rocks (to the south) and the Paleozoic-Mesozoic section to the north. This structure, the Mowry Fault, is known to be mineralized along a strike length of some 350-400m, representing only a small fraction of the composite length of the fault as shown in the accompanying section extracted from Smith (1956), compared with the fault as mapped by Simons (1974). Development, all of which is old, extended to the 500ft (160m) level. Exploration of the early 1980s is said to have attempted to discover mineralization, by geophysics, along the fault trace to the east and to further trace it beneath cover beyond outcrop. Results of this work have not been disclosed to the public.

Ores mined consisted, in the main, of oxidized, argentiferous primary lead-silver mineralization. Principal minerals were cerussite, and anglesite in a dark wad of various manganese (psilomelane and pyrolusite) and iron (hematite) oxides. A secondary Sb mineral "bindheimite" ($\text{Pb}_2\text{Sb}_2\text{O}_6[\text{O},\text{OH}]$) and a member of the stibiconite group, is present and possibly derived from stibnite or a Ag-bearing sulfosalt such as miargyrite or andorites. Galena is reported to have been sparingly present and, although accounts differ between authors, oxidation of the ores was present to a depth of between 300 and 400. Primary sulphides are present in the lowest levels at about 500 feet, but Ag grades are reported to have fallen. Where galena was associated with pyrolusite it is said to have been rich (several 1000s of ounces/t) in silver.

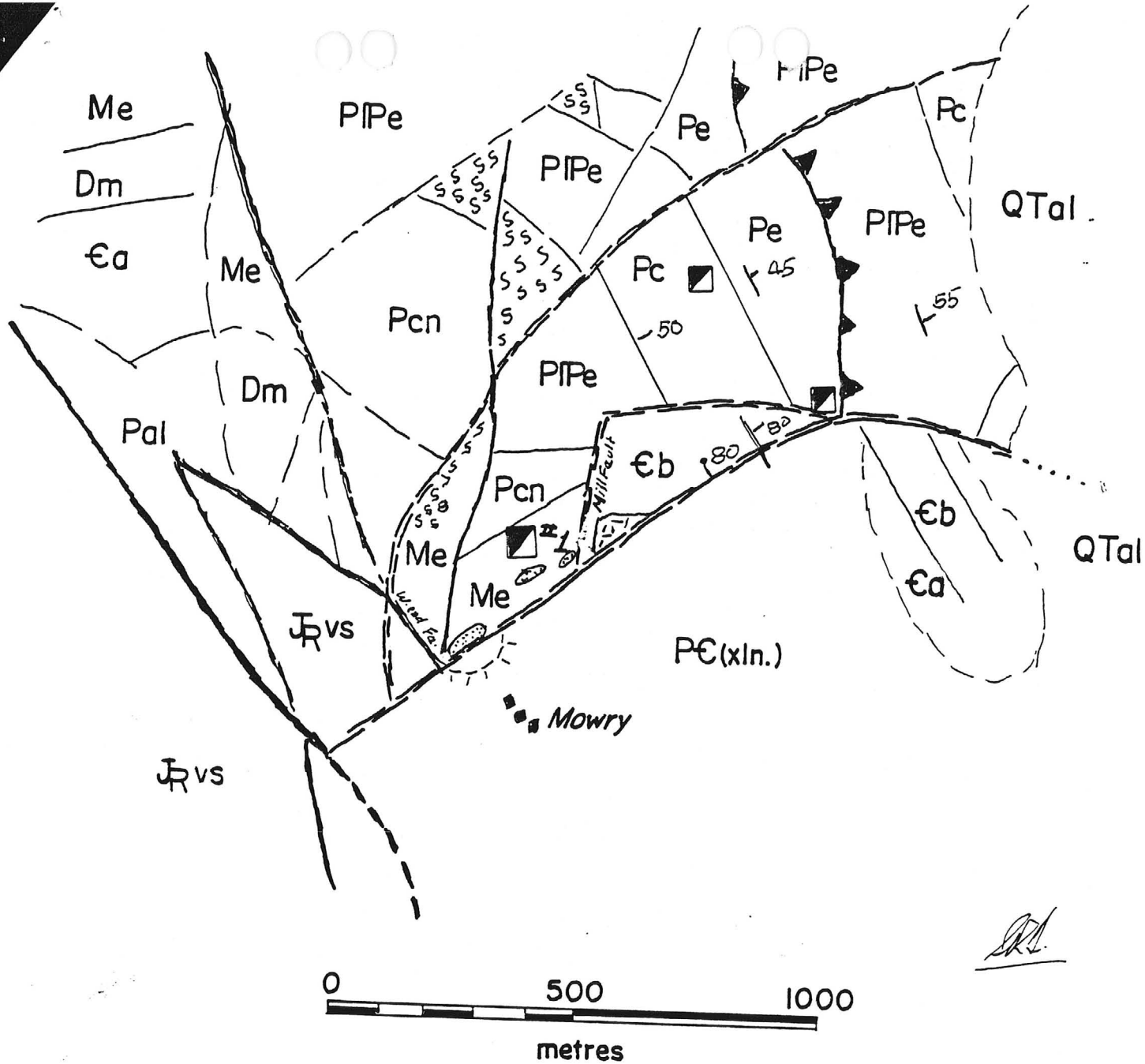
The south wall of the vein is Precambrian "granite", the north wall a complex of Paleozoic strata with incorporation of horizons of a pyroxene monzonite of likely younger age. Replacement of carbonate rocks has taken place in various strata along the vein with a dominance of mineralization in the Escabrosa limestone (See attached map.). The longitudinal section of the vein by Smith (1956) is attached and shows the structure cutting a deep exposure of "porphyry" interpreted in Schrader as "gabbro". This is possibly the pyroxene monzonite of Cretaceous age mapped by Simons (1974).

Age of the mineralization is unknown and may only be inferred as Laramide owing to the manifestation of a (dated) widespread thermal event of such an age (Simons, 1972, 1974) in this region. Laramide trachytic volcanic rocks and intrusions of the Patagonia mountains are widespread, the most significant manifestation of which is Red Mountain flanking the town of Patagonia to the east. However, owing to increasing recognition in some mining districts in southern Arizona of a mid-Tertiary thermal overprint, the age of the event at Mowry remains open. Mineralization is manifestly related to the margins of a significant block fault whose age would set an oldest limit but an age which is presently unconstrained. It could be as old as Triassic and related to widespread volcanic activity of that age (ca. 200Ma), or as young as some time in the Tertiary. No evidence links mineralization with or precludes its development synchronous with faulting.

Tucson, 20th Oct. 1992.

REFERENCES

- Brinsmade, R.B., 1907, Lead-silver deposits of Mowry Arizona: Mines and Minerals, v.27, #12, p.529-531.
- Elsing, M.J. and Heineman, R.E.S. 1936, Arizona metal production: Arizona Bureau of Mines Bulletin no. 140, 112p.
- Granger, Bird H., 1960, Will C. Barnes' Arizona Place Names Revised: Tucson, University of Arizona Press, 519p.
- Prouty, J.W., 1907, The silver lead deposits of the Mowry Mine, Mowry, Santa Cruz County, Arizona: Univ. of Arizona unpub. M.S. thesis, 18p.
- Schrader, F.C. 1915, Mineral deposits of the Santa Rita and Patagonia Mountains Arizona: U.S.Geological Survey Bull. 582, 373p. (Especially, p.296-306).
- Simons, F.S., 1972, Mesozoic stratigraphy of the Patagonia Mountains and adjoining areas, Santa Cruz County, Arizona: U.S.Geological Survey Prof.Paper 658E, 23p.
- Simons, F.S., 1974, Geologic map and sections of the Nogales and Lochiel Quadrangles, Santa Cruz County, Arizona: U.S.Geological Survey Misc. Investigations Series, Map I-762, (1:48,000).
- Smith, G.E., 1956, The geology and ore deposits of the Mowry mine area, Santa Cruz County, Arizona: Univ. of Arizona unpub. M.S. thesis, 44p.



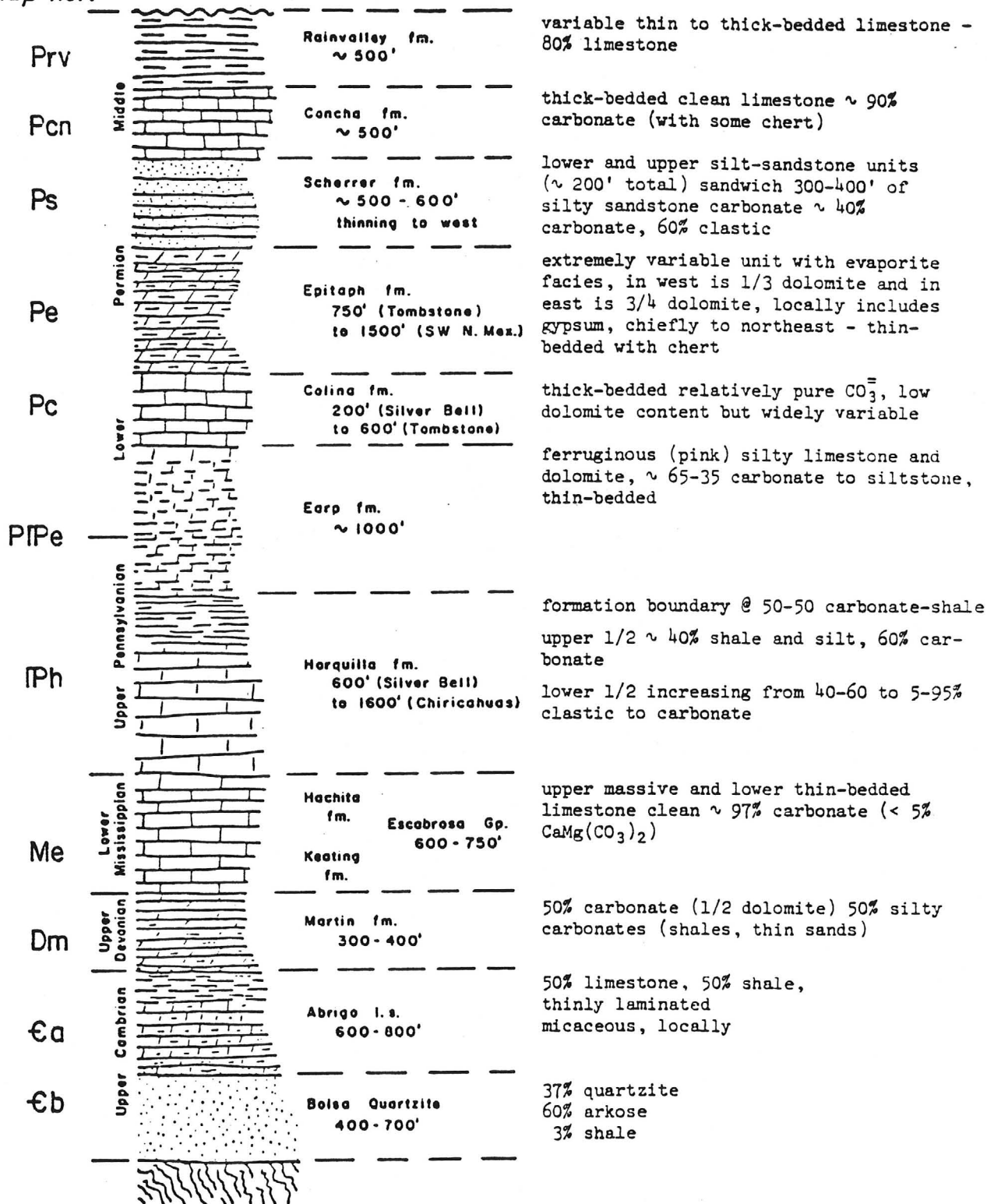
GEOLOGICAL SKETCH MAP – MOWRY MINE AREA

{ Adapted from Simons(1974) & Smith(1956)}

(Unsurveyed)

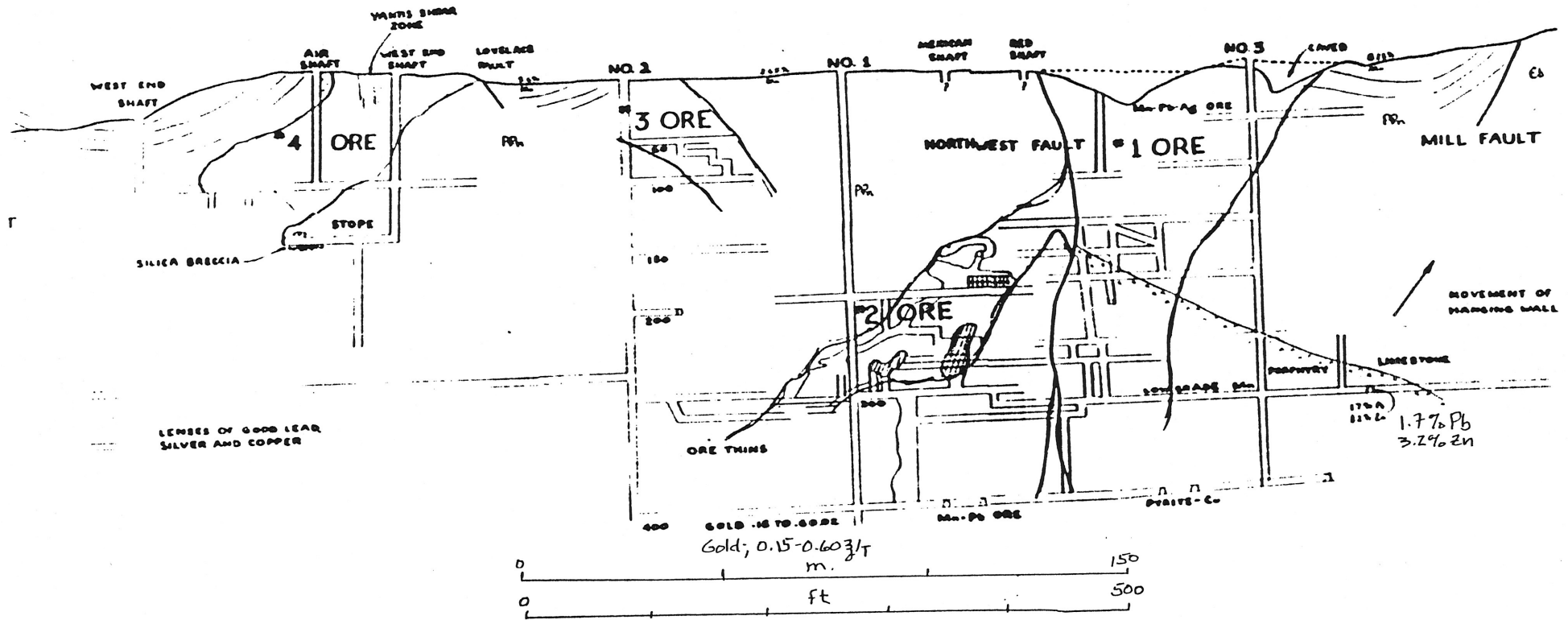
Generalized Paleozoic Column for southeastern Arizona.
Not included are units of local occurrence such as the
El Paso Limestone, Portal Formation, and Black Prince
Limestone.

Map not.



(from Norton, et al., 1975, U. of A.)

SPJ



MOWRY MINE
SANTA CRUZ COUNTY, ARIZONA
LONGITUDINAL SECTION THROUGH ORE BODIES

DATA COPIED FROM MAPS BY BILLINGSLEY, LOCKE MAYO, LOVELACE

From: George Smith 1956
 Thesis, UTA, 44p.

STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX 7, ARIZONA



May 1, 1964

Miss Diane Farley
1145 N. Mountain Avenue
Tucson, Arizona

Dear Miss Farley:

Enclosed are a few notes about the Mowry mine in response to your request of April 28th.

It is suggested that you consult at the University library or at the Arizona Bureau of Mines at the University, U. S. Geological Survey Bulletin No. 582, pages 296-305 which are about the Mowry Mine.

According to this bulletin, Mowry Mines Co. purchased the property in 1904.

The Mines Handbook, 1924, says, "The mine, closed down in 1917, after producing several million dollars, was reopened in 1918. . . and continued into 1922. Old smelter junked 1923". The 1931 Handbook has a somewhat different story. We do not have a complete set of these books, but no doubt the University library does have.

Karl Peterson of Nogales owned the mine in 1952 and leased to Rupert Byerle, River Store, Nogales, who mined manganese ore until February, 1955.

To the best of our knowledge, there has been no production since, although there has been some exploratory drilling.

Arizona Bureau of Mines Bulletin No. 140, page 100, gives Mowry mine production 1858-1930 as 10 million pounds lead, \$500,000 in silver, \$1 million total value.

You probably will find other material at the University library on the famous Mowry mine.

Yours very truly,

FRANK P. KNIGHT,
Director.

FK:p
Enc.

C
O
P
Y

MOWRY MINE

- 1855 Located by two Mexican prospectors. Purchased by Major Ewell for \$10. Colonel Julian became financially interested. Started what is now "the old Mowry Shaft".
- 1858 Lt. Mowry purchased the mines for \$25,000.
- 1863 Lt. Mowry arrested because of Confederate sympathy.
- 1872 Mines relocated as "Enterprise, "West Extension of the Enterprise" and "East Extension of the Enterprise".

Above is from newspaper account based on report by C. H. Swain in 1893.

Governor's Report 1899 gives date of arrest of Sylvester Mowry as June 8, 1862.

STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA 85007



March 13, 1969

Robert H. Snyder
Cohasco Inc
321 Broadway
New York, N. Y. 10007

Dear Mr. Snyder:

We have your March 7th letter concerning the Mowry Silver Mining Company. Nothing in our files pertaining to the Mowry mine gives the name of Mowry Silver Mining Company. During the 1880s the property was owned by Messrs. Steinfeld (also spelled Steinfelt) and Swain, two business men from Tucson. It is possible they called their company by that name.

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Arizona Bureau of Mines Bulletin # 173, Bibliography of the Geology and Mineral Resources of Arizona also gives the following:

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Prout, J. W.: The silver-lead deposits of the Mowry mine, Mowry, Santa Cruz County, Arizona: Univ. Ariz., MS Thesis, 18 pg. maps (1907)
Schrader, F. C.: The Mowry mine of Arizona: Min. Sci., p. 28-34, (Aug. 1915).

It is just possible that the Arizona Pioneers' Historical Society, 949 E. 2nd, Tucson may be able to furnish you with information about the principals of the company provided you can furnish them the name or names of the original company personnel.

If you feel we can be of further service, please do not hesitate to write us.

Yours vdry truly,

FRANK P. KNIGHT, Director

by:

Adm. Assistant.

PE
Encs

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Eastern Extension Enterprise (Mowry) Date May 12, 1955.

(New lessee calls it part of the Mowry Mine)

District Patagonia District --- Santa Cruz Co. Engineer Axel L. Johnson

Subject: Present Status. Information from D. M. Stranahan, Supt. of S. W. Metall. Industr.

Location Sec. 15 -- T 23 S -- R 16 E. 14 miles south of Patagonia.

Number of Claims 1 patented claim.

Owner Karl Peterson, Box 547, Nogales, Ariz.

Lessees & Operators Southwest Metallurgical Industries (an Arizona corporation), subsidiary to Quebec Metallurgical Industries, which in turn is a subsidiary of Ventures, Ltd.

Office and Officers The office of the company is located in Patagonia, next door to Bob Lenon's engineering office. Address is Southwest Metallurgical Industries, Box 20, Patagonia, Arizona. D. M. Stranahan is the engineering representative in charge of the operations of the company. With him is H. M. Kingsbury, the geologist of the company.

Principal Minerals Manganese and Lead ores.

Number of Men Employed None at present.

Production Rate None at present.

Proposed Plans Southwest Metallurgical Industries obtained a lease on this property from Karl Peterson, the owner, after the lease of the former operator, Rupert Beyerle, expired on Feb. 1, 1955. The new Lessee plans on doing extensive exploration work on the property in the near future, in order to explore for Lead and Manganese. This will be done by means of diamond and churn drilling, after some exploration work on the Volcano Mine is completed.

Remarks New Lessees call it part of the Mowry Mine.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Mowry Mine

Date May 12, 1955.

District Harshaw District --- Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Present Status. Information from D. M. Stranahan, Supt. S. W. Metall. Industries.

For Location, Number of Claims, Owner, Lessees and Operators, Office and Officers see Report of Aug. 12, 1954. No work by Mining Contractors is being done at present.

Principal Metals and Minerals Lead-Silver ores, with some Manganese ore.

Number of Men Employed None at present.

Production Rate No production at present.

Milling and Marketing Facilities There is no mill on the property. The Trench Mill of the A. S. & R. Co. is located about 5 miles north of the Mowry Mine.

Proposed Plans The Southwest Metallurgical Industries obtained a lease on this property from the owner, Karl Peterson, about July 1, 1954. Wingfield and Farrell, mine contractors, were employed shortly afterwards to repair and enlarge the East End shaft of the Mowry Mine to a depth of 200 ft. This work was discontinued, and the mine has been idle since Sept. 1954.

The Southwest Metallurgical Industries now plan on doing extensive exploration work on the property in the near future to explore for deposits of Lead-Silver and Manganese ore. This will be done by means of diamond and churn drilling, after some exploration work on the Volcano Mine has been completed.

Remarks According to the new lessees, the Southwest Metallurgical Industries, the Mowry Mine also includes the Eastern Extension Enterprise, the Enterprise, the Golden Gate, (also called the Bullwacker), and all the mines comprising the Mowry Group of Claims.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Eastern Extension Enterprise

Date Mar. 11, 1955

District Patagonia District -- Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineer's Report --- Present Status. Information from Rupert Beyerle.

Location Sec. 15 -- T 23 S -- R 16 E . 14 miles south of Patagonia.

Number of Claims one patented claim.

Owner Karl Peterson, Box 547, Nogales, Ariz.

Principal Minerals Manganese ore.

Present Status of the Lease The lease to Rupert Beyerle expired on Feb. 1st, 1955, and was not renewed. Mine has been idle since Feb. 1, 1955.

No. of Men Employed None. Mine is idle.

Production Rate None.

References For Geology, Ore Values, etc. -----see previous reports on the property.

STATE OF ARIZONA FIELD ENGINEERS REPORT

Present Status Diamond and churn drilling is now being done on this property, the work being done on contract by the Mines Exploration and Development Co., 2000 S. Freeway, Leland C. Vought, Pres. According to Mr. Stranahan, the present drilling is being done to locate manganese deposits, and the first drill hole is now down to a depth of 260 ft., drilled at about a 45 degree angle. Mr. Stranahan reports no results as yet.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Mowry Mine

Date Aug. 12, 1954

District Harshaw Mining Dist., Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report. Inf. from D. M. Stranahan, and personal visit.

Location About 14 miles south of Patagonia, along the Patagonia-Washington Camp road.

Number of Claims A number of patented mining claims.

Owner Karl Peterson, Box 547, Nogales, Ariz.

Lessees and Operators Southwest Metallurgical Industries (an Arizona corporation), subsidiary to Quebec Metallurgical Industries, which in turn is a subsidiary of Ventures, Ltd.

Office and Officers The office of the company is located in Patagonia, next door to Bob Lenons survey office. Address Southwest Metallurgical Industries, Box 20, Patagonia. D. M. Stranahan is the engineering representative in charge of the operations of the Southwest Metallurgical Industries. With him is associated H. M. Kingsbury, Geologist, who is, at present, making a geological map of the area.

Mining Contractors All the shaft sinking and mining development for the company is being done by Wingfield and Farrell, mine contractors, who are doing this work on a cost plus basis. Lee Farrell of Patagonia is in charge of the work for Wingfield and Farrell, with Ross Barclay being employed as the mine shift boss.

Principal Metals and Minerals Lead-Silver ores and Manganese ores.

Number of Men Employed 20 men (9 on day shift, 7 on night shift, plus 4 surface)

Production Rate No production yet. Production will start as soon as the shaft is finished and the 180 ft. level of the mine has been repaired, explored and developed.

Milling and Marketing There are no milling facilities on the property. The Trench mill of the A. S. & R. Co. is located about 5 miles north of the Mowry mine.

Present Operations Work is being done on the East End shaft of the Mowry mine, which shaft is on the 'east end' workings, about 2,000 ft. east of the main Mowry workings. This work was started about 5 weeks ago, shortly after the lease was executed.

Operators are repairing the old one compartment shaft, and adding a new compartment to same. A new 4 1/2 x 5 compt. is added to the old 4 1/2 x 6 compt., making the new shaft a 4 1/2 x 11----2 compt. vertical shaft.

Operators have now completed this work to a depth of 130 ft., and the work will continue until the shaft is completed to a depth of 200 ft. This will provide for the exploration and development of the 180 ft. level of the mine, allowing 20 ft. for a sump.

Proposed Plans Operators plan on opening up the old 180 ft. level of the mine, repairing the old drifts and doing sampling and exploration work in search of deposits of Lead-Silver and Manganese ores. A certain amount of diamond drilling will possibly be done from this level to explore the ore horizons below this level.

Additional Properties of the Company Company claims to have a lease on the Bender Mine, a manganese property, lease to take effect on Jan. 1, 1954. They also have a 1/2 interest in the Black Eagle Mine (manganese), with Lee Farrell owning the other 1/2 interest. They also have a lease on the Humboldt Mine, a lead, silver, copper property.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Eastern Extension Enterprise

Date Feb. 4, 1954

District Patagonia District ---Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineer's Report -----Present Status.

Location Sec. 15--T 23 S -- R 16 E 14 miles south of Patagonia.

Number of Claims one patented claim.

Owner Karl Peterson, Box 547, Nogales, Ariz.

Lessee and Operator Rupert Beyerle, River Store, Nogales, Ariz.

Principal Minerals Manganese.

Number of Men Employed 11 men

Present Production About 2 1/2 carloads per week---approx. 125 tons per week.

Ore Values Recent shipments have averaged 23.54 % Mang. Silica in the ore averages about 30 %, and sometimes runs as high as 50 %. Combined lead and zinc runs about 5 %, for which a nodulizing charge is made.

Marketing Facilities See Report of Dec. 3, 1954.

Present Mine Operations Present mine operations is being conducted from the bottom of the open cut, now 65 ft. deep, as described in my report of Dec. 3, 1954. Besides this, some ore is being mined from an inclined shaft near one end of the open cut. This inclined shaft is now 40 ft. deep, with a cross cut into the ore vein.

Future Plans As the open cut is now getting too deep for practical and safe operations, the operators plan on sinking a vertical shaft from the bottom of the open cut, and extend this shaft to the bottom of the ore body. It is planned to start sinking this shaft on Feb. 9th. While sinking this shaft, ore production will be maintained from the inclined shaft near the open cut. ~~Thus~~ A second shift will be put on about Feb. 9 also. It is expected, therefore, that the present rate of production can be maintained during the time the new shaft is being sunk. After the shaft is completed, operators expect to increase production substantially.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Enterprise Mine
(A part of the Mowry Group)
District Patagonia District, Santa Cruz Co.

Date June 3, 1953
Engineer Axel L. Johnson

Subject: Mine Report. Personal Visit.

Location Sec. 15 -- T 23 S -- R 16 E
About 14 miles south of Patagonia
Road in good condition.

Owner Karl Peterson, Box 547, Nogales, Ariz.

Lessee and Operator Abel DeLaOssa, Patagonia, Ariz.

Principal Minerals Manganese

Number of Men Employed 3

Production Rate About 4 carloads (200 tons per month)
Only one carload shipped so far.

Geology The manganese ore is formed as replacements in limestone, and found in irregular ore shoots in the limestone rock, which is quite soft. The iron content is quite high in places, and the Lead content is also very high. The Silica is very low. Manganese minerals are pyrolusite and psilomelane. Past mining operations were conducted for the Lead and Silver content of the ore, silver bearing cerrusite, anglesite and galena occurring in a manganiferous gangue of psilomelane, pyrolusite, and hematite.

Ore Values Operators estimate of ore analyses is as follows:
Manganese ---- 30 %
Lead ----- 8 %
Iron ----- 12 %
Silica ----- very low.

Marketing Facilities Shipping the ore to the Deming Manganese Depot, Deming, N. Mex.

Present Operations Mining operations are conducted in an open cut, about 30 ft. deep. Ore is blasted, and shoveled into mine car by hand. Mine car is hoisted up an incline by means of a small hoist, and dumped into an ore bin, from where it is ~~loaded into trucks~~ loaded into trucks and hauled to Patagonia for shipment. Ore is hand sorted, as it is loaded into mine car.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Eastern Extension Enterprise
(a part of the Mowry ~~E~~ Group)

Date Aug. 6, 1953

District Patagonia District ---- Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report ---- Information from Rupert Beyerle --- operator.

Location Sec. 15 -- T 23 S ---R 16 E
About 14 miles south of Patagonia.
Road in good condition.

Number of Claims one patented claim.

Owner Karl Peterson, Box 547, Nogales, Ariz.

Lessee and Operator Rupert Beyerle, River Store, Nogales, Ariz.

Principal Minerals Manganese

Number of Men Employed 6 men -- day shift only

Production Rate 14 to 15 tons per day ---- 1 1/2 carloads per week (90 tons per week)

Ore Values Ore shipped has run between 20 and 27 ~~4~~ % Manganese, with an average of about 23 % Mn.

Marketing Facilities Ore hauled in operators own trucks to Patagonia. From there, it is shipped to the Deming government manganese depot. Ore has to be nodulized, for which a nodulizing charge is made.

Mine Workings A bulldozer-loader is used in the mining. Ore has to be hand sorted, before it is loaded on the trucks. Ore is transported by wheelbarrow from a tunnel to an open cut, where it is hand sorted and loaded into the trucks with a loader-dozer.

Operator sank a 15 ft. deep winze from the tunnel. Rock was encountered at a depth of 15 ft., leading operator to believe that this might be the bottom of the ore body.

References For Geology, Past History, Royalties, etc., see my Report on this property under date of Dec. 5, 1952.

Mowry

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Eastern Extension Eterprise
(a part of the Mowry Group)
District Patagonia District ---Santa Cruz Co. Engineer Axel L. Johnson
Date Dec. 3, 1953
Subject: Field Engineer's Report ----- Information from Rupert Beyerle, operator
and personal inspection.

Location Sec. 15 -- T 23 S-- R 16 E
About 14 miles south of Patagonia.
Road in good condition.

Number of Claims One patented claim.

Owner Karl Peterson, Box 547, Nogales, Ariz.

Lessee and Operator Rupert Beyerle, River Store, Nogales, Ariz.

Principal Minerals Manganese

Number of men~~t~~ employed 10 men plus foreman.

Production 3 carloads per week --- about 150 tons per week.

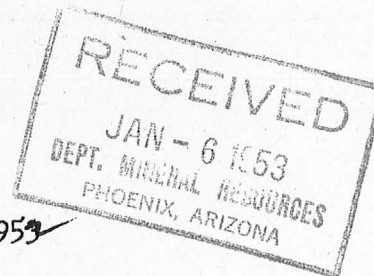
Ore Values Ore sent to the Deming Manganese depot has averaged about 3x 25 % Manganese.
There has been an excess of Lead and Phosphorus in the ore. The lead, at times, has been
as high as 3 %.

Marketing Facilities Ore hauled to Patagonia in operator's own trucks. From there, it
is shipped to the Deming government manganese depot. The ore has to be nodulized on
account of high lead content, for which a nodulizing charge is made.

Mine Workings A bulldozer-loader was used to load the trucks in an open pit excavation
until the open pit excavation got too deep. Now, for the past 3 months, the ore has been
hoisted up in buckets up an incline on the side of the open pit, and dumped into the truck
direct. The open pit excavation is now 62 ft. deep, and on each end of same, there ~~are~~
is a 12 ft. long drift. The ore is handsorted, after blasting, and the sorted ore is
transported to the bucket by means of wheelbarrows, and then hoisted up the incline and
into the ore truck. Most of the waste rock has to be removed from the excavation in the
same manner, and hauled away by the trucks to a waste dump.

Ore Showings Ore vein is nearly vertical, with limestone on both sides of same.
The ore vein is now about 12 ft. wide on the end of the west drift, and 4 ft. wide at the
end of the east drift.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT



Mine Eastern Extension Enterprise
(A part of the Mowry Mine)
District Patagonia District --- Santa Cruz Co. Engineer Axel T. Johnson
Subject: Mine Report . Information from Rupert Beyerle, Lessee.

Location Sec. 15 - T 23 S - R 16 E
About 14 miles south of Patagonia.
Road in very good condition.

Number of Claims One patented claim

Owner Karl Peterson, Box 547, Nogales , Ariz.

Operator Rupert Beyerle, River Store, Nogales, Ariz.---Lessee.

Principal Minerals Manganese

Number of Men Employed 7 men--- day shift only.

Production Rate 10 tons per day.

Geology The manganese ores are found in irregular ore shoots in the limestone, which is quite soft. The ores are formed as replacements in limestone. Ores are pyrolusite and psilomelane. Iron content is high in some places. Silica content is very low. Past mining operations were conducted on silver-bearing cerrusite, anglesite, and galena contained in a manganimiferous and ferruginous gangue of psilomelane, pyrolusite, and hematite. Consequently, the ore is apt to be high in iron, lead, and silver.

Ore Values According to Mr. Beyerle, the samples which have been taken has averaged 29.6 % in manganese content, and that the average for the whole ore body would average well above 20 % of manganese content.

Ore in Sight and Probable Operator believes it is a very large ore body. However, very little ore has been blocked out to date, all the ore being shipped to date, having been taken out right next to the old shaft. Ore in Sight--- about 300 tons.
Probable Ore---- 3000 tons.

Milling and Marketing Facilities 14 miles by trucks to Patagonia, then by rail to the Government depot at Deming, N. Mex.

Present Mine Workings 1 shaft --- 80 ft. deep vertical, in repair now to 40 ft. depth.
1 drift -- 150 ft. long from the 80 ft. level.
3 prospect shafts--- 1-30 ft. deep, 1-100 ft. deep, & 1-50 ft.
Operator now working in the 80 ft. shaft, and has repaired it to depth of 40 ft, and has been mining and shipping the ore obtained from cleaning out the shaft, & adjacent to shaft.

Past History According to University of Arizona Bulletin no. 127--"Manganese Ore Deposits in Arizona", this deposit produced 206 tons of ore that averaged 33.6 % in mn. content, during the first World War. Also, there, apparently was a considerable amount of ore mined about that time or previously, for its high lead and silver content.
Present operator, Mr. Beyerle, started operating this mine on Nov. 16, and shipped the first 2 cars (100 tons) on Dec. 4. He is now working in the shaft and adjacent to same, and sorting the ore underground, before hoisting same. He is consid-

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Page 2

Mine Eastern Extension Enterprise
(a part of the Mowry Mine)

Date Dec. 5, 1952

District Patagonia District -- Santa Cruz Co.

Engineer Axel E. Johnson

Subject: Mine Report. Information from Rupert Beyerle, Lessee.

ering the advisability of beginning open pit operations, using a bulldozer.

Terms of the Lease 10 % Royalty on all ore running 20 % or under.
 15 % Royalty on all ore running above 20 % and below 23 %.
 20 % Royalty on all ore running 23 % and above.

Special Difficulties Ore is apt to run high in iron in places. It is apt to be quite high in lead, also. This may require selective mining.

Both the footwall and the hanging wall is composed of quite soft limestone rock. Consequently, underground mining operations may prove to be quite hazardous on account of the tendency to cave.

Open pit mining operations may prove to be both safer and cheaper, on account of the small amount of overburden, and the softness of the limestone in both the footwall and the hanging wall.

Axel E. Johnson
Field Engnr

MOWRY MINE

SANTA CRUZ COUNTY

November 8 and 9, 1941

Silver-Lead~~Manganese~~

"In view of the recent exploration and present understanding of geologic conditions there is no reason apparent to carry on further work . . . If the U. S. Bureau of Mines opens this ground in an attempt to develop manganese, it would be well to sample and study the workings. The possibility of much alabandite in primary ore should be kept in mind. The Breccia Hill fault must be regarded as unpromising from its surface expression."

Edwin A. Stone 6-8-38
Mowry Mine, Logan & Peterson owners

The Mowry vein occurs at the contact of granite (quartz monzonite) and Carboniferous limestone. Very little of the original vein can now be seen due to dumps and caving. The vein is a variant of the contact metamorphic type of deposit. It shows typical contact minerals but is much more definite in localization and the ore shoots were much more regular. The ore shoots occurred at intervals along the northeasterly striking vein and the shoots pitched to the southwest at 40 to 60 degrees. Schrader shows the vein pinching at about the 250 level where an intrusion of diorite occurs on the vein fracture. There is little or no evidence of mantle mineralization; the solutions would have had to go down the dip of the bedding away from the vein as the limestone dips away from the vein fracture.

Bert Logan who worked in the property many years ago says that an east drift from #3 shaft was in low grade for 1000 feet and that an EW drift west from #3 shaft on the contact (a second contact?) heads about 20 feet north of the old powder house and was in low grade all the way. Some small pockets of high grade were stoped out from these drifts. When queried concerning the grade he gave the following from memory: Ag-6oz, Pb-8%.

At the time of visit, Logan did not have all the maps. It would be well to check with him again when the maps are available. If the low grade is as persistent as he says and of the grade indicated, the property is probably worth some exploration. All the early shafts were on the vein and are in bad shape. #4 shaft was put down in the limestone hanging wall several hundred feet from the vein and should be in fair shape.

CHAPTER X.

ARIZONA.

Mining interests generally look more hopeful in this Territory than at any time for the last ten years; and if the Apache question can be finally settled in favor of the miner, as it bids fair to be soon, the country will, by the time of the advent of the Southern Pacific Railroad, be in a forward state for a large and permanent production of the precious metals.

During the last year the yield of the Territory has fallen off considerably, principally on account of the troubles of the Vulture mine, but the activity in several new silver-districts promises to make up for this, as soon as the preparatory developments of the mines have progressed sufficiently. I estimate last year's product as follows:

Gold from Vulture mine	\$150,000
Gold from placer-mines and arrastras	300,000
Silver in bullion and ore-shippments	175,000
	625,000

I have again to thank Mr. John Wasson, surveyor general of Arizona, for notes in regard to the mining industry of the Territory; and Messrs. T. J. Bidwell, of Yuma County, W. F. Henning and W. H. Hardy, of Mojave County, have kindly furnished information in regard to their several districts.

The Planet mine, on Williams Fork, owned by the Planet Mining Company, and operated by the same, keeps about twenty men at work continually, and has shipped from 100 to 150 tons each month to San Francisco. The mine pays now, and has always paid. It carries copper-ore of a high grade.

The Constancia mine, about fifteen miles from Ehrenberg is owned and operated by the Constancia Mining Company, Charles Borger, superintendent. During the past year they erected a 10-stamp mill. They have three shafts in the mine, over 150 feet deep each, in which a ledge of about 4 feet in width is developed, paying from \$15 to \$25 per ton; at latest accounts about \$18 in gold. Cost of mining and milling, from \$6 to \$8 per ton. Work is going on now.

In Castle Dome district, Captain Polhamus & Co. are sinking on the Flora Temple mine. They are now down about 200 feet, and shipping about 50 tons of ore per month. They are mainly laboring to develop the actual worth of the mine, although the receipts from sales of ore defray expenses. The ore is argentiferous galena.

William P. Miller & Co. are operating on a mine near the Flora Temple on same kind of ore. They ship about 150 tons per month, and are making money, and work is going on now.

The Vulture mine, near Wickenburg, has been idle for over six months. Endeavors are being made to procure capital to take water to the mine, with what success I do not know. The product of the mine is about half that of former years, or about \$150,000. William P. Smith & Co. are putting up a 10-stamp mill on the Hassayampa, about fifteen miles below Wickenburg, and will soon commence crushing ore from their claims, which adjoin the Vulture Company's ground. They express great confidence of success. Mr. Peter Taylor, formerly mine-superintendent of the Vulture, is an interested party with Smith & Co.

in the present operations, and is convinced that their ground, as well as the Vulture, will pay well under proper management.

In Yavapai County no mills were put up in 1872, and I believe none but the Vulture ran at any time. Several arrastras have been kept going in Bradshaw district, and patents for eight mines therein, mainly on the Tiger lode, have been applied for. The placer-mines in Yavapai have been worked with average success in most of this district, and their yield is not less than in the previous year. In the extreme southeastern portion of Yavapai County a copper-district of great value has been discovered, and four surveys for patents to as many mines, and also one mill-site, have recently been made. A Detroit company stand ready to pay a large price for them and to commence work as soon as patents issue therefor.

In Pima County much prospecting has been done, and some new discoveries have been made. The necessary work is now being done to procure patents. Two mines have been patented, and more applications will soon be made. Returns have just been received of the working results of a lot of ore sent to San Francisco some months ago by Samuel Hughes, of Tucson; the ore coming from a mine located about thirty-five miles southwest of that town. The ore contains mainly copper, and purchasers offer for such ore \$200 per ton, laid down on the San Francisco wharf.

The Mowry mine is now being worked by some men who have put an engine thereon, and I understand with good results. The parties, being "jumpers," keep very still, waiting for the time to expire which is given by law of Congress to owners of mines to do the necessary work on their claims or forfeit them.

Ore from Pinal district, near Florence, (about 5 tons,) was sent to San Francisco last summer, and yielded about \$200 per ton. The parties were, however, driven away from the mines by Indians. They intended to commence work again soon, as they were certain of profits, judging from the 5 tons worked in San Francisco.

Wallapai or Hualpai district.—During the year 1871 little else was done by miners of this district than running over the hills and locating mines, and doing what work on each claim was necessary to hold it in accordance with the local laws of the district. Early in 1872 a 5-stamp mill (wet crushing) was completed; there were also two furnaces completed. Both mill and furnaces were owned and managed by men of but little experience in this matter; the mill would save only from 30 to 50 per cent. of the gold and silver, and the furnaces were a total failure.

In December, 1872, a third furnace was completed, and managed by an expert. This furnace has been a success; yet there is a question now about good smelting ores, as experience proves the ores of this district to be base milling ores, which require chloridizing, roasting, and amalgamation.

Within the past year there have been shipped to San Francisco about 120 tons of ore, averaging in value \$600 per ton. Of gold and silver bullion there have been shipped about \$35,000, and of base bullion about 10 tons. As the greater part of this is now in transit, the value is not yet known, but it is estimated at \$600 per ton, or worth \$6,000 in gold and silver. During the years 1871 and 1872 work was generally done on the surface, and until July of the last year but few shafts were down lower than 30 feet. It was found that in sinking from 20 to 40 feet most of the gold, silver, and lead ores gave out, and the ledges turned to iron sulphurets or arsenides. At water-level but little ore

was found of value. Miners became discouraged, and many left the district in disgust. During the latter part of the year 1872 some of the more sanguine miners commenced sinking below the water-level. Silver ores soon came in, and there is not a single instance reported where a valuable mine was not found within 10 feet of the former stoppage. The ores are generally antimonial or ruby silver, with sulphurets and the native metal.

At the present time miners are laboring under a greater disadvantage than ever before, although they are certain that they have valuable mines. It will require machinery to handle the water, and this requires capital. Some companies have been incorporated in San Francisco, and help is expected from that city. Until that is forthcoming, rapid progress will certainly be impossible.

There have already been located in this district 2,700 claims for companies, and about 1,000 of them are on separate ledges, the rest being on extensions. Several other new districts have been located within the past year. The Maynard district, located about ten miles south of the Wallapai district, is one of them. The Cedar district, about sixty miles south of the Wallapai, is another. Both districts are promising well. Preparations are being made for shipping ore from them at an early day. Preparations are also being made for putting up a mill and roasting-furnaces in the Wallapai district. When this is done, the district will have a better chance. The most valuable mines are located ten miles north of the original discoveries in the southern part of the range. The locations are scattered within a distance of fifteen miles. There are at the present time about twenty-five shafts, on as many different ledges, below the water-level, and the prospects, so far as richness of the mines is concerned, are truly flattering. But most of these mines will be compelled to suspend operations soon, on account of too much water. Mr. Hardy, at the end of the year, was prospecting the Fairfield, and three shifts of three men each, besides two men to assist outside, or eleven men at \$4 per day, were employed. The shaft was down 150 feet, 20 feet below water-level, and 200 gallons of water per hour had to be drawn up by hand. It is seen from this that under such circumstances profitable mining is difficult, even on veins carrying as rich ores as those of Wallapai.

The following data in regard to individual claims are furnished by Mr. W. F. Henning, a member of the legislature of Arizona Territory:

Little Tiger, situated at Stockton, shaft over 100 feet deep. At bottom, vein $2\frac{1}{2}$ feet wide. Very rich in native silver, ruby silver, and black sulphurets.

Cupel, near the former mine; about the same amount of work is done here as on the Little Tiger. The vein exhibits about the same quality and quantity of ore. Work has been recently suspended on account of over-abundance of water.

Empire, situated in Empire Cañon, near Chloride, has two shafts of 100 feet each, and some drifting has been done; ledge-matter is several feet wide; exhibits a large body of rich sulphuret-ore. Work was recently suspended on account of too much water. These mines all belong to the Cirbat Consolidated Company, of San Francisco, and the work has been done chiefly during the past summer. Hoisting-works for each of them are expected from San Francisco in the course of one or two months, and work will then be resumed.

Sixty-two, situated near Stockton, and owned by an unincorporated company. During the past summer several shipments of ore have been made to San Francisco, at a cost of nearly \$100 per ton, including min-

ing, transportation, sampling, &c. The returns left a handsome profit for the owners.

Lone Star, situated at Mineral Park. During the past year about 150 tons have been worked in a 5-stamp mill. They yielded about \$7,000. Recently, work was resumed in an old shaft, and at a depth of 50 or 60 feet a body of ore, carrying large quantities of native silver and black sulphurets, was uncovered. The mine is owned by a company incorporated under the laws of Arizona. Work is still progressing; water plenty in the mine.

The Keystone has two shafts, about 60 feet deep each. It is situated at Mineral Park; two feet ledge, chloride of silver on top. Just below water-level, a heavy body of ore, carrying black sulphurets, native and ruby silver, has been uncovered in each shaft. The top ore, worked in the 5-stamp mill at Mineral Park, yielded \$200 per ton, and not more than 50 per cent. was saved in the process. Several tons, shipped to San Francisco, yielded \$600 per ton. Ore from the bottom of the shafts assays as high as \$4,800 per ton. The mine was recently sold in San Francisco. Hoisting-works are to be put up about March, 1873, and work will then be resumed.

Besides the mines above mentioned, there are probably one hundred other locations, nearly as well developed, and giving promise of permanency and great value. Among them are the Todd mine, the Washington, the Independence, the Dexter, the Vanderbilt, the New Era, the Washington No. 2, the Donahue, the Treasure Hill, the Valley View, the Ida, the Bobtail, &c.

GRANT MINING COMPANY

MOKELUMNE HILL, CALIFORNIA

THOMAS L. WOODRUFF, MANAGER

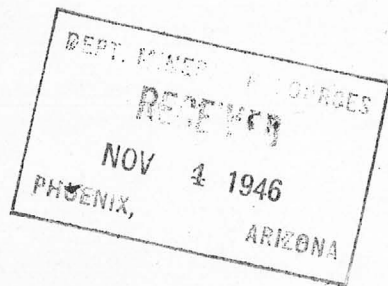
Oct 30th 46

Gentlemen -

We gave up this
lease in May 1944 -
Karl Peterson Nogales,
Arizona is the owner.

Grant Mining Co.
Thomas L. Woodruff

Murry mine
3m
Sent MCR to
Peterson
12-19-46



May 10, 1943

Mr. Thomas L. Woodruff
Care of Grant and Woodruff
Patagonia, Arizona

Dear Mr. Woodruff:

Thank you for your letter of May 6.

While in Los Angeles last week I met C. W. Hodgins who asked to be remembered to you when I next saw you.

I note your findings of zinc on the Mowry Mine and feel as though you are justified in making an application for a loan to develop this zinc showing.

I am sending under separate cover a set of blanks on which you can make application for a loan. On this loan you are not limited in amount but may make it for any amount you wish in order to not only develop but provide some working capital for taking out the ore and shipping same.

The loans which go into complete careful detail get better consideration than those applications which are hastily prepared so I would suggest that you work out in detail a sound plan showing sketches of the occurrence of the ore, use, widths, and assays on the various ore showings outline your development and your operating plans, estimate the cost of equipment and operations and make your loan application for such amount as you think necessary to get results. When this application is completely filled out, it should be mailed to William B. Gohring, Examining Engineer, Reconstruction Finance Corporation, Mine Loan Division, 325 Heard Building, Phoenix, Arizona.

Very truly yours,

J. S. Coupal, Director

JSC:kk



GRANT AND WOODRUFF

MOWRY AND GOLDEN GATE MANGANESE MINES

PATAGONIA, ARIZONA

May. 6 th 43

Dear Mr Willis -

I have been cleaning out an old shaft far from the old lead Silver workings on the Mowry and at 30 feet we have $4\frac{1}{2}$ feet of Zinc ore that assays 20% and 2 feet more that assays $13\frac{1}{2}$ joining. The hanging wall also carries but have not drilled it yet.

As we have spent over \$20,000 on the Manganese and sinking the shaft in line to pick up the Manganese at 100 feet or below. I cannot afford to spend the money on the Zinc. Do you suppose we could get one of those \$5000 loans. The one is acceptable to the Callahan Zinc Co. mill $5\frac{1}{2}$ miles distance also to the A.S. & R. French mill about same distance. Please advise how I would go about getting this loan. Best wishes Cordially Thomas L. Woodruff

C.W. Rodgers

PETERSON, KARL (OWNER)
P. O. Box 547
Nogales, Arizona

7-8-42

MINES - MOWRY MINE - Santa Cruz Co., Patagonia Dist.
✓ EASTERN EXTENSION ENTERPRISE (part of Mowry Mine)
GOLDEN GATE (Formerly Bullwacker)
ENTERPRISE MINE (Part of Mowry Mine)

LESSEES & OPERATORS - Alex DeLaOssa, Patagonia, Ariz.
Golden Gate (Formerly Bullwacker)

Abel DeLaOssa, Patagonia, Ariz.
Enterprise Mine (Part of Mowry Group)

Rubert Beyerle, River Store, Nogales, Ariz.
Operator - Eastern Extension Enterprise

5-12-55-Southwest Metallurgical Ind., Box 20, Patagonia, Ariz. Lessee &
Operator- D.M. Stranahan, Supt., of Mowry Mine & Eastern Extension Enterprise.

LESSEE-

8-10-42

Woodruff, Thomas L. ~~P.O. Box 75~~
~~Aguila, Arizona 11484~~ Brae Burn Road
Altadena, California (150)

See W File

Re - wage provisions

C/o Grant & Woodruff, Patagonia

5-10-43

✓ See MOWRY MINE - Re instructions for loan application

OWNER - Karl Peterson, Nogales, Arizona

TAKEN FROM THE REPORT OF THE GOVERNOR 1899

S. Aug 6.

About 1859-1862 the Patagonia mine, afterwards known as the Mowry mine, excited great attention being extensively worked and made known in the East by its chief owner, Sylvester Mowry. These mines of argentiferous galena were discovered in the Santa Cruz Mountains. Twelve ordinary Mexican blast furnaces were erected, six of them being in blast alternately. The lead bars, weighing about 70 pounds each, were shipped to England, except some of them which were treated for the extraction of the silver with which to meet current expenses. This smelting was accomplished in the Mexican vaso. The silver bullion was cast into bars worth from \$2 up to \$300 each, and these were used as money. Twenty-five tons of products of the Mowry mines were sent to Europe as specimens in 1862. On the 8th of June, 1862, Mr. Mowry was arrested under the order of General Carleton on a charge of treasonable complicity with the rebels and his mining property was confiscated.