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

The following file is part of the

Arizona Department of Mines and Mineral Resources Mining Collection

ACCESS STATEMENT

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

CONSTRAINTS STATEMENT

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

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

QUALITY STATEMENT

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

07/23/97

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: STELLA MARIS NO. 1 MINE

ALTERNATE NAMES:
BLACK WIDOW

PIMA COUNTY MILS NUMBER: 111

LOCATION: TOWNSHIP 11 S RANGE 2 E SECTION 36 QUARTER C
LATITUDE: N 32DEG 26MIN 05SEC LONGITUDE: W 112DEG 07MIN 39SEC
TOPO MAP NAME: GU ACHI - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
MANGANESE

BIBLIOGRAPHY:
S.B. KEITH, AZBM BULL. 189, P. 116, 1974
FULL, ROY P., 1970, INDIAN CLAIMS COMM DOCKET 345, V. I, P. 411
USBM IC 7990, P. 109
ADMMR STELLA MARIS #1 FILE
ADMMR BLACK WIDOW FILE

STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA 85007
602/255-3791

STELLA MARIS NO. 1

PIMA COUNTY
CIMARRON MOUNTAINS DIST.
T11S, R2E,sec 36 NW ¼

MILS STELLA MARIS No. 1 Mine

USBM IC 7990 page 109

See I.C. 7990 p. 19

WENGER, DONALD --
P. O. Box 126
Casa Grande, Ariz.

MINE: STELLA MARIS NO. 1, Cimarron Mts.Dist., Pima Co.- About 50 Mi N of Sells. 1 Unpat'd claim.

OWNER: DON DeSILVIA, 515 E. Willetta St., Phoenix, Ariz. et al

LESSEES & OPERATORS: Arizona Mines Consolidated, Box 126, Casa Grande, Ariz. Mrs. Gertrude Garen, Box 126, Casa Grande, Ariz., principal owner. Donald Wenger, Mine Foreman Brother-in-law of Mrs. Garen. 2/6/56

STELLA MARIS MINE PIMA COUNTY

Received call relative to the ownership of the Stella Maris Manganese Mine in the Cimarron Mountains, 42 miles SW of Casa Grande north of the Sherridan Silica Pit now operated by Virgil Denning, Ajo.

LAS WR 8/26/66

WR KAP Week ending July 15, 1977 - The owner of the Stella Maris manganese mine inquired about the type of instrument used to transfer half interest in a mining property. A quitclaim deed was explained and it was suggested an attorney be contacted to review any paperwork prior to final signing. 9-20-77 bh

---

Arizona Department of Mines and Mineral Resources

INFORMATION FROM MINE CARDS IN MUSEUM

ARIZONA
Pima
~~PINAL~~ CO.
SHERIDAN MTS.
AKA BLACK WIDOW MINE
for Stella Maris No. 1 mine (file)
A2 MILS # 111
1-AKA

MM#352 Manganite
353 Psilomelane
354 Psilomelane

358 Psilomelane
359 Psilomelane
360 Psilomelane
362 Psilomelane
361 Pyrolusite and psilomelane

STELLA MARIS
&
BLACK JACK MINES

PIMA COUNTY
VEKOL MTNS.

Visit-
At the Stovall Manganese Company's blending plant at Casa Grande, Virgil Short, the foreman, stated that the rate of shipment of blended ore was stepped up considerably. He mentioned that the Socorro concentrates were averaging about 50% Mn, the Christofferson jig concentrates were running nearly 50% Mn, and that the Stella Maris and Black Jack ores were ranging from 43 to 51% Mn. Magma was somewhat less. He also stated that the Red Mountain deposit near Cochran, 15 miles east of Florence, was developing rapidly. Del Rios had the lease and Stovall is taking the ore at present. This mill will employ sink float. The ore is of very good grade and the reserve has increased to 3000 tons in sight from a few hundred within a short time. Red McCutchen of Globe, is now foreman at Stella Maris and Owen Wade is foreman at the Black Jack. Stella Maris is producing about 20 tons of ore with 10 men and the Black Jack's output is about 60 tons put out by 20 or more men working 2 shifts.

LEWIS A. SMITH
5-15-59 WR

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Black Jack and Stella Maris Mines Date March 10, 1959

District Vekol Mountains, Pima County Engineer Lewis A. Smith

Subject: Geological mapping of the immediate area.

The Black Jack is operated by the Blue Jester Mining Co., H. C. Smith, Box 347, Globe, Arizona, Russel A. Wright, 4839 Osborne Road, Phoenix.

The Stella Maris is operated by the Stovall Manganese Co.

The region in the immediate area consists of a Paleozoic series which consist of: -

Granite (basal)
Quartzite (recrystallized)
Shaley limestone
Dark gray limestone
Cap rocks (Tertiary volcanics)

These have been warped into a long sinuous anticline whose axis trends from EW to N 68° E in a flat crescent. The anticlinal formations were intruded by porphyry dikes on both flanks. There are a series of transverse fractures which offset the anticlinal formations, but movement along these has been relatively light. Intense silicification following strong brecciation, occurred along these breaks. Reopening, in turn, brecciated the silicified fracture zones. The manganese mineralization followed this reopening. The manganese minerals psilomelane, manganite and pyrolusite formed in openings in 3 stages in the order listed, giving the ore a more or less concentric banded appearance. Calcite in crystalline bands or vug linings accompanied or followed the pyrolusite or last stage. This mineralization favored certain favorable limestone beds. The accompanying sketch map shows the dips, strikes, and general structure. The best and cleanest ore lies between the silicified cross fractures, the silica content increasing as the fractures are approached. The breccia in the silicized zones is cemented by manganese minerals. The quartzite was almost completely recrystallized as was the limestone bordering the fractures. The limestone and shaley limestone are probably of upper Paleozoic Age, but in the absence of recognizable fossil material, this is problematical. Numerous chertified blebs in this limestone looked as if they may have been derived from spirifers and crinoids (both of which would indicate Carboniferous or Devonian).

The Stella Maris ore zone appears to occupy a curving fault which has a very sharp curve on its west end where it butts against a porphyry dike which appears to be of post-silicification age. It swings SE apparently intercepting the Black Jack ore zone at about 300-350' east of the Black Jack shaft. Drift exploration, on the 1st level of the Black Jack, revealed a general petering out of the manganese mineralization at about 100' east of the shaft. The ore zone west of the shaft has been explored for 150-160' with good results. The surface relations indicate that manganese mineralization in varying degrees appears to extend for 1500', at least, to the west of the shaft. Manganese minerals cross the shaley limestone-quartzite barrier along the transverse fractures, but between the fractures these formations are only slightly mineralized. It is thus surmized that the shaley limestone and the quartzite generally act as a dam to the manganese bearing solutions except where the cross fractures have been reopened.

To the south of the quartzite at a distance of several hundred feet a dike, probably similar in composition to the one north of the Stella Maris, cuts the limestone. It is nearly vertical and trends nearly parallel to the strike of the limestone except on the

east end where it swerves into a more NE trend. It was untraceable past the inferred position of the Stella Maris fault fracture. It shows no noteable mineralization, but a thin coat of iron and manganese oxides on the fractures.

Results of samples from the bottom level of the Black Jack (153' on a 68° incline) indicate that the SiO_2 content of the ore is higher than nearer the surface. This may possibly be an indication of the termination of the better ore in depth provided that the silica increase is consistent. Development thus far is insufficient to prove this one way or another. However, the calcite content is also increasing somewhat. As to which way the manganese solutions moved is problematic, since they may have originated on the Black Jack side and moved toward the Stella Maris along the curving fault (shown on the plan map) or they may have moved in a reverse direction. The evidence as seen by the brief study, seems to favor the Black Jack side. However, the two areas are mineralogically similar as far as the manganese minerals are concerned. They appear to have replaced a similar bed in the limestone series. This suggests a third alternative would be that the two areas were connected before erosion removed the crest of the anticline as indicated by the cross section, with additional fault controls. In this case much valuable manganese would have been removed by erosion. This is indicated by the presence of considerable manganese oxide float down the arroya for at least a half mile below the present outcrop.

See Map in "BLACK JACK MINE" file.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Not for publication

Mine Stella Maris No. 1 Date June 20, 1957

District Cimarron Mts. District, Pima Co. Engineer Axel L. Johnson

Subject: Present Status. Personal Visit & Information from Donald Wenger, Foreman.

References Previous reports. Last one dated Nov. 28, 1956.

Changes from previous report of Nov. 28, 1956, are as follows:

Present Mining Activity Present mine production is now about 90 tons per week. Mine production has been slightly less (formerly 100 tons per week) on account of operators encountering more rock in the ore body. Operators hope to increase production to 100 tons per week soon. 15 men are employed, all but two being Indians from the Papago Indian Reservation.

Milling & Marketing Facilities Ore is sold to Stovall Manganese Co. This company hauls the ore in their trucks and dumps it on a x stockpile in their yards and plant, located in Casa Grande, Ariz. From the mine run stockpile, the ore is passed over a screen, and the coarse oversize is transported by conveyor belt to a coarse product stockpile. Shipments from this stockpile are made on the Car Lot Manganese Program. The fines are stockpiled separately in a fine ore stockpile. There is now considerable tonnage in the fine ore stockpile, and no recent attempts to treat this stockpile has been made. At the time of my visit to the Stovall screening plant on June 20, the operations at the plant were idle, and Virgil Short, the foreman, could not be contacted.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA

FIELD ENGINEERS REPORT

Not for publication

Mine Stella Maris No. 1 Date June 20, 1957

District Cimarron Mts. District, Pima Co. Engineer Axel L. Johnson

Subject: Present Status. Personal Visit & Information from Donald Wenger, Foreman.

References Previous reports. Last one dated Nov. 28, 1956.

Changes from previous report of Nov. 28, 1956, are as follows:

Present Mining Activity Present mine production is now about 90 tons per week. Mine production has been slightly less (formerly 100 tons per week) on account of operators encountering more rock in the ore body. Operators hope to increase production to 100 tons per week soon. 15 men are employed, all but two being Indians from the Papago Indian Reservation.

Milling & Marketing Facilities Ore is sold to Stovall Manganese Co. This company hauls the ore in their trucks and dumps it on a x stockpile in their yards and plant, located in Casa Grande, Ariz. From the mine run stockpile, the ore is passed over a screen, and the coarse oversize is transported by conveyor belt to a coarse product stockpile. Shipments from this stockpile are made on the Car Lot Manganese Program. The fines are stockpiled separately in a fine ore stockpile. There is now considerable tonnage in the fine ore stockpile, and no recent attempts to treat this stockpile has been made. At the time of my visit to the Stovall screening plant on June 20, the operations at the plant were idle, and Virgil Short, the foreman, could not be contacted.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Stella Maris No. 1 Date Nov. 28, 1956

District Cimarron Mts. District, Pima County Engineer Axel L. Johnson

Subject: Present Status. Personal Visit & Information from Donald Wenger, Mine Foreman.

Location About 50 miles north of Sells, and about 43 miles south of Casa Grande. For definite directions how to reach same, see report of Feb. 3-Feb. 6, 1956.

Number of Claims 1 unpatented claim.

Owners, Lessees & Operators and Officers. See report of Feb. 3-Feb. 6, 1956.

Principal Minerlas Manganese ore.

Number of Men Employed 12 men, working day shift only. All but one or two are Indians from the Papago Indian Reservation.

Production Rate Donald Wenger, Mine Foreman, reports a production of 100 tons per week.

Geology See report of Sept. 1, 1955.

Ore Values Reported to run from 44 to 48 % in Manganese. Average would be about the average of the last car shipped on the Car Lot Program, viz: Mangnaese -- 46 %; Silica -- 4 %; Iron -- 1 %; Moisture 3 to 5 %. This shipment, however, had a minimum of fines, as it had been screened (only 3 to 5 %). Now, a large proportion of the manganese ore, sold to the buyer, mentioned below, is in the form of fines.

Ore in Sight and Probable The ore body has appeared, for some time, to be approaching exhaustion. However, more ore is continually found by following some of the narrow stringers, which extend from the main ore body, until they open up again into additional smaller stopes. How long this can continue is problematical.

Milling and Marketing Facilities

(1) Prior to the closing of the Deming depot on Nov. 30, 1955, the ore was hauled to Casa Grande and then shipped by rail to the Deming Government Manganese depot in Deming.

(2) In Dec. 1955, and the first 3 1/2 months of 1956 (to about April 15), the ore was shipped on the Car Lot Program, with the exception of 1 car sent to the Phillipsburg, Mont. depot. On account of the large amount of fines in the ore, ~~xx~~ shipments on the Car Lot Program had to be discontinued.

(3) From April 15 to about July 1st, the ore was sold to the Mohave Mining and Milling Co. of Wickenburg, Ariz., who sintered the ore and mixed it with other concentrates produced at their Wickenburg plant.

(4) From about July 1 to date, the ore has been sold to the Stovall Manganese Co. The Stovall Mangnaese Co. hauls the ore in their trucks and the ore is dumped on a stockpile in their yards and plant located in Casa Grande, Ariz. From the mine run stockpile, the ore is put over a screen, and the coar se product transported by conveyor belt to a coarse product stockpile. The fines are run by conveyor belt to a large concrete mixer, where cement (1 part of cement to 7 parts of fine mang. ore) and water is added and the materials mixed. It is then run into a portable concrete mixer and dumped in the yard on tar paper to a depth of about 4 inches. After it is partially set, it is then broken up by a concrete breaker into lumps of suitable size, and then shipped to the G. S. A. Car Lot Program.

(5) O, K. Mills, Phoenix, Ariz. was reported by Mr. Wenger as being the representative, who negotiated for the purchase of the ore. This may be due to the 10,000 long dry ton annual production limitation contained in the G. S. A. Managanese Regulations.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Stella Maris No. 1 Date Nov. 28, 1956

District Cimarron Mts. District, Pima County Engineer Axel L. Johnson

Subject: Present Status. Personal Visit & Information from Donald Wenger, Mine Foreman.

Location About 50 miles north of Sells, and about 43 miles south of Casa Grande. For definite directions how to reach same, see report of Feb. 3-Feb. 6, 1956.

Number of Claims 1 unpatented claim.

Owners, Lessees & Operators and Officers. See report of Feb. 3-Feb. 6, 1956.

Principal Minerlas Manganese ore.

Number of Men Employed 12 men, working day shift only. All but one or two are Indians from the Papago Indian Reservation.

Production Rate Donald Wenger, Mine Foreman, reports a production of 100 tons per week.

Geology See report of Sept. 1, 1955.

Ore Values Reported to run from 44 to 48 % in Manganese. Average would be about the average of the last car shipped on the Car Lot Program, viz: Mangnaese -- 46 %; Silica -- 4 %; Iron -- 1 %; Moisture 3 to 5 %. This shipment, however, had a minimum of fines, as it had been screened (only 3 to 5 %). Now, a large proportion of the manganese ore, sold to the buyer, mentioned below, is in the form of fines.

Ore in Sight and Probable The ore body has appeared, for some time, to be approaching exhaustion. However, more ore is continually found by following some of the narrow stringers, which extend from the main ore body, until they open up again into additional smaller stopes. How long this can continue is problematical.

Milling and Marketing Facilities

(1) Prior to the closing of the Deming depot on Nov. 30, 1955, the ore was hauled to Casa Grande and then shipped by rail to the Deming Government Manganese depot in Deming.

(2) In Dec. 1955, and the first 3 1/2 months of 1956 (to about April 15), the ore was shipped on the Car Lot Program, with the exception of 1 car sent to the Phillipsburg, Mont. depot. On account of the large amount of fines in the ore, ~~mm~~ shipments on the Car Lot Program had to be discontinued.

(3) From April 15 to about July 1st, the ore was sold to the Mohave Mining and Milling Co. of Wickenburg, Ariz., who sintered the ore and mixed it with other concentrates produced at their Wickenburg plant.

(4) From about July 1 to date, the ore has been sold to the Stovall Manganese Co. The Stovall Mangnaese Co. hauls the ore in their trucks and the ore is dumped on a stockpile in their yards and plant located in Casa Grande, Ariz. From the mine run stockpile, the ore is put over a screen, and the coar se product transported by conveyor belt to a coarse product stockpile. The fines are run by conveyor belt to a large concrete mixer, where cement (1 part of cement to 7 parts of fine mang. ore) and water is added and the materials mixed. It is then run into a portable concrete mixer and dumped in the yard on tar paper to a depth of about 4 inches. After it is partially set, it is then broken up by a concrete breaker into lumps of suitable size, and then shipped to the G. S. A. Car Lot Program.

(5) O. K. Mills, Phoenix, Ariz. was reported by Mr. Wenger as being the representative, who negotiated for the purchase of the ore. This may be due to the 10,000 long dry ton annual production limitation contained in the G. S. A. Managanese Regulations.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Stella Maris No. 1 Date April 20, 1956

District Cimarron Mts. District ---Pima Co. Engineer Axel L. Johnson

Subject: Present Status. Personal Visit & information from Donald Wenger, Mine Foreman.

Location About 50 miles north of Sells, and about 43 miles south of Casa Grande. Drive 44 1/2 miles north of Sells or 37 miles south of Casa Grande on the Sells- Casa Grande road. Turn west at the "Stella Maris No.1 sign, and drive about 6 miles to the mine, on a good dirt road.

Owners, Lessees & Operators, and Officers See my report of Feb. 3, and Feb. 6, 1956.

Number of Claims, Principal Minerals, & No. of Men Employed See report indicated above.

Production Rate Production rate reported to have diminished considerable the past few weeks on account of the near exhaustion of the ore body, and also on account of the large amount of fines in the ore mined. The production, which averaged about 95 tons per week the first 3 months of the year, is probably less than half of this at present.

Geology See report of Sept. 1, 1955.

Ore Values The manganese ore still runs well above 40 %, with low silica, iron, and moisture. The ore mined at present, however, has too much fines, and therefore can not be shipped on the Car Lot Program, except a small amount estimated at 2 carloads.

Ore in Sight and Probable The ore body is nearing exhaustion, with rock being encountered in the bottom and all sides. The foreman, Mr. Wenger, estimates about 130 tons of coarse, which can be shipped on the Car Lot Program, and about 1500 tons of fines, which is being hauled to the Mohave Mining and Milling Co. mill at Wickenburg for treatment.

Milling and Marketing Facilities Until recently, the ore was shipped on the Car Lot Program. The past week the ore mined has been hauled to the Mohave Mining and Milling Co. at Wickenburg for treatment on account of the large amount of fines in the ore.

Mine Workings See my report of Feb. 3 & 6, 1956.

Present Operations Same as described in my report of Feb. 3 & 6, 1956, except now the ore is hauled to the Mohave Mining and Milling Co. mill at Wickenburg. I understand that the ore is sold direct to this company, who xxxxxxx plans to sinter the ore and then mix it with other ~~ores~~ conc. produced at their plant in Wickenburg.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine: Stella Maris No. 1 — Date: April 20, 1956

District: Cimarron Mts. District ---Pima Co. — Engineer: Axel L. Johnson

Subject: Present Status. Personal Visit & information from Donald Wenger, Mine Foreman.

Location About 50 miles north of Sells, and about 43 miles south of Casa Grande. Drive 44 1/2 miles north of Sells or 37 miles south of Casa Grande on the Sells- Casa Grande road. Turn west at the "Stella Maris No.1 sign, and drive about 6 miles to the mine, on a good dirt road.

Owners, Lessees & Operators, and Officers See my report of Feb. 3, and Feb. 6, 1956.

Number of Claims, Principal Minerals, & No. of Men Employed See report indicated above.

Production Rate Production rate reported to have diminished considerable the past few weeks on account of the near exhaustion of the ore body, and also on account of the large amount of fines in the ore mined. The production, which averaged about 95 tons per week the first 3 months of the year, is probably less than half of this at present.

Geology See report of Sept. 1, 1955.

Ore Values The manganese ore still runs well above 40 %, with low silica, iron, and moisture. The ore mined at present, however, has too much fines, and therefore can not be shipped on the Car Lot Program, except a small amount estimated at 2 carloads.

Ore in Sight and Probable The ore body is nearing exhaustion, with rock being encountered in the bottom and all sides. The foreman, Mr. Wenger, estimates about 130 tons of coarse, which can be shipped on the Car Lot Program, and about 1500 tons of fines, which is being hauled to the Mohave Mining and Milling Co. mill at Wickenburg for treatment.

Milling and Marketing Facilities Until recently, the ore was shipped on the Car Lot Program. The past week the ore mined has been hauled to the Mohave Mining and Milling Co. at Wickenburg for treatment on account of the large amount of fines in the ore.

Mine Workings See my report of Feb. 3 & 6, 1956.

Present Operations Same as described in my report of Feb. 3 & 6, 1956, except now the ore is hauled to the Mohave Mining and Milling Co. mill at Wickenburg. I understand that the ore is sold direct to this company, who ~~xxxxxxx~~ plans to sinter the ore and then mix it with other ~~ores~~ Conc. produced at their plant in Wickenburg.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Stella Maris No. 1 Date Feb. 3 and Feb. 6, 1956.

District Cimarron Mts. District -- Pima Co. Engineer Axel L. Johnson

Subject: Present Status. Personal Visit & Information from Donald Wenger, Mine Foreman.

Location About 50 miles north of Sells. For more definite location see report of 9/1/55

Owners Don DeSilvia, 515 E. Willetta St., Phoenix, Arizona, et. al.

Lessees and Operators Arizona Mines Consolidated, Box 126, Casa Grande, Ariz. Mrs. Gertrude Garen, Box 126, Casa Grande, Ariz. reported to be the principal owner of the company. Mrs. Garen resides at the La Posada Trailer Court N. of Casa Grande. Lease provides for 10 % royalty.

Officers Donald Wenger, P. O. Box 126, Casa Grande, Ariz. ---- Mine Foreman. Mr. Wenger is a brother-in-law of Mrs. Garen, and resides in the same trailer court.

Number of Claims 1 unpatented claim.

Principal Minerals Manganese ore.

Number of Men Employed 10 men, including the foreman and the truckdriver. 7 of these men are Indians from the Papago Indian Reservation. Work done on day shift only.

Production Rate Production has averaged 95 tons per week since the 1st of January.

Geology See my report of Sept. 1, 1955.

Ore Values Last shipments of manganese ore on the Car Lot Program have averaged as follows: Manganese -- 46 %; Silica -- 4 %; Iron -- 1 %; Moist 3 to 5 %; and Fines 5 to 8 %.

Ore in Sight and Probable Mr. Wenger reports about 25 to 30 cars (about 1500 tons) of ore in sight. Ore body has not been explored below the 90 ft. level to determine how far the ore goes down in depth. Only the one stope has been worked, and no other ore bodies have been explored and developed on the claim.

Milling and Marketing Facilities The ore is now being shipped on the Car Lot Program. Ore was shipped to the Deming depot prior to the closing of the depot on Nov. 30, 1955. One carload of ore was then shipped to Phillipsburg, Mont. This car of 60 tons ran 45 % manganese. The freight on same was approximately $1500 or about $ 25 per ton. Operators later made arrangements to ship the ore on the Car Lot Program. One carload was shipped in Dec. and 6 more carloads in January, 1956. Cars run about 63 tons each. Shipments are made to Ft. Worth, Texas, and are assayed for the GSA by the Southwestern Laboratories, Ft. Worth, Texas. Shipment orders are issued by the General Services Administration, San Francisco, Calif.

Mine Workings (1) One hoisting shaft (inclined 45 to ~~60~~ 70 deg) about 120 ft. deep on the incline. Dist. vertical about 100 ft. Bottom level at 90 ft.
(2) One manway and ventilation shaft (inclined about 30 deg), extending down to the 90 ft. level and connecting with that level and the mining operations.

Mine Stella Maris No. 1 (continued) Date Feb. 3 and Feb. 6, 1956

District Engineer

Subject:

Mine Workings (continued)

(3) 1 worked out stope on the 70 ft. level -----about 60 ft. long x 30 ft. wide x 25 ft. high.

(4) 1 stope on the 90 ft. level ----- about 50 ft. long x 30 ft. wide x 20 ft. max. height. About 1500 tons of ore remain to be mined from this stope. Mr. Wenger reports that approximately 5,500 tons of ore has been shipped since mining operations started a little over a year ago.

Present Operations After drilling and blasting, the ore is shoveled by hand into wheelbarrows, with some hand sorting, and wheeled about 20 to 40 ft and dumped in a pile near the shaft. It is then shoveled by hand again into the ore bucket, with some more hand sorting, and hoisted up the shaft on skids or runners, by means of a gasolene driven hoist. The small bucket (about 300 lbs.) is dumped into a small chute. From the chute, the ore is drawn into 1 ton ore cars, with some more hand sorting, and trammed about 25 ft. and dumped into a 60 to 70 ton ore bin. From this ore bin, the ore is drawn into trucks for haulage to Casa Grande. 6 to 7 tons per load is hauled a distance of about 39 miles.

The above method of operation involves a large amount of hand shoveling, and hand transportation of the ore. However, it gives the opportunity for sorting out the silica and the iron in the ore, thus producing a high grade product. It also provides work for a few of the Indians on the Papago Indian Reservation. Mr. Wenger estimates that the cost of mining the ore, exclusive of the 10 % royalty, is approximately $ 35 per ton. As the ore is sold for about $100 per ton, delivered in Casa Grande, there is still a large margin of profit for the producers.

Proposed Plans Operators plan on putting down some drill holes from the bottom of the 90 ft/ level to see if the ore goes down for any distance below that level. If the results of this drilling proves favorable, the hoisting shaft and also the man way and ventilation shaft will be deepened, and a new level opened up, possibly about 25 ft. below the 90 ft. level.

Difficulties Encountered

(1) Several horses of rock and one of iron ore was encountered during mining operations, and had to be removed.

(2) Operators have had trouble getting ~~the~~ cars, from the railroad, ~~that are required~~ for transporting the ore, and have also had trouble loading the cars. The GSA specifies that a flat bottom car must be used. These ~~cars~~ are hard to get, and tthey are also hard to load, as the ramp at Casa Grande is too high for that type of car.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Stella Maris No. 1 Date Feb. 3 and Feb. 6, 1956.

District Cimarron Mts. District -- Pima Co. Engineer Axel L. Johnson

Subject: Present Status. Personal Visit & Information from Donald Wenger, Mine Foreman.

Location About 50 miles north of Sells. For more definite location see report of 9/1/55

Owners Don DeSilvia, 515 E. Willetta St., Phoenix, Arizona, et. al.

Lessees and Operators Arizona Mines Consolidated, Box 126, Casa Grande, Ariz. Mrs. Gertrude Garen, Box 126, Casa Grande, Ariz. reported to be the principal owner of the company. Mrs. Garen resides at the La Posada Trailer Court N. of Casa Grande. Lease provides for 10 % royalty.

Officers Donald Wenger, P. O. Box 126, Casa Grande, Ariz. ---- Mine Foreman. Mr. Wenger is a brother-in-law of Mrs. Garen, and resides in the same trailer court.

Number of Claims 1 unpatented claim.

Principal Minerals Manganese ore.

Number of Men Employed 10 men, including the foreman and the truckdriver. 7 of these men are Indians from the Papago Indian Reservation. Work done on day shift only.

Production Rate Production has averaged 95 tons per week since the 1st of January.

Geology See my report of Sept. 1, 1955.

Ore Values Last shipments of manganese ore on the Car Lot Program have averaged as follows: Manganese -- 46 %; Silica -- 4 %; Iron -- 1 %; Moist 3 to 5 %; and Fines 5 to 8 %.

Ore in Sight and Probable Mr. Wenger reports about 25 to 30 cars (about 1500 tons) of ore in sight. Ore body has not been explored below the 90 ft. level to determine how far the ore goes down in depth. Only the one stope has been worked, and no other ore bodies have been explored and developed on the claim.

Milling and Marketing Facilities The ore is now being shipped on the Car Lot Program. Ore was shipped to the Deming depot prior to the closing of the depot on Nov. 30, 1955. One carload of ore was then shipped to Phillipsburg, Mont. This car of 60 tons ran 45 % manganese. The freight on same was approximately $1500 or about $ 25 per ton. Operators later made arrangements to ship the ore on the Car Lot Program. One carload was shipped in Dec. and 6 more carloads in January, 1956. Cars run about 63 tons each. Shipments are made to Ft. Worth, Texas, and are assayed for the GSA by the Southwestern Laboratories, Ft. Worth, Texas. Shipment orders are issued by the General Services Administration, San Francisco, Calif.

Mine Workings (1) One hoisting shaft (inclined 45 to 70 deg) about 120 ft. deep on the incline. Dist. vertical about 100 ft. Bottom level at 90 ft.
(2) One manway and ventilation shaft (inclined about 30 deg), extending down to the 90 ft. level and connecting with that level and the mining operations.

Mine Stella Maris No. 1 (continued) Date Feb. 3 and Feb. 6, 1956

District Engineer

Subject:

Mine Workings (continued)

(3) 1 worked out stope on the 70 ft. level -----about 60 ft. long x 30 ft. wide x 25 ft. high.

(4) 1 stope on the 90 ft. level ----- about 50 ft. long x 30 ft. wide x 20 ft. max. height. About 1500 tons of ore remain to be mined from this stope. Mr. Wenger reports that approximately 5,500 tons of ore has been shipped since mining operations started a little over a year ago.

Present Operations After drilling and blasting, the ore is shoveled by hand into wheelbarrows, with some hand sorting, and wheeled about 20 to 40 ft and dumped in a pile near the shaft. It is then shoveled by hand again into the ore bucket, with some more hand sorting, and hoisted up the shaft on skids or runners, by means of a gasolene driven hoist. The small bucket (about 300 lbs.) is dumped into a small chute. From the chute, the ore is drawn into 1 ton ore cars, with some more hand sorting, and trammed about 25 ft. and dumped into a 60 to 70 ton ore bin. From this ore bin, the ore is drawn into trucks for haulage to Casa Grande. 6 to 7 tons per load is hauled a distance of about 39 miles.

The above method of operation involves a large amount of hand shoveling, and hand transportation of the ore. However, it gives the opportunity of for sorting out the silica and the iron in the ore, thus producing a high grade product. It also provides work for a few of the Indians on the Papago Indian Reservation. Mr. Wenger estimates that the cost of mining the ore, exclusive of the 10 % royalty, is approximately $ 35 per ton. As the ore is sold for about $100 per ton, delivered in Casa Grande, there is still a large margin of profit for the producers.

Proposed Plans Operators plan on putting down some drill holes from the bottom of the 90 ft/ level to see if the ore goes down for any distance below that level. If the results of this drilling proves favorable, the hoisting shaft and also the man way and ventilation shaft will be deepened, and a new level opened up, possibly about 25 ft. below the 90 ft. level.

Difficulties Encountered

(1) Several horses of rock and one of iron ore was encountered during mining operations, and had to be removed.

(2) Operators have had trouble getting ~~the~~ cars, from the railroad, ~~that are required~~ for transporting the ore, and have also had trouble loading the cars. The GSA specifies that a flat bottom car must be used. These ~~cars~~ are hard to get, and they are also hard to load, as the ramp at Casa Grande is too high for that type of car.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Stella Maris No. 1 Date Sept. 1, 1955

District Cimarron Mts. District --- Pima Co. Engineer Axel L. Johnson

Subject: Field Engineers Report. Personal Visit & Information from Al Garen & Fred Lambe.

Location About 50 miles north of Sells. Drive 22 miles north of Sells on Highway 86. Turn right (north) on the Covered Wells-Casa Grande road, and drive 22 1/2 miles to road signs "Black Jack Mining" and Stella Maris No. 1". Turn left (west) and drive about 6 miles to the mine.

Owner Don DeSilvia, 515 E. Willetta St., Phoenix, Arizona.

Lessee and Operator Arizona Mines Consolidated, Box 126, Casa Grande, Ariz. Tel. 9990. Al Garen, Box 126, Casa Grande, Ariz. reported to be the principal owner of the company.

Officers Al Garen, Box 126, Casa Grande, Manager. Fred Lambe, Mine Foreman.

Principal Minerals Manganese ores.

Number of Men Employed 15 men (2 shifts worked)

Production Rate Reported to be 100 to 125 tons per week.

Geology A deposit of manganese ore is found on the contact between the rhyolite and limestone, the rhyolite being on the hanging wall and the limestone being on the footwall. The deposit is reported to be about 15 ft. wide, pitches on an average of 70 degrees near the surface, then flattening out from 30 to 70 ft. from the surface, and then being nearly vertical from a depth of 70 to 150 ft. The ore deposit has been traced for a distance of about 60 ft. longitudinally , the average depth of same being 75 ft., and a width of 15ft.

Ore Values Operators report that their ore shipments have been running consistently over 40 %------from 40 to 45 % Manganese.

Ore in Sight and Probable Operators estimate that the ore reserves are approximately 4500 tons. Body of ore 15 ft. wide, 75 ft. deep and 60 ft. long.

Milling and Marketing Facilities Operators are trucking the ore to Casa Grande, and then shipping by rail to the Deming depot.

Mine Workings- 1 inclined shaft (incl. 70 deg.)----150 ft. deep on incline.
Drifts and cross cuts on three different levels.

Present Operations Stoping ore and hoisting same up through the inclined shaft by skip, dumping in ore cars, then dumping into ore bin, from which it is drawn into trucks.

Proposed Plans Company is planning to ship the ore on the Car Lot Program, after the Deming Manganese depot closes, or as soon as arrangements can be made with the General Services Administration.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Stella Maris No. 1 Date Sept. 1, 1955

District Cimarron Mts. District --- Pima Co. Engineer Axel L. Johnson

Subject: Field Engineers Report. Personal Visit & Information from Al Garen & Fred Lambe.

Location About 50 miles north of Sells. Drive 22 miles north of Sells on Highway 86. Turn right (north) on the Covered Wells-Casa Grande road, and drive 22 1/2 miles to road signs "Black Jack Mining" and Stella Maris No. 1". Turn left (west) and drive about 6 miles to the mine.

Owner Don DeSilvia, 515 E. Willetta St., Phoenix, Arizona.

Lessee and Operator Arizona Mines Consolidated, Box 126, Casa Grande, Ariz. Tel. 9990. Al Garen, Box 126, Casa Grande, Ariz. reported to be the principal owner of the company.

Officers Al Garen, Box 126, Casa Grande, Manager. Fred Lambe, Mine Foreman.

Principal Minerals Manganese ores.

Number of Men Employed 15 men (2 shifts worked)

Production Rate Reported to be 100 to 125 tons per week.

Geology A deposit of manganese ore is found on the contact between the rhyolite and limestone, the rhyolite being on the hanging wall and the limestone being on the footwall. The deposit is reported to be about 15 ft. wide, pitches on an average of 70 degrees near the surface, then flattening out from 30 to 70 ft. from the surface, and then being nearly vertical from a depth of 70 to 150 ft. The ore deposit has been traced for a distance of about 60 ft. longitudinally , the average depth of same being 75 ft., and a width of 15ft.

Ore Values Operators report that their ore shipments have been running consistently over 40 %------from 40 to 45 % Manganese.

Ore in Sight and Probable Operators estimate that the ore reserves are approximately 4500 tons. Body of ore 15 ft. wide, 75 ft. deep and 60 ft. long.

Milling and Marketing Facilities Operators are trucking the ore to Casa Grande, and then shipping by rail to the Deming depot.

Mine Workings- 1 ¼ inclined shaft (incl. 70 deg.)----150 ft. deep on incline.
Drifts and cross cuts on three different levels.

Present Operations Stoping ore and hoisting same up through the inclined shaft by skip, dumping in ore cars, then dumping into ore bin, from which it is drawn into trucks.

Proposed Plans Company is planning to ship the ore on the Car Lot Program, after the Deming Manganese depot closes, or as soon as arrangements can be made with the General Services Administration.

BLACK WIDOW

PIMA COUNTY

CIMARRON MOUNTAINS DISTRICT
T11S, R2E, sec 36

Mrs. Jaren sold to Al Stovall - Stovall buying from others & operating mill - mn on carlot program.

See: IC 7990 page 109

Black Widow - fortune Mrs. Jaren sold to Al Stovall
Stovall buying from others & operating mill - carlot program.
Rolian - vein system
2 geologists have said veins will close at depth.
3 vein on ridge btwn gully & then up a bit 3 more. About 800' across veins or stringers. Prot over 1000' traceable length. Widest vein about 4', smallest 40".
Malachite & chrysocolla also Melaconite
Samples 10 to 2% to 9.4 Cu
Cleaned old hole - ind shaft about 15' 25" wide - 8.4% Cu. 15 tons outside & some elsewhere all disappeared
W. A. Clark carried certified check & offered Pioneer for 65,000. offered it for 3 yrs. Pioneer mad & tore up check. Clark wanted big sample - over 20% Cu
Can drive in with short wheel base car

3-5-57