



## **CONTACT INFORMATION**

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Arizona Department of Mines and Mineral Resources Mining Collection

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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: STAR

ALTERNATE NAMES:

SANTA CRUZ COUNTY MILS NUMBER: 197

LOCATION: TOWNSHIP 21 S RANGE 15 E SECTION 36 QUARTER NW  
LATITUDE: N 31DEG 34MIN 07SEC LONGITUDE: W 110DEG 46MIN 15SEC  
TOPO MAP NAME: MOUNT WRIGHTSON - 15 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:

MANGANESE OXIDE  
GOLD

BIBLIOGRAPHY:

AZBM CARD FILE SANTA CRUZ CO.  
ADMMR STAR FILE  
SCHRADER, F.C., 1915, USGS BULL. 582, P. 226  
USGS PP 748, P. 14-15

STAR MINE

6/84

SANTA CRUZ COUNTY  
IVANHOE DISTRICT (Wrighton)  
T21S R15E Sec. 36

MILS Santa Cruz Index #197

USGS Bu11. 582, p.226

USGS PR 748, p. 14-15

\* GENERAL REFERENCES

GC?

- REFERENCE 1 F1 < USBM FILE, STAR PROSPECT
- REFERENCE 2 F2 < SCHRADER, F.C., 1915, USGS BULL. 582, p. 226
- REFERENCE 3 F3 < AB&MT CLIPPINGS FILE, STAR GROUP
- REFERENCE 4 F4 < ADMR FILE DATA, STAR 1-2-3

F5 < DREWES, H., 1971, USGS MAP I-614 (1:48000) >  
 F6 < DREWES, H., 1972, USGS PROFESSIONAL PAPER 748, p. 14-15 >

mls. - 197

K5 < CUTTING ANDESITIC FLOWS >

N5 < S-DIPPING SHEETING STRUCTURES >

N70 < WITH E-W TRENDING FAULT >

N75 < KAOLINIZATION OF ALTERED ANDESITE; METASOMATIC REPLACEMENT OF ANDESITE BY QUARTZ AND ORE MINERALS >

N80 < THROUGH FISSURES AFTER INTRUSION OR ERUPTION OF IGNEOUS ROCKS >

U.S. CRIB-SITE FORM

RECORD IDENTIFICATION

RECORD NUMBER B10 < \_\_\_\_\_ > RECORD TYPE B20 < X, 1, M > DEPOSIT NUMBER B40 < \_\_\_\_\_ >  
 REPORT DATE G1 < 32, 8, 06 > INFORMATION SOURCE B30 < 1, 2, \_\_\_\_\_ > FILE LINK IDENT. B50 < USBM-0040230371 >  
YR. MO.  
 REPORTER (SUPERVISOR) G2 < CALDER, SUSAN R. > (last, first, middle initial) (last, first, middle initial)  
 REPORTER AFFILIATION G5 < AB&MT > SITE NAME A10 < STAR PROSPECTS >  
 SYNONYMS A11 < \_\_\_\_\_ >

LOCATION

MINING DISTRICT/AREA A30 < IVANHOE DISTRICT >  
 COUNTY A60 < SANTA CRUZ > STATE A50 < A.Z. > COUNTRY A40 < U.S. >  
 PHYSIOGRAPHIC PROV A63 < 1, 2, \_\_\_\_\_ >  
 DRAINAGE AREA A62 < 150, 50, 301, \_\_\_\_\_, LOWER COLORADO >  
 QUADRANGLE NAME A90 < PATAGONIA > (1, 19, 81) LAND STATUS A64 < 4, 1, \_\_\_\_\_, \_\_\_\_\_, (1, 9, 79) >  
 SECOND QUAD NAME A92 < MT. WRIGHTSON > (1, 19, 58) QUADRANGLE SCALE A100 < 24000 >  
 ELEVATION A107 < 4240. \_\_\_\_\_ FT > SECOND QUAD SCALE A91 < 62500 >

UTM

NORTHING A120 < 3492450 >  
 EASTING A130 < 521750 >  
 ZONE NUMBER A110 < 12 >

\* ACCURACY

ACCURATE  (circle)  
 ESTIMATED EST < \_\_\_\_\_ >

GEODETTIC

LATITUDE A70 < 31-34-07 N >  
 LONGITUDE A80 < 110-46-15 W >

CADASTRAL

TOWNSHIP(S) A77 < 031 S \_\_\_\_\_ > RANGE(S) A78 < 015 E \_\_\_\_\_ >  
 SECTION(S) A79 < 36 \_\_\_\_\_ >  
 SECTION FRACTION(S) A76 < CENTER OF NW \_\_\_\_\_ >  
 MERIDIAN(S) A81 < GILA AND SALT RIVER \_\_\_\_\_ >

POSITION FROM NEAREST PROMINENT LOCALITY A82 < 2 MILES NNW OF PATAGONIA IN GRINGO GULCH >  
 LOCATION COMMENTS A83 < ADJACENT ON SOUTH TO GRINGO MINE >

\* ESSENTIAL INFORMATION  
 \* ESSENTIAL SOMETIMES OR HIGHLY RECOMMENDED

### COMMODITY INFORMATION

COMMODITIES PRESENT C10 < Mn, Au, >  
ORE MINERALS C30 < UNKNOWN; MANGANESE OXIDE >  
COMMODITY SUBTYPES C41 < >  
GEN. ANALYTICAL DATA C43 < EARLY 1900'S ORE VALUES AVERAGED \$37/TON AU >  
COM. INFO. COMMENTS C50 < >

### SIGNIFICANCE

MAJOR PRODUCTS	MAJOR < Au, >	PRODUCER	NON-PRODUCER
MINOR PRODUCTS	MINOR < >		MAIN COMMODITIES PRESENT C11 < >
POTENTIAL PRODUCTS	POTEN < >		MINOR COMMODITIES PRESENT C12 < >
OCCURRENCES	OCCUR < Mn, >		OCCURRENCES OCCUR < >

### \*PRODUCTION

PRODUCTION  YES (circle) PRODUCTION SIZE  SMALL  MED  LARGE (circle one) NON-PRODUCER PRODUCTION  YES  NO (circle one)

### EXPLORATION OR DEVELOPMENT

STATUS PRODUCER STATUS AND ACTIVITY A20 < H > NON-PRODUCER STATUS AND ACTIVITY A20 < >

DISCOVERER L20 < >  
YEAR OF DISCOVERY L10 < > NATURE OF DISCOVERY L30 < > YEAR OF FIRST PRODUCTION L40 < > YEAR OF LAST PRODUCTION L45 < >  
PRESENT/LAST OWNER A12 < >  
PRESENT/LAST OPERATOR A13 < >  
EXPL./DEV. COMMENTS L110 < OWNED AS OF 1916 BY A.H. GLIDEWELL; PROPERTY INCLUDED CLAIMS OF STAR 1, 2, AND 3 >

### DESCRIPTION OF DEPOSIT

DEPOSIT TYPE(S) C40 < VEIN/SHEAR ZONE >  
DEPOSIT FORM/SHAPE M10 < IRREGULAR LENSES >  
DEPTH TO TOP M20 < > UNITS M21 < > MAXIMUM LENGTH M40 < > UNITS M41 < >  
DEPTH TO BOTTOM M30 < > UNITS M31 < > MAXIMUM WIDTH M50 < > UNITS M51 < >  
DEPOSIT SIZE M15 < SMALL > M15 < MEDIUM > M15 < LARGE > (circle one) MAXIMUM THICKNESS M60 < > UNITS M61 < >  
STRIKE M70 < E-W > DIP M80 < >  
DIRECTION OF PLUNGE M100 < > PLUNGE M90 < >  
DESC. COMMENTS M110 < VEIN HAS CONSIDERABLE HORIZONTAL EXTENT BUT IS ONLY A FEW INCHES WIDE >

### DESCRIPTION OF WORKINGS

Workings are: SURFACE M120 UNDERGROUND  BOTH M130 (circle one) M140 (circle one) OVERALL LENGTH M190 < > UNITS M191 < >  
DEPTH BELOW SURFACE M160 < > UNITS M161 < > OVERALL WIDTH M200 < > UNITS M201 < >  
LENGTH OF WORKINGS M170 < > UNITS M171 < > OVERALL AREA M210 < > UNITS M211 < >  
DESC. OF WORK. COM. M220 < EXPLORATION PROSPECTS >

### GEOLOGY

\*AGE OF HOST ROCK(S) K1 < ECRET >  
\*HOST ROCK TYPE(S) K1A < ANDESITIC FLOWS AND INTERCALATED ANDESITIC BRECCIA >  
\*AGE OF IGNEOUS ROCK(S) K2 < ECRET >  
\*IGNEOUS ROCK TYPE(S) K2A < ANDESITIC AND RHYOLITIC TUFF AND FLOWS >  
\*AGE OF MINERALIZATION K3 < ECRET-PALEO >  
\*PERT. MINERALS (NOT ORE) K4 < FLUORITE BANDS; IRON AND MANGANESE STAINING; KAOLIN; MAGNETITE >  
\*ORE CONTROL/LOCUS K5 < E-W TRENDING; IRREGULAR LENSING QUARTZ-CALCITE FISSURE VEINS >  
\*MAJ. REG. TRENDS/STRUCT. N5 < E-W TRENDING QUARTZ FISSURE VEINS; ANDESITE CUT BY STEEPLY >  
\*TECTONIC SETTING N15 < MOUNT WRIGHTSON FAULT BLOCK >  
\*SIGNIFICANT LOCAL STRUCT. N70 < FINE GOLD ALSO DISSEMINATED IN ANDESITIC WALL ROCK; VEIN ASSOCIATED >  
\*SIGNIFICANT ALTERATION N75 < OXIDATION TO UNKNOWN DEPTHS; PROPYLITIC ALTERATION; EPIDOTIZATION >  
\*PROCESS OF CONC./ENRICH. N80 < HYDROTHERMAL MINERALIZATION OF GOLD-BEARING SILICEOUS SOLUTIONS >  
\*FORMATION AGE N30 < >  
\*FORMATION NAME N30A < >  
\*SECOND FM AGE N35 < >  
\*SECOND FM NAME N35A < >  
\*IGNEOUS UNIT AGE N50 < ECRET >  
\*IGNEOUS UNIT NAME N50A < BATHUB FORMATION - MIDDLE MEMBER >  
\*SECOND IG. UNIT AGE N55 < >  
\*SECOND IG. UNIT NAME N55A < >  
GEOLOGY COMMENTS N85 < >

### GENERAL COMMENTS

GENERAL COMMENTS GEN < >

MS-80

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

Date

Mine Star No. 1, 2, and 3.

Location Wrighton Mining Dist., as of record in recorder's office, Nogales, Arizona.

Mining District & County - Wrighton Mining Dist., Santa Cruz Co., near Patagonia.  
Former Name

Owner G. E. Amado and A. S. Henderson

Address G. E. Amado Patagonia, Arizona

Operator - Henrietta E. Miller and N. G. Goodwin  
President, Owing Co.

Address - Henrietta E. Miller, Ajo, Arizona, Box 953  
President, Operating Co.

Gen. Mgr.

Principal Minerals - Manganese Oxide

Mine Supt.

Production Rate

Mill Supt.

Mill: Type and Cap - No mill

Men Employed - 2 men - short on capital

Power: Amt. and Type

Operations: Present - This property is not operating at present. Fine setup if one has capital.

Operations: Planned

Number Claims, Title, etc. - 3 claims - Star No. 1, 2, 3

Description: Topography & Geography - This property is located up in the mountains, good government trail.

Mine Workings: Amt. & Condition - Very extensive shipments in 1917, has a shaft and 2 opencuts.

(SIGNED) Henrietta E. Miller  
Box 953, Ajo, Arizona



Geology & Mineralization - Manganese vein - No impurities.

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

Ore: Positive & Probable, Ore Dumps, Tailings - Development work done 200 ft. shaft  
in ore. 2 opencuts in ore. 1 ft.  
wide by 1500 ft. long, 200 ft. deep,  
More depth indicated.

Dimensions and Value of Ore body

Owner G. E. Amado and A. S. Henderson  
Address G. E. Amado  
Patagonia, Arizona

Mine, Mill Equipment & Flow-Sheet - Assays 49% manganese  
63% manganese - No impurities.

Road Conditions, Route - Good gravel highway to Patagonia station.  
12 miles to railroad. 4 mile trail to mine.

Water Supply - Running stream in rainy season. Wells in vicinity.

Brief History - Development work done in 1917 and ore shipped during First  
World War.

Special Problems, Reports Filed

Remarks - This manganese property meets U. S. Government specifications.

If property for sale: Price, terms and address to negotiate - Yes, price open.

(SIGNED) Henrietta E. Miller  
Box 953, Ajo, Arizona

Fulagonia a<sup>m</sup> H1  
Dec 1, 1941

Boy Man

Dept M-R

Phoenix

Dear Boy

I wish to state (by that will  
do any good) that I have a Mangrove  
property, that will (in my opinion)  
justify, "some development", or a  
lot of dev. It has shipping  
one in sight now - ~~over~~ 40  
needs a short road to sea level -  
I am to add, to work it, see  
- If you in future might write  
I let one know.  
If interested, of course well  
Yours  
A S Henderson

PS Ref C 7 Wiles  
Dep of M. R  
Samo



5 December 1941

Mr. A. S. Henderson,  
Patagonia,  
Arizona.

My dear Mr. Henderson:

Replying to your letter of December 1 addressed to  
MAN-2, I beg to advise that the party who was looking  
for a manganese property has taken over a mine near  
Casa Grande and is no longer interested.

However, we have your Mine Owners Report covering  
STAR NOS. 1, 2 and 3 in Santa Cruz County, and I  
shall be glad to submit it to anyone making inquiry  
for manganese properties.

With best wishes, I am

Yours very truly,

Charles F. Willis  
Chairman, Board of Governors

CFW-jrf

LETTER of inquiry regarding

MRS. MILLER -

SEE "J" FILE - A. W. Johnson, Kansas City

Halagoma  
DEC 1 1941

Boy Mein

Dept M-R

Phosmy

Dear Boy

I wish to state (I trust well  
to any good) that I have a manganese  
property, that will (in my opinion)  
justify, "some development", or a  
lot of dev. It has shipping  
ore in sight now - over 40  
needs a short road to the coast -  
I am to old, to work it, etc -  
If you interest might write -  
I let one know.

If interested, of course well  
Yours  
A S Henderson

RS Ref C 7 Willes  
Dep of M. R  
Somo

M 8-80

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

Date

- 1. Mine *Star - No - 1 - 2 & 3.*
- 2. Location *Wrighton mining dist. as of record - in recorder office, Nogales - Arizona.*
- 3. Mining District & County *Wrighton Mining dist - Santa Cruz. NEAR-PATAGONIA*
- 4. Former name
- 5. Owner *G. E. Amado & G. S. Henderson*
- 6. Address (Owner) *G. E. Amado Patagonia A.P.*
- 7. Operator *Henrietta E. Miller & N. G. Goodwin*
- 8. Address (Operator) *Henrietta E. Miller ajo - Arizona 83495*
- 9. President, Owing Co.
- 9A. President, Operating Co.
- 10. Gen. Mgr.
- 14. Principal Minerals *Manganese Oxide*
- 11. Mine Supt.
- 15. Production Rate
- 12. Mill Supt.
- 16. Mill: Type & Cap. *no mill.*
- 13. Men Employed *3 Men - short on capital.*
- 17. Power: Amt. & Type
- 18. Operations: Present *This property is not operating at present. Mine set up - if one has capital.*
- 19. Operations: Planned
- 20. Number Claims, Title, etc. *3 claims - Star - No 1 - 2 - 3*
- 21. Description: Topography & Geography *This property is located up in the mountains. good government trail.*
- 22. Mine Workings: Amt. & Condition *Very extensive shipments in 1917 - has a shaft and 2 open cuts.*

(over)



23. Geology & Mineralization *Manganese Vein - No impurities.*

24. Ore: Positive & Probable, Ore Dumps, Tailings *Development work done 200 ft shaft in Ore - 2 open cuts in ore.  
1-ft wide x 1500 ft long. 200 deep - more depth indicated,*

24A. Dimensions and Value of Ore body

25. Mine, Mill Equipment & Flow-Sheet *assays, 49% manganese.  
63% manganese - no impurities.*

26. Road Conditions, Route *Good gravel highway to Patagonia station - distant to rail way 12 miles. 4 mile trail to mine.*

27. Water Supply *running stream in rainy season  
wells in vicinity.*

28. Brief History *Development work done in 1917, and  
Ore shipped during 1st World War.*

29. Special Problems, Reports Filed

30. Remarks *This Manganese property meets  
U. S. Government specifications,*

31. If property for sale: Price, terms and address to negotiate. - *Yes price open,*

32. Signature *Hennetta E. Miller.*

33. Use additional sheets if necessary.

*aj - Arizona*

*13 1953*

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

Date \_\_\_\_\_  
Location Wrighton Mining Dist. as of record in recorder's office, Nogales, Arizona.  
Mining District & County - Wrighton Mining Dist., Santa Cruz Co., near Patagonia.  
Former Name \_\_\_\_\_  
Owner G. E. Amado and A. S. Henderson Address G. E. Amado Patagonia, Arizona  
Operator - Henrietta E. Miller and N. G. Goodwin Address Henrietta E. Miller Ajo, Arizona, Box 953  
President, Owing Co. President, Operating Co.  
Gen. Mgr. Principal Minerals - Manganese Oxide  
Mine Supt. Production Rate \_\_\_\_\_  
Mill Supt. Mill: Type and Cap - No mill  
Men Employed - 2 men - short on capital Power: Amt. and Type \_\_\_\_\_  
Operations: Present - This property is not operating at present. Fine setup if one has capital.

Operations: Planned \_\_\_\_\_

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Mine Workings: Amt. & Condition - Very extensive shipments in 1917, has a shaft and 2 opencuts.



Geology & Mineralization - Manganese vein - No impurities.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
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Brief History - Development work done in 1917 and ore shipped during First  
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Special Problems, Reports Filed

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If property for sale: Price, terms and address to negotiate - Yes, price open.

(SIGNED) Henrietta E. Miller  
Box 953, Ajo, Arizona