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02/16/88

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: BLACK EAGLE

ALTERNATE NAMES:
MANGANESE GRANDE

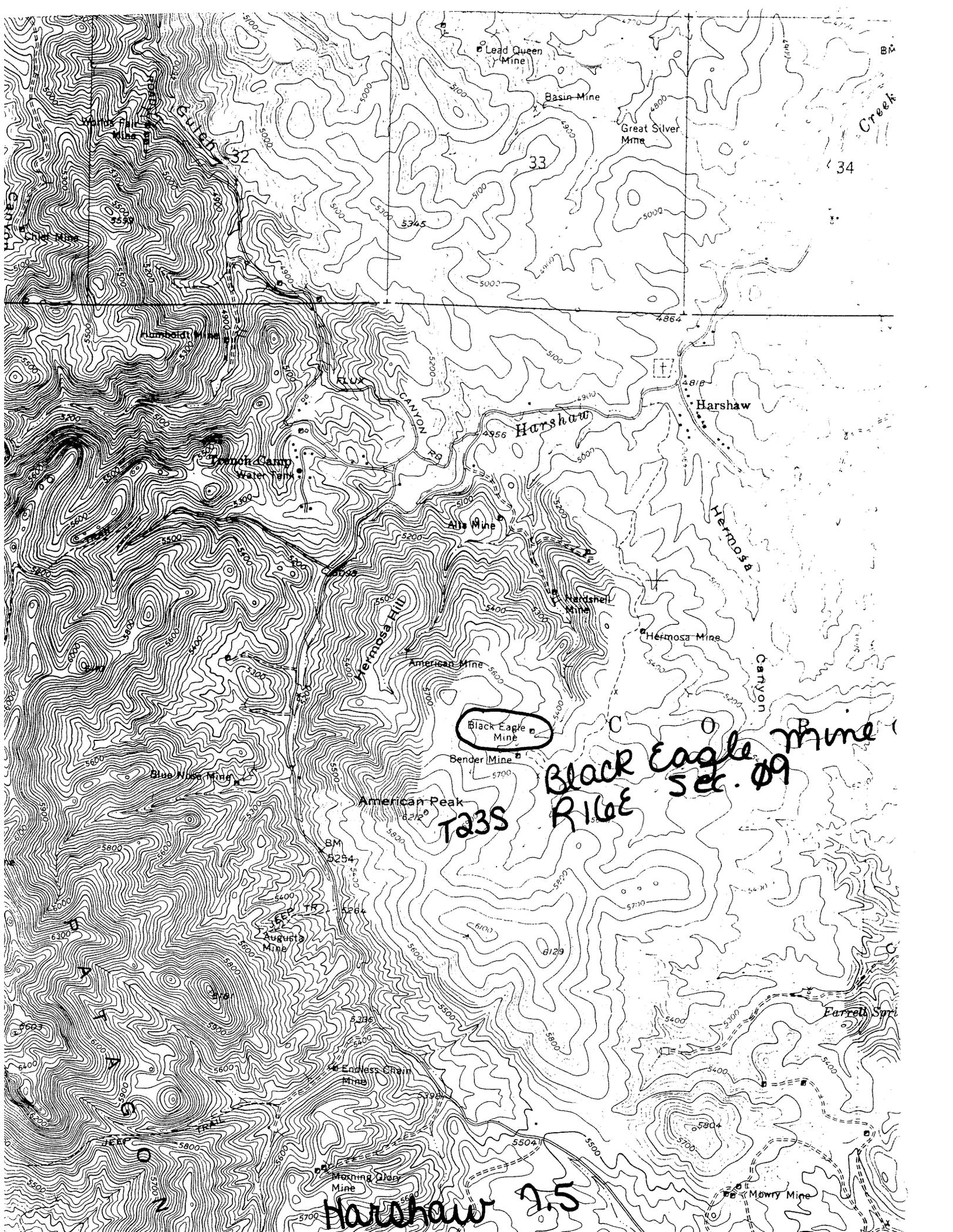
SANTA CRUZ COUNTY MILS NUMBER: 49A

LOCATION: TOWNSHIP 23 S RANGE 16 E SECTION 9 QUARTER N2
LATITUDE: N 31DEG 27MIN 03SEC LONGITUDE: W 110DEG 43MIN 20SEC
TOPO MAP NAME: HARSHAW - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
MANGANESE

BIBLIOGRAPHY:
USBM CIRCULAR 7990 P. 168-170
USGS PP 658-E, P. 8-9
AZBM BULL. 191, P. 57
ADMMR BLACK EAGLE FILE
ADMMR BENDER MINE FILE



Black Eagle Mine

Black Eagle Mine
R16E
T23S

Harshaw 2.5

T23S

R16E

Lead Queen Mine

Basin Mine

Great Silver Mine

Harshaw

Alta Mine

Hardsell Mine

Hermosa Mine

American Mine

Bender Mine

American Peak

Blue Nose Mine

Augusta Mine

Endless Chain Mine

Morning Glory Mine

Mowry Mine

Farrell Spur

Creek

Wine Mine

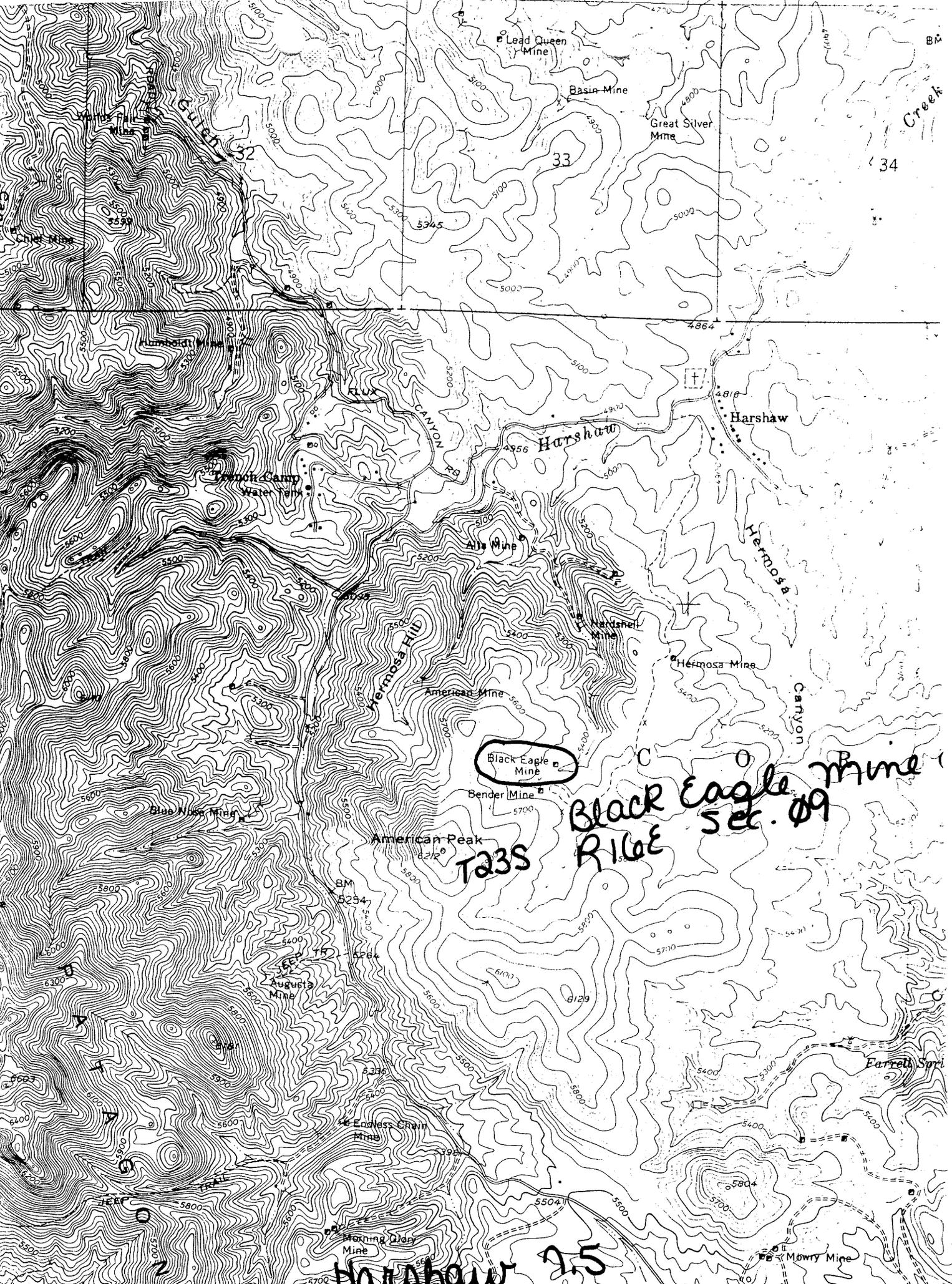
Lumber Mine

Tamon Camp
Water Tank

FLUX
CANYON

Hermosa Hill

Hermosa Canyon



DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Black Eagle Mine ✓

Date Aug. 6, 1953

District Harshaw District --- Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report -- Information from Rupert Beyerle, Lessee.

Location Unsurveyed. Approx. location Sec. 4 -- ~~T 23~~ T 23 S -- R 16 E.
Mine adjoins the Bender mine to NW.
12 miles south of Patagonia. Take Patagonia-Washington Camp road from Patagonia. At a point 3/4 mile north of the Flux mine road, turn east and go 1 3/4 mile on mine road, with rather steep grades.

Number of Claims 2 unpatented claims.

Owners Lee Farrell, Patagonia, Ariz. and Carl Scheler Estate, Patagonia, Ariz. ✓

Lessee Rupert Beyerle, River Store, Nogales, Ariz. ✓

Principal Minerals Manganese ore and Silver ore in the form of Silver Chloride. ✓

Number of Men Employed None. Mine not in operation.

Ore Values (1) At 40 ft. vertical shaft ---- 6 ft. of Mang. ore exposed, aver. 28 % Mn.
(2) At 200 ft. inclined shaft in canyon --- 14 % Mn and 25 oz. Silver (Map)
(3) At dump at inclined shaft above --- 16 % Mn and 17 oz. Silver (from Map)

Ore in Sight (1) 6 ft. Mang. ore exposed in 40 ft. vertical shaft. 1 earload of Mn ore in stockpile at this shaft.
(2) Lessee, Mr. Beyerle, claims that 5,000 tons of ore has been blocked out from the 200 ft. inclined shaft. Said ore averages 14 % Mn and 25 oz. Silver, according to a map in possession of owner, Mr. Farrell. Ore is rather spotty. Silver ore is found in the form of Silver Chloride, and contains no Lead.

Milling and Marketing Facilities (1) Manganese ore from 40 ft. vertical shaft, running about 28 % Mn can be mined and shipped to the Deming depot.

(2) Lessee believes a mill is required for treating the 5,000 tons of ore blocked out in the vicinity of the 200 ft. inclined shaft.

Old Mine Workings (1) One 40 ft. vertical shaft. Fair condition. Needs some repairs.
(2) One 200 ft. inclined shaft (incl. 45 deg.) in canyon, and 300 ft. away from the vertical shaft. Shaft practically caved in and can not be used.
(3) One 40 ft. vertical shaft, 150 ft. from above. No ore in same.
(4) Underground workings from the 200 ft. inclined shaft, blocking out 5,000 tons of ore as mentioned above. (Information from map of Mr. Farrell)

Proposed Plans The lessee, Mr. Beyerle, wished to obtain a working partner with capital to develop this mine. Plans proposed by lessee are as follows:

(1) Sink a new 200 ft. vertical shaft to tap the 5,000 tons of high Silver ore blocked out from the 200 ft. inclined shaft workings. Estimated cost---\$20,000.
(2) Construct a mill for treating this ore.
(3) Mine the manganese ore from the present 40 ft. vertical shaft. Some repairs are required for this shaft.

* GENERAL REFERENCES

- REFERENCE 1 F1 < ABGMT-USBM FILE DATA >
- REFERENCE 2 F2 < FARNHAM, L.L., STEWART, L.A. AND C.W. DELONG, 1961, MANGANESE DEPOSITS OF EASTERN ARIZONA; U.S. BUREAU OF MINES INFORMATION CIRCULAR 7910, p. 168-170 >
- REFERENCE 3 F3 < USBM FILES, BLACK EAGLE GROUP >
- REFERENCE 4 F4 < MOORES, RICHARD C., 1972, THE GEOLOGY AND ORE DEPOSITS OF A PORTION OF THE HARSHAW DISTRICT, SANTA CRUZ COUNTY, ARIZONA; M.S. THESIS, UNIVERSITY OF ARIZONA, p. 76 >
- L110 < MCCUTCHEN, HOGAN, SCHELER, ALVAREZ, SOTO, MARSTELLER, J.M. LAYMAN >
- M110 < SURFACE A DISTANCE OF 100 FT >
- M220 < STRIKE AND 30 FT WIDE (ALONG DIP); 200 FT NE OF SHAFT MINERALIZED ZONE EXPLORED BY SEVERAL SHALLOW SURFACE CUTS AND AN INCLINED ADIT ABOUT 60 FT LONG >
- N5 < OF LIMESTONE CONGLOMERATE >
- N80 < LIMESTONE >
- F5 < ABGMT FILES, STANTON B. KEITH >
- F6 < SIMONS, FRANK S., 1972, MESOZOIC STRATIGRAPHY OF THE PATAGONIA MOUNTAINS AND ADJOINING AREAS, SANTA CRUZ COUNTY, ARIZONA; USGS PROFESSIONAL PAPER 658-E, p. 8-9 >
- F7 < KEITH, STANTON B., 1975, INDEX OF MINING PROPERTIES IN SANTA CRUZ COUNTY, ARIZONA; ARIZONA BUREAU OF MINES BULLETIN 191, p. 57 >
- F8 < SIMONS, FRANK S., 1974, GEOLOGIC MAP AND SECTIONS OF THE NOGALES AND LOCHIEL QUADRANGLES, SANTA CRUZ COUNTY, ARIZONA; USGS MAP T-762 (1:48000) >
- F9 < ABGMT CLIPPINGS FILE, BLACK EAGLE MINE >
- F10 < ARIZONA DEPARTMENT OF MINERAL RESOURCES FILE DATA, BLACK EAGLE MINE >

msl # 49A

U.S. CRIB-SITE FORM

RECORD IDENTIFICATION

RECORD NUMBER B10 < > RECORD TYPE B20 < X, I, M > DEPOSIT NUMBER B40 < >

REPORT DATE G1 < 8.2.03 > INFORMATION SOURCE B30 < 12 > FILE LINK IDENT. B50 < USBM-004023 0005 >
 USBM-004023 0121 >

REPORTER (SUPERVISOR) G2 < CALDER, SUSAN R. > (last, first, middle initial)

REPORTER AFFILIATION G5 < ABGMT > SITE NAME A10 < BLACK EAGLE MINE >

SYNONYMS A11 < >

LOCATION

MINING DISTRICT/AREA A30 < HARSHAW DISTRICT > STATE A50 < AZ > COUNTRY A40 < U.S. >

COUNTY A60 < SANTA CRUZ >

PHYSIOGRAPHIC PROV A63 < 12 >

DRAINAGE AREA A62 < 15,050,301 > LOWER COLORADO LAND STATUS A64 < 41 > (1979)

QUADRANGLE NAME A90 < LOCHIEL > (1958) QUADRANGLE SCALE A100 < 62500 >

SECOND QUAD NAME A92 < > SECOND QUAD SCALE A91 < >

ELEVATION A107 < 5400 > FEET

UTM ACCURACY GEODETIC

NORTHING A120 < 3479450 > ACCURATE (ACC) (circle) LATITUDE A70 < 31-27-04 > N

EASTING A130 < 527050 > ESTIMATED EST LONGITUDE A80 < 111-0-42-58 > W

ZONE NUMBER A110 < 12 >

CADASTRAL

TOWNSHIP(S) A77 < 0235 > RANGE(S) A78 < 016E >

SECTION(S) A79 < 09 >

SECTION FRACTION(S) A76 < SE OF NW >

MERIDIAN(S) A81 < GILA AND SALT RIVER >

POSITION FROM NEAREST PROMINENT LOCALITY A82 < 2 MILES BY ROAD SSW OF HARSHAW >

LOCATION COMMENTS A83 < CLAIMS ADJOIN THE BENDER MINE CLAIMS ON THE NORTH AND WEST; LOCATED ON NE SLOPE OF AMERICAN PEAK, ALONG UPPER END OF HARSHAW GULCH >

* ESSENTIAL INFORMATION
 + ESSENTIAL SOMETIMES OR HIGHLY RECOMMENDED

COMMODITY INFORMATION

COMMODITIES PRESENT C10 Mn, Ag, Pb, Cu, Au, U, V, Ni, Co, Zn, Fe, S, Se, Mo, W, Bi, Te, Ge, As, Sb, Sn, Hg, Cd, In, Ga, Al, Si, B, Ti, Zr, Hf, Y, Nb, Ta, Sr, Ba, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Sc, Th, U, Pa, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr
 ORE MINERALS C30 PYROLUSITE, WAD, CRYPTOMELANE
 COMMODITY SUBTYPES C41 _____
 GEN. ANALYTICAL DATA C43 MID-1900S ASSAY VALUES AVERAGED 19.9% Mn, 28.02% Ag, 0.9% Pb, 0.18% Cu
 COM. INFO. COMMENTS C50 _____

SIGNIFICANCE

	PRODUCER	NON-PRODUCER
MAJOR PRODUCTS	MAJOR <u>Mn, Ag, Pb, Cu</u>	MAIN COMMODITIES PRESENT C11 _____
MINOR PRODUCTS	MINOR <u>Cu, Au, U, V, Ni, Co, Zn, Fe, S, Se, Mo, W, Bi, Te, Ge, As, Sb, Sn, Hg, Cd, In, Ga, Al, Si, B, Ti, Zr, Hf, Y, Nb, Ta, Sr, Ba, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Sc, Th, U, Pa, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr</u>	MINOR COMMODITIES PRESENT C12 _____
POTENTIAL PRODUCTS	POTEN _____	
OCCURRENCES	OCCUR _____	OCCURRENCES OCCUR _____

*PRODUCTION

PRODUCTION <u>YES</u> (circle)	PRODUCTION SIZE <u>SMALL</u> MED LGE (circle one)	NON-PRODUCER
		PRODUCTION <u>NO</u> (circle one)

*STATUS

EXPLORATION OR DEVELOPMENT

PRODUCER	NON-PRODUCER
STATUS AND ACTIVITY A20 <u>(4)</u>	STATUS AND ACTIVITY A20 <u>()</u>

DISCOVERER L20 _____
 YEAR OF DISCOVERY L10 LATE 1800S NATURE OF DISCOVERY L30 (S) YEAR OF FIRST PRODUCTION L40 1918 YEAR OF LAST PRODUCTION L45 1930
 PRESENT/LAST OWNER A12 GROVER MARSTELLER (LATE 1940S - ?)
 PRESENT/LAST OPERATOR A13 _____
 EXPL./DEV. COMMENTS L110 PROPERTY COMPRISES 3 UNPATENTED CLAIMS. CLAIMS NOT EXTENSIVELY WORKED UNTIL WORLD WAR I; OPERATORS AND OWNERS INCLUDED KEMPTON AND O'NEILL, PIERCE AND GARDNER,

DESCRIPTION OF DEPOSIT

DEPOSIT TYPE(S) C40 SHEAR ZONE/REPLACEMENT
 DEPOSIT FORM/SHAPE M10 IRREGULAR LENTICULAR
 DEPTH TO TOP M20 _____ UNITS M21 _____ MAXIMUM LENGTH M40 400 UNITS M41 FT
 DEPTH TO BOTTOM M30 _____ UNITS M31 _____ MAXIMUM WIDTH M50 _____ UNITS M51 _____
 DEPOSIT SIZE M15 SMALL M15 MEDIUM M15 LARGE (circle one) MAXIMUM THICKNESS M60 8 UNITS M61 FT.
 STRIKE M70 NE DIP M80 30-40 NW
 DIRECTION OF PLUNGE M100 _____ PLUNGE M90 _____
 DESC. COMMENTS M110 MINERALIZED ZONE IS EXPOSED 400 FT OR MORE ALONG STRIKE AND CONTAINS 3 DISCONNECTED ORE SHOOTS THAT HAVE YIELDED PAST PRODUCTION; MAIN ORE SHOOT IS EXPOSED ON

DESCRIPTION OF WORKINGS

Workings are: SURFACE M120 UNDERGROUND M130 BOTH (M140) (circle one)
 DEPTH BELOW SURFACE M140 130 UNITS M141 FT OVERALL LENGTH M190 300 UNITS M191 FT
 LENGTH OF WORKINGS M170 160 UNITS M171 FT OVERALL WIDTH M200 100 UNITS M201 FT
 DESC. OF WORK. COM. M220 DEVELOPMENTS INCLUDED AN ADIT AND INCLINED SHAFT 180 FT DEEP. BULK OF ORE WAS MINED IN OPEN STOPES IN UPPER 100 FT OF WORKINGS; SOME ORE MINED ABOUT 200 FT WEST OF SHAFT IN INCLINED WORKINGS AND STOPES 160 FT LONG (PARALLELING

GEOLOGY

* AGE OF HOST ROCK(S) K1 EPERM
 * HOST ROCK TYPE(S) K1A SILICEOUS LIMESTONE
 * AGE OF IGNEOUS ROCK(S) K2 T.R.I.-JUR
 * IGNEOUS ROCK TYPE(S) K2A LIGHT-COLORED RHYOLITIC AND ALKALI RHYOLITIC VOLCANICS
 * AGE OF MINERALIZATION K3 L.CRET.-TERT.
 * PERT. MINERALS (NOT ORE) K4 GANGUE CONSISTS OF QUARTZ UNREPLACED LIMESTONE AND MANGANIFEROUS CALCITE
 * ORE CONTROL/LOCUS K5 IRREGULAR LENTICULAR BODIES ALONG NE-TRENDING FRACTURE ZONE IN LIMESTONE
 * MAJ. REG. TRENDS/STRUCT. N6 SILICIC LAVAS AND FLOW BRECCIAS WITH SUBORDINATE SILICIC TUFFS AND SMALLER BODIES
 * TECTONIC SETTING N15 AMERICAN MINE FAULT BLOCK, UPTHROW TO NE
 * SIGNIFICANT LOCAL STRUCT. N70 FRACTURE ZONE ROUGHLY PARALLELS BEDDING PLANES OF SILICIFIED LIMESTONE
 * SIGNIFICANT ALTERATION N75 REPLACEMENT OF LIMESTONE BY IRREGULAR ORE BODIES
 * PROCESS OF CONC./ENRICH. N80 MINERALIZATION ALONG FRACTURE ZONES; ORE ALSO OCCURS AS OPEN-SPACE FILLING-IN
 * FORMATION AGE N30 EPERM
 * FORMATION NAME N30A CONCHA LIMESTONE
 * SECOND FM AGE N35 EPERM
 * SECOND FM NAME N35A SCHERRER FORMATION
 * IGNEOUS UNIT AGE N50 _____
 * IGNEOUS UNIT NAME N50A _____
 * SECOND IG. UNIT AGE N55 _____
 * SECOND IG. UNIT NAME N55A _____
 * GEOLOGY COMMENTS N85 BELOW ABOUT 100 FT HIGHER GRADE ORE BODIES BECOME MORE WIDELY SEPARATED AND ORESHOOTS DECREASE IN SIZE

GENERAL COMMENTS

GENERAL COMMENTS GEN SEE ALSO = BENDER MINE (ALSO OWNED IN 1940S BY MARSTELLER)