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PRINTED: 01/31/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: MAMMOTH BUTTE

ALTERNATE NAMES:

MS 3409 BATTLE AX CLAIM  
SUNSET COPPER CO. PROPERTY

PINAL COUNTY MILS NUMBER: 556C

LOCATION: TOWNSHIP 8 S RANGE 18 E SECTION 23 QUARTER NE  
LATITUDE: N 32DEG 43MIN 24SEC LONGITUDE: W 110DEG 28MIN 21SEC  
TOPO MAP NAME: RHODES PEAK - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

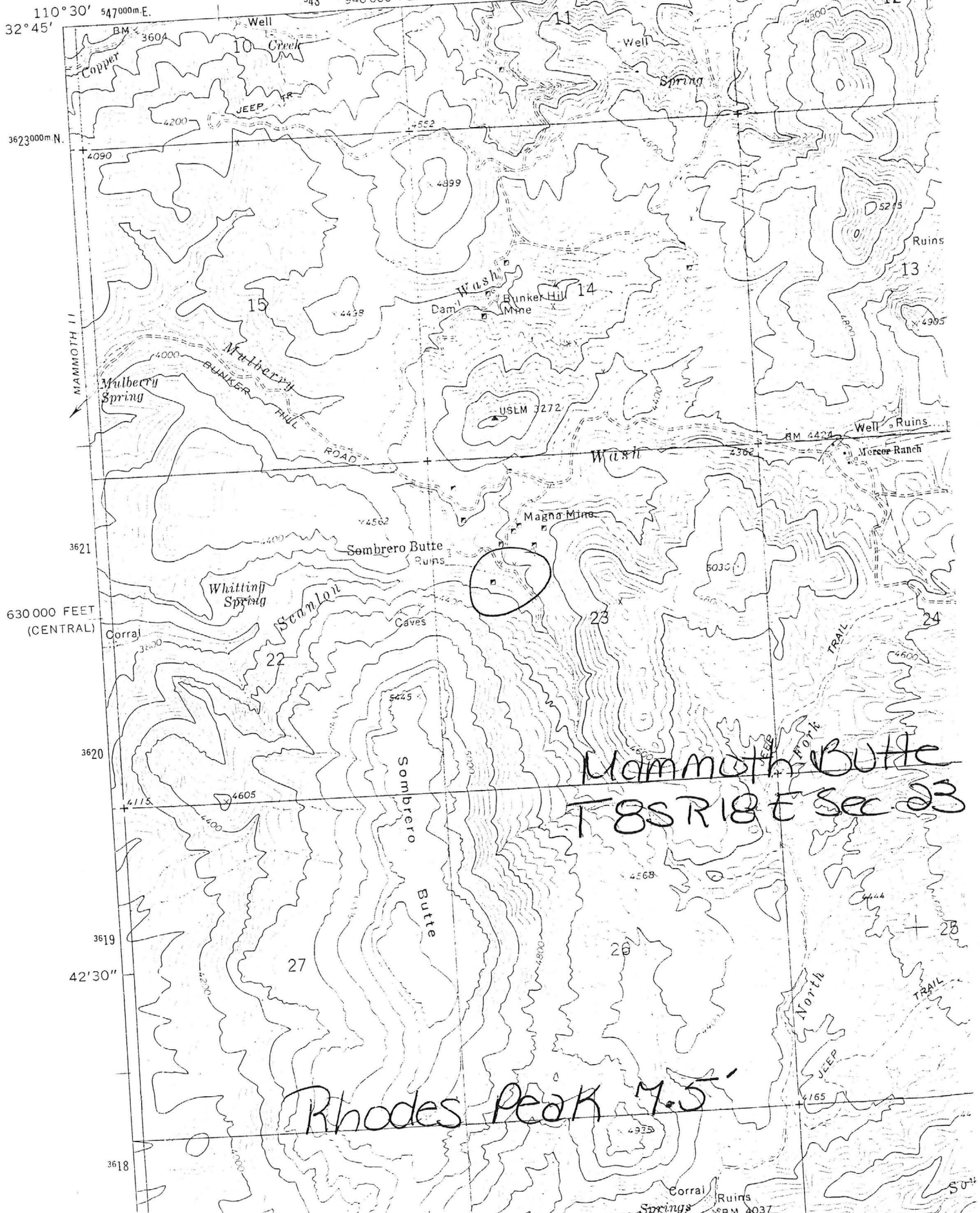
COPPER OXIDE  
SILVER

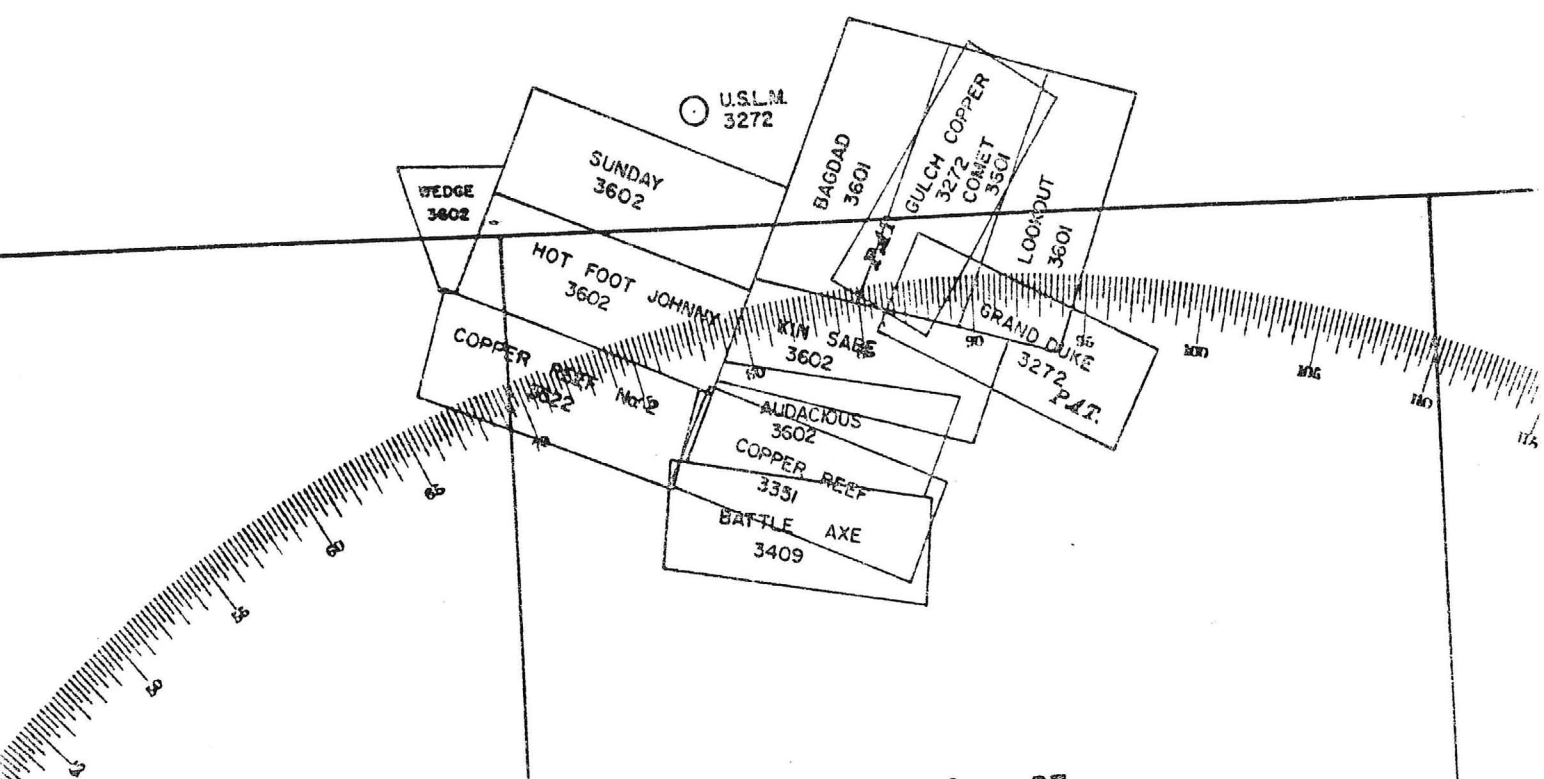
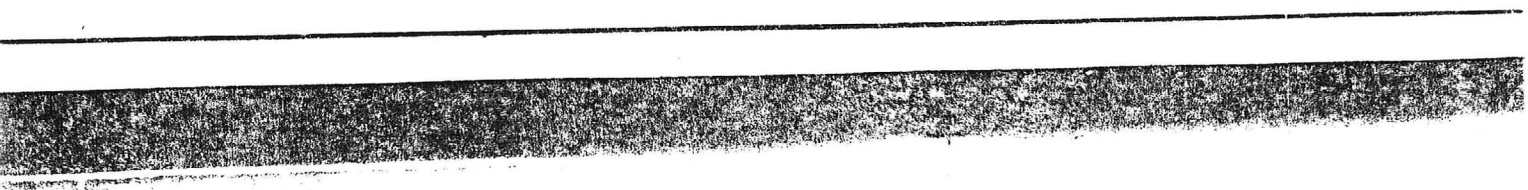
BIBLIOGRAPHY:

ADMMR MAMMOTH BUTTE FILE  
BLM MINING DISTRICT SHEET 743  
ADMMR SUNSET COPPER MINING CO. FILE  
ARIZONA MINING JOURNAL JUNE 1919, P. 67  
ABM BULL 158, P 56-65  
KUHN, T.H. "PIPE DPSTS OF COPPER CRK AREA"  
ECONOMIC GEOLOGY V. 36 P 512; 1941

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

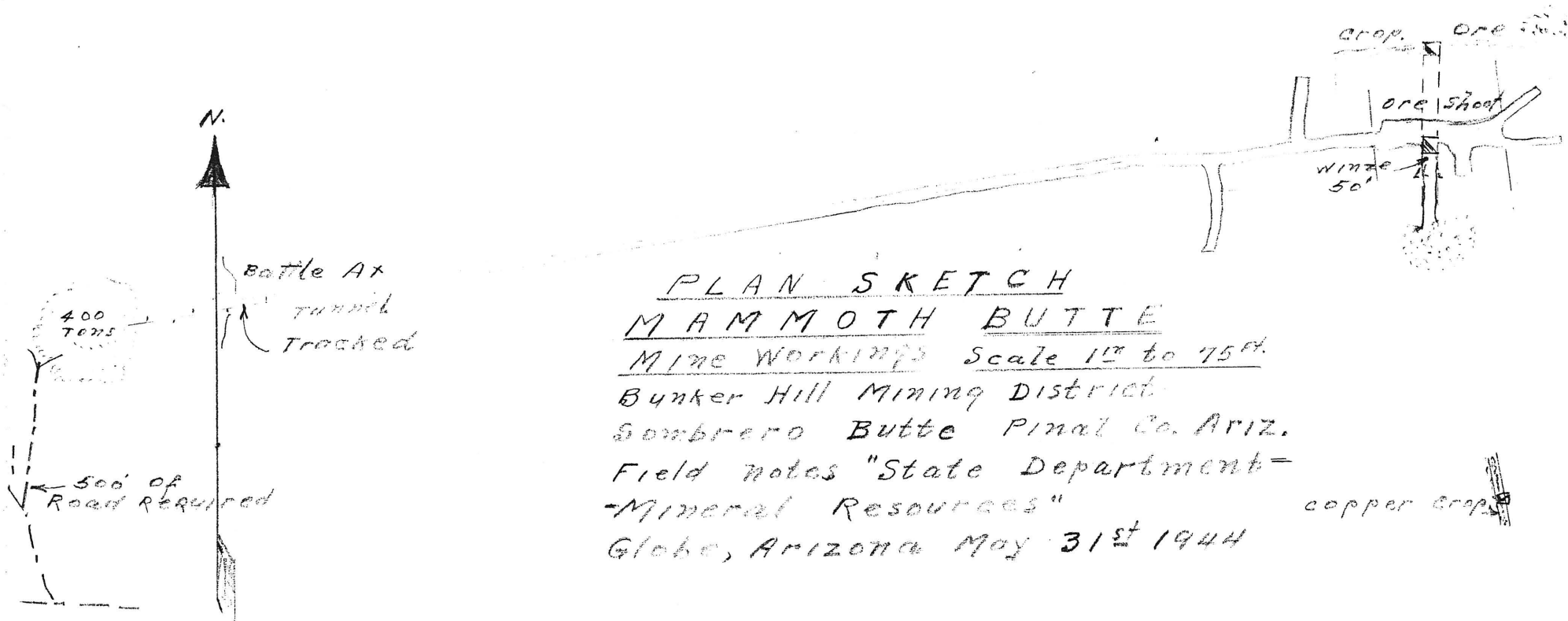
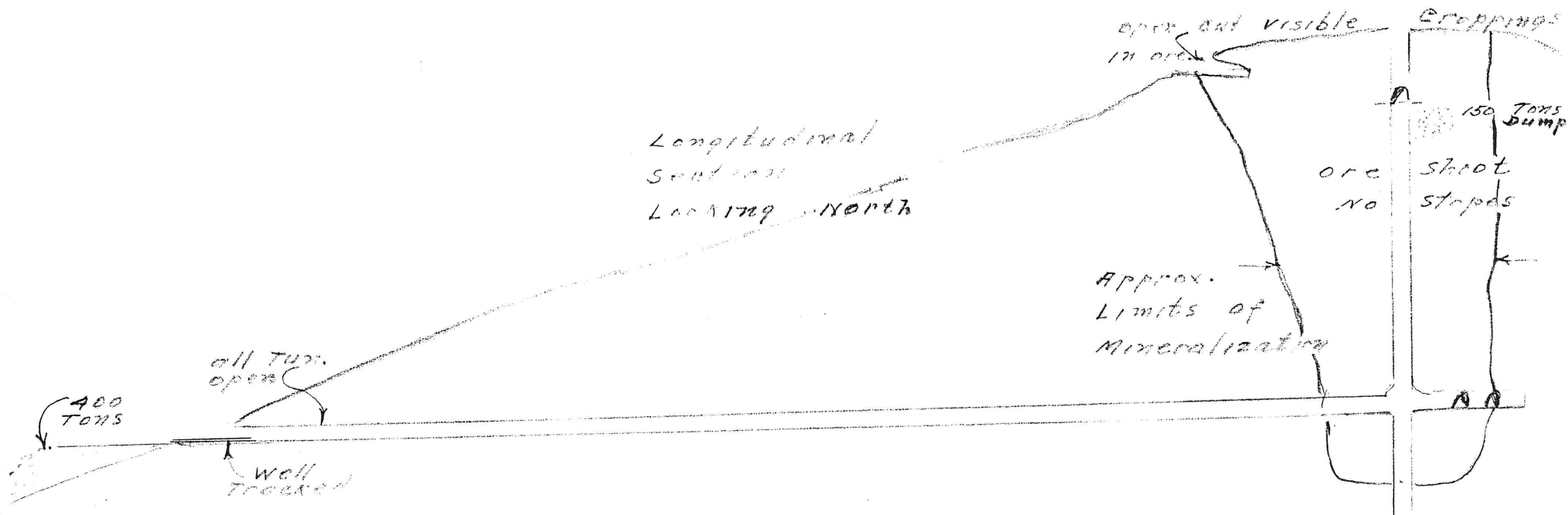
110° 30' 547000m E. 548 940 000 FEET (CENTRAL) 550 27' 30" 551  
32° 45' 3623000m N. 4090





Sec. 22

Sec. 23



NAME OF MINE: ~~HOGANSON~~ Mammoth Butte

COUNTY: PINAL

DISTRICT:

METALS: CU

OPERATOR AND ADDRESS:

DATE:

5/1/44

G.B.Hognason, Sombrero Butte

MINE STATUS

DATE:

5/1/44

Investigate

5/16/44

Developing per MacFarlane

6/44

Loan applied for

7/44

Loan not granted

11/44

occ. shipment

2/46

Idle

HOGANSON, G. B.

~~Sombrero Butte~~, Ariz.

Mammoth, Ariz. (150)

5-30-44

See MAMMOTH BUTTE - Re Field Eng. Rept.

MAMMOTH BUTTE

Cu

Pinal

11 - 4

S T 8 S R 18 E

G. B. Hoganson, Sombrero Butte

'44

PA



COMMODITY INFORMATION

COMMODITIES PRESENT C10 < C.U. < A.G. < P.O.T. < O.C. < ... >  
 ORE MINERALS C30 < COPPER CARBONATE, PROBABLY AZURITE, MALACHITE >  
 COMMODITY SUBTYPES C41 < >  
 GEN. ANALYTICAL DATA C43 < >  
 COM. INFO. COMMENTS C50 < >

SIGNIFICANCE

MAJOR PRODUCTS MAJOR < C.U. < A.G. < P.O.T. < O.C. < ... >  
 MINOR PRODUCTS MINOR < A.G. < P.O.T. < O.C. < ... >  
 POTENTIAL PRODUCTS POTEN < >  
 OCCURRENCES OCCUR < >

\*PRODUCTION

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

EXPLORATION OR DEVELOPMENT

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

DISCOVERER L20 < > \*NATURE OF DISCOVERY L30 < > \*YEAR OF FIRST PRODUCTION L40 < 1910's > \*YEAR OF LAST PRODUCTION L45 < 1948 >  
 YEAR OF DISCOVERY L10 < >  
 PRESENT/LAST OWNER A12 < >  
 PRESENT/LAST OPERATOR A13 < DAVID C. HARTLEY, 1948 >  
 EXPL./DEV. COMMENTS L110 < OWNED AND OPERATED BY G.B. HOGANIAN, 1943-1944, SUNSET MINING COMPANY 1916-1930's  
 WHEN CLAIM WAS THE SUNSET CLAIMS, IT UNCERTIFIED >

DESCRIPTION OF DEPOSIT

DEPOSIT TYPE(S) C40 < VEIN/ BRECCIA PIPE >  
 DEPOSIT FORM/SHAPE M10 < >  
 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 < > \*DIP M80 < >  
 DIRECTION OF PLUNGE M100 < > \*PLUNGE M90 < >  
 P. DESC. COMMENTS M110 < PIPES 20 TO 100 FT DIAMETER. EW VEINS ASSOCIATED WITH FAULT FIGURES.  
 MAIN VEIN CALLED THE BATTLE AX VEIN >

DESCRIPTION OF WORKINGS

Workings are: SURFACE M120 UNDERGROUND M130 BOTH M140 (circle one) \*OVERALL LENGTH M190 < > \*UNITS M191 < >  
 DEPTH BELOW SURFACE M160 < 175 > \*UNITS M161 < FT > \*OVERALL WIDTH M200 < > \*UNITS M201 < >  
 LENGTH OF WORKINGS M170 < 1200 > \*UNITS M171 < FT > \*OVERALL AREA M210 < > \*UNITS M211 < >  
 DESC. OF WORK. COM. M220 < ONE 175 FT SHAFT, ONE 75 FT SHAFT, ONE 64 FT SHAFT  
 600 FT TUNNEL WITH WINZE 45 FT BELOW TUNNEL FLOOR >

GEOLOGY

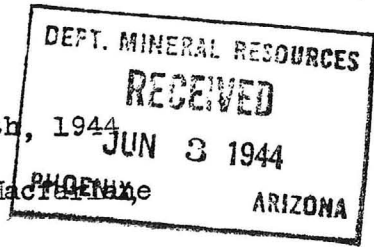
\*AGE OF HOST ROCK(S) K1 < C.R.E.T.-P.A.L.E.O.V. >  
 \*HOST ROCK TYPE(S) K1A < GRAND DIORITE >  
 \*AGE OF IGNEOUS ROCK(S) K2 < >  
 \*IGNEOUS ROCK TYPE(S) K2A < >  
 \*AGE OF MINERALIZATION K3 < C.R.E.T.-P.A.L.E.O.V. >  
 \*PERT. MINERALS (NOT ORE) K4 < QUARTZ >  
 \*ORE CONTROL/LOCUS K5 < EW TRENDING FAULT FIGURES AND BRECCIATED PIPES >  
 \*MAJ. REG. TRENDS/STRUCT. N5 < EW TRENDING FAULTS AND ENE TRENDING FAULTS, STEP DIP >  
 \*TECTONIC SETTING N15 < MAJOR NNW TRENDING FAULT W OF MINE, QUATERNARY SEDIMENTS W OF THE FAULT >  
 \*SIGNIFICANT LOCAL STRUCT. N70 < BATTLE AX VEIN, EW TRENDING >  
 \*SIGNIFICANT ALTERATION N75 < >  
 \*PROCESS OF CONC./ENRICH. N80 < >  
 \*FORMATION AGE N30 < >  
 \*FORMATION NAME N30A < >  
 SECOND FM AGE N35 < >  
 SECOND FM NAME N35A < >  
 \*IGNEOUS UNIT AGE N50 < C.R.E.T.-P.A.L.E.O.V. >  
 \*IGNEOUS UNIT NAME N50A < COPPER CREEK GRAND DIORITE >  
 SECOND IG. UNIT AGE N55 < >  
 SECOND IG. UNIT NAME N55A < >  
 GEOLOGY COMMENTS N85 < DOWNWARD PERCOLATION OF SOLUTIONS THROUGH FRACTURE ZONE MAY HAVE CAUSED  
 BRECCIATION >

GENERAL COMMENTS

GENERAL COMMENTS GEN < >



DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT



Mine Mammoth Butte  
District Sombrero Butte, Bunker Hill.  
Subject: Examination.

Date May 30th, 1944

Engineer A. Macrae

1

MINE PROPERTY ; 10 unpatented claims, situated on the northwest foothills of the Galluri range and less than 1/2 mile easterly from the village of Sombrero Butte and approximately 16 miles easterly from the mining town of Mammoth, all in Pinal County, Arizona.

OWNER ; Mr G.B. Hoganson, post office Sombrero Butte, by location and purchase of the Battle Ax claim, has been the undisputed owner for several recent past years.

ROAD TO MINE; From Mammoth take county highway northerly crossing the San Pedro river on the bridge, this is the road to Winkleman, but at a point about one mile north of the bridge, turn abruptly towards the east and follow the County road up the river valley and on the northeast side of the river, for about 6 miles; thence taking a left hand road, which follows up the Bunker Hill wash, approximately six miles in a general easterly direction to end at the village of Sombrero Butte and the mines of the immediate vicinity.

ORE MARKET ; for the merchantable ores of this locality of Sombrero Butte, the Hayden Smelter distant about 37 miles, provides an economical and quick copper market. With the exception of about 3 miles next to the mine, the road is maintained and about 1/2 of the entire distance is paved.

WORKING COSTS ; First mining the ores now visible in 2 copper shoots now opened by a 600' tunnel, winze for 45' below tunnel floor and upraise to the surface cropping about 200' above tunnel back. In this developed ground the shippable copper seems to be upwards of 5' to 12' in width. The length of the ore body will vary from 30' to 50'.

The ore shoot gangue is of moderate texture, with frequent fracture planes and selvage, I would expect the mining and tramping to ore bin, not to exceed .....per ton \$ 3.00  
 Trucking to smelter ..... " " 2.50  
 Smelting ..... " " 3.50  
 Taxes and various small charges at ..... " " .50  
9.50

MINE DEVELOPMENT ; Over a period of 25 years past, there has been fully 1,200 linear feet of tunnelling, winze and upraise, made on the Battle Ax claim and mineral system. Additional workings made on other veins or mineral showings, found easterly from the Battle Ax, and south are not considered herein, due to the caved in condition of same, and need of extending the road to reach such workings.

MINERALIZATION ; The visible ores are carbonate of copper in a quartz-monzonite gangue, together with bands infrequently of quartz. Selvage is apparent separating the mineralization from the wall or casing rock, which may be a monzonite granite.

**DEPARTMENT OF MINERAL RESOURCES**  
**STATE OF ARIZONA**  
**FIELD ENGINEERS REPORT**

Mine Mammoth Butte Date May 30th, 1944  
 District Bunker Hill Engineer A. Macfarlane  
 Subject: Examination. 2

Ores of the cropping are visibly the same as the ore in tunnel dump mined below the tunnel floor, or 240' lower. Evidently the horizon of copper sulfides, may only be found at greater depth, than the winze, which is yet in the oxidized top zone.

The main workings called the Battle Ax tunnel, mostly followed a fracture having a course from tunnel portal of North 71 degrees East and at nearly 525' east of the portal, a body or shoot of copper ore was opened.

The last 50' of the tunnel turns 15 degrees more to the east, making the ore on a nearly east to west strike. The length of the ore shoot here seems to be about 30' and may have a width of pay ore of 5' to 10', the limits of mineralization not to clearly defined, and as stated heretofore, this ore shoot extends down the winze for 45' and upraise to surface of 200' above tunnel back.

	Tons
<u>TONNAGE</u> ; Of Inferred and measurable ore within these limits I estimate at	3,350
On the tunnel dump below the trackage there are about .....	400
The upper cross-cut tunnel, tapping the vein 35' below the Crop.	150
Total tonnage now available	3,900

Apparently the average grade of this tonnage is about 4% copper and given a zero quota, together with a Special premium of 5.5¢/lbs, this ore would have a gross value of about \$14.28 and less smelting and trucking costs as given of ..... 6.00  
 the net returns to cover mining per ton 8.28 or for the 3,900 tons a total amount over and above smelting and trucking of \$32,292.00 .

A north and south vein or cropping of a copper shoot, about 500' southeast of the tunnel portal, shows ore in the cropping; the further prospecting of this mineralization could add to the ore reserves.

REQUIREMENTS ; No machinery is owned or installed within the Butte Mammoth mine, and in order to install a competent 1 or 2 drill compressor outfit complete with piping, hose and drills, etc, required \$ 1,500.00  
 A 40 ton ore bin should be installed immediately  
 below the tunnel portal and trackage, costing about ..... 300.00  
 Two short stub road extensions on steep hill side 400.00  
 Reserve for mining and shipping the available ores 2,800.00  
 Required to place the mine into production about 5,000.00  
 A few hundred dollars of the above required capital could be used in opening up the North to South cropping ore showing and clean out some of the old workings on veins further to the south.

REPORT ; Made by N.W. Logue May 1st, 1918 gives a list of samples assayed these ranging in copper content from 3.6% to 18.% I dare say that the high grade samples were from enriched stringers, within the general mass, and that about 4% will be a more correct average, of these ores .

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Mammoth Butte

Date May 30th, 1944

District Bunker Hill, Sombrero Butte.

Engineer A. Macfarlane

Subject: Examination.

3

GEOLOGY & STRATIGRAPHY ; The rock formation within which is found the Battle Ax fracture is apparently a Monzonitic granite, Pre-Cambrian, intruded later by granite porphyry making fault fissures and fracture planes along which later deposition of the minerals, took place.

As this report has to do, with the extent of commercial mineralization, or ore bodies, it is beleived that the fracturing occurred long before mineralization, and that the deposition of the copper only shows in the Battle Ax vein, where the fracturing was most pronounced, and is not generally evident along the length of the fracture, but only at certain short shoots.

Later intrusives have faulted the downward course of the fissureing, now necessitating further explorations to determine, if mineralization does extend downwards.

However the ore shoots now visible both in the Battle Ax tunnel area and the adjoining Bunker Hill properties, are of commercial size, and yeild a fair grade of copper ore.

FINAL CONSIDERATION ; As stated herein, there is approximately 4,000 tons estimated to contain 320,000 Lbs of copper, minable without further development and as the zero quota and a special premium of 5.5 cts, has been granted, the following working program, would without delay produce this copper;.

First; Three or four days of a bulldozer would make the needed road spur to reach under the 400 ton dump, and this dump ore, trucked to smelter.

Second; procure ore bin timber and erect a bin of about 40 ton capacity ,so situated as to receive the ores as mined within the tunnel and trammed to this bin.

Third; On completing the bin an airdrill and compressor should be installed near the tunnel portal, and the work of actually mining the ores, from the ore body, both below the tunnel level and between the tunnel back and surface. An air tugger would be usefull for the hoisting of the ores under tunnel floor.

Mine timbers and for ore chutes 4000 board feet would take care of the earliest needs, to carry on the work of mining.

A. Macfarlane  
Field Engr.

June 5, 1944

R.F.C. Mine Loan Division  
325 Heard Building  
Phoenix, Arizona

Gentlemen:

We are enclosing copies of report and  
map on the Mammoth Butte Mine.

Mr. Macfarlane has requested us to send  
these to you to accompany a loan application  
made by Mr. G. B. Hoganson.

Yours very truly,

Secretary

Enc.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine

Date

District

Engineer

Subject:

June 1st JUN 1 1944  
PHOENIX  
Box 505 Globe, Arizona.



Department Of Mineral Resources  
Office, Phoenix, Arizona.  
Mr Chas. Dunning Director;

Please have this breif report copied and the sketch map printed and ~~sent~~ sent to the office of the R.F.C. to accompany application for a loan, said application made by Mr G.B. Hoganson.

Am working with the large Companies on matters covered in your recent instructions, will report the Inspiration and International information and others soon thereafter.

Am also boiling down data on the Tombstone unwatering project and will in due time hand same into your office.

Have request from Mr Coupal to examine Ripsey Canyon property of Martin Fishback, will ~~try~~ make this examination, on completing interviews which you have ordered, unless otherwise sooner instructed.

Very truly Yours

*A. Macfarlane*

REPORT ON MAMMOTH-BUTTE MINE  
SOMBRERO BUTTE, \*PINAL COUNTY, ARIZONA.

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The Mammoth-Butte group of mining claims are located in the Bunker Hill Mining District, Pinal County, Arizona, about one half mile east of the Sombrero Butte postoffice.

CLAIMS

The mine consists of a group of nine (9) unpatented lode claims in one contiguous group. These claims were formerly owned and under lease and bond to the Sunset Copper Company. The Battle Axe claim has been surveyed for patent but not carried through to patent.

DEVELOPMENT

The underground development totals over 1100 feet. The principal part of this work has been done on the Battle Axe claim and consists of a 175 foot shaft sunk on the ore, with a 606 foot tunnel intersecting the bottom of this shaft at the face of the tunnel. A 50 foot winze has been sunk from the tunnel level about 15 feet from the shaft. On the surface and about 150 feet west of the shaft is a 50 foot open cut.

On Butte #3 is a 70 foot shaft. This shaft is on a fault fissure vein about 5/8 mile long and 20 feet wide.

On Butte #1 a shaft 64 feet deep has been sunk in ore all the way down.

On the remainder of the claims are several short tunnels and shallow shafts.

GEOLOGY

The ore bearing rock in this district is a Monzonite granite which has been intruded into the Pre-Cambrian schists in irregular masses and of varying size. The sedimentary and basaltic flows which cover Southeast Arizona have been all eroded away in this district. The Monzonite Granite on this group has been broken by five east and west fault fissure veins. To each side of these veins the rock is strongly sheeted. In some places the sheeting in planes enclose small veins and in some cases brecciated chimneys or pipes from 20 to several hundred feet in diameter. The ore occurs as a rule as a filling between the fragments breccia.

On the Battle Axe claim the surface around the 175 foot shaft shows a brecciated and mineralized area about 60 feet wide and 300 feet long. The shaft is in ore almost continuously from the surface down. On the 120 foot level a full cut went 4.10% cu. and on the tunnel level, at the bottom of the shaft, a sample over a width of 30 feet went 5.62% cu. On the 50 foot level of the winze the west end went 3.14% cu. Over 750 tons of ore on the dumps will average over 5% cu. while 200 tons will go 8%. The ore in all cases is malachite and chrysocolla with some little oxides of copper. So far no sulphides have been found. On the adjoining property sulphides were found at 35 feet from the surface. In this case the ore was not found in a vein as on the Battle Axe claim, but in a chimney. Sulphides should be found in the winze before a depth of 100 feet is reached.

#### GENERAL

The present means of transportation is by automobile, 25 miles up the San Pedro from Winkelman and then nine miles to the east up a sand wash. The cost of freight at present is nine to ten dollars a ton. Several surveys for a railroad up the San Pedro have been made passing within 8 miles of the property. With a low railroad rate several thousand tons of ore which are already blocked out could be shipped at a profit.

On all five fault fissure veins which cross the property from east to west there is a good showing of ore. Picked samples going as high as 35% cu. With a 1500 foot tunnel following the fissure vein, which is covered by the Battle Axe #1 and Butte #3 claims, a back of 850 feet would be obtained. This would put the face of the tunnel directly below the 70 foot shaft on the Butte #3 claim where there is a good showing of copper its entire depth. Being a fault fissure vein it gives promise of great depth.

The entire group of claims is covered with a good growth of Live Oak sufficient for ties and domestic purposes for some time. On the Battle Axe #2 is a good spring giving sufficient water for camp purposes.

G. B. Forgnason,  
Jan 1st. 1925

