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#### PRINTED: 10-10-2012

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: HIBBERD MANGANESE

ALTERNATE NAMES: CADILLAC CLAIMS

PIMA COUNTY MILS NUMBER: 313

LOCATION: TOWNSHIP 13 S RANGE 4 W SECTION 18 QUARTER NE LATITUDE: N 32DEG 17MIN 52SEC LONGITUDE: W 112DEG 42MIN 43SEC TOPO MAP NAME: SIKORT CHUAPO MTS - 15 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY: MANGANESE

**BIBLIOGRAPHY:** 

FARNHAM, L.L., ET.AL., 1961, USBM IC 7990, P. 118 AZBM FILE DATA ADMMR HIBBERD MANGANESE FILE

# HIBBERD MANGANESE

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PIMA COUNTY AJO DIST. T13S, R4W, Sec 18 1

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MILS CADILLAC GROUP MILS CADILLAC CLAIMS

USBM IC 7990 p. 118

# DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

Date

FIELD ENGINEERS REPORT

Mine Hibberd Mn

7-1-58

District Ajo, Pima County

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Engineer Lewis A. Smith

Subject: Report on mine by William Hibberd

Claims: 2 unpatented

Owner: Hibberd Manganese Co. (William Hibberd, agent) Ajo, Arizona

Work: Recently stripped with an R D 8 Caterpillar, exposing a 2 foot vein over a length of 200 feet.

Minerals: Psilomelane and pyrolusite (manganese dioxides)

Tenor: Recent two and a half foot samples showed an average grade of 34-35% Mn, but in two foot widths ran a little over 40%. Since mining will be at least 3 feet wide, the grade will be reduced to about 30% Mn.

Plans: Plans to ship to Mohave M & M Co. or to Winterhaven. Kenneth Holmes (Winterhaven) has been in Ajo twice and plans to return this week and negotiate. He placed a tentative offer of \$1.25 per ton in the ground, which is satisfactory to Hibberd.

Geology: This was described in a previous report (Nov. 5, 1957). Previous drilling in a cut had disclosed the vein to a depth of at least 10 feet.

Letter and copy of report mailed July 17, 1958, also M.O. Report

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

Mine Hibberd Manganese

Date

Engineer

November 5, 1957

District Ajo, Pima County

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Lewis A. Smith

Subject: Visit to the Property

Sec.11 T13S R5W

Location:

In the Pozo Redondo Mountains, 7 miles southeast of Ajo.

Owner:

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W. A. Hibberd, Box 455, Ajo. (A.C. Netherland, previous owner)

The mine lies in a crumpled area below the crest of what appears to be an intensely disected anticline. The rocks are all volcanic origin, representing the Miocene series, Pliocene - Pleistocene lake sandstone and Pleistocene basalt. The column is as follows:

> Rhyolite Tuff (base) Glassy Rhyolites Rhyolite Sandstone Basalt

The depressed and crumpled center has been disjointed by slip faults and a major Basin and Range fault. The plan and section of these fractures is as shown on the accompanying diagram, (see separate sheet).

The manganese mineralization is in a brecciated area, in rhyolitic tuff, where two of the slip faults intersect. Some breccia fragments look like andesite. The principal mineral is psilomelane with local spots of pyrolusite. The fractures are as follows. (A) One striking N 10 W, and dipping 65 ONE.

(B) Transverse fracture which strikes about 5. 70° W and is nearly vertical.

A third slip-fault offsets the others at a distance of 300 to the west. The three cause a locus of mineralization.

The breccia zone was penetrated by six 24-foot drill holes, drilled at a flat angle. The average grade of the drillings indicated a variable tenor ranging from 20% to 40% Mn, the average being 24%. The main streak, along fault (a) was about 2' wide with less tenor over a width of 15 feet. Apothoses along the fault (b) extended out for 20-25' in each direction. The property was drilled by McKnight of Sells.

ALL. Stoval observed the property a year or so ago, and concluded that the deposit might contain up to 20,000 tons, (but could have 60,000 tons) if properly developed. So far several bulldozers cuts have been made. They are both transverse to the orebody trend and along it.

The state of development is not sufficiently advanced to be able to evaluate the deposit. Two other lesser showings were found to the southeast, one about 300 feet from the main mine, and the other was about  $\frac{1}{2}$  mile along the same general trend.

The ore to be commercial, would have to be beneficiated. Since the manganese mineral is the the space between the Country rock fragments and is loosely deposited, it should separate easily under crushing and screening.

The small anticline is a wrinkle on what appears to be a major geo-anticline approximately 75 miles wide, which trends NW \* SE at a small angle. The center or sub-crest, area is composed of pre-Cambrian rocks (quartz-mica schists, mica granites, and schistose volcanics). The wings are composed of fertiary volcanics and interspersed lake sediments. The PresCambrian has been invaded, at Ajo, by intermédiate intrusives of probable Laramide age.

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

Mine

District

Subject:



Date

