

Humboldt Mine ✓

Gold

NAME

OLD NAMES

PRINCIPAL ORE

MINOR MINERALS

T13S

R42

N  $\frac{1}{2}$  20  
About sec. 15

T

R

S

PUBLISHED REFERENCES

Swartley 14:224  
Gilluly, Reed & Parks 33:45  
Ore. Metal Mines Handbook 14A pg-78

MISCELLANEOUS RECORDS

Baker

COUNTY

Mormon Basin

AREA

5600

ELEVATION

ROAD OR HIGHWAY

12-14 mi. Dixie Ore

DISTANCE TO  
SHIPPING POINT

PRESENT LEGAL OWNER (S) Mr. Gorman

Address Baker Ore

OPERATOR

Name of claims Area Pat. Unpat.

Name of claims Area Pat. Unpat.

EQUIPMENT ON PROPERTY

DEPARTMENTAL RECORDS ON FILE IN

DEPARTMENT AND VASSY RECORDS

M 23

Plan of underground by Harrison 1905

Claims by Harrison 1905

Claim map of Humboldt and Redwood Group

B1 and G.P. Baker

x

x

x

1 2 3

REPORTS


SHIPMENT AND ASSAY RECORDS


MAPS

Claims & workings	- 2 tracings				✓
Humboldt + Gorman	- Section of workings	1 print			✓
"	"	claim map traced by HKE 1940			✓
Plan of underground by Pearson 1909					x
Claims by Pearson 1909					x
Claim map of Humboldt and Rainbow Group					x

THE HUMBOLDT MINE

(1)

LOOKOUT -  
PEDRO MTR.  
MORMON  
BASIN DIST.

This mine is situated in the southwestern part of the Basin in Malheur county in the northwestern quarter of Sec. 20, T. 13 S., R. 42 E. It is operated by the Oregon-Idaho Investment Company. It has been producing for several years.

Formerly the mine had four levels and was worked by means of a vertical shaft. Recently the shaft has been sunk 100 feet deeper and a crosscut driven to the vein upon which drifting has been started.

There is a 20-stamp mill upon the property in which recovery is by amalgamation and concentration with Wilfleys and vanners. A considerable percentage of the gold is free milling. The concentrates are shipped to smelters, but it is proposed to instal a cyanide plant to treat the tailings.

The many movements that have taken place in this immediate vicinity have caused the geology to be confusing. The chief country rock is slate with diorite porphyry in the foot wall. In the upper levels trachyte is said to form a large part of the hanging wall. This trachyte was probably a feeder to some of the recent acidic lava flows.

The lode has an east-west strike and a dip of  $75^{\circ}$  N. in the upper levels but with a steeper dip below. In some places the lode is as much as 40 feet wide, but the actual quartz veins are rarely more than a few feet thick.

The chief gangue mineral is quartz and much of it is in a sugary condition, due to crushing by later movements. Some calcite is present in the vein. The ore, especially in the upper levels, is free gold, and many fine specimens have been taken from the mine. In the lower levels more sulphides are found. They are chiefly arsenopyrite, pyrite,

HUMBOLDT MINE

(2)

LOOKOUT -  
PEDRO MT. R.  
MORMON  
BASIN DIST.

galena and sphalerite. The galena and sphalerite are said to contain high values in gold.

The Humboldt lode is situated in a zone of weakness where fracturing and movement have taken place many times. The first break allowed the injection of the diorite porphyry that is found on the foot wall. Then came the fracturing that made the opportunity for the hot ascending silica solutions to deposit their burden of quartz and metallic sulphides. Movement took place during the period of vein formation as is evidenced by the recementing of broken quartz fragments. Considerable post mineral movement has taken place, as is shown by the sugary quartz, the gouge, and the actual faulting of the vein in the lode. The presence of a trachyte dike goes to show further how great a zone of weakness there is here. A certain amount of pressure may still exist as a partial explanation for the bad ground in some parts of the mine where large sized stulls are crushed in a short period of time. On account of the faulting that has taken place in this mine a careful geological map combined with an assay map would be of considerable value as a guide to future development.

## HUMBOLDT MINE

MORMON BASIN:

DISTRICT Is 25 miles southwest from Durkee. Located 35 years ago and consists of 6 lode claims and about 40 acres patented, all of which are recorded at Vale, Malheur County, Oregon. The country rock: slates and andesite dykes, intrusive hanging wall of andesite, footwall of slate; width of vein is from 3 feet to 15 feet, length is 400 feet. Mineral is gold, silver and lead, milling ore assayed at \$10. Water pumped from mine; timber nearby. Power is available from Idaho Power Company; no machinery. There are 2000 feet of tunnels and 400-foot deep shaft. Owners are John Kernan Estate of Portland, Oregon. Report made by John Arthur. Past production \$150,000, but is now idle.

(Prescott---6/1/37).

*Has not been in operation since 1916  
(Don Kampfer) OK (Stevenson)  
6/22/38*