

Geology of the Black Rock Mine  
T. 35 S. and T. 36 S., R. 12 W.  
Curry County, Oregon

Summary

A geologic investigation of the Black Rock Mine property consisting of 526 claims in T. 35S. and T. 36S., R. 12W. in Curry County, Oregon reveals that the area is underlain by metamorphic sedimentary and igneous rocks of pre Jurassic, Jurassic and Cretaceous age.

Geologic observations and analyses of samples taken from exploration pits in the area do not indicate any mineral deposits of commercial size.

Location and Ownership

The Black Rock Mine is located in T. 35S. and T. 36S., R. 12W. in Curry County, Oregon. The property is accessible by approximately 38 miles of U. S. Forest Service road from Gold Beach, Oregon.

The mine consists of 526 unpatented mining claims under the management of Sam Thompson.

Topography and Drainage

The area is rugged and highly dissected. The major drainage is Lawson Creek which drains into the Illinois River. The balance of the streams drain into the Illinois River and the Rogue River directly.

The relief is nearly 3000 ft. with the ridge reaching an altitude of 3500 ft. on the west side of the area and the point where Lawson Creek leaves the area to the east is about 500 ft.

Geology

Metamorphic Rocks

The oldest rocks in the area are in the western portion and are mica-schist intermingled with slates in which cleavage is highly developed but without definite crystalline structure visible to the unaided eye.

The rocks are fine grained, with decided schistose structure and where most highly metamorphosed have much fine mica on the foliated surface. They are much folded and crumpled but strike usually is northwest to west, with vertical dip. They contain many small veins of quartz which on weathering yield numerous white fragments of quartz to the soil. There are some rock outcrops in the schist that apparently are metamorphosed volcanics. There is some secondary mineralization with formation of magnetite and manganese min-

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erals. Samples # 2, 3, 13, 15, 16, 18, 19, 20 and 21 were taken in these metamorphic rocks.

## Sedimentary Rocks

There is an unconformity between the above metamorphic rocks and the sedimentary rocks. The sedimentary rocks are in the east and center portion of the area and are a massive pebble conglomerate made up of well rounded pebbles in a sandy matrix. The pebbles consist of vari colored quartzites, black slate, quartz and greenstone. The conglomerate upon weathering leaves a residual mantle of gravel with very little soil.

## Intrusive Rocks

### Serpentine

In the eastern and north central parts of the area are serpentine and serpentized peridotite masses.

Outcrops of the most intensely deformed serpentine are greenish gray with innumerable slip surfaces matted together. Scattered through this material are unsheared serpentine blocks which are dark green to blue black in color. No chromite was found in place in this material but fragments were found in trench dump of the largest bulldozer cut. Chromite deposits of any size would not be anticipated in this type of material as the intense shearing would have displaced and scattered any chromite that might have been in the parent peridotite rock. Sample # 1, 5, 7, 11, 12 were taken in this serpentine. Sample #8 was a high grade fragment of chromite.

A few outcrops of partially serpentized peridotite were found in the north central portion of area and is mainly composed of olivine and would be classified as a dunite. There are a few disseminated chromite crystals in the dunite (Sample #17). Peridotite with large pyroxene crystals outcrop in a few places. This material weathers on the surface to limonite (Sample #4).

### Basalt

There are basalt masses outcropping in the northern part of the area. The basalt is fine grained and dark gray in color. When weathering the basalt leaves a thin, reddish brown soil mantle.

### Dacite Porphyry

In the northern part of the area occur irregular shaped masses of light colored aphanitic to fine-grained rocks. On weathered surfaces the rock is very light colored, chalky white or white stained

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with limonite. The rock intrudes the serpentized peridotite and is apparently the influence which caused some copper mineralization in the serpentine (Sample #6 & 14).

## Exploration and Development

Exploration consists of prospect pits ranging in size from very small pits (3 ft. diameter) to bulldozer trenches (the largest of which is 200 ft. long and 25 ft. deep). Only a limited amount of exploration work has been done and no results of sampling were available. Very few discovery pits could be located and no corner or center posts were seen.

The largest expenditure on development has undoubtedly been on the rough road cuts diagonally across the property following closely where the Forest Service trail is shown on the enclosed map. In addition to this road the major development has been the camp facilities.

## Sampling

In view of the large area held under unpatented mining claims, it was requested that the manager of the property select the best mineralized areas and samples were taken from these locations. In the majority of the samples the highest grade was selected. Inasmuch as little or no mineralization was apparent, the manager was asked to select samples of material which reportedly were good by previous analyses. Sample locations are shown on enclosed map and tabulation of analyses of samples as determined by Nickel Mountain Laboratory and Nickel Smelting Company Laboratory is enclosed.

## Economics and Conclusions

No metallic mineral deposits are known in the Jurassic and Cretaceous sedimentary and metamorphic rocks of the area and results of this investigation, though limited in scope, bear this out.

Geologic observation and analyses of samples of serpentine and serpentized peridotite do not indicate any possible development of an economic mineral deposit.

W. A. Foster

WAF/lm

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BLACK ROCK MINES

## Sample Analyses Table

Sample No.	Description	<u>Nickel Mtn. Laboratory</u>			<u>Nickel Smelting Co. Laboratory</u>				
		<u>% Fe</u>	<u>% Ni</u>	<u>% Mn</u>	<u>% Fe</u>	<u>% Ni</u>	<u>% Cu</u>	<u>% Cr<sub>2</sub>O<sub>3</sub></u>	<u>% Mn</u>
1	Green-black serpentine	11.3	.06		10.8	0.12-		0.11-	
2	Gray-black meta-sediments	26.3	.12	3.2	24.2	0.12-			4.9
3	Crystalline schistose rock	9.0	.01	0.5	9.4	0.12-			0.2
4	Partially altered peridotite	6.0	.07		5.8	0.12-			
5	Green serpentine	6.0	.27		6.1	0.18		0.38	
<i>Pine Flat Cu</i> 6	Green-black serpentine with malachite and azurite	18.2	.20		19.5	0.20	3.47	Pi	
7	Talc green blue serpentine	5.8	.18		6.0	0.12-		0.27	
8	Chromite				14.5	0.12-		47.93	
9	Brownish-green serpentine	3.6	.08		3.7	0.12-	0.10-	0.39	
10	Green-black serpentine	6.0	.25		6.1	0.17	0.10-	0.63	
11	Green-black serpentine	7.5	.13		8.1	0.10		0.40	
12	Green-black serpentine	6.0	.22		6.3	0.15		0.19	
13	Gray-black meta-sediments	5.5	.006	0.5	4.5	0.12-			0.16
<i>Pine Flat Cu</i> 14	Green-black serpentine with malachite and azurite	20.8	.12		21.0	0.10	6.27		
15	Black manganiferous meta-sediments	3.7	.08	4.0	3.3	0.12-			6.74
16	Gray-black meta-sediments		.04	1.2	24.2	0.12-			1.2
17	Serpentinized peridotite with disseminated chromite crystals	3.9	.35		4.9	0.13		8.45	
18	Black manganiferous meta-sediments	24.3	.13	3.5 ✓		0.12-			5.71
19	Black manganiferous meta-sediments	27.2	.16	3.8	25.2	0.12-			6.64
20	Green-gray schist	4.7			3.9				
21	Black meta-sediments	16.3	.07	2.2	16.9	0.12-			3.62

RECORD IDENTIFICATION

RECORD NO..... M061488  
RECORD TYPE..... X1M  
COUNTRY/ORGANIZATION. USGS  
DEPOSIT NO..... ODGMI 93-179  
MAP CODE NO. OF REC..

REPORTER

NAME..... JOHNSON, MAUREEN G.  
UPDATED..... 81 04  
BY..... FERNS, MARK L. (BROOKS, HOWARD C.)

NAME AND LOCATION

*Black Rock*

DEPOSIT NAME..... PINE FLAT

MINING DISTRICT/AREA/SUBDIST. AGNESS

COUNTRY CODE..... US

COUNTRY NAME: UNITED STATES

STATE CODE..... OR

STATE NAME: OREGON

COUNTY..... CURRY

DRAINAGE AREA..... 17100310 PACIFIC NORTHWEST

PHYSIOGRAPHIC PROV..... 13 KLAMATH MOUNTAINS

LAND CLASSIFICATION..... 41

QUAD SCALE QUAD NO OR NAME  
1: 62500 AGNESS

LATITUDE LONGITUDE  
42-31-22N 124-05-47W

UTM NORTHING UTM EASTING UTM ZONE NO  
4708200.0 409950.0 +10

TWP..... 35S  
RANGE..... 12W  
SECTION.. 25  
MERIDIAN. WILLAMETTE

COMMODITY INFORMATION

COMMODITIES PRESENT..... CU AU AG

PRODUCER(PAST OR PRESENT):  
MAJOR PRODUCTS.. CJ

MALACHITE , AZURITE

ANALYTICAL DATA(GENERAL)

GENERAL SAMPLE OF ORE FROM VARIOUS DUMPS YIELDED 9.87% CU, TRACES AU & AG

EXPLORATION AND DEVELOPMENT

STATUS OF EXPLOR. OR DEV. 2

DESCRIPTION OF DEPOSIT

DEPOSIT TYPES:

SHEAR ZONE

FORM/SHAPE OF DEPOSIT: THIN SEAMS & STAINS

SIZE/DIRECTIONAL DATA

SIZE OF DEPOSIT..... SMALL

STRIKE OF OREBODY.... N80E

DIP OF OREBODY..... 32SE

PRODUCTION

NO PRODUCTION

ANNUAL PRODUCTION (ORE, COMMOD., CONC., OVERBURD.)

GEOLOGY AND MINERALOGY

AGE OF HOST ROCKS..... JUR?

HOST ROCK TYPES..... SERPENTINE

AGE OF ASSOC. IGNEOUS ROCKS.. TERT?

IGNEOUS ROCK TYPES..... DACITE PORPHYRY DIKE

IMPORTANT ORE CONTROL/LOCUS.. CONTACT

LOCAL GEOLOGY

NAMES/AGE OF FORMATIONS, UNITS, OR ROCK TYPES

1) NAME: COLEBROOKE SCHIST

AGE: JUR

2) NAME: MYRTLE GROUP

AGE: CRET

COMMENTS (GEOLOGY AND MINERALOGY):

SERPENTINE OCCURS ALONG THE CONTACT OF A PEBBLE CONGLOMERATE OF THE MYRTLE GROUP WITH THE COLEBROOKE SCHIST

GENERAL REFERENCES

1) RAMP, L. AND OTHERS, 1977, GEOLOGY, MINERAL RESOURCES AND ROCK MATERIAL OF CURRY COUNTY, OREGON; ODCMI BULL.