

September 18, 1942

State Department of Geology and Mineral Industries

CHOLLARD CHROMITE MINE
see also (Coleonda)

See also CF

Waldo 7020 Woodlark Building
Portland, Oregon

Operators: Chollard Chromite Mine.

Location: center sec. 17, T. 40 S., R. 7 W., on Sowell creek. Reached from Grants Pass, via Cave Junction, and Bridgeview; out Bridgeview to Holland road 1.4 miles; turn south on Althouse creek road 2.3 miles; then east on dirt road along south side of creek 1.2 miles; then up Sowell creek 0.8 miles to the mill; a total of 39.7 miles.

Area:

History: Allen (38:47) reported as follows:

"The main workings lie at an elevation of about 2300 feet, on the southwest bank of Sowell creek, across from the Kerby Queen mine, in sec. 17, T. 40 S., R. 7 W.

"The deposits lie within a wide band of dense fine-grained serpentine and dunite, the borders of which are over a fourth of a mile to the east, and west from the main workings. Occasional variation of composition (such as magnesian bands) within the serpentine indicates that the formational dips are about 45° to the east, with a strike approximately north-south. The main orebody lies upon a gently north-sloping ridge, at its upper junction with the larger main ridge to the west. On the east there is a steep drop of about 200 feet to the bed of Sowell creek. The chromite-bearing zone seems to vary in width from a few feet to as much as 30 feet.

"The previous somewhat extensive operations seem to have been confined to a north-south lenticular area at least 80 feet long with a maximum width of 30 feet. The open-cut and glory hole workings are now 15 to 30 feet in depth. Unreliable indications are that the orebody was in the shape of a north-south elongated chute, plunging to the north or northeast.

"About 1600 cubic yards of material (rock and ore) have been removed from the two large pits. They were tapped from the north by a tunnel, driven at a 20 to 30 foot level. Another 200-foot tunnel was driven from the northeast, at a depth of at least 40 feet below the first. The pits were in part stoped out from this level.

"The narrow lentils or bands of high-grade ore run as high as 49.44 percent chromic oxide when analyzed, but apparently these compose only a small part of the ore-bearing zone, within which an average cross-cut sample might run only 10 percent."

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"Apparently when the mine was previously in operation, the procedure was to run the ore through a jaw crusher which operated at the mouth of the lower tunnel, and then chute the $\frac{1}{2}$ to 1 inch material 200 feet down the hill to bins at the mill just above the creek, where it was ground and concentrated. The method of concentration could not be told from what evidence still remains, but a sample of the concentrates assayed 45.51 percent chromic oxide.

"The concentrates were formerly trucked down the creek bed about one mile and thence another mile by third-grade road to graveled county road and six miles on this to the paved highway near Cave Junction, 31 miles from Grants Pass. The total haul is 39 miles."

The present operators began in the early summer of 1942 by repairing the road, and building a concentrator. In September, 1942, they had cleaned out some of the old workings but no new ore had been mined.

Development: Former workings consist of several test trenches at the upper end of the deposit. Small pods of high grade apparently removed from two of them. The "glory hole" has a surface opening 65 feet by 40 feet and apparently was tapped by a 355 ft. adit below. The adit trends S. 33° W. and has ore chutes at 120 ft., 270 ft., and a double chute at 335 ft. and 340 ft. The chute at 120 ft. apparently tapped a raise to the surface that trends S. 15° W. and dips 65° S.W. The chutes are full of rock reported to be there since 1918. The adit has been cleaned out and retimbered. To date, only ore from dumps is being milled.

Metallurgy: Ore is delivered to a bunker below the adit. It goes through an automatic feeder to a 3 ft. rod mill. Crushed ore is flushed to the mill by means of an small flume. The mill has three jigs. Concentrate goes to bins. A "tester tube" is reported to be in the circuit but was not seen.

Geology: Allen (38:47) discusses the geology in some detail. The serpentine is intensely sheared to serpentite $\frac{1}{2}$ and is cut by a light colored rock that on casual inspection appears to be aplite.

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Advice by U.S.G.S. 2/ suggests that the white rock is one of the pyroxenes.
Full confirmation must await further petrographic study.

As stated by Allen, ore removed in the last war apparently was high grade, although mixed with a certain amount of the white pyroxene (?).
At present, the only ore to be seen is disseminated.

References: Allen, 33:47
Parks & Swartley, 16:100 (see Golconda)

1/ Serpentine, is a coined word to indicate intensely sheared and slicked serpentine.

2/ F. G. Wells, U.S.G.S., 9/14/42.

Informant: RCT, 9/14/42.

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Portland, Oregon
Waldo area

CHOLLARD CHROMITE

No great amount of work has been done on the ore deposit. The lower adit has been cleaned out and timbers strengthened. Rock is in the chutes reported to be in there since the last War. Ore delivered to the mill has been taken from the dumps. No high-grade ore was seen, in place. A small amount of disseminated ore was seen. No ore has been developed. No ore in the adit.

The bunker discharges into an automatic feeder, of sorts. Workmen were revamping it, and said that they have been revamping it ever since they started. The rod mill was manufactured in Medford. It is about 3' wide and not over that in diameter. Workmen stated that in order to get it to satisfactorily grind the ore, capacity is about one ton per hour. It is supposed to crush 8-10 tons per hour.

The flume that carries the ground ore to the "mill" is about 4" deep and wide. Rough lumber. It was carrying water at the time of the visit.

The mill is built in the old (last war) building. All equipment is tacked down with nails. I saw no bolts. Maybe this doesn't mean anything and then again maybe it does. Bob tells me that there is a "tester tube" connected somewhere in the circuit that Watson claims is the heart of the beneficiation. It is manufactured by Denver Equipment Company and essentially is a long, vertical tube making use of hindered settling to effect a specific gravity separation sensitive to 0.3 specific gravity. This rig was not seen at the time of the visit.

Watson is a most prolific talker. He talks most intelligently on any metallurgical problem and does so at the slightest provocation. People who know him say he has a perfectly marvelous memory and can repeat things he has heard or read in great detail. He, and his work, impress me as the result of a large amount of theoretical research work and a glaring lack of practical application. As yet, less than 10 tons of concentrates have been delivered at the stockpile.

Analysis of samples of concentrate reportedly represents a "test run".

Practically all work so far has been to perfect the beneficiation process. Wet weather should shut down the property.

Ray C. Treasher
Field Geologist
9/18/42.

RECORD 02207

CRIB MINERAL RESOURCES FILE 12

RECORD IDENTIFICATION

RECORD NO..... M060643
 RECORD TYPE..... X1M
 COUNTRY/ORGANIZATION. USGS
 DEPOSIT NO..... DDGMI 100-402
 MAP CODE NO. OF REC..

REPORTER

UPDATED..... 81 02
 BY..... FERNS, MARK L. (BROOKS, HOWARD C.)

NAME AND LOCATION

DEPOSIT NAME..... CHOLLARD MINE
 SYNONYM NAME..... GOLCONDA

MINING DISTRICT/AREA/SUBDIST. WALDO

COUNTRY CODE..... JS
 COUNTRY NAME: UNITED STATES

STATE CODE..... OR
 STATE NAME: OREGON

COUNTY..... JOSEPHINE
 DRAINAGE AREA..... 17100311 PACIFIC NORTHWEST
 PHYSIOGRAPHIC PRDV..... 13 KLAMATH MOUNTAINS
 LAND CLASSIFICATION..... 49

QUAD SCALE 1: 62500
 QUAD NO OR NAME
 CAVE JUNCTION

LATITUDE 42-05-11N
 LONGITUDE 123-33-09W

UTM NORTHING 4659303.3
 UTM EASTING 454306.6
 UTM ZONE NO +10

TWP..... 040S
 RANGE..... 007W
 SECTION.. 17
 MERIDIAN. W.M.

ALTITUDE.. 2175

ORE MATERIALS (MINERALS, ROCKS, ETC.):
CHROMITE

ANALYTICAL DATA (GENERAL)

5 ASSAYS - LOW GRADE DISSEMINATED ORE 24.7% & 27.0% CR2O3; MILL CONCENTRATES 47.8% CR2O3, 15.4% FE; MASSIVE; PT GROUP LOOKED FOR, NOT FOUND

EXPLORATION AND DEVELOPMENT
STATUS OF EXPLOR. OR DEV. 8

DESCRIPTION OF DEPOSIT

DEPOSIT TYPES:

MASSIVE CHROMITE, DISSEMINATED

FORM/SHAPE OF DEPOSIT: LENS, NARROW SEAMS

SIZE/DIRECTIONAL DATA

SIZE OF DEPOSIT..... SMALL

STRIKE OF OREBODY..... N 30 E

DIP OF OREBODY..... 20-70 SW

PRODUCTION

YES

MEDIUM PRODUCTION

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

ITEM	ACC	AMOUNT	THOUS. UNITS	YEAR	GRADE, REMARKS
1 ORE EST		0001.875	TONS	1916	45. % CR2O3 (CONC)
2 ORE EST		0001.004	TONS	1917	45. % CR2O3 (CONC)
3 ORE EST		0000.032	TONS	1943	39. % CR2O3
4 ORE EST		0000.039	TONS	1957	46. % CR2O3 (CONC.)
21 TOTAL		2.950	TONS	44.9% CR2O3	(WEIGHTED AVERAGE GRADE)

PRODUCTION COMMENTS..... MOST ORE PRESUMABLY 10 TO 35% CR2O3; LESS THAN 50,000 TONS AVAILABLE IN 1940; NOT MUCH MINING SINCE; PROBLEMS WITH PRODUCTION STATISTICS 1952-1954 SEE GONCOLDA

GEOLOGY AND MINERALOGY

AGE OF HOST ROCKS.....

JUR

HOST ROCK TYPES.....

SAXONITE, DUNITE

IGNEOUS ROCK TYPES.....

METAVOLCANIC INCLUSIONS

GENERAL COMMENTS

RECORD NUMBERS (M013293) AND (W017047) HAVE BEEN MERGED WITH THIS RECORD AND DELETED FROM THE OREGON FILE.

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9/18/42.

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

ASSAY REPORT

Grants Pass, Oregon
 Baker, Oregon

September 18, 1942

Sample submitted by Ray C. Treasher, Grants Pass, Oregon

Sample description: Concentrates from Watson's mill.

The assay results recorded below are made without charge as provided by Chapter 176, Section 10, Oregon Laws 1937, the sender having complied with the provisions thereof.

NOTICE: The assay results recorded below are from a sample furnished by the above named person. This Department had no part in the taking of the sample and assumes no responsibility, other than the accuracy of the assay of the material as furnished it by the sender.

Sample Number	GOLD		SILVER		(Cr ₂ O ₃) Chrome		(Fe) Iron		Total Value
	Ounces per ton	Value	Ounces per ton	Value	Percent	Value	Percent	Value	
					47.8		15.4		

Market Quotations:

Gold ⌘ per oz.
 Silver ⌘ per oz.
 ⌘ per lb.
 ⌘ per lb.

STATE ASSAY LABORATORY

R. G. Bassett

Assayer