

## SUBJECT

*Humbach Dist.*

MAR 20 1939

D O R O T H E A M I N E

NAME: Dorothea Mine.

LOCATION: Josephine County, Oregon, about 8 miles easterly from town of Wolf Creek, station on Southern Pacific Railroad and Pacific Highway.

ELEVATION: About 2500 feet.

AREA: 100 acres, patented.

TITLE: Good commercial title. Patent claims and mineral lands.

FORMATION: Diorite, hanging wall, Serpentine, foot wall.

VEIN: Contact Fissure. Strike easterly and westerly. Dipping North. Width generally from 8 to 20 feet.

ORE SHOOTS: Whether there is one or several defined shoots cannot be determined from present development which is confined mostly to a point about the center but the surface showing of the deposit appears to be quite the same for some 3000 feet or more in length.

ORES: There are at least two distinct classes of ore. One a massive white quartz lying next to the foot wall and the other a darker more laminated quartz in a shear zone of dark gangue contacting along the east side of the massive quartz. Each strata seems to have an average width of about 4 feet in the developed area.

MINERALS: Gold, silver, some pyrites, galena, etc.

VALUES: General value of ores in the developed zone as determined from sampling and milling, have an average range of \$5.00 to \$12.00 per ton, mostly free milling to present depth of some 200 feet.

DEVELOPMENT: Main working level about 700 feet. Shaft and raises about 200 feet. Total including sublevels about 1500 feet.

PRODUCTION: Without full records past production might be suggested at around \$50,000.00. As much as \$30,000.00 was milled from a shallow workings along the hanging wall across the apex of the vein.

PROCESS: Stamp milling. Amalgamation and gravity concentration.

ORE TONNAGE: Within the confines of present development there is available for milling a block of ore exceeding 10,000 tons down to the main working level. The potential tonnage of the property is very great and far beyond anything that one would care to express in figures at this time.

COSTS: Costs have not been established but based on experience in the locality and owing to most favorable operating conditions

DOROTHEA MINE - Continued

Page 2.

actual Mining and Milling should not exceed \$3.00 per ton exclusive of exploration and development.

RECOVERY: Past operations recorded a fair recovery by amalgamation and concentration and by careful application of these methods should be maintained around 90% on ores now exposed.

POWER: Commercial electric power available by extension of line. Deisel power to be installed for present operations. First requirements about 75 HP.

WATER: Sufficient for operations, owned by the property.

TIMBER: Sufficient for mining needs owned by the property.

DUMP-RIGHT: Unlimited space for disposal of tailings.

CLIMATE: Suitable to continuous operation.

TRANSPOR-  
TATION: Auto road from Wolf Creek and Pacific Highway to the mine. Distance 8 miles. Upper end to be improved.

BUILDINGS: Ten stamp mill building, compressor room, ship, and old camp.

EQUIPMENT: 5 stamp mill battery installed. Rock crusher, Concentrator plates, engine, etc.

INVESTMENT: Reasonable replacement value of development, improvements, etc. may be estimated at about \$40,000.00.

REMARKS: The Dorothea Mine is under long term lease and option to P.B. Wickham of Ashland, Oregon. The program calls for reopening of the mine and repair of milling plant including installation of another mill battery. A compressor plant and Deisel power will be added to equipment.

OWNER: J. P. Reddy, Trustee  
Los Angeles, California

LESSEE: P. B. Wickham  
Ashland, Oregon  
Dated, March, 1939.

INFORMANT: P. B. WICKHAM March 18, 1939.

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

Dorothea Mine (Gold, Silver)

Josephine County  
Greenback Area  
REPORT BY: E.A. Youngberg  
DATE: March 31, 1945

Owner:

Ralph R. Wilde, P.O. Box 641, Grants Pass, Oregon.

Location:

N.W.  $\frac{1}{4}$ , Section 22, Township 33 S., Range 5 W.

Area:

One hundred acres of patented land and one located claim used as a mill site.

History:

The property was sold to Mr. Wilde by the Josephine County Court for taxes in early 1945.

Development:

No recent work has been done on the property. The present owner expects to rehabilitate the mill and do some mining and development work in a small way.

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RECEIVED  
APR 3 1945  
STATE DEPT OF GEOLOGY  
& MINERAL INDS.

PROPERTY MAP (continued)

**NAME:** Dorothea Mine.

**LOCATION:** Josephine County, Oregon, about 8 miles easterly from town of Wolf Creek, station on Southern Pacific Railroad and Pacific Highway.

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DOROTHEA MINE (continued)

**WATER:** Sufficient for operations, owned by the property.

**TIMBER:** Sufficient for mining needs owned by the property.

**DUMP-RIGHT:** Unlimited space for disposal of tailings.

**CLIMATE:** Suitable to continuous operation.

**TRANSPORTATION:** Auto road from Wolf Creek and Pacific Highway to the mine. Distance, 6 miles. Upper end to be improved.

**BUILDINGS:** Ten stamp mill building, compressor room, shop, and old camp.

**EQUIPMENT:** 5 stamp mill battery installed. Rock crusher, concentrator plates, engine, etc.

**INVESTMENT:** Reasonable replacement value of development, improvements, etc., may be estimated at about \$40,000.00.

**REMARKS:** The Dorothea Mine is under long term lease and option to P. B. Wickham of Ashland, Oregon. The program calls for re-opening of the mine and repair of milling plant including installation of another mill battery. A compressor plant and Diesel power will be added to equipment.

**OWNER:** J. P. Reddy, Trustee  
Los Angeles, California

**LESSEE:** P. B. Wickham  
Ashland, Oregon

Dated—March, 1939.

REPORT ON THE SAMPLING PROGRAM ON THE MARSHALL MINE  
SEC. 22, TWP. 33 S, R 5 WWM  
JOSEPHINE COUNTY, OREGON

I. INTRODUCTION

A. Report Initiation:

On March 1, 1974, Mr. Norbert Zwan, 384 Troll View Road, Grants Pass, Oregon, obtained a lease with option to purchase the Marshall claim from the Owners, Rough & Ready Lumber Co., Cave Junction, Oregon.

Mr. Zwan requested Associated Geologists, 720 N.E. Madrone Street, Grants Pass, Oregon, to conduct a surface mapping and sampling program on the Marshall claim. This report is the presentation of the data obtained from the trenching, mapping, and sampling of the Marshall.

B. Purpose & Scope:

The purpose of the sampling program was to determine the possible gold potential of the Marshall mine.

The bulldozer trenching, mapping and sampling were limited to the area around the old shaft where the mineralized shear zone appeared to be traced out by a series of shallow surface pits and trenches. The bulldozer trenching was designed so as to expose not only the mineralized shear zone, but also the major contact between the gabbro and the serpentine. The lower cross cut was mapped and tied into the surface trenching. The old drifts and stopes are not accessible due to a cave at the face of the cross-cut 331 ft. from the portal.

The sampling consisted of channel sampling the trenches and the uncaved portions of the shaft. The samples were assayed for gold and silver. (See Marshall Plan and Sample Location Map.)

C. Location & Accessibility:

The Marshall gold prospect consists of a 20-acre patented mining claim located in the SW1/4 Sec. 22, Twp. 33S, R 5 WWM, Josephine County, Oregon. The claim is part of the Greenback Mining District and lies approximately 2-1/2 miles northeast of the Greenback Mine on a branch of Coyote Creek.

To reach the claim from Grants Pass, Oregon, turn right off Interstate 5 at the town of Wolf Creek, Oregon. Take the Coyote Creek Road eastward for 5-1/2 miles. This road is hard-surfaced for 4 miles. The Coyote Creek Road branches 5 miles from Wolf Creek. To reach the Marshall claim, take the left-hand branch up Panning Gulch. The old access road to the claim turns very sharply to the left off the Panning Gulch Road approximately 1/2 mile from where it branches off the Coyote Creek Road. The access road terminates at the old mill site and the lower adit.

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A new BLM road turns left off the Panning Gulch Road approximately 3/4 mile from Coyote Creek turn-off. This new road intersects the N.E. corner of the claim. A jeep road connects the BLM road to the upper workings of the Marshall claim.

The Marshall claim is 2300 ft. above sea level and can be reached the year around. During the winter snow may cover the ground for short periods of time. The snow would not interfere with a year-around operation of the mine.

## II. SUMMARY

The mapping and sampling program on the Marshall Mine, located in Sec. 22, Twp. 33S, R 5 WWM, Josephine County, Oregon, coupled with the underground data, indicates a mineralized shear zone to be present, containing a minimum of 100,000 tons of \$25.00 gold ore at today's price of \$160.00 per oz. for gold and \$5.00 per oz. for silver. The mineralized shear zone strikes East-West and dips 30 to 80° to the north. The mineralized shear zone is 15 ft. wide. The gold-bearing shear consists of iron-stained sheared serpentine with quartz lenses and stringers. The sheared serpentine predominates but appears to carry as much or more gold than the massive quartz lenses. The trenching has exposed the mineralized shear zone for 400 ft. in length. The mineralized shear zone is cut off 200 ft. west of the shaft by a North-South fault zone.

This North-South fault is in serpentine and appears to be several hundred feet wide. A trench 500 ft. west and 100 ft. lower in elevation than the shaft exposes a shear zone with quartz lenses. This shear appears to be on strike and may be the westward continuation of the mineralized shear zone. 200 ft. east of the shaft, the gold-bearing shear zone is exposed in trench 4. The mineralized shear zone continues under the main access road. The gulch 200 ft. east of trench 4 pans free gold, suggesting that the shear zone may extend to the gulch. If so, then the gold-bearing shear zone is a minimum of 600 ft. long.

If the government reports are correct, free gold predominated in the underground workings. The lowest level is 150 ft. down dip from the collar of the shaft. According to the old reports, 2500 oz. of gold were produced from approximately 5000 tons of ore that averaged 0.50 oz. of gold per ton. The old reports refer to an "ore shoot". The grade of 0.50 oz. of gold per ton is higher than the average surface assays taken by the writer. This suggests that the early operators were selective in their mining of the gold-bearing shear zone. It also suggests that the "ore shoot" was an assay definable block of ground.

There are no indications in the old report that the "ore shoot" was ever mined below the cross-cut level. There are no geological features that suggest to the writer that the gold-bearing shear zone and the "ore shoots" should not go to a greater depth than previously explored.

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It should be noted that the old reports are not completely accurate in describing the vein system. The gold-bearing zone in the area of the shaft is not on the main contact of the serpentine and gabbro as indicated by the old report. The shear zone is 30-40 ft. south of the contact and in the serpentine. The mineralized gold-bearing shear zone contacts with and has been cut by a series of gabbro dikes, related in composition and texture to the main gabbro body. The quartz veins in trenches 2 and 3 border the dikes. The dikes may be a major ore control factor and should be carefully watched for in any future exploration of the claim.

The old reports do not indicate that the Marshall vein was difficult to mine. The cross-cut is driven in serpentine for its entire length. The ground in the cross-cut stands well. The cross-cut is not timbered. Only one small cave occurs in the cross-cut 100 ft. in from the portal. This cave can easily be crossed. There is no way to tell at this time how competent the hanging wall will be. The surface indications are that the hanging wall block is made of gabbro dikes and serpentine before the main contact between serpentine and the gabbro stock is reached.

If the walls stand well, the gold-bearing shear zone on the Marshall should lend itself to low-cost underground mining. The gold values appear to be distributed from foot to hanging wall, giving a 15 ft. mining width. The gold-bearing shear is steep dipping so that for 150 ft. of backs the ore can be handled easily.

As most of the gold values are in the free state, the milling of the ore should be simple and inexpensive.

In final summation, it is the writer's opinion that the sampling program indicates that a commercial deposit, at today's price, exists on the Marshall claim. A possible gold ore-reserve of \$2,500,000.00 is indicated. The gold-bearing structure is open both eastward along strike from the sampling program and to depth below the cross-cut level.

### III. SAMPLING PROCEDURE & ASSAY RESULTS

(Gold values calculated at \$160.00 per oz; silver values calculated at \$5.00 per oz.)

Sample No. 1

Ticket No. 65836

Trench No. 1

12 ft. wide channel across shear zone; 7 ft. of quartz, 5 ft. sheared iron-stained serpentine.

Au = 0.09 oz. per ton

Ag = 0.01 oz. per ton

Value per ton = \$14.45

Sample No. 2

Ticket No. 65837

Trench No. 2

19" wide channel; quartz on hanging wall side of mineralized shear zone.



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Au = 0.13 oz. per ton  
Ag = 0.02 oz. per ton  
Value per ton = \$21.00

Sample No. 3

Ticket No. 65838

Trench No. 2

11 ft. wide channel; iron-stained shear zone between the quartz veins. The quartz veins in trench 2 occur on the foot and hanging wall of the mineralized shear zone.

Au = 0.16 oz. per ton  
Ag = 0.02 oz. per ton  
Value per ton = \$25.70

Sample No. 4

Ticket No. 65839

Trench No. 2

36" wide channel; foot wall quartz.

Au = 0.18 oz. per ton  
Ag = 0.02 oz. per ton  
Value per ton = \$28.90

Trench No. 2 averaged \$25.20 per ton in gold and silver values across 15 ft. 7 in. width.

Sample No. 5

Ticket No. 65840

Marshall Shaft

5 ft. wide channel; east wall of shaft in footwall quartz.

Au = 0.14 oz. per ton  
Ag = 0.02 oz. per ton  
Value per ton = \$22.50

Sample No. 6

Ticket No. 65841

Marshall Shaft

2 ft. wide channel; sheared serpentine between footwall and hanging wall quartz.

Au = Trace  
Ag = Nil  
Value per ton = Nil

Sample No. 7

Ticket No. 65842

Marshall Shaft

4 ft. wide channel; hanging wall quartz.

Au = 0.02 oz. per ton  
Ag = Trace  
Value per ton = \$3.20

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Sample No. 8

Ticket No. 65843

Marshall Shaft

3 ft. wide channel; west wall of the shaft in the footwall quartz.

Au = 0.07 oz. per ton

Ag = Trace

Value per ton = \$11.20

Note: The shaft is caved in to within 10 ft. of the collar. The samples were cut just above the fill. It should be noted that the hanging wall quartz vein in the shaft carried very low gold values whereas in both trenches 2 and 3 on either side of the shaft the hanging wall quartz assayed \$21.00 per ton in trench 2 and \$86.00 per ton in trench 3.

Sample No. 9

Ticket No. 65844

Trench No. 3

4 ft. wide channel; quartz 20%, iron-stained sheared serpentine 80%

Au = 0.51 oz. per ton

Ag = 0.08 per ton

Value per ton = \$86.00

Sample No. 10

Ticket No. 65845

Trench No. 3

12" wide channel in footwall quartz.

Au = 0.25 oz. per ton

Ag = 0.03 oz. per ton

Value per ton = \$41.65

In trench 3 altered gabbro makes up 6 ft. of the vein filling between the quartz veins. The entire zone is 14 ft. wide.

Sample No. 11

Ticket No. 65846

Trench No. 4

8 ft. wide channel in center of sheared zone; no visible quartz; sheared iron-stained serpentine.

Au = 0.03 oz. per ton

Ag = Trace

Value per ton = \$4.80

#### IV. CONCLUSIONS & RECOMMENDATIONS

The gold-bearing shear zone on the Marshall claim justifies further exploration and development work. Reopening of the underground drifts and stopes so they can be remapped and sampled is necessary to confirm the ore-reserve indicated by the sampling program. If the old workings are too costly to rehabilitate, drilling from the surface may serve as a good exploration tool to determine the size and grade of the deposit. An early attempt should be made to explore the deposit below the lower cross-cut

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level. This might best be accomplished by cutting drill stations off the cross-cut and drilling from underground.

There appears to be 8,000 tons of ore that could be mined off the surface by open trench methods. The possibility exists that the mine could be operated on a small scale and generate enough profit to carry the exploration out of production.

This report is respectfully submitted this 30th day of May, 1974, in Grants Pass, Oregon, by

ASSOCIATED GEOLOGISTS

*Lloyd E. Frizzell*

Lloyd E. Frizzell, B.Sc.



# ASSAY CERTIFICATE

May 17 1974

MR. Bert Zwan

384 Troll View Rd. Grants Pass, Oregon 97526

Sample No.	Owner's Mark on Sample	GOLD		SILVER		TOTAL VALUE PER TON	PERCENTAGE OF			
		Ozs per Ton	Value per Ton	Ozs per Ton	Value per Ton					
#1	65836	.09	\$9.00	.01	.05	\$9.05				
#2	65837	.13	\$13.00	.02	.10	\$13.10				
#3	65838	.16	\$16.00	.02	.10	\$16.10				
#4	65839	.18	\$18.00	.02	.10	\$18.10				
#5	65840	.14	\$14.00	.02	.10	\$14.10				
#6	65841	Trace	-		Nil	Trace				
#7	65842	.02	\$2.00		Trace	\$2.00				
#8	65843	.07	\$7.00		Trace	\$7.00				

Cont. next page.

Gold: \$100.00 oz.  
Silver: \$5.00 oz.

*Carl W. Yates* ASSAYER  
Carl W. Yates Yreka, California 96097

Sample No.	Owner's Mark on Sample	GOLD		SILVER		TOTAL VALUE PER TON	PERCENTAGE OF			
		Ozs per Ton	Value per Ton	Ozs per Ton	Value per Ton					
#9	65844	.51	\$51.00	.08	.40	\$51.40				
#10	65845	.20	\$20.00	.03	.15	\$20.15				
#11	65846	.03	\$3.00	Trace	-	\$3.00				

Gold: \$100.00 oz.  
Silver: \$5.00 oz.

*Carl W. Yates* ASSAYER  
Carl W. Yates Yreka, Calif. 96097

March 14, 1942

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

DOROTHEA MINE (gold, silver)

Greenback Area

Owner: J. P. Reddy, Trustee, Los Angeles, Calif., Lessee: P. B. Wickham, Ashland, Oregon.

Location: NW $\frac{1}{2}$ , sec. 22, T. 33 S., R. 5 W.

Area: A hundred acres of patented land.

Equipment: Ten-stamp mill building, compressor room, ship, and old camp. Five-stamp mill battery installed. Rock crusher, concentrator, plates, engine, etc.

Development: Main working level 700' in length. Shafts and raises about 200'. Total raises including sublevels about 1500'.

Geology: The country rock consists of a diorite hanging wall and a serpentine footwall. The vein has a width of from 8 to 20 feet with an east-west strike and a north dip.

Whether there is one or several defined shoots cannot be determined from present development; which is confined mostly to a point about the center but the surface showing of the deposit appears to be quite the same for some 3000 feet or more in length.

There are at least two distinct classes of ore. One a massive white quartz lying next to the foot wall and the other a darker more laminated quartz in a shear zone of dark gangue contacting along the east side of the massive quartz. Each strata seems to have an average width of about 4 feet in the developed area. General value of ores in the developed zone as determined from sampling and milling, have an average range of \$5.00 to \$12.00 per ton, mostly free milling to present depth of some 200 feet.

Production: Records are incomplete, but it is estimated that the mine has produced about \$50,000.00 of which \$30,000.00 was milled from a shallow working along the hanging wall across the apex of the vein. The ore was crushed in a stamp mill followed by amalgamation and gravity concentration. The owners estimate that they have 10,000 tons blocked out.

Informant: P. B. Wickham, 1939.

Reference: Parks + Swartley 16:87 (quoted)

History: Parks + Swartley reported as follows:

CRIB MINERAL RESOURCES FILE 12

RECORD IDENTIFICATION

RECORD NO..... M061235  
RECORD TYPE..... X1M  
COUNTRY/ORGANIZATION. USGS  
DEPOSIT NO..... DDGMI 100-55  
MAP CODE NO. OF REC..

REPORTER

NAME..... JOHNSON, MAUREEN G.  
UPDATED..... 81 02  
BY..... FERNS, MARK L. (BROOKS, HOWARD C.)

NAME AND LOCATION

DEPOSIT NAME..... DOROTHEA  
SYNONYM NAME..... MARSHALL

MINING DISTRICT/AREA/SUBDIST. GREENBACK

COUNTRY CODE..... US  
COUNTRY NAME: UNITED STATES

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

COUNTY..... JOSEPHINE  
DRAINAGE AREA..... 17100310 PACIFIC NORTHWEST  
PHYSIOGRAPHIC PROV..... 13 KLAMATH MOUNTAINS  
LAND CLASSIFICATION..... 01

QUAD SCALE 1: 62500  
QUAD NO OR NAME  
GLENDALE

LATITUDE 42-41-04N  
LONGITUDE 123-17-03W

UTM NORTHING 4725596.4  
UTM EASTING 476727.6  
UTM ZONE NO +10

TWP..... 33S  
RANGE..... 05W  
SECTION.. 22  
MERIDIAN. N.M.

LOCATION COMMENTS: <sup>SW</sup> NW 1/4

ORE MATERIALS (MINERALS, ROCKS, ETC.):  
GOLD, SULFIDES

EXPLORATION AND DEVELOPMENT  
STATUS OF EXPLOR. OR DEV. 8

## DESCRIPTION OF DEPOSIT

## DEPOSIT TYPES:

SHEAR ZONE

## FORM/SHAPE OF DEPOSIT:

## SIZE/DIRECTIONAL DATA

SIZE OF DEPOSIT..... SMALL

MAX WIDTH..... 20 FT

STRIKE OF OREBODY.... WEST

DIP OF OREBODY..... NORTH

## COMMENTS (DESCRIPTION OF DEPOSIT):

2 DISTINCT CLASSES OF ORE

## DESCRIPTION OF WORKINGS

## COMMENTS (DESCRIP. OF WORKINGS):

100 FOOT SHAFT WITH 1500 FEET OF WORKINGS.

## PRODUCTION

YES

SMALL PRODUCTION

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

ITEM	ACC	AMOUNT	THOUS. UNITS	YEAR	GRADE, REMARKS
1 AU	EST	50.000	DOLLARS	\$5	-\$12/TON FREE MILLING

## CUMULATIVE PRODUCTION (ORE, COMMOD., CONC., OVERBUR.)

ITEM	ACC	AMOUNT	THOUS. UNITS	YEAR	GRADE, REMARKS
15 AU	EST	0002.500	OZ	PRE-1916	
23 AU, EST		50.000	DOLLARS	PRE 1939	AU(\$5-\$12/TON), AG

## RESERVES ONLY

ITEM	ACC	AMOUNT	THOUS. UNITS	YEAR	GRADE OR USE
1		10.000	TONS	1939	MEAS