

State Department of Geology and Mineral Industries

1069 State Office Building
Portland 1, Oregon

*Canyon
Prospect*

CANYON CREEK MERCURY PROSPECT

Location: Sec. 29, T. 15 S., R. 32 E., on the north facing slope of the east Fork of Canyon Creek about 12 miles south of Canyon City.

Ownership: The prospect is on private land owned by Larry Williams of Canyon City. The property line of land owned by Pat Chambers lies a hundred feet or so east of the prospect.

Lessees: Lawrence Roba and Bandy Sintay of Canyon City.

History & Development: The prospect was discovered in the spring of 1963 by Roba. It is several miles from any previously reported cinnabar occurrence. At the time of my visit development consisted of shallow open cuts and an adit about 70 feet long (see attached sketch). A road has been built to the adit portal. Roba and Sintay are doing the exploratory work on a full time basis.

Geology: The country rocks are thin bedded graywackes and shales of upper-Triassic age. The cinnabar occurs in and along the edges of a linear zone of faulting, brecciation, and hydrothermal alteration which in the area mapped has an overall surface trend of about N 25° W. According to Roba cinnabar has been observed by panning at intervals over a distance of more than 2000 feet along the fault but little development work of significance has been done outside the area shown on the sketch.

Limited exposure prevents confident determination of either the width or the dip of the fault zone but widths of from 15 to 45 feet and dip of near vertical are indicated. The rocks have been brecciated, partially altered to clays and limonite, and locally silicified. Elongate outcrops or "reefs" of silicified rock are scattered along the course of the fault zone.

Cinnabar was observed mainly as veinlets of random orientation, as filling between breccia fragments, and as coatings on fracture surfaces. Small amounts were also seen as fine disseminated crystals in the altered rock adjacent to the mineralized fractures. It appears that at least two periods of fracturing occurred. Following the first period of fracturing the rocks were bleached, altered, and locally silicified. The second period of movement reopened old fractures and made new ones into which cinnabar was later introduced.

Presumably the mineralizing solutions were controlled primarily by the fault zone but they also spread laterally to a small extent along small auxiliary faults and fractures. Cinnabar is exposed in the walls of the adit along at least three narrow fracture zones that strike roughly east and dip 30° to 50° north.

To date only two samples have been assayed, both by the Department. Both

were large samples taken by Mr. Roba from channels cut across the fault zone at the points indicated on the sketch.

Sample No.	Channel Length	Lbs. Mercury / ton
P-28429	12 feet	11.0
P-28430	14 feet	9.4

Pannings indicate that similar values are obtainable elsewhere along the fault zone but further sampling must await additional development work.

In the present state of development the prospect appears to have considerable merit. Ore of potentially minable width and grade is exposed at the surface. The fault zone that controlled the mineralizing solutions is large enough to contain an orebody or orebodies of appreciable size. The extent of epithermal alteration suggests that a large volume of hydrothermal solutions has penetrated the fault zone. Cinnabar has been encountered at intervals along the fault zone over a distance of more than 2000 feet. In the writers opinion exploration work should definitely be continued.

Report by: Howard C. Brooks
Date Compiled: August 15, 1963
Date of Exam.: August 9, 1963

*Return to
718 Adams
111 E. Robertson*

REPORT
on
CANYON CREEK PLACERS
PROPERTY
in
Grant County, Oregon.

F. C. Hill
Mining Engineer
July 30, 1933.

(COPY)

CANYON CREEK PLACERS

PROPERTY.

This property extends along the side of the mountain lying west of Canyon Creek from about a half mile south of Canyon City nearly to John Day. It includes the creek bed and rights to mine the same. It also includes the ground lying west of John Day. Three Stacey Claims, lying on and near Spring Gulch are not tied into the legal subdivision corners.

The instruments conveying these properties give in their descriptions the following acreages:

Empire Gold Dredging & Mining Co., property	415	acres	more	or	less
I. G. Bogard property	130	"	"	"	"
Gold Hill Placer Claim	40	"	"	"	"
Stacey Claims, Round Valley, Big Flat & Blue Rock	60	"	"	"	"
Sproul Land	143	"	"	"	"
Mable Placer Claim	160	"	"	"	"
	<hr/>				
	948	"	"	"	"

TITLES

These properties are held in the following manner:

Empire Gold Dredging & Mining Co.,	Quit Claim Deed
I. G. Bogard Property	Warrantee Deed
Gold Hill Placer Claim	Quit Claim Deed
Stacey Claims	Quit Claim Deed
Mable Placer Claim,- The Company holds title to one-fourth interest	Quit Claim Deed
Mr. Thomas et al located this claim and Mr. Thomas agrees to use his best endeavors to get quit claim deeds for the remainder of the interests of the rest of the locators.	
Sproul Property	Contract
This property is held under contract for sale from Grant County. Still due \$240.00 payable at \$60.00 per year at 6% interest.	

DISTRICT HISTORY

The following quotation from "The Mineral Resources of Oregon" Vol.1, No. 8, pp 205-6 gives a record of the district and comments upon it.

"The Placers of Canyon Creek are justly celebrated as the most important and proved deposits of the kind in Oregon. They were discovered in 1862 and in less than a year many thousands of miners were at work on the gravel bars of the creek and in the gulches of the surrounding hills. During the first few years the production was very great, but exact figures will never be known. Estimates are made varying from \$3,000,000.00 to \$5,000,000.00 a year. In 1865 the production was estimated at \$22,000.00 ~~\$22,000.00~~ per week (Raymond) or about a million a year. In 1870 it had already fallen to \$300,000.00 per year. In the following year the production was still farther reduced, but remained for a long time about \$100,000.00. The Mint Reports for 1884 and 1885 estimated \$80,000.00 and \$87,000.00 - for 1890 \$72,000.00 for 1891, \$100,000.00. While the figures are incomplete and untrustworthy, it is scarcely probable that the total

production much exceeds \$15,000,000.00. In 1882 there were sixteen hydraulic plants (many of them small) in operation and two-thirds of the products was derived from Chinese companies.

"The water supply is abundant being secured from Canyon Creek and gulches east of the town. The section exposed along Canyon Creek above John Day shows well the position of the older gravels; resting on basalt and rhyolite tuff are heavy coarse gravels which are well exposed on the west side of the creek at Canyon where they are 150 feet deep and overlaid by finer gravel in part sandy and clayey. At the Humboldt Hydraulic Mine 80 feet of the latter are exposed. On the south side of the creek on the road leading to Marysville and the Great Northern Mine much of these overlaid sandy and clayey sediments are exposed and they reach up to the foot of the mountain at an elevation of 3900 feet, 750 ft. above the town. In the gulches descending from the gold-seamed Canyon Peak, which have cut into the soft deposits rich placers are found. In the Creek bed near Canyon City a shaft is reported to have been sunk in 1873 to a depth of 300 feet without reaching bedrock."

Most of the gold mined from this district was taken from the Humboldt Channel, lying along the side of the mountain west of Canyon Creek between Canyon City and John Day : from the Canyon Creek bed between Canyon City and John Day : from the channel of Canyon Creek just above Canyon City : from the bench and dredge workings west of John Day and from Long, Windless and Eich Gulches extending up to the large Marysville Channel east of Canyon City.

DEPOSITS ON PROPERTY

HUMBOLDT CHANNEL : The Humboldt Channel workings lie along the side of the mountain west of Canyon Creek, extending west of Canyon City nearly to John Day.

This has been the most extensive work in the district with the possible exception of the dredging. A very large amount of material has been removed from this channel. This work was on the bedrock, and, although at the back of the work the gravel is exposed in banks as high as 60 ft., this channel has never been worked to the inside rim, in fact the bedrock is still sloping towards the mountain and it has not been determined how far the channel extends into the mountain. To the west of these works there are surface indications of a large channel. There are old rocker workings of some size on the surface. This has the appearance of being either another large channel of the inner part of the Humboldt Channel, in which case it would be an exceptionally large body of material.

These gravels are heavy and coarse and there may be some cementation farther into the bank. With a large amount of water I would estimate a water duty of 1- $\frac{1}{2}$ yards per inch (miners). With this class of material the water duty will decrease when the water gets low.

This deposit was operated by a combination of drifting and later piping with water from the Humboldt ditch. As the bedrock is dipping towards the mountain they drove tunnels through the outer rim with races in the bedrock for the disposal of their tailings. The gravel was washed back as far as it was possible to wash it through their tunnels and the volume of material to be handled became so great that they could not handle it economically with their small and inefficient equipment and the water divided between several operations.

There are some 5,500,000 cubic yards of material in this deposit and it is

by far the largest body of gravel on the property.

An estimate of the value of this material has been made from the values taken out of the old work, the indications are of the old rocker workings and pannings. This material should run at a low estimate of 15 cts. per cubic yard. The past record of the district and the fact that there is a large amount of virgin bedrock would indicate that there is an excellent chance that the rich values that will probably be found on the bedrock and in the body of material will very materially raise the actual returns to a figure much above this estimate.

The total value of the material in this deposit is therefore estimated as follows:

5,500,000 cubic yards @ 15 cts. \$825,000.00

THE SPROUL PROPERTY - lies to the west and southwest of Canyon City along the side of the mountain. A good part of this property has been worked. It contained the south end of the Humboldt Channel but the deposits were thin and rich. There are some bodies of material left on this property which may be determined to be workable. Towards the south end drifting ground may be developed on a small scale. A miner was getting out coarse gold there last winter. I have made no attempt to estimate the amount or value of the material on this ground but it is undoubtedly worth completing the payment due thereon.

Between the Humboldt Channel working and the creek the ground is covered with a combination of materials including the slough from the Humboldt Channel - material which has been worked over by hand - tailings from the Humboldt Channel workings and material which has not been worked and which gives evidence of a smaller channel between the creek and the Humboldt Channel. This material is mostly thin but increases somewhat in thickness towards the creek.

A good deal of this material is loose and being located on the steep side hill can be handled to very good advantage with water from the Humboldt Ditch. While these materials can be moved faster than the Humboldt Channel material, the thickness of the material will necessitate frequent moves and I would not estimate any larger water duty.

Estimate of material 1,100,000 cubic yards.

This material has also been estimated to have a value of 15 cts. per cubic yard, although due to the virgin bedrock and the undoubted sloughings from the Humboldt Channel a greater value would be indicated.

1,100,000 cubic yards @ 15 cts. per yard \$165,000.00

The draws to the west of Canyon Creek contain some considerable bodies of material which panning and the general lay of the ground with respect to the channels which have been worked and which are above these deposits would indicate good values in excess of the value of 15 cts. per cu. yd. estimated. This material is of a finer nature containing more sand and clay and the water duty should be higher than that obtained from the previous deposits mentioned, although moving will cause some loss of time. This material would be worked from the Humboldt Ditch also.

Estimated material 1,250,000 cu. yds.
Value @ 15 cts. per yard \$187,500.00

The Canyon Creek bed extending from Canyon City to John Day contains a deposit of river gravel from the Canyon City John Day road on the east side

to the base of the mountain on the west side.

The Canyon Creek bed was originally worked by hand and later by dredge. The dredge did not work the whole width of the channel but left the actual bed of the present creek and a large amount of the material on the west rim between Canyon City and John Day. The leaving of so much of this material was said to be due to fear of cloudbursts, also to rough bottom and large boulders on the west side and some ground which they did not own. The State road cut of the operations on the east side and the nature of the dredge operations made it impossible to work close to the west rim, or the rich side of the Canyon.

Estimate of material 450,000 cubic yards.

An actual estimate of the value of this gravel is difficult to make without extensive prospecting.

Good authority states that the dredge when it first started to operate paid for itself, a matter of \$180,000.00 in eight months. The same authority said that the dredge at times ran as high as \$10,000.00 a week. The assay office which handled their bullion for some time reported that their output ran on an average of \$12,000.00 a month for some time. Another authority gave the dredge savings as 36 cts per yard.

The fact that it is impossible for a dredge to clean a hard ~~rock~~ bedrock such as exists in this district and the fact that so much of the west rim has not been worked and that the side of the Canyon from which most of the values have been taken is the west side. It would appear that an estimate of 36 cts. per yard, the reported dredge savings, and at times they were much more than this amount, would be reasonable with all conditions pointing to higher values. In fact, on account of the dredge not being able to clean the bedrock where they did work, it may well be that the whole creek bed could be reworked very profitably.

Estimated value in this ground:

450,000 cubic yards @ 36 cts. per yard \$162,000.00

TOTAL ESTIMATE OF YARDAGE AND VALUES

Humboldt workings	5,500,000	@ .15 cts.	\$825,000.00
Sproule Property (no estimate)			
Below Humboldt workings	1,100,000	@ .15 "	165,000.00
Draws to West of Canyon Creek	1,250,000	@ .15 "	187,500.00
Canyon Creek Bed	450,000	@ .36 "	162,000.00
	8,300,000		\$1,339,500.00

HIGH GRADE VALUES

The district record would indicate that there are excellent chances of finding higher values than those estimated.

PHYSICAL PROPERTY OF GOLD

The gold in this district is so near the source that even the fine gold is rough and is comparatively easy to save although I am convinced that past operations have lost a large part of this fine gold on account of their inefficient gold saving appliances.

While there is considerable fine gold, most of it runs from medium to coarse with many nuggets, some of which run ~~4~~ large in size.

VALUE OF GOLD

The gold in this district is alloyed with some silver, in the following proportions:

	FINENESS	VALUES
Gold	826-3/4 to 856-1/2	\$17.09 to 17.71 per ounce
Silver	129 to 133	.05 to 105
		<hr/>
		\$17.14 to 17.76 per ounce

MARKET FOR PRODUCT

At the present time gold has a value of \$20.67 per ounce in this country. In London it is worth about \$28.00 per ounce according to report. Authority has been given the President to reduce the amount of gold in the dollar by as much as one-half. In other words the value of the gold, if it is changed, will be increased rather than diminished.

Some steps have been taken to raise the value of silver and it would appear that its value will also increase from the extreme low values of the recent years.

There is always a demand for all of the gold that can be produced and therefore there will never be any trouble finding a market for the product.

WATER SUPPLY

The water supply for this property will be obtained from Canyon Creek.

There is a thirty second foot water right in the water in Canyon Creek which will be diverted through the old Humboldt Ditch. This amount can be very materially increased during the flood water in the spring if desired.

There is also a pumping right to take the water directly from Canyon Creek and pump it where desired.

During normal years Canyon Creek carries a large amount of water during the spring months which would make excellent condition for a large operation for about four months of the year. The water usually decreases rapidly about the first of July, but most years there is a fair piping stream during the winter. Some dry seasons, no doubt the water will be very low during a part of the year very much restricting the operations,

For the mining operations contemplated in the creek bed there will be a good supply all the year around.

DUMP GROUND

The large deposits being located on the side of the hill will have ample dump ground for all the materials handled. The fact that all the ground along the creek is held will make some difficulty for any one to try to operate any placer mining above this property.

RECOMMENDED OPERATIONS

On account of the dump problem it is desirable to work the lower deposits first so that no valuable material will be covered up with the tailings. This would indicate the working of the Canyon Creek bed first. This is also indicated by the fact that it has probably by far the richest material contained in any of the deposits on this property. It is also the quickest and cheapest material to develop.

The fall of the creek of about 200 feet between Canyon City to John Day, while it does not offer a sluice-box grade, will be a very material help in working this ground. It will be necessary to divert the creek through the tailings piles, in order to allow the operations on the creek bed. There is an ample supply of water for this work. There will be some delays on account of cold weather but they will not generally amount to more than from a month to six weeks.

The cost of this development under present conditions should not come under \$15,000.00

The operations should yield good returns on the estimated values with excellent chance that the values will run much higher than those given.

As soon as the property is on its feet and giving good returns plans can be made for the development of the larger bodies of low grade material upon the property. In order to work these deposits it will be necessary to rehabilitate the old Humboldt Ditch so that it will flow at least 50 second feet of water. Fortunately the old ditches in this district have been given a grade of almost one-half of one percent so that an excessive size is not needed. This ditch is about 37,000 feet long and the ditch itself is mostly in good shape and can be repaired to permit the required flow of water at a small expense, however there is over 6,000 feet of flume rotted out which will have to be replaced. Some of this work will be simple fluming along the rocky side hill but there will also be a good deal of trestle work necessary which fluming work will entail a very considerable expense. Some work must be done on this ditch each year in order to hold the water right.

Pipes and equipment to handle and take care of the whole flow of water should be installed also sluice boxes to carry away the material moved and riffled to save the gold. The cost and actual location of this first work on the low grade material can be best determined while the work is being conducted on the creek bed. In regards to the cost I would say that it should not run over 3% of the values estimated and possibly not over 2%.

ESTIMATE OF OPERATIONS RETURNS

Too little is known at present of the operating set-up to make any estimate of the returns which may be expected. If the property is developed properly and efficiently managed there is the ground for a large operation over a long term of years which should yield good returns upon an investment of \$100,000.00 with the indications pointing to the chance at any time of striking local enrichments of even a bonanza values. This success will depend largely upon factors to be brought out under the next heading.

GENERAL REMARKS

While there are excellent chances of striking rich deposits of material

upon this property, the fact cannot be depended upon until after actual prospecting has located them. In the mean time this must be considered as a low grade proposition which must depend upon its revenue from the operations on the large bodies of material on the property. This will mean the handling of as much material as possible which itself means the utilization of all of the water which can possibly be obtained.

While the values to be expected are sufficient for good returns, neither is the operation so simple nor are the values so great that any management can make a success of it. The operations will have to be planned intelligently and there will have to be an energetic and intelligent man who will be on the work the whole time and who can conduct the operations efficiently to assure success.

Special warning is given against starting operations before there is sufficient money on hand to amply cover the cost of the proposed development and to take care of the payroll until the work can be depended upon to give returns sufficient to meet all expenses. It is a temptation to start the work and try to make the development aid in the expense by any values which might be saved while developing the property. However, this plan exposes the operation to many dangers which can easily cause very grave trouble and even failure of the venture. Some of the dangers are inefficient work on account of insufficient capital - not being able to take care of labor and material bills - not being able to take care of taxes - the chances of temporary failure which will sooner or later become known and which will make it very difficult to raise ^{enough} money to get the property out of trouble and finish the development work so that it can be operated successfully.

As soon as the property is on its feet extensive prospecting should be done by drilling if possible in the cheapest manner possible. This would locate possible rich deposits, which might allow of successful drift mining in places, and the general information gained could be used to advantage and save considerable in the opening the bodies of material lying west of Canyon Creek.

In summation I would say that indications point to the fact that a very ~~large~~ successful operation can be developed upon this property at an expense which is relatively small when compared with the value of the deposits open up and the returns which may be expected to be realized from intelligently planned and efficiently managed operations.

The present unsettled conditions in regard to the cost of labor and material and the amount of taxes may have considerable effect on any mining operation but I have allowed what is probably a safe amount for this condition.

(Signed) F. C. Hill

Mining Engineer.

(COPY)

Canyon Creek placers

This report must be properly executed and filed with the Corporation Commissioner on or before July 1, 1930, in order to entitle a corporation mining for any of the precious metals, coal, or prospecting or operating for oil, or operating an oil well, to pay a license fee of only \$10. If not so filed, such corporation must pay the same license fees as are required to be paid by other corporations for gain.—Section 6890, Oregon Laws.

Annual Report to the Corporation Department

FOR THE YEAR ENDING JUNE 30, ~~1929~~ 1937

Of CANYON CREEK PLACERS
(Give legal name in full)

a corporation organized and existing under and pursuant to the laws of the State of Oregon.

The location of its principal office is at No. 2335 N.E. 48th St. Street,
in the city of Portland, in the state of Oregon.

The names and addresses of principal officers, with the postoffice address of each, are as follows:

NAMES	OFFICE	BUSINESS ADDRESS
<u>J. C. Coe</u>	<u>President</u>	<u>Portland, Oregon</u>
<u>F. C. Hill</u>	<u>Secretary</u>	<u>Portland, Oregon</u>
<u>F. C. Hill</u>	<u>Treasurer</u>	<u>Portland, Oregon</u>

The date of the annual election of officers is 2nd Monday in January.

The date of the annual election of directors is do.

	Common With Par Value	Common No Par Value	Preferred
Amount of authorized capital stock	<u>\$ 4000.00</u>	<u>Shares</u>	<u>\$</u>
Number of shares of authorized capital stock	<u>400,000</u>		
Par value of each share	<u>\$.01</u>	<u>x x x x x</u>	<u>\$</u>
Amount of capital stock subscribed	<u>\$ 2855.00</u>	<u>Shares</u>	<u>\$</u>
Amount of capital stock issued	<u>\$ 3534.65</u>	<u>Shares</u>	<u>\$</u>
Amount of capital stock paid up	<u>\$ 3534.65</u>	<u>Shares</u>	<u>\$</u>
Price at which no par value stock issued	<u>x x x x x</u>	<u>\$</u>	<u>x x x x x</u>

State amount of capital, represented by stock of no par value, with which
the corporation began business \$

Total amount of its properties in Oregon (name of claims, lodes, or placers) Bogard property,
Empire Gold Dredging & Mining Company property, Gold Hill Placer,
Mable Placer, Round Valley Placer, Big Flat Placer, Blue Rock
Placer.

The location of its properties Grant County, Oregon, near Canyon City & John Day.
The amount of work done thereon and improvements made thereon since the time of filing

last report none.

The amount of output or products of the mines or wells of such corporation from January 1,
~~1929~~ ¹⁹³⁶ to December 31, ~~1929~~ ¹⁹³⁶ inclusive, none, not operating.

The value of output or products of the mines or wells of such corporation from January 1,
~~1929~~ ¹⁹³⁶ to December 31, ~~1929~~ ¹⁹³⁶ \$None.

IN WITNESS WHEREOF, I, F. C. Hill, Secretary
of said corporation, have signed this report, this

[CORPORATE SEAL]

day of, A. D. 1937.

(Signed) F. C. Hill

STATE OF OREGON,

(No date given on above-date of acknowledgement

County of

June 21, ¹⁹³⁷)

CANYON CREEK MERCURY PROSPECT

Mercury

NAME OLD NAMES PRINCIPAL ORE MINOR MINERALS

15 S 32 E 29
 T R S

PUBLISHED REFERENCES

Grant COUNTY
 Canyon AREA
 ELEVATION
 ROAD OR HIGHWAY
 DISTANCE TO SHIPPING POINT

MISCELLANEOUS RECORDS

PRESENT LEGAL OWNER (S) .. Larry Williams.....
 Lessees: .. Laurence Bobe & ..
 .. Bandy Sintay ..

Address Canyon City.....
 Canyon City, Oregon ..

OPERATOR

Name of claims	Area	Pat.	Unpat.

Name of claims	Area	Pat.	Unpat.

EQUIPMENT ON PROPERTY