N. 1430 Washington Street
Spokane 1, Washington
May 24, 1962

Memorandum

To: D. R. MacLaren, Acting Field Officer, OME, Region I

From: S. W. Zeldok, Mining Engineer, U. S. Bureau of Mines

Subject: Field examination
OME-6229 (Gold-Silver)
Caldo Mining Company
Caldo, et al., Claims
Chelan County, Washington

An examination of the subject property was made on May 15, 1962, accompanied by Oren Dodd, President, and R. J. Calvert, Secretary-Treasurer. About five hours were spent on the property and five samples were taken for assay purposes.

## Access

The camp is 2.7 miles by jeep road from the junction of the Negro Creek road and the old Blewett Pass highway. The camp is at an altitude of about 3,600 feet and the mine workings about 1,000 to 1,500 feet higher. A steep switchback road connects the camp and mine workings. The road is passable only to a crawler-type tractor. As the cost to put in a road at a usable grade from the camp to the mine area would be prohibitive, transportation would have to be by aerial tramway.

## Ownership

A search of the records in the courthouse at Wenatchee, Washington, disclosed that all claims listed below were located by Oren Dodd and R. J. Calvert and transferred to the Caldo Mining Company, Inc., a Washington corporation.

| Name of Claim | Book | Page |
|---|---|---|
| Caldo mine (Caldo Claim #1) | 529 | 595 |
| Caldo Tunnel Site #1 | 529 | 605 |
| Lor-Vi[1] | 529 | 478 |
| Lor-Vi #2 | 555 | 294 |
| Caldo Millsite | 555 | 295 |
| Transfer Instrument | 614 | 255 |

[1] No Proof of Labor filed. Calvert states claim abandoned after location.

## Mine Workings and Plant

Mine workings consist of a surface cut or pit roughly 75 feet long, 50 feet wide, and possibly a maximum of 20 feet deep, on a steep hillside. There are also two short adit crosscuts. The upper adit passes 15 to 20 feet below the lowest part of the pit, is 135 feet in length, bears roughly due north, and is tightly lagged for its entire length. The lower adit is about 200 feet south and 135 feet below the upper one, bears N. 30° E., and is about 140 feet in length. The lower adit is in hard rock with considerable sloughed material at the portal.

Buildings consist of two roomy cabins and a storage shed. Equipment consists of a mine car, a John Deere No. 40 crawler with dozer and a small trailer. The upper adit has wood rails with iron strips.

## Competency of Applicant

None of the officers of the corporation has had mining experience. Work at the upper adit was supervised by an experienced miner.

## Geology

The general geology of the district has been described in considerable detail by George Otis Smith in "Geologic Atlas of the United States, Mount Stuart Folio, Washington," U. S. Geol. Survey Folio No. 106, 1904.

Formations in the mine area have been tentatively identified as a tuffaceous rhyolite and normal diorite of the Hawkins formation (Carboniferous?). The contact between these formations strikes roughly east-west and dips at a shallow, but undetermined, angle to the north.

Rhyolite, the more competent of the two formations, consists of a fine-grained siliceous groundmass with tiny phenocrysts of hornblende. It weathers into blocky fragments up to several inches in diameter and is distinctly white or chalky in appearance on weathered surfaces.

Diorite, host rock for gold at the mine, weathers into fine rubble and soil. Where seen in the face of the upper adit, it was highly serpentinized along planes of movement. In the lower adit, the diorite is more massive and only slight serpentinization was noted along joint planes. The lower adit partially cuts and roughly parallels a wide zone of calcite veining. This zone forms a prominent ridge, or hogback, trending roughly NE-SW up the hillside. These veins, up to several feet wide, are composed of coarse calcite crystals with frozen walls and are occasionally cut by small post-calcite quartz veins. No evidence of sulfide mineralization was seen in this zone.

## The Deposit

The gold occurs in quartz enclosed in shear zones within the diorite near the rhyolite contact. In the open cut above the upper adit, there appears to be a series of interlacing shear zones enclosing fairly large masses of more resistant, though highly fractured, diorite. These sinuous zones, up to 4 feet thick, form angles from 45° to parallel with the east-west trending contact. One east-west trending shear about 50 feet below the rhyolite and 4 feet thick shows intense iron staining and contains a brecciated lens of quartz 5 feet long, 12 inches thick on one end, and less than an inch on the other. A speck of free gold was found in this quartz. Two gouge and one quartz samples were taken in this zone.

The three-quarter mile switchback road from camp to the mine showed many areas of distinctive soil coloration that indicated other shear zones.

## Sampling

Sampling and assay information is shown on the sketch accompanying this memorandum.

## Recommendations

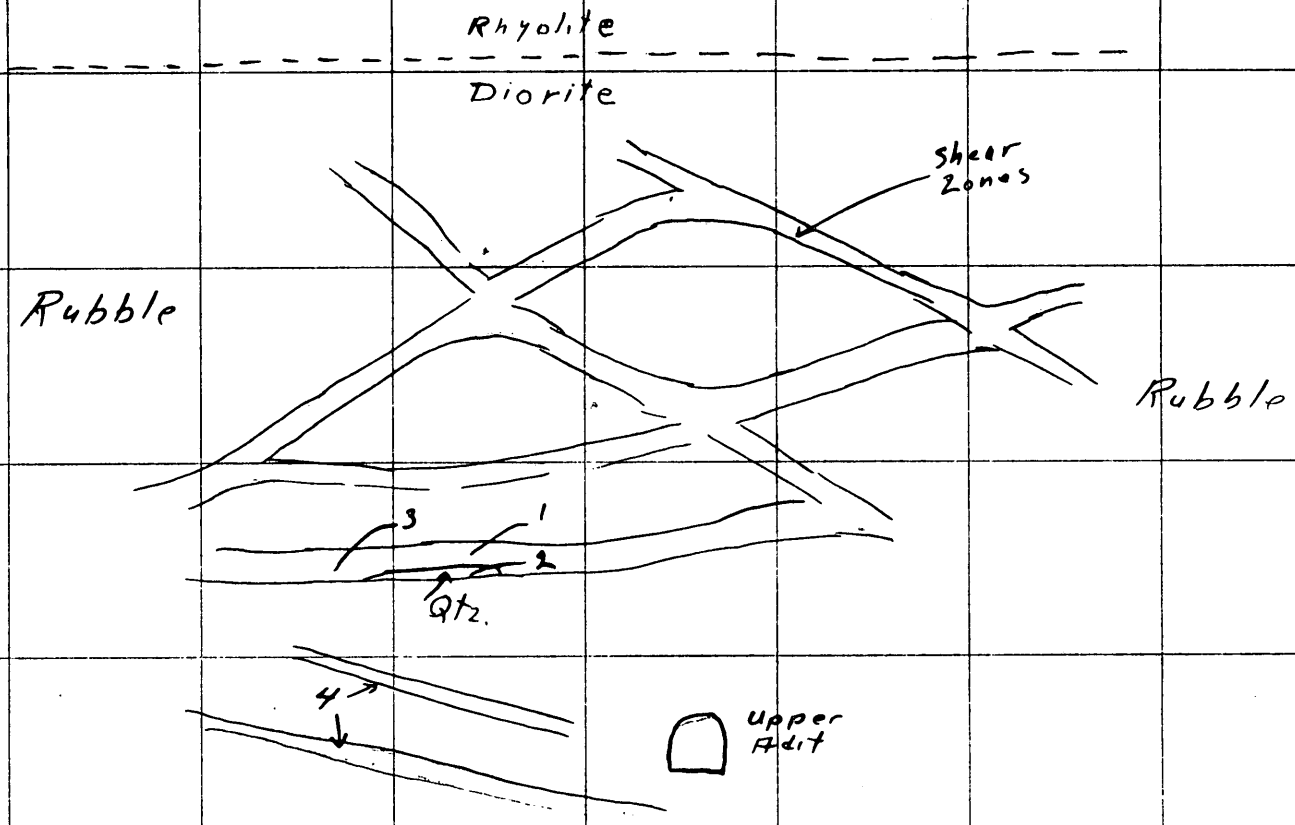
The probability of making a significant discovery on the Negro Creek side of the Blewett district is not good.

I recommend that the application be denied.

S. W. Zoldok

Enclosure

Distribution:
CMK(3)
USGS(SR)
Docket
MacLaren




Sketch of Pit - Looking West

| Sample | $O_2Au$ | $O_2Ag$ | |
|---|---|---|---|
| 1 | Tr. | Tr. | 3' Fe stained gouge |
| 2 | Tr. | Tr | 1' Crushed quartz |
| 3 | Tr | 0.1 | 4' Fe stained gouge - 1/2" qtz. |
| 4 | Tr | 0.1 | Two 1' Fe stained gouge seams |
| 5 | 0.36 | 1.7 | Ore dump - base of hill. Said to come from Upper Adit and carry $8/8 per ton. |

OME - 6229 (Au, Ag)
Caldo Mining Co.
Chelan County, Wash

S.W.2, 5-18-62

J. A. Gendron Co., Spokane
K+E ALBANENE 195M TRACING PAPER 65530

No. 3. PHISICAL DESCRIPTION.

No. 3-A. Year 1900 a 110 ft. tunnel was driven at the 3510 ft. level. This tunnel, according to Geologist Report was driven in too easterly to intersect the mineral bearing structure. This tunnel was not timbered and at present is in good condition other than the portal is partly sluffed shut.

Years 1912---1921 a tunnel was driven at the 3590 ft. level which did intersect the ore bearing structures at that level, and is now caved or caves as it is approached. Ore of reputed higrade was mined at this level, all of which was near the surface. At that time a shaft of unknown depth was sunk on this high grade ore, water was encountered in too large a quantity to be handled by available means at that time, and the mining was then carried on by drifting on the encountered mineral bearing structures. This operation was carried on by one man, Mr. C. A. Striker with primitive means. The ore was higraded by him, ground by an arastras then panned to obtain the values. Mr. Striker died on the job. Due to the hazy method of marking claims at that time, the location was lost and remained so until re-discovered by R. J. Calvert and Oren Dodd.

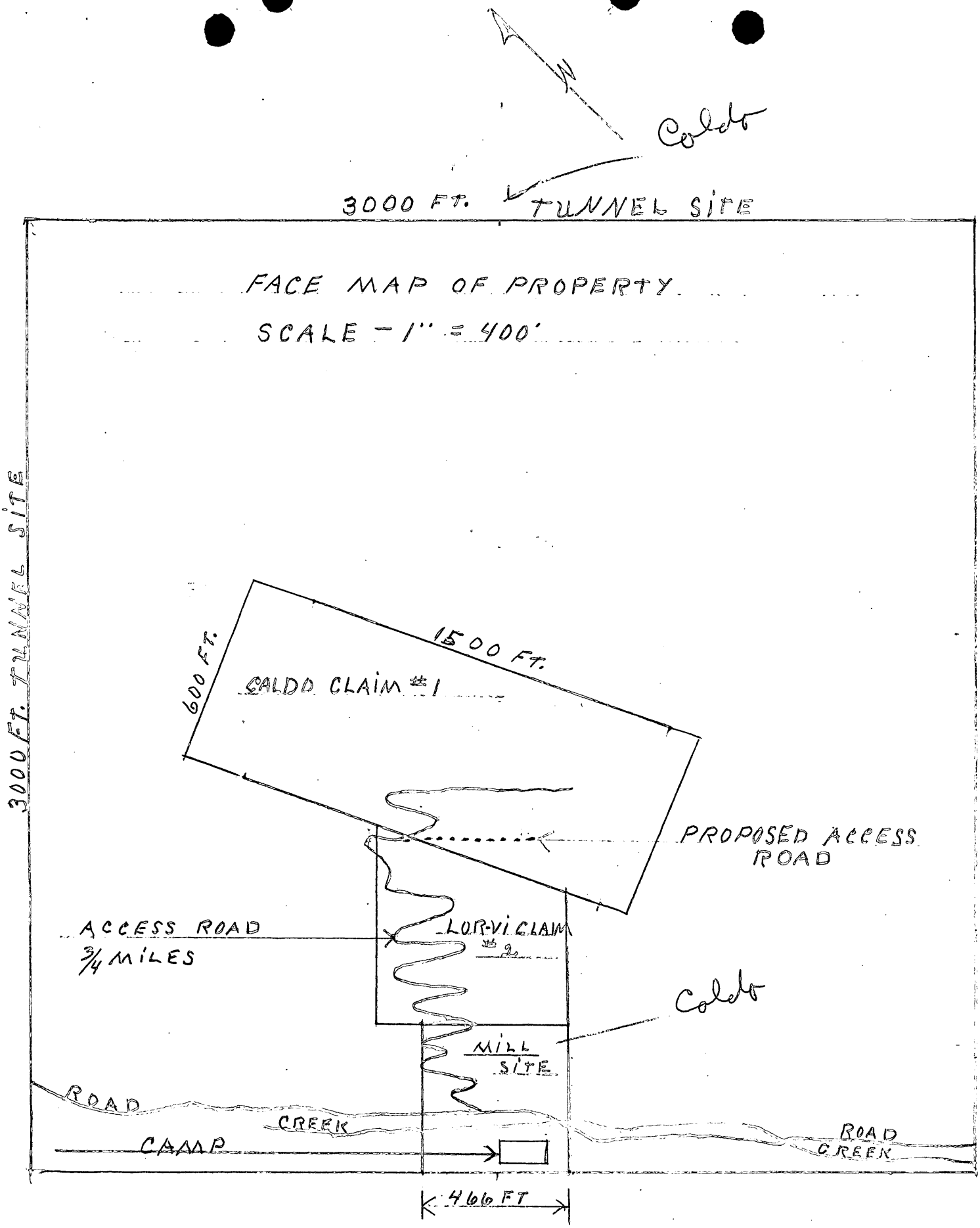
No. 3-A. Sampling of the mine dump ranged in value of 2.68 oz. silver and .48 oz. gold to 7.55 oz. gold per ton.

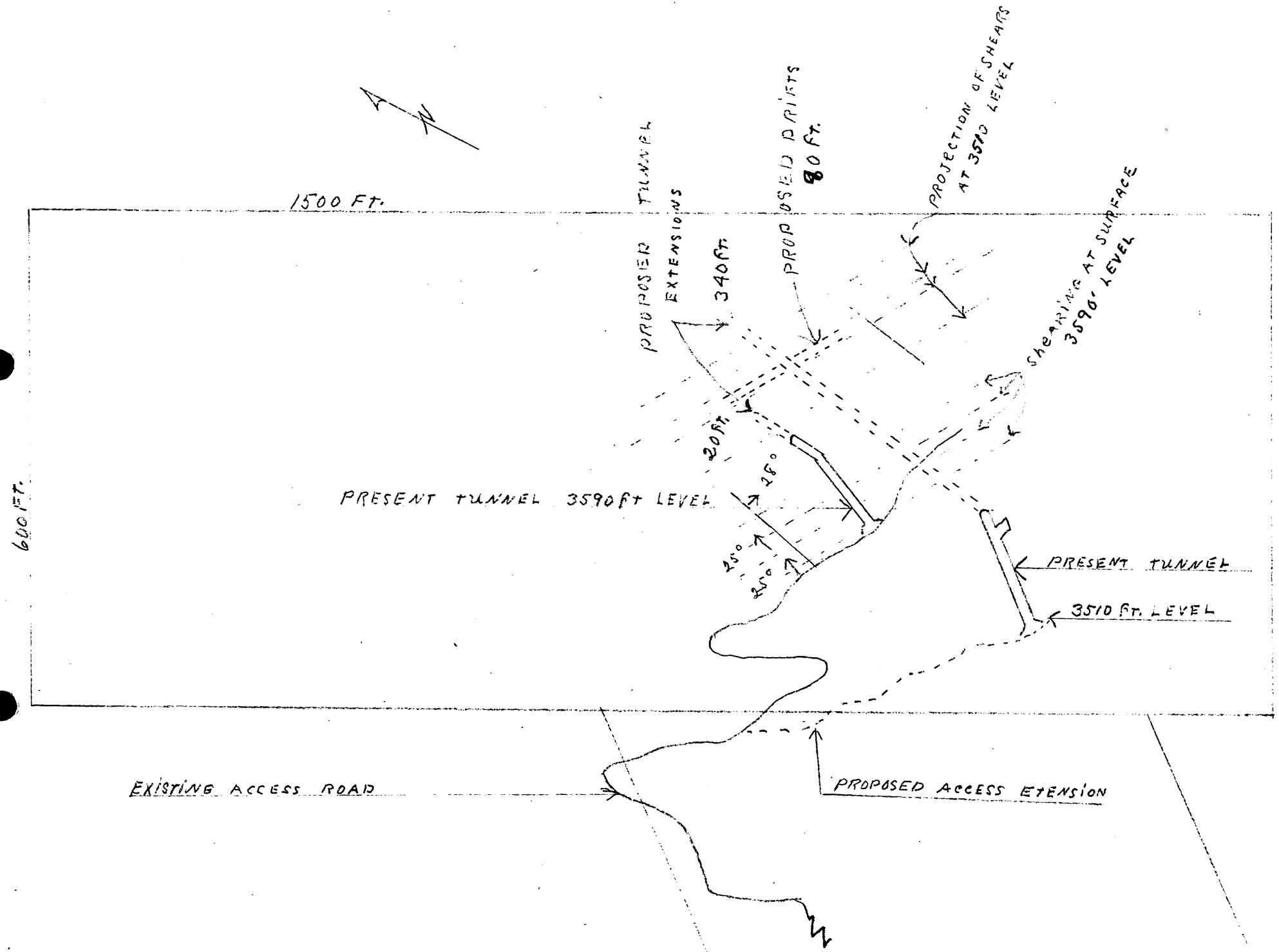
Since that time, Calvert and Dodd have improved three miles of canyon road, built three bridges, constructed three-quarter miles of new road from camp site to mine site and have open cut approximately 2500 cu.yds. of decomposed material to expose as much as possible of the original workings. Small lenses of good ore which had been by-passed in the early day operations were encountered in the open pitting work.

Approximately one ton of this ore was milled at the Paymaster Mines in Okonogan County Washington. Without resetting of their mill, using the tableing flotation method of recovery, the following results were obtained.----NOTE ACCOMPANYING ASSAY REPORTS

NOTE --- Due to improper setting of mill, 1.30 oz. gold --- 4.62 oz. silver per ton of raw ore was lost in the tailings.

Calvert and Dodd also cleared land and erected a camp on the property, consisting of one permanent type 12 ft. by 24 ft. cabin, one 20 ft. by 24 ft. tent house with water piped into each. Also one 12 ft. by 12 ft. storage shed.


N
Caldo
3000 FT. TUNNEL SITE
FACE MAP OF PROPERTY
SCALE - 1" = 400'
3000 FT. TUNNEL SITE
600 FT.
1500 FT.
CALDO CLAIM #1
PROPOSED ACCESS ROAD
ACCESS ROAD
3/4 MILES
LOR-VI CLAIM #2
Caldo
MILL SITE
ROAD
CREEK
CAMP
ROAD
CREEK
466 FT


1500 FT.
600 FT.
PROPOSED TUNNEL EXTENSIONS
340 ft.
PROPOSED DRIFTS 80 ft.
PROJECTION OF SHEARS AT 3510 LEVEL
SHEARING AT SURFACE 3590' LEVEL
20 ft.
28°
25°
25°
PRESENT TUNNEL 3590 ft LEVEL
PRESENT TUNNEL
3510 ft. LEVEL
EXISTING ACCESS ROAD
PROPOSED ACCESS EXTENSION

3. PHYSICAL DESCRIPTION

3 (g)

COPY

REPORT

IN PART

ON THE

# C A L D O  M I N I N G  C O .  P R O P E R T Y

BLEWETT MINING DISTRICT

CHELAN COUNTY, WASHINGTON

BY

L. R. HAGGARD xxx MINING GEOLOGIST

6525 - 196th St. S.W., Lynwood, Washington

The following report covers an examination made of the Caldo Mining Company, Inc. property in the Blewett Mining District at the request of Mr. R. J. Calvert, Company Secretary-Treasurer. The examination was made during the middle of October of this year by the writer.

LOCATION:

The Caldo Mining Company property is in Chelan County, Washington, approximately 40 miles from the town of Wenatchee, the closest place of any size and 11 miles north of the Chelan-Kittitas County Line. It lies in Section 4, Township 22 North, Range 17 E., W.M., at about latitude 47° 25' North and longitude 120° 47' West. It is on the North slope of Negro Creek some three and one-fourth miles by road from its confluence with Peshastin Creek at an approximate elevation of 3,590 feet. The property is reached by traveling southward on U.S. Highway No. 97 for a distance of 11 miles from U.S. Highway No. 2 or northerly on the same highway for a distance of 34 miles from U.S. Highway No. 10, thence following an abandoned section of Highway 97 for seven-eights of a mile until crossing Negro Creek, from where an ungraded forest road along Negro Creek is followed in a westerly direction for a distance of three and two-tenths miles to the Company Camp. From this point a jeep or tractor road switchbacks up the steep north slope of the creek for a road distance of some thirty-three hundred feet to the mine workings.

PROPERTY:

The property consists of the Caldo Tunnel Site, a mill site, and Caldo No. 1 and Lor'vi No. 2 mineral claims, all of which are held by location. The mineral claims and the mill site are within the confines of the 3,000 foot by 3,000 foot tunnel site.

Buildings consist of a 16 foot by 24 foot all-weather cabin and a summer tent-cabin combination at the Camp, and a 6 foot by 8 foot metal covered frame shed at the mine workings.

The property is held by the Caldo Mining Company, Inc., 833 Walker Avenue, Wenatchee, Washington. Company Officers are: Oren Dodd, President; Gordon Ohme, Vice-President; and R. J. Calvert, Secretary-Treasurer.

HISTORY:

According to the present owners, in the early 1900's mining was carried out at this location under the name of the Lucky Strike Mine by a Mr. Striker, and at a somewhat later date under a Mr. Kershner. At this time the ore was packed down to the creek where it was ground in an arrasta and the gold was separated by panning. No record of early day tonnages or values now exists, but values are purported to have been high. Old workings, although now caved, attest to previous mining activity on the property.

TOPOGRAPHY:

The topography of the immediate area is that of steep slopes and canyon-like valleys. Negro Creek, on which the property is located, occupies a valley having a mean relief of some 2,700 feet, with rises up to nearly 3,000 feet to a mile in some instances. Ridges between canyons are narrow for the most part and steeply sloping, making travel other than by foot extremely difficult.

Drainage of the area is easterly via Negro Creek, which has an approximate fall of 450 feet to the mile to its junction with Peshastin Creek, and thence in a northerly direction to the Wenatchee River which flows to the east.

Most of the slopes in the area are sparsely timbered with medium small pine, fir, and scattered tamarack together with a small amount of low growing shrup-type plants. Creek bottoms are failry densely timbered with larger growths of the same species.

GEOLOGY:

Mount Stuart Folio, No. 106 of the U.S. Geological Survey gives the detailed areal geology of the area covered by the property under discussion, as well as a

considerable area surrounding the property. Only a very superficial study of some of the rock types represented in the vicinity, other than on the mine property, was made during this examination.

Rock types represented in the mine area consist chiefly of partially serpentinized basalts. In places these have been extensively sheared and altered to the point where they are now loosely consolidated, and in places fractures and voids have been filled with calcite up to several inches in thickness.

A series of roughly parallel shear zones varying in width from six to ten feet, having a strike of around S. 75 E., and a variable dip of around 20° to 25° to the north are present in and adjacent to the mine workings. Another major shear zone striking in a northerly direction and dipping flatly to the east at around 20° intersects the easterly striking shears at this locality. At and near the intersections of these two sets of shears irregular lenses of white quartz, purportedly carrying high values in free gold have occurred. Only one small lens having maximum dimension of 9 inches by 18 inches is exposed in the workings at the present time. The presence of shears other than in the mine workings is indicated by surface soil showing considerable iron oxide discoloration.

MINE WORKINGS:

As stated previously all of the old workings from which ore was taken are now caved. In the past sixteen months the Caldo Mining Company has attempted to open up the old workin gs and in so doing has stripped and open cut an area 105 feet by 40 feet. An estimate of material removed by this method is 4,500 tons. Due to the sheared and fractured condition of the material at this location, old workings were already caved, or caved as approached. Within this area all ore had previously been removed during early day mining. Since a limit in depth had been reached at which this type of mining could be accomplished with the equipment available, the open cut operation was given up.

A crosscut was then driven at a point 15 to 20 feet below the bottom of the open cut on a bearing of N. 14° E, for a distance of 100 feet from where it was

continued for another 35 feet on a bearing of N. 10° W. Due to the broken nature of the ground it was necessary to timber and lag the crosscut for its entire length, thus it was possible to obtain only a very small amount of information by direct observation. According to the Mine Owners, old workings which had been mined out had been encountered at a point 50 feet from the adit and again at a point 110 feet from the adit, which were now caved. From that observations could be made these were very probably the same oxidized shear zones that were observed in the open cut areaabove. During the crosscutting operation quartz was said to have been observed in the bottom of the workings at the point where the crosscut encountered the first shear. Possible?

During the early day operations, at an approximate elevation of 3,510 feet, 80 feet below the elevation of the above described crosscut, and 110 feet S. 15° E., a crossuct was driven on a bearing of N. 29° E. for a distance of 140 feet. Except for soil wash and sluff nearly closing the adit, this crosscut has remained open during the years since it was driven and is still accessible and in good condition. It is in slightly serpentinized basalt for its entire distance with no evidence of the shear zones which occur in the workings above. — Non-resolute veins

OTHER WORK:

Under the present management a well constructed and serviceable tractor or jeep road has been built from the mine camp on Negro Creek to the mine workings, a road distance of .62 miles. Considerable work has also been done in the clearing and conditioning of the camp site.

CONCLUSIONS:

From all indications it appears that the ore has occurred in lenses at or near the intersections of the two sets of shear zones. Within the limited area of the present mine workings all of the ore appears to have been removed during early periods of mining.

The size and strength of the shear zones indicate that they should continue

for considerable distances and additional ore should occur at other favorable locations.

Due to the fact that the ore occurs in broken and altered areas, considerable timbering will probably be necessary,

The old crossout at the 3,510 foot level was improperly positioned to intersect the ore bearing shear zones within the limited distance it was driven. Had it been placed at a 40 foot higher elevation or 80 feet to the east it would have intersected the shear zones with a good possibility of ore being found. As it is now it is below and to the west of the projections of these shears. Since the east-west shears are dipping to the north this crosscut, if extended, should also intersect their down dip extensions, providing their attitudes remain fairly constant. If its bearing was changed to due north it should intersect the first of these shears at an approximate distance of 200 feet.

RECOMMENDATIONS FOR FUTURE WORK:

The old 3,510 foot level crosscut could be cleaned out and rehabilitated at a very small cost. As an exploratory programme it is recommended that this be done and that first it be extended twenty feet from where it be driven approximately 100 feet to the east to intersect the projected shear zone. It is also recommended that the old crosscut be extended 20 feet to the north from where a raise be driven for a distance of 50 feet to investigate ore possibilities at this horizon. Upon intersection of shear zones these should be drifted on to determine occurrance of ore lenses along their strike. Should this work disclose the presence of ore it is recommended that a 200 foot extension of the old crosscut be made to the north.

The 3,510 foot crosscut would be a good position from which to conduct a modest diamond drilling programme, however since ore bodies are expected to be small and somewhat discontinuous, this type of exploration would probably not be too effective either as to proving or disproving the presence of ore

Yours very truly,

/s/ L. R. Haggard
L.R. Haggard, Mining Geologist

Lynnwood, Washington, November 6, 1961