

82-490-10501 6

PRELIMINARY GEOLOGICAL REPORT
BOO MINERAL CLAIMS
DOME MOUNTAIN, OMINECA M.D., B.C.
MAP 93L/10, LAT. 54° 44' N, LONG. 126° 36' W
OWNED BY: J. A. L'ORSA

ANTHONY L'ORSA

Smithers, B.C.

15 July 1982

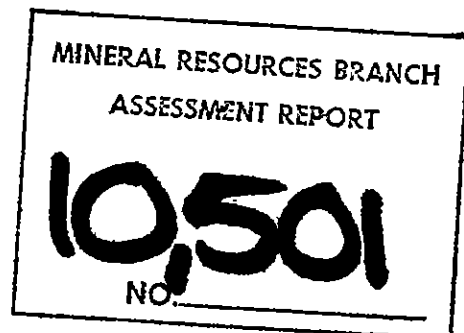


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SUMMARY AND CONCLUSIONS

The Boo mineral claims on the southeastern side of Dome Mt. were prospected and mapped during the 1981 field season.

A previously unreported diabase stock(?) outcrops on the Boo 2, 3, 4 and 5 claims. Tuffs, tuffaceous sedimentary rocks and minor limestone are also exposed on the claims. A few poorly preserved ammonites were found. Outcrops occupy less than 1% of the claims area. An extensive zone of carbonatization (ankerite and/or ferroan dolomite and local calcite) with minor pyrite is associated with the eastern contact of the diabase.

The claims lie close to significant greenstone belt type gold occurrences at the Forks prospect but as yet no economic mineralization has been found on the Boo claims and preliminary geochemical sampling offers only weak encouragement. Assays from quartz-carbonate veins and from pyritized tuffs yielded only trace amounts of gold and silver.

The proximity of the diabase to the nearby Forks gold-silver prospect suggests the possibility that the intrusion created a convection system that remobilized gold and other minerals into traps at the Forks and possibly elsewhere. It is also possible that the diabase occupies a Tertiary vent that extruded basalt such as is found in outcrop 7.5 km to the southeast.

INTRODUCTION

Seven days were spent prospecting and doing preliminary geological mapping on the Boo 1 to 5 and Boo Fr. mineral claims during the 1981 field season. Fourteen silt and soil samples were collected by me and analysed by Bondar-Clegg & Co. Ltd., North Vancouver.

Outcrops occupy less than 1% of the claims area. However, the occasional small outcrop exposed under the roots of fallen trees suggests that in general the depth of overburden is not great. The overburden comprises mostly till

with local swamp deposits and sand and gravel along Federal Creek.

Pace and compass mapping traverses were run at approximately 50 m intervals on the Boo Fr. and Boo 1 claims. . . Elsewhere the traverse interval was 100 m.

I wish to thank W. M. Johnson, Ministry of Energy, Mines and Petroleum Resources, Victoria, for 4 assays. I also thank Cominco, Ltd. for preparing a thin section, James A. McLeod for a brief petrographic description of the diabase and H. W. Tipper for examining an ammonite.

LOCATION AND ACCESS

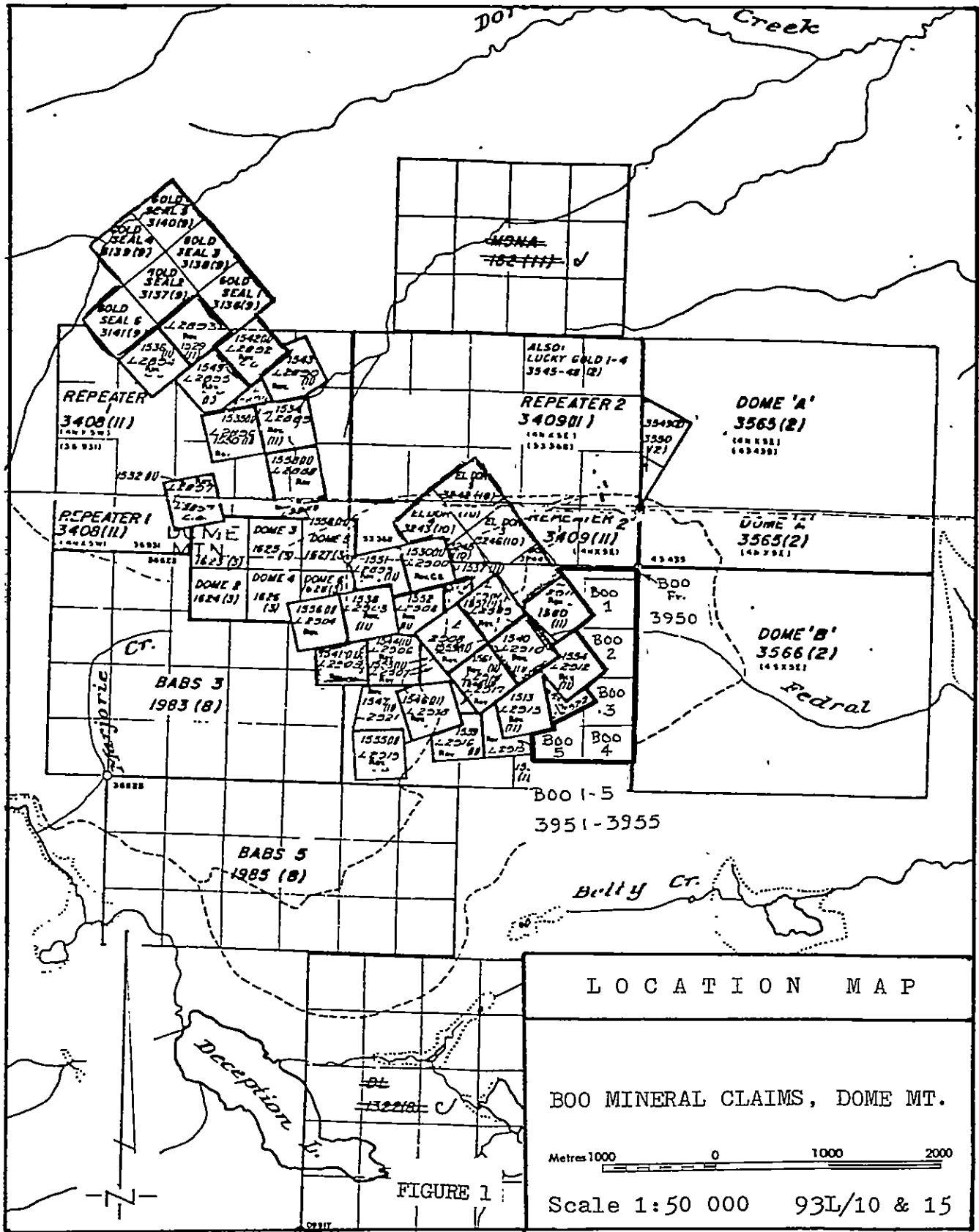
The Boo mineral claims are situated approximately 35 km east of Smithers, on the lower southeastern slopes of Dome Mt. between about 1 220 m and 1 320 m elevation. The claims lie immediately to the east of the Forks area Crown-granted mineral claims and they are approximately 2 km west of the Chapman Lake Forest Access road.

The claims may be reached by road from Smithers by following the Babine Lake road, the Chapman Lake Forest Access road and finally the Deception Lake road which provides access to a branch logging road that leads to a logging landing that is some 500 m southwest of the initial post of Boo 4 and 5, located at the northern edge of the large clear-cut immediately north of Betty Lake.

HISTORY

The Boo claims cover all or parts of the following surveyed mineral claims:

Home Fr.	L 2865
Chance Fr.	L 2875
Bell Fr.	L 2878
Betty	L 2879
Ruth	L 2880
Billy	L 2881
Bob Fr.	L 2885



GOLD SEAL 3
3140(18)
GOLD SEAL 4
3139(17)
GOLD SEAL 5
3138(16)
GOLD SEAL 6
3137(15)
GOLD SEAL 1
3136(14)

~~MONA~~
~~152111~~ ✓

REPEATER
3408(11)
1497 501
138 9311

ALSO:
LUCKY GOLD 1-4
3545-48(12)

DOME 'A'
3563(2)
149 8581
149 4391

REPEATER 1
3408(11)
1497 501
3683

REPEATER 2
3409(11)
149 4561
152 3661

DOME 'A'
3563(2)
149 8581
149 4391

DOME 1
1623(3)
DOME 2
1625(3)
DOME 3
1627(3)
DOME 4
1629(3)
DOME 5
1631(3)
DOME 6
1633(3)

Boo 1
Boo 2
Boo 3
Boo 4
Boo 5

DOME 'B'
3566(2)
149 8581

BABS 3
1983(8)

BABS 5
1985(8)

Boo 1-5
3951-3955

Belly Cr.

Deception Cr.

FIGURE 1

These claims were surveyed by J. A. Rutherford in 1923. The survey lines can still be followed and most of the posts are still legible. I have found no record of exploration work having been done on the claims.

The Boo claims were recorded 23 July 1981 by Judith A. L'Orsa.

GEOLOGICAL SETTING

The Dome Mt. area is underlain by generally north-west-striking volcanic and sedimentary rocks of the Hazelton Group (Tipper, 1976) which record the events of Jurassic eugeosynclinal volcanism. These rocks are intruded by a few small stocks which range in composition from granitoid to diabase.

The outcrops on Dome Mt. comprise predominately pyroclastic rocks of intermediate composition which range in texture from volcanic breccias and coarse debris flows to very thin-bedded tuffs. A unit of sedimentary rocks is exposed at several localities on the southwest and south sides of Dome Mt., including the Boo claims. This unit includes very thin-bedded dark tuffs, volcanic sandstone and minor limestone.

Although Dome Mt. has not yet been mapped in detail, a number of reconnaissance observations made by me suggest that the mountain may occupy a northwest-striking anticline.

There are several major northwest-striking shear zones on Dome Mt. which exceed 5 m in width in many places. The shear zones exhibit varying amounts of carbonatization accompanied locally by quartz-carbonate veins carrying gold and silver associated with pyrite and unevenly distributed arsenopyrite, chalcopyrite, galena, sphalerite, tetrahedrite, specularite, chromian muscovite, scheelite, etc. These gold occurrences show a strong affinity with the general greenstone belt type of gold deposit.

GEOLOGY

Reddish grey and light grey-green tuffs outcrop on the Boo Fr. and in the northern area of Boo 1. These rocks include coarse lithic tuffs and plagioclase crystal tuffs. Light to moderate carbonatization is common if not ubiquitous.

Along the south bank of Federal Creek, on Boo 1, there is a good exposure of water-laid tuffs, volcanic sandstone, tuffaceous limestone and limestone. Less well exposed are some carbonatized rocks that are probably altered diabase. The tuffaceous rocks and limestone are generally black to dark grey in colour and they tend to be very thin-bedded (locally less than 0.5 mm). A poorly preserved ammonite I collected here could not be positively identified but it is probably Sinemurian in age (H. W. Tipper, written comm., 1982). Stratabound pyrite is irregularly distributed in many of these rocks; e.g. a fine-grained tuff bed 5 mm in thickness carries up to 50% disseminated pyrite. Quartz-calcite-ankerite veins with minor pyrite are common. Some of the rocks show a micaceous foliation.

The altered diabase(?) is a generally massive rock, light grey in colour, weathering to a light rusty brown. Approximately 1.5 mm plagioclase crystals are visible and small amounts of quartz are present in grains less than 1 mm in diameter. Carbonatization is general throughout the rock.

South of Federal Creek the geology is dominated by a diabase intrusion (stock ?) which is well exposed in places along the western boundary of the claims. The diabase is a medium green-grey colour with an average grain size of approximately 1 mm. The rock contains calcic plagioclase and pyroxene with lesser amounts of chlorite and biotite. The plagioclase is extensively sausseritized. Quartz is present locally. Up to 10% pyrite, disseminated and in fractures, was observed in altered samples of this rock, but in general the

pyrite content is probably less than 1%. No magnetite was found.

Outcrops along the eastern side of the diabase are highly altered. The most prominent feature of the alteration is carbonatization (ankerite and/or ferroan dolomite with local calcite) resulting in a light-coloured, rusty-weathering rock with small amounts of pyrite. The carbonate minerals occur as disseminations and fracture fillings. In some outcrops relict mafic minerals can be seen. The alteration has affected both the intrusion and the adjacent volcanic rocks.

There are very few outcrops south and east of the diabase. Along the southwestern claims boundary a dark grey tuff was found. Diabase at and near the contact with the tuff is sheared and chloritized but does not show the intense carbonatization found 350 m to the northeast. Along the edge of the clear-cut and in the fire-guard near the south boundary of the claims there are a few outcrops of generally coarse to lapilli-sized tuffs. All of these rocks are carbonatized but they are still readily recognizable as tuffs. Four poorly preserved ammonites were found in the fire-guard tuffs (and volcanic sandstones?). Carbonatized diabase is also exposed in the fire-guard and disseminated pyrite (up to 5%) is common in this area. It is not known whether the diabase at this locality is a dyke or a part of the main intrusion.

MINERALIZATION

The western boundary of the Boo claims is as close as approximately 750 m east of significant gold and silver mineralization at the Forks prospect on Federal Creek (Min. Mines Ann. Report for 1922) and it is for this reason the claims were staked. No potentially economic mineralization has yet been found on the Boo claims.

Preliminary geochemical sampling, shown on the

accompanying map, indicates that some weak anomalies are present (e.g. 1.4 ppm Ag and 70 ppm Cu).

Quartz-carbonate veins, generally less than 15 cm in width, with small amounts of pyrite, occur in the diabase and in the surrounding rocks. Samples were collected for assay from three of these veins, two in the diabase and one in Federal Creek sedimentary rocks. All these assays returned only trace amounts of gold and silver. One of the veins in diabase assayed 0.01% Cr. A sample of red-grey tuff with pyrite-ankerite-calcite fracture-fillings (approx. 5% pyrite) collected on the Boo Fr. also assayed only trace amounts of gold and silver.

A. L'Orsa

A. L'Orsa



REFERENCES

Minister of Mines, B.C., Annual Report for 1922,
p. N103-104

Tipper, H. W., 1976, Smithers Map-area, British
Columbia: Geological Survey of Canada, O.F. 351.

ITEMIZED COST STATEMENT

WORK:

A. L'Orsa, geologist, 7 days at \$300.00/day (10, 11, 13, 17, 24 & 25 Sept.; 5 Oct.)	\$2100.00
A. L'Orsa, report, 2 days at \$300.00/day	600.00
Typing and copying	20.00

GEOCHEMICAL SAMPLES:

14 analysed for Cu, Pb, Zn, Ag at \$4.60 ea.	64.40
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FOOD AND LODGING:

7 days at \$50.00/day	350.00
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TRANSPORTATION:

Land-Rover, 7 days at \$35.00/day	245.00
164 km at 15¢/km (one return trip to prospect)	24.60
	<hr/>
	\$3404.00

QUALIFICATIONS

I, Anthony L'Orsa of Smithers, B.C., hereby certify that:

1. I am a graduate of Tulane University, New Orleans, La., U.S.A. with the degrees of B.Sc. (1961) and M.Sc. (1964) in geology.
2. I am a Fellow of the Geological Association of Canada and a member of the Society for Geology Applied to Mineral Deposits.
3. I have practised my profession since 1962 in western Canada, Mexico and Australia.

Dated at Smithers this 15th
day of July 1982



A. L'Orsa
Geologist

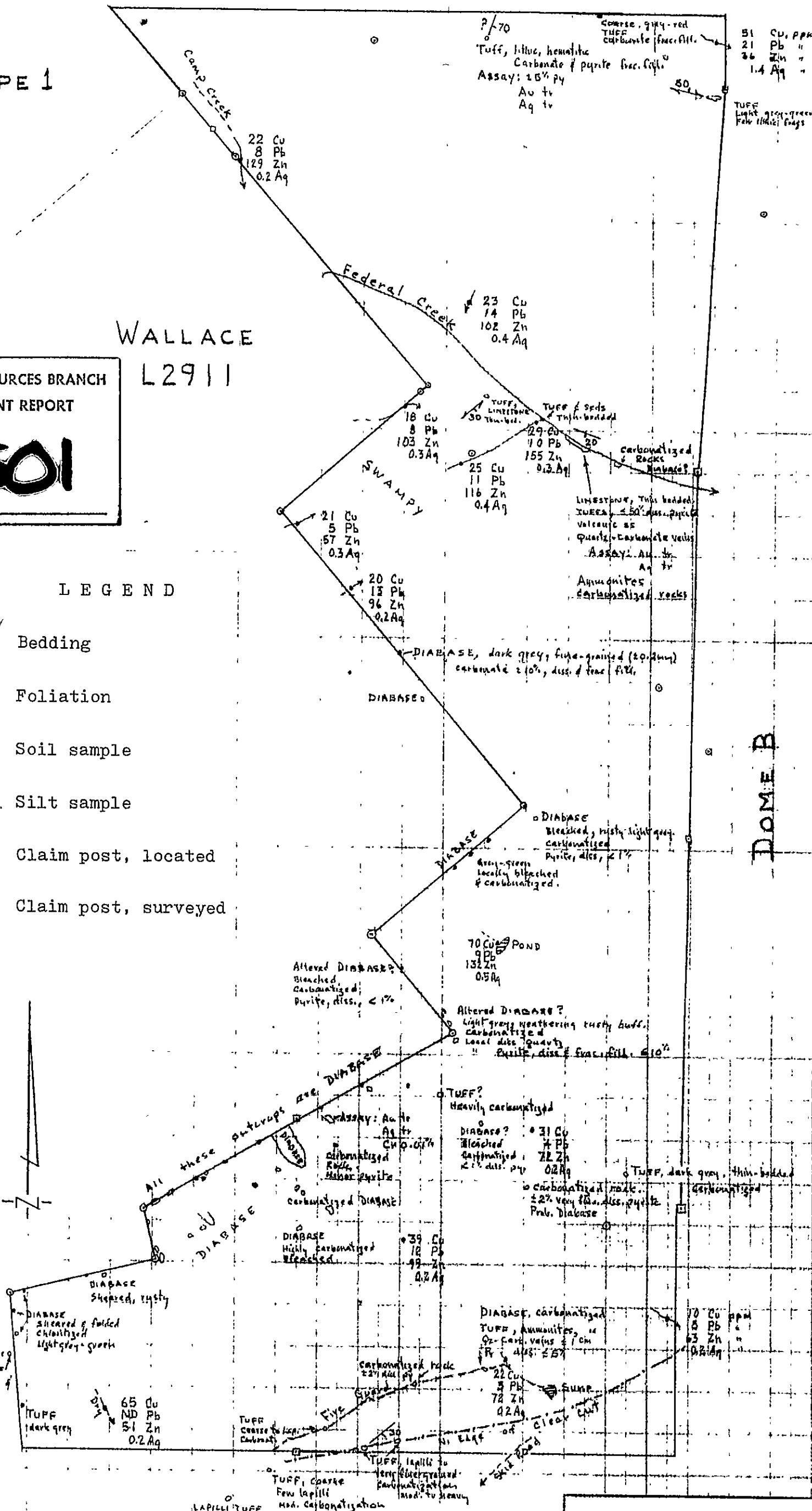
COPE 1

WALLACE
L2911

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
19501
No.

LEGEND

- 20 / Bedding
- 20 / Foliation
- Cu etc Soil sample
- ↘ Cu etc Silt sample
- ▣ Claim post, located
- Claim post, surveyed



BOO CLAIMS, DOME MOUNTAIN
PRELIMINARY GEOLOGICAL MAP
A.L'Orsa 15 July 1982

FIGURE 2

