

NORTHERN AFFAIRS PROGRAM

Geological Report on the

MARSH property

(BUG 1-20 claims)

T.J. Bremner (DIAND)

July, 1987

MARSH
G. McLeod
1987

Gold, asbestos, chromium
(ultramafic associated)
105 D 8 (63)
60 22'N, 134 12'W

References: D.I.A.N.D. (1983, p. 111, 114; 1986, p. 165)

Claims: BUG 1-20

Source: The property was visited in July 1987 by G. Abbott
and T. Bremner.

History:

The property was originally staked as the COPPER BELL claim in 1898 and restaked as the GNM, DYMAX and MINERAL claims in 1964 and 1966. Between 1964 and 1971 the GNM and MINERAL claims were explored by hand trenching, a 1.5 m adit and a 4.6 m packsack drillhole. In 1972, two holes totalling 208.8 metres were drilled at the site of the old adit. The holes were drilled through rusty-weathering quartz-carbonate-fuchsite rock ("listwaenite") into fractured and altered volcanic rocks.

In 1981 G. McLeod reanalysed the old drill core which returned assays of 1.6 g/t and 2.0 g/t gold in the fractured volcanic rock. He then restaked the property as the FM and MF claims. Shakwak Exploration Co. Ltd optioned the property in 1982, carrying out geological mapping and a magnetometer survey and adding the BON claim to the northwest in 1983.

The FM and MF claims were restaked by W. Harris in 1983 as the BOG claim and by G. McLeod in 1985 as the BUG 1-4. Three days of prospecting, soil and rock sampling were done in 1986 by M.P. Webster (Noranda Exploration Company Limited). Two Noranda soil samples were anomalous in gold, yielding values of 750 and 650 ppb Au. The BUG 5-24 claims were added to the property on June 28, 1987.

Description:

The Marsh property covers a system of massive quartz-carbonate-fuchsite ("listwaenite") alteration zones which occur along the margins of and within a fault-bounded body of serpentinitized peridotite. A 1-2 metre zone of talc schist separates the listwaenite from the serpentinite where the contact is exposed. The alteration zones form dyke-like bodies about 12 m wide and form conspicuous orange cliffs about 9 m high which are traceable for a distance of at least 2.4 km along strike. The fresh rock is extremely hard, generally white to light green or grey in colour and frequently shows pale colour banding on a scale of about 0.5

cm. Where seen the colour banding is vertical and strikes approximately north or north-northwest. In places the listwaenite is cut by quartz veins which are also generally vertical but intruded along one of three regional fracture systems with azimuths approximately 010, 100 and 160 deg. respectively. Visible sulphides are rare within the listwaenite dykes but make up about 5% of the rock in occasional breccia zones.

The main listwaenite body trends 160 deg. occupying a fault zone which separates greywacke, pebbly greywacke and slate of the Jurassic Laberge Group from massive green porphyritic to tuffaceous rocks of the Permo-Triassic Cache Creek Group (Taku Group). This fault zone forms a pronounced air photo lineament which is easily traceable for many kilometres beyond the present limits of mapping. The attached map shows that several splays off the main fault are also marked by listwaenite dykes which form similar strong air-photo linears.

Current Work:

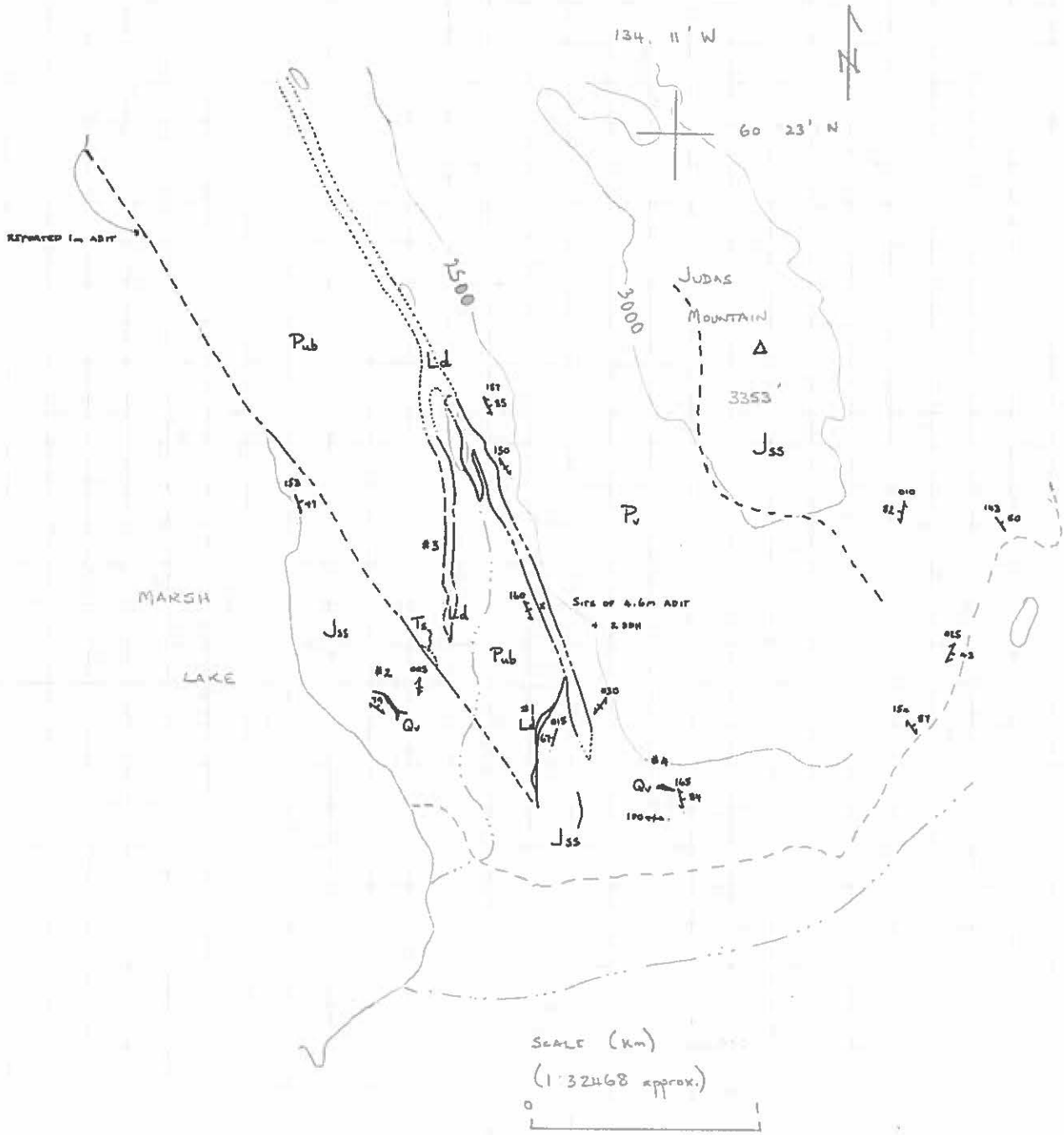
In 1987 an extensive road system was constructed on the property and four trenches were excavated by a combination of bulldozer work and blasting. Mapping of the trenches was carried out by G. Davidson (consultant) in June 1987 at a scale of 1:200. S.B. Ballantyne (G.S.C.) visited the property in July 1987 and collected samples for detailed mineralogical work. T. Bremner spent several days mapping on and near the property to help relate the mineral showings to the regional geology. An asbestos showing in serpentinite north of the property was not examined.

Trench #87-1 was excavated on the site of the Noranda 750 ppb Au soil sample, with the 640 ppb Au soil sample lying 10 metres to the east-northeast. It exposes the contact between dark green serpentinite containing a minor amount of asbestos fibre (west) and Laberge Group sandstone and slate (east). The contact runs NNE and is marked by a pod of talc schist up to 2 metres wide and banded listwaenite up to 6 metres wide. Fault gouge separates the alteration zone from the Laberge Group rocks. Along the west margin of the listwaenite the serpentinite is extensively sheared, veined and altered to jarosite and clay. A grey brecciated quartz vein trending 005 deg. is exposed in the floor of the pit adjacent to a 0.6 m felsic dyke first reported by Webster. The quartz-breccia contains up to 5% sulphides, mostly pyrite. Chip samples taken by G. Davidson from this brecciated zone gave a weighted average grade of 534.1 ppb Au over 12 metres, with a high value of 1790 ppb over 50 cm.

Trench #87-2 exposes a quartz vein 0.3 to 1.2 m wide along a strike length of 36.6 metres. The vein strikes 100 to 125 deg. and dips steeply to the north, discordantly intruding Laberge Group greywacke and slate. At the south end of the trench, a 15 cm quartz-calcite vein with an orientation of 175/54 W branches off the main vein. A possible extension of this vein system northeast of the trench contains scheelite d to grade about 1.5% (G. McLeod, personal communication).

Trench #87-3 cuts across the western listwaenite alteration zone, exposing a 9.5 metre thickness of massive grey and white banded listwaenite striking 175 deg. and dipping 90 deg. On the west side, 1.2 metres of soft white talc schist separates the listwaenite from 3 metres of green and white serpentinite.

In trench #87-4, light green siliceous rock, possibly a pod of listwaenite within highly sheared dark-green volcanic rocks, is brecciated and clay-altered over a width of 5.8 metres. The brecciated zone is cut by a 1.5 metre quartz vein striking 100 deg. and dipping 75 deg. to the south. Cutting dark green to grey highly sheared volcanic rocks at the northwest end of the trench is a 10 cm felsic dyke striking 025 deg., dipping 34 deg. east which has been completely altered to clay.



GEOLOGY OF THE MARSH PROPERTY AND SURROUNDING AREA

July, 1987

LEGEND

AGE UNKNOWN

- Qv Quartz & calcite veins
0.3-1.2 m wide. Appear to be associated with brecciated wallrock and clay-altered felsic dykes.
- Ld Quartz-calcite-fuchsite dykes ("listwaenite")
massive, weather orange. Fresh rock white to greenish, may have 0.5 cm grey bands.
- Ts Talc schist

JURASSIC

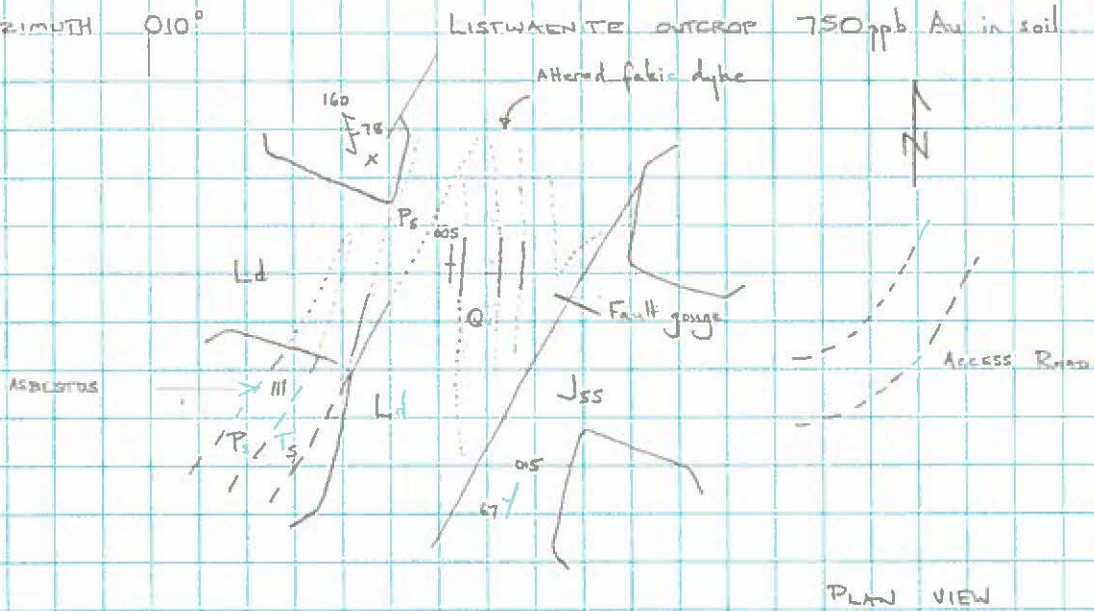
- Jss Laberge Group
Greywacke, slate, minor conglomerate

PERMO-TRIASSIC

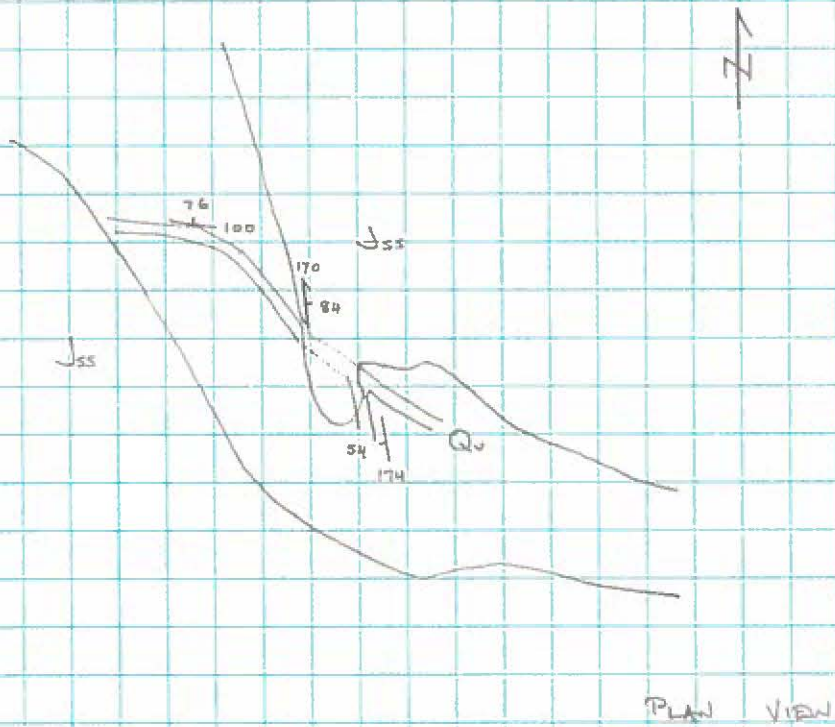
- Fub Cache Creek Group
Serpentinite, serpentized peridotite
- Fv Cache Creek Group (Taku Group)
Sheared green pyroclastics

TRENCH GEOLOGY: SKETCHES ONLY
NOT TO SCALE

TRENCH # 87-1
AZIMUTH 010°

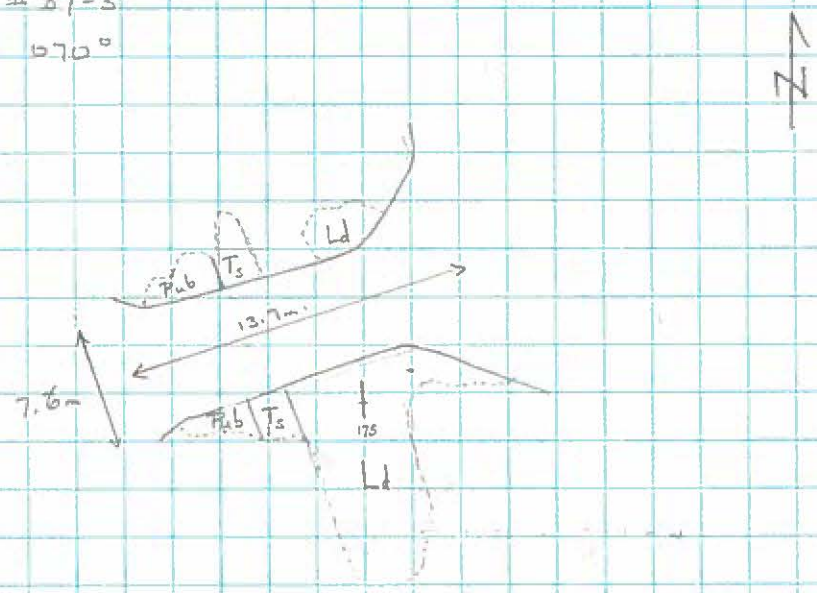


TRENCH # 87-2
AZIMUTH 110-140°



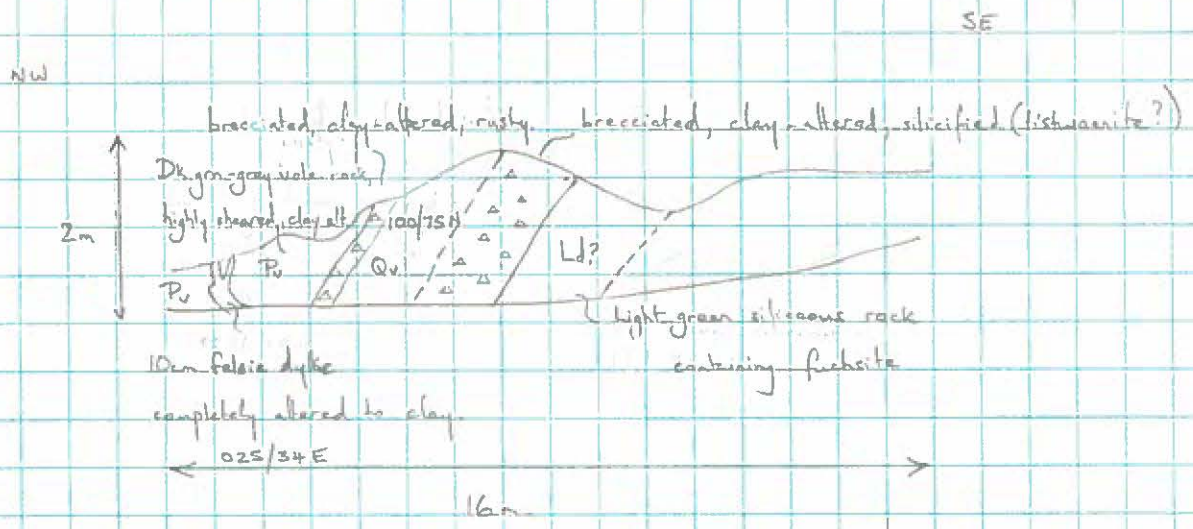
TRENCH GEOLOGY: SKETCHES ONLY
NOT TO SCALE

TRENCH # 87-3
AZIMUTH 070°

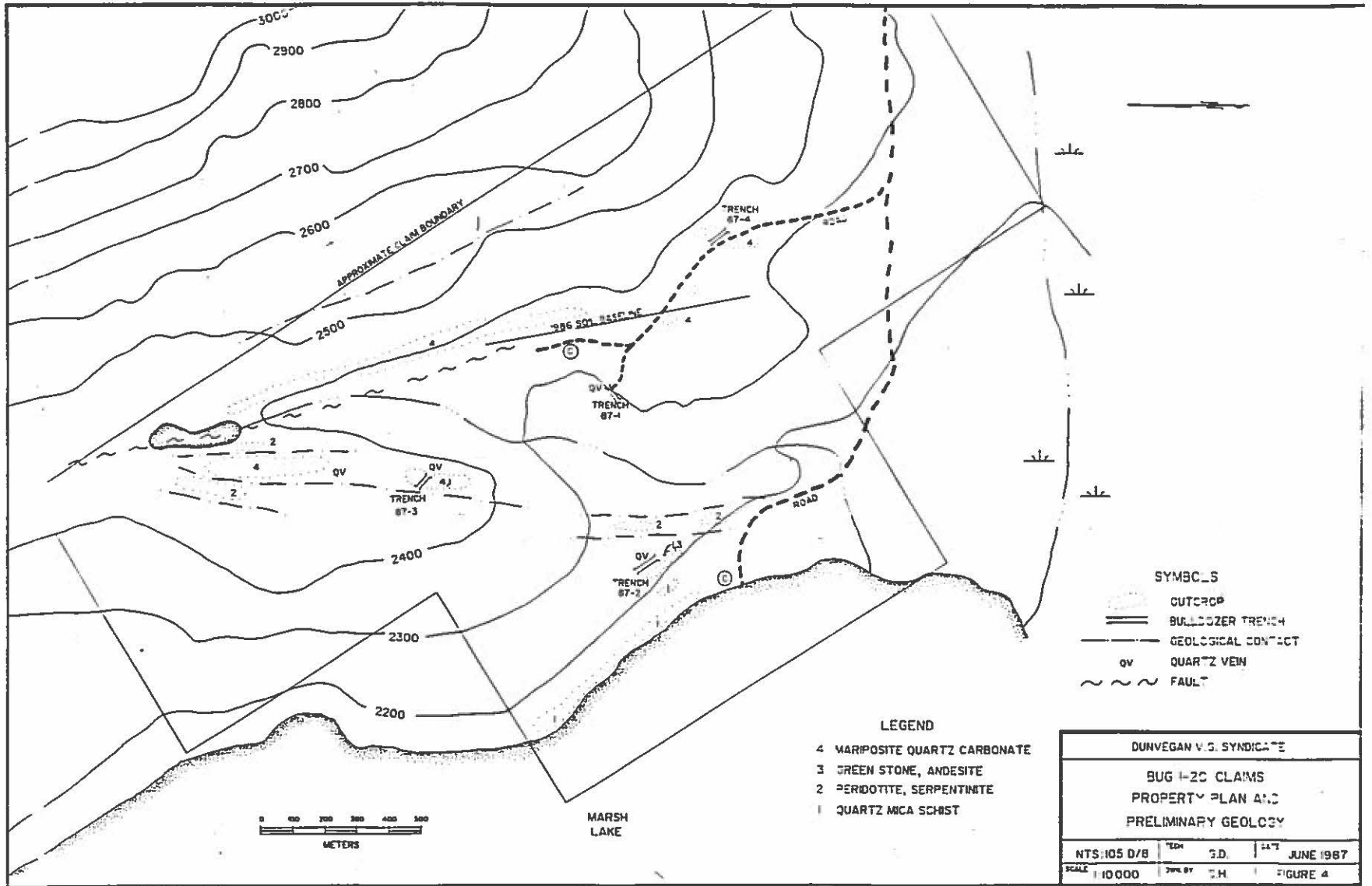


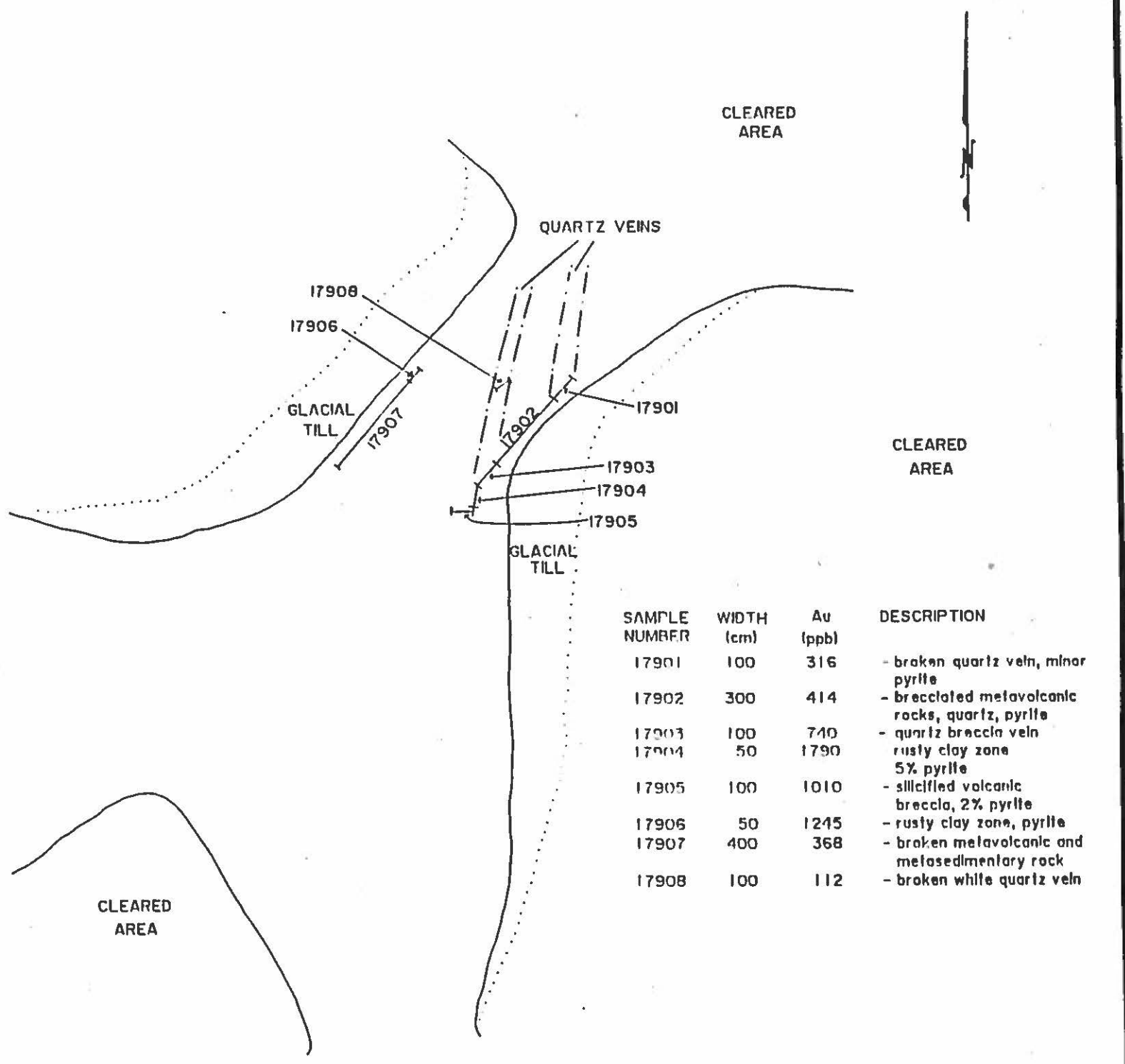
PLAN VIEW

TRENCH # 87-4
AZIMUTH 130°



SIDE ELEVATION
Outcrop only in NE side of trench.





SAMPLE NUMBER	WIDTH (cm)	Au (ppb)	DESCRIPTION
17901	100	316	- broken quartz vein, minor pyrite
17902	300	414	- brecciated metavolcanic rocks, quartz, pyrite
17903	100	740	- quartz breccia vein
17904	50	1790	- rusty clay zone 5% pyrite
17905	100	1010	- silicified volcanic breccia, 2% pyrite
17906	50	1245	- rusty clay zone, pyrite
17907	400	368	- broken metavolcanic and metasedimentary rock
17908	100	112	- broken white quartz vein

CLEARED AREA

Volume of material moved
 main trench 5m x 5m x 15m
 side trench 4m x 10m x 15m
 cleared area 1m x 50m x 40m
 Total \approx 3000m³

DUNVEGAN V.G. SYNDICATE			
BUG 1-20 CLAIMS			
TRENCH 87-1			
NTS: 105 D/8	TECH	G.D.	DATE
SCALE	DWN. BY	S.H.	JUNE 1987
1:200			FIGURE: 5