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GEOCHEMICAL, GEOLOGICAL, AND GEOPHYSICAL REPORT
on the
ROX 1-12 CLAIM GROUP
JERVIS INLET, B.C.

VANCOUVER MINING DIVISION

FOR

FUNDAMENTAL RES. CORP.,
4083 MONARCH PLACE,
VICTORIA, B.C. V8N 4B9

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GEOLOGICAL SURVEY BRANCH
VICTORIA, B.C.

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□ **TABLE OF CONTENTS**

	PAGE NO.
SUMMARY	1
1.0 INTRODUCTION	3
2.0 LOCATION, ACCESS, AND PHYSIOGRAPHY	3
3.0 PROPERTY STATUS	4
4.0 PROPERTY HISTORY	5
5.0 GENERAL GEOLOGY	9
6.0 1998 WORK PROGRAM	10
6.1 METHODS AND PROCEDURES	10
6.2 PROPERTY GEOLOGY	10
6.3 ROCK GEOCHEMISTRY	12
6.4 GEOPHYSICS	13
6.5 PETROGRAPHY	14
7.0 DISCUSSION OF RESULTS	14
8.0 CONCLUSION	15
9.0 RECOMMENDATIONS	15
10.0 REFERENCES	16

STATEMENT OF QUALIFICATIONS

ITEMIZED COST STATEMENT

LIST OF FIGURES

FIG. 1 GENERAL LOCATION MAP

FIG. 2 CLAIM LOCATION MAP

FIG. 3 DISTRIBUTION OF MESOZOIC ROOF PENDANTS NW OF VANCOUVER

FIG. 4 PROPERTY GEOLOGY

FIG. 5 GEOPHYSICAL AND GEOCHEMICAL COMPILATION

FIG. 6A-D VLF-EM AND MAGNETOMETER PROFILES

APPENDIX A- PETROGRAPHIC REPORT

APPENDIX B- VLF-EM, MAGNETOMETER AND BEEP MAT RAW DATA

APPENDIX C GEOCHEMICAL ANALYSIS CERTIFICATES

SUMMARY

The Rox 1-12 Claim Group consists of 12 contiguous mineral claims comprising 42 units. The claims are located 38 kilometres northeast of Powell River, B.C. near the headwaters of Lois River and No Man's Creek. A logging road that branches off Third Lake Road follows Lois River and gives access to the south portion of the claims. The claims lie within the Vancouver Mining Division.

The claim group is underlain by mixed sedimentary, volcanic, and intrusive rocks of Lower Middle Jurassic Bowen Island Group. This group is age equivalent to the Bonanza Group of Vancouver Island and the Harrison Lake Group of the Central Coast Mountains. The Bowen Island Group forms an elongated 2 X 15 kilometre roof pendant within Cretaceous/Tertiary intrusive rocks of the Coast Range Plutonic Complex. Lithologies within the roof pendant consist of tuffaceous sandstone, argillaceous siltstone, andesite to basalt vesicular flows and diorite-andesite flows and/or sills, pillowed andesite flows, chloritic schist, carbonate, and chert. This sequence forms a roof pendant, representing a steeply dipping remnant of pre-Cretaceous strata deformed during emplacement of the Coast Range Plutonic Complex. Intense deformation has produced isoclinal folding with penetrative to fracture axial plane cleavage and greenschist grade metamorphism throughout the roof pendant.

A portion of this roof pendant located near the headwaters of Lois River and No Man's Creek has been intermittently explored for base and precious metals for the past 65 years. As a result of work by at least 12 different exploration groups, numerous base and precious metal targets have been identified.

Located in the northeast portion of the Rox 2 Claim, at an elevation of 1,100 metres, a gold bearing quartz vein occurs in a shear zone that is exposed for a strike length of 475 metres, in five creekbeds. The vein/shear trends northeast and dips steeply northwest. Mineralization consists of pyrite, pyrrhotite, chalcopyrite, sphalerite, arsenopyrite, greenockite, and native gold in a gangue of quartz and fault gouge clay. Width of mineralized quartz veins varies from 0.1-0.3 metres. Wall rock zones of gouge clay, silicification, and fracture filling sulphide mineralization ranging from 0.5-2.0 metres in width adjacent to the quartz vein. Assay values of 2.772 oz/t Au across 2.18 metres were obtained from trenched rock chip samples (sample # 9,54,55, 1991). Stream sediment samples from creeks that cut this zone returned geochemical values up to 133.0 ppm Au (3.88 oz/t Au).

Zones of massive sphalerite, galena, chalcopyrite, pyrrhotite, and/or arsenopyrite occur within the Rox 1-12 Claim Group. Several adits and trenches trace shear and stratigraphic controlled pods and lenses of polymetallic sulphide mineralization. The Mt. Diadem Adit and the upper and lower adits of the Lois River contain significant Cu-Pb-Zn-Ag-Au values. Several zones of massive magnetite-pyrrhotite-chalcopyrite also occur on the claim group.

The upper and lower adit showings consists of massive and semi-massive Cu-Pb-Zn-Ag-Au bearing sulphides associated with a linear and penetrative shear zone and a volcanic/sedimentary geological contact. A 3 phase follow up program of surface sampling, diamond drilling, and underground exploration is warranted to determine the economic potential of the massive sulphide zone.

A proposed budget of \$250,000 is recommended to complete a preliminary phase of diamond drilling and trench sampling. Contingent on these results, a second phase of underground exploration is recommended (proposed budget of \$1,500,000).

1.0 INTRODUCTION

This report was prepared at the request of Fundamental Resources Corp to describe and evaluate the results of VLF-EM and magnetometer surveys, geological mapping and surficial sampling, carried out by A. Kikauka (Geologist), and B. Johnson (Geotechnician) from June 1-8, 2001 on the Rox 1-12 Claim Group in the Vancouver Mining Division in the Mt. Diadem area of Jervis Inlet.

The field work was undertaken for the purpose of identifying mineralized and/or conductive zones, related geological structures and detailed geochemistry.

The author has been on the property. This report is based on published and unpublished information, maps, reports, and field notes.

2.0 LOCATION, ACCESS, AND PHYSIOGRAPHY

The Rox 1-12 claims are situated in the Vancouver Mining Division of the Mt. Diadem area of Jervis Inlet, approximately 38 kilometres northeast of Powell River, B.C. (Figures 1 and 2).

The claims are located on map sheet NTS 92 F/16 E and 92 K/1 E at latitude 50 01' N, longitude 124 01' W, and UTM 5,540,400 metres N, 423,000 metres E.

Road access is via the Lois Lake logging road, maintained by Garnet Lake Logging, Lang Bay. Road access is restricted during weekdays when active log hauling trucks use this road.

Alternate access is via helicopter from Powell River.

The property is on mountainous terrain with moderate to steep slopes rising from 700 metres (2,310 feet) to 1,675 metres (5,610 feet) above sea level. Mature fir, hemlock, spruce, and cedar (red and yellow) are found below 1,100 metres (3,600 feet) elevation. Moss, lichen, and shrubs of the alpine tundra occur above this elevation.

The area is affected by a maritime coastal climate with abundant precipitation in the autumn and winter with moderate temperatures.

Recommended work season is April-November. Work can be extended into winter months at lower elevations below 1,100 m.

3.0 PROPERTY STATUS

The property consists of 12 claims (Figure 2) in the Vancouver Mining Division. Details of the claims are as follows:

Claim Name	Record No.	Units	Record Date	Expiry Date	Ownership
Rox 1	258896	10	July 1,1990	July 19,2002	*
Rox 2	258897	10	July 1,1990	July 19,2002	*
Rox 3	305350	4	Sept.28,1991	July 19,2002	*
Rox 4	305351	4	Sept.28,1991	July 19,2002	*
Rox 5	305352	4	Sept.28,1991	July 19,2002	*
Rox 6	356586	1	June 6, 1997	July 19, 2001	*
Rox 7	356587	1	June 6, 1997	July 19, 2001	*
Rox 8	356588	1	June 6, 1997	July 19, 2001	*
Rox 9	356589	1	June 6, 1997	July 19, 2001	*
Rox 10	356590	1	June 6, 1997	July 19, 2001	*
Rox 11	356592	1	June 6, 1997	July 19, 2001	*
Rox 12	363062	4	May 20, 1998	July 19, 2002	*

* Claims are registered to Dr. William Pfaffenberger.

A statement of work (filed with this report) has extended the expiry dates for Rox 1,2,4-11 to 2003.

The total area covered by the claims is approximately 850 hectares (2,100 acres), after correcting for overlap.

The writer is not aware of any particular environmental, political, or regulatory problems that would adversely affect mineral exploration and development on the Rox 1-12 claims.

4.0 PROPERTY HISTORY

The Mt. Diadem area of Jervis Inlet has received intermittent mineral exploration work since the 1920's. Brittain River Mining Co. excavated three short adits in 1927. These adits contain massive Pb-Zn-Cu-Ag-Au bearing sulphide mineralization and are located 1-2 kilometres northwest of Mt. Diadem. In 1947-50, Inco Canada Ltd. and Bralorne Mines Ltd. excavated mineralized bedrock in the headwaters of No Man's Creek, performed some sluicing, cut trails, and fabricated a cabin. A gold bearing quartz vein was traced along strike for 800 feet and returned assay values up to 5.77 oz/t Au. The vein occurs in a narrow shear the strikes northeast and dips near vertical. Mineralization consists of sparse pyrite, chalcopyrite, sphalerite, arsenopyrite, and native gold hosted by quartz, fractured wall rock, and clay-rich fault gouge (Minister of Mines Annual Report, 1950).

1954: Copper Ridge Silver Zinc Mines performed geological mapping and prospecting on 19 claims located in the Mt. Diadem area.

1957: W.R. Bacon of the B.C. Dept. of Mines performed seven months of geological fieldwork in the area. This work is summarized in B.C.D.M. Bulletin No.39, "Geology of Lower Jervis Inlet".

1965: Vanco Explorations Ltd. held 17 claims northwest of Mt. Diadem called the Linda Group. In 1967 Citation Explorations Ltd. held 73 claims and optioned the Linda Group. In 1970 Tiger Silver Mines optioned the Linda Group and carried out geochemical and geophysical surveys.

1978: The claims were acquired by Fury Explorations Ltd. (Diadem claim) and Reto Schmidt (Fox claim).

1982: Anaconda Canada Explorations Ltd. sampled stream sediments in the Rox claims area revealing a multi-element Cu-Pb-Zn-Ag-Au geochemical high. Related pathfinder elements such as As-Sb-Bi-Mo also showed elevated geochemical values. In 1983-84 Anaconda performed 10 kilometres of GENIE-EM, geological mapping, geochemical surveys, trenching, and diamond drilling which concentrated on the base metal showings of the upper and lower adits and performed a regional stream sediment and prospecting survey which included the Mt. Diadem area. In 1983 Anaconda optioned the Fox and Diadem claims as well as acquiring additional claims to the north. A seven man crew worked for five months performing geological mapping, trenching, geophysical and geochemical surveys, line cutting, and diamond drilling. The focus of this program was the base metal showings in the area of the upper and lower adit. These showings consist of pods and lenses of massive sphalerite, chalcopyrite, pyrrhotite, and minor galena, arsenopyrite developed within steeply dipping shears which trend 330 to 005 degrees. Massive, shear controlled mineralized pods are localized along a sediment(siliceous black argillite)-volcanic (green chloritic andesite flow) contact. These showings consist of pods and lenses of massive sphalerite, chalcopyrite, pyrrhotite, and minor

galena, arsenopyrite developed within steeply dipping shears which trend 330 to 005 degrees. Massive, shear controlled mineralized pods appear to be spatially related to a sediment-volcanic contact.

Rock chip samples from several different exposures of the No Man's Creek gold-quartz vein returned the following values;

<u>Location</u>	<u>Assay</u>	<u>Width</u>
No Man's Ck.(el.1,100 m.)	24.3 g/t Au	16 cm.
"	27.0 g/t Au	8 cm.
"	30.4 g/t Au	7 cm.
"	9.4 g/t Au	30 cm.

Several occurrences of gold bearing pyrrhotite and arsenopyrite with assay values up to 5.5 g/t Au were located 200-500 metres northwest of No Man's Creek vein. The 1984 Anaconda report recommended follow up drilling in the area of the upper and lower adit.

1984: Anaconda drilled 9 holes through the upper adit zone (select intersects as follows):

HOLE	FROM	TO(m.)	WIDTH	% Cu	% Pb	% Zn	g/t Ag	g/t Au
#1	93	94	1.0m	2.02	0.01	0.06	47.1	0.07
#1	96.5	98	1.5m	0.27	1.5	1.22	44.1	0.07
#1	99.9	100.4	0.5m	2.32	0.02	0.16	46.6	0.01
#1	102.9	103.9	1.0m	0.06	1.19	3.76	17.8	0.12
#1	93	103.9	10.9m	0.33	0.4	0.53	14.2	0.03
#3	20.2	20.7	0.5m	0.05	0.04	6	24	0.01
#3	22.2	23.7	1.5m	0.34	0.51	2.1	76.1	0.11
#3	27.2	31.2	4.0m	2.14	7.92	2.45	359.4	0.05
#4	23.7	24.7	1.0m	0.05	0.03	7.47	13	0.01
#4	28.7	30.2	1.5m	0.05	0.84	3.72	41.7	0.07
#4	32.6	33.6	1.0m	0.19	0.04	0.39	33.6	0.05
#4	44.8	47.3	2.5m	0.34	0.48	1.48	49.3	0.07
#6	14.6	15.6	1.0m	7.15	0.01	0.49	319.2	0.8

HOLE	FROM	TO(m.)	WIDTH	% Cu	% Pb	% Zn	g/t Ag	g/t Au
#6	62.4	65.4	3.0m	1.2	0.31	0.41	123.9	0.01
#6	86.4	86.9	0.5m	0.06	1.24	8.4	93.9	0.12
#6	103.4	107.9	4.0m	0.57	0.04	0.63	51.9	0.03
#7	75.9	76.6	0.7m	0.13	1.57	6.23	68.9	0.02
#8	2.5	3.7	1.2m	3.25	0.01	0.18	86.7	0.02
#8	98.9	99.9	1.0m	1.62	0.28	1.2	175.2	0.04
#9	72.7	74.7	2.0m	0.04	1.08	2.78	19.1	0.02

The tenor of polymetallic mineralization in the upper adit is well demonstrated by these drill intercepts. GENIE-EM geophysics over the upper adit and upper trench zones outlined several weak and moderate conductors over the upper trench zone and immediately north of the upper adit and lower adit which have not been drill tested (Scott,83). Drill indicated continuity of polymetallic mineralization along a sheared volcanic-sediment contact combined with several well defined weak and moderate strength EM responses suggest the upper trench and upper/lower adit zones may host extensive zones of massive sulphide.

Isotope dating (Pb 207/U 235 ratios) combined with fossil correlations performed by the G.S.C. in 1989 has given the Mt. Diadem roof pendant a Lower to Middle Jurassic age date which is equivalent to the Bonanza Group on Vancouver Island and the Harrison Lake Group on the Central Coast Mountains. (Freidman, 1990)

1991: White Channel Resources Inc. performed hand trenching along the No Man's Creek quartz vein. The Au assay values obtained from trench sampling are compiled as weighted averages from vein and wallrock sampling listed as follows;

Sample No.	Location	Au assay	Width
Trench 1 " 52	0 + 38 N	0.344 oz/t	0.95m.
Trench 5	0 + 60 N	0.526 oz/t	0.35 m.
Trench 6 " 53	1 + 10 N	1.013 oz/t	0.97 m.
Trench 8 " 54 " 55	1 + 57 N	2.770 oz/t	2.18 m.

Trench 10	4+75 N	0.280 oz/t	0.3 m.
Trench 57	2+50 N 2+25 W	0.277 oz/t	0.4 m.

Values of 0.9-133.0 ppm Au and relatively high Cu-Zn-Ag-As were obtained from stream sediment samples of drainages which cut trenches that contain significant Au values. The high values obtained by sample ST-5 1.01% Cu, 1.49% Zn, 185.8 ppm Ag, 133.0 ppm Au, 6968 ppm As confirms the presence of high grade mineralization encountered in trench 8 (which averaged 2.770 oz/t Au across 2.18 metres).

In 1993, Noranda Exploration Co. Ltd. optioned the Rox 1-5 property and performed rock sampling and geological mapping. The following results were obtained from the upper trenches and upper adit:

SAMPLE #	WIDTH (m.)	% Cu	% Pb	% Zn	g/t Ag	g/t Au
427-P	1.0	0.02	0.82	1.34	23.2	0.31
427-Q	1.0	0.02	0.28	0.14	11.2	0.04
427-R	4.0	0.11	1.70	3.10	64.0	0.44
428-G	1.5	0.09	0.03	0.80	10.0	0.01
428-H	0.4	1.62	11.20	30.50	496.0	0.31
428-I	1.3	2.15	1.38	4.05	256.0	0.83
428-J	1.0	0.46	0.08	15.20	140.0	1.40

1996: Navarre Resource Corp drilled 8 holes totalling 1,200 ft of BQ core on the No Man's Creek gold bearing quartz vein. DDH 96-2 intersected 3.3 ft of 0.531 opt Au at 291.0-294.3 ft depth (Kikauka, 1996).

1998: Stirrup Creek Gold Inc optioned the property from Navarre Res Corp. and carried out VLF-EM and magnetometer surveys. Results from the geophysical program on the upper and lower adit zones are summarized as follows: VLF-EM results show good continuity of a weak conductive zone located immediately west of north trending fault zone in the upper adit grid (L 7+00 N to L 10+00 N). This weak VLF-EM response does not exhibit an associated magnetic anomaly which suggests that the pyrrhotite associated with the upper adit and trench showings is not massive. The upper adit conductive zone coincides with the trench trend of sulphide mineralization and previous GENIE-EM conductors identified by Anaconda's 1984 survey (Scott, 84). The lower adit grid (L 0+00 N to L 4+00 N) demonstrates moderate strength conductive zones at the lower adit and 100 metres NNW of the lower adit. This zone in the vicinity of the lower adit has never been drilled and is considered a high priority target based on the combination of VLF-EM in phase and quadrature response. Surface trenches and adits in this area coincide with EM conductor axes and total field mag highs at the lower adit.

A compilation of the present data combined with previous EM data generated by Anaconda in 1984 suggests that a program of core drilling focus on extending the upper adit zone to a depth of 150 metres, intersect the lower adit zone at depths ranging from 50-150 metres, and drill several holes in the intervening ground to establish continuity.

5.0 GENERAL GEOLOGY

Mixed volcanic, sedimentary, and intrusive rocks of Lower and Middle Jurassic Bowen Island Group form a series of 2-15 kilometre long, elongated northwest trending roof pendants within the Cretaceous Coast Range Plutonic Complex. These pendants occur in the south end of Howe Sound and Jervis Inlet. The Bowen Island Group is coeval in part with the rocks of the Bonanza Formation on Vancouver Island to the west and the Harrison Lake Formation within the central Coast Mountains 75 kilometres to the east.

Roof pendants occur throughout the Cordillera and have been referred to "inclusions", "screens", "septa", "great xenoliths", and "leaves between batholith walls". The Bowen Island Group probably covered a larger area prior to deformation that occurred during Cretaceous emplacement of the Coast Range Plutonic Complex. This deformation resulted in aligning the pre-Cretaceous strata into vertically oriented roof pendants.

The Bowen Island Group is volcanic rich in southwestern exposures and principally sedimentary to the northwest. This southeast to northwest change probably reflects age as well as facies variation. On Bowen Island, dark green, fine grained andesite is locally interbedded with thinly laminated to massive fine grained siliceous tuff, and minor laminated chert and argillite. In part this lamination is bedding, but elsewhere it is a tectonic fabric. On Mount Elphinstone, strongly foliated amphibolites are interlayered with green chloritic schist and felsic metavolcanics. On the summit ridges of the Sechelt Peninsula, massive andesite is interlayered with cherty tuff and foliated rusty pyritic argillites and minor carbonate. Near Foley Head, on the west side of Jervis Inlet, pillow basalt is separated by a breccia zone from a rusty weathering argillite with minor carbonate. Upwards in the section is a thin conglomerate horizon, with feldspar porphyry, diorite, quartz diorite, and limestone cobbles. In the area of the Rox 1-5 claims, near the northwest limit of the Bowen Island Group, the Lithologies consist of argillaceous siltstone (well banded), tufaceous sandstone (chlorite rich), andesitic-basalt vesicular flows and diorite-andesite flows and/or sills, chloritic schist, pillowed andesitic flows, lapilli tuff, chert, and carbonate.

The most prominent feature of the Bowen Island Group roof pendant in the area of the Rox 1-12 claims is the near vertical attitude of bedding and cleavage. W.R.Bacon (1957) suggests that the term pendant is misleading. He states that "these belts are not wedge shaped, but are more likely to be steeply-dipping leaves between batholith walls". This suggests a deep down dip vertical extension of strata in the Mt.Diadem area in contrast to smaller, patchy remnants of strata in the Sechelt Peninsula. Another feature is the thickening of mafic flows, pillow lavas and tuffs in a 3 X 2 km area elongated northwest of Mt. Diadem. The thickening of the mafic volcanics also coincides with most of the base metal showings.

6.0 2000 WORK PROGRAM

6.1 METHODS AND PROCEDURES

Geophysical work consisted of 68 VLF-EM measurements from Cutler using a Geonics EM-16, 136 magnetometer readings were taken with a Geometrics G-836, along 1.6 kilometres of surveyed line grid located on the Rox 1 claims (see Appendix A for raw data). A total of 10 rock chip samples were collected (8 ore specimens and 2 wall rock), and sent to Acme Labs, Vancouver, B.C. for Au assay and 30 element ICP geochemical analysis (wall rock specimens for whole rock geochemistry). See appendix B for analytical reports and techniques. A representative specimen rock from 5 of the 10 assayed samples were sent to Vancouver Petrographics, Langley, B.C. for polished thin section (3 ore specimens) and thin sections (2 wall rock). The 5 assayed samples were taken from the upper and lower adit outcrops using rock hammer, andmoil. Rock samples averaged 2.0 kilograms and consisted of acorn to walnut sized rock chips.

A grid was established with stations were marked every 25 metres using marked flagging. The baseline trends 340 degrees and is tie into the previous 1998 upper adit grid. Baseline and tie lines were surveyed using hip chains, compasses, and marked with wire bound orange flagging. Tie lines were surveyed to measure distance and slope between grid lines. Total line surveyed was 2.0 kilometres.

A property geological map was compiled at a scale of 1:10,000 (Figure 4). Geophysical grid mapping is compiled in Figure 5 with profiles on Figure 6A-6D.

7.2 PROPERTY GEOLOGY

The Rox 1-5 claims are underlain by Lower/Middle Bowen Island Group. The Lithologies consist of argillaceous siltstone (well banded), tufaceous sandstone (chlorite rich), andesitic-basalt vesicular flows and diorite-andesite flows and/or sills, chloritic schist, pillowed andesitic flows, lapilli tuff, chert, and carbonate. The east portion of the claims are intruded by Cretaceous Coast Range Complex diorite, quartz diorite, granodiorite, and granite.

The detailed description of the Lithologies are summarized as follows:

CRETACEOUS

- 5 Coast Range Plutonic Complex- quartz diorite, diorite, granodiorite, granite.**

LOWER AND MIDDLE JURASSIC

- 4 Argillaceous siltstone (banded), sandstone, and laminated chert, minor lapilli tuff and carbonate interbeds. 4a) Andesitic-basaltic vesicular flows and diorite-andesite flows and/or sills.**

- 3 Argillaceous siltstone- the bedded to finely laminated and locally graphitic, minor carbonate and lapilli tuff interbeds. 3a) Andesitic-basaltic vesicular flows and diorite-andesite flows and intrusive.
- 2 Tufaceous sandstone, siltstone (chlorite rich), interbedded coarse lapilli tuff. 2a) Felsic lapilli tuff, vesicular flows, and tufaceous sandstone and siltstone. 2b) Massive diorite-andesite flows and intrusive. 2c) Pillowed andesitic flows.
- 1 Tufaceous sandstone, siltstone, minor argillite and chloritic schist. 1a) Andesitic flows, lapilli tuff and chloritic schist. 1b) Massive diorite-andesite flows and/or intrusive.

Unit 1 and 2 dominate the east portion of the roof pendant. Unit 1, 1a, and 1b host the No Man's Creek gold-quartz vein. The competency contrasts of brittle (unit 1 and 1b) and ductile (unit 1a) host rock may be important with respect to control of the quartz vein/shear structure. The most northerly creek, known as 4+50 N Creek, exposes the gold-quartz vein which is underlain by massive, Coast Range intrusive diorite of unit 5 (Figure 9). Unit 1b (massive diorite-andesite flows and intrusive) forms many of the cliffs in the No Man's Creek area. As this unit is traced northwest, it grades into pillowed andesite flows, indicating a complex submarine and shallow sill environment of deposition.

Rusty weathering argillaceous siltstone of unit 3 is characterized by a thin bedded and laminated appearance with minor graphite coated slickensides. Unit 4 is a well banded siltstone, sandstone, chert, tuff, and carbonate sequence.

Unit 5 Coast Range Plutonic Complex exhibits a fine grained to porphyritic texture near the contact with the pendant to a medium-coarse grain massive texture away from the contact.

Alteration occurs near mineralized shear zones and consists of silicification, and clay minerals developed in shear zones. Widespread epidote and pyrite or pyrrhotite fracture filling occurs throughout felsic rocks within the roof pendant. Zones up to 20 metres in width contain 10-15% magnetite-pyrrhotite with 0.1-0.3% Chalcopyrite occur immediately west of Mt. Diadem.

Shear zones in the area of the upper and lower adit and No Man's Creek vein are believed to be continuous for a vertical and horizontal extent of several hundred metres. The strike length of the upper adit and lower adit combined form a 1.0 kilometre long zone (Figure 4). Shearing generally trends 340-350 degrees in the upper and lower adit zones, and 100 degrees in the Mt. Diadem adit zone. These shears generally dip vertically.

The area of the upper and lower adits contain base metal mineralization with minor amounts of precious metals. These showings consist of massive sphalerite, chalcopyrite, pyrrhotite, and minor galena, arsenopyrite developed within steeply dipping shears which trend 330 to 005 degrees. Massive, shear and stratigraphically controlled mineralized lenses appear to be spatially related to a sediment-volcanic contact.

6.3 ROCK GEOCHEMISTRY

The following chart shows the results of samples taken from the upper and lower adits (see Fig. 5 for locations).

Sample No.	Elev. (m.)	Width (m.)	Description	%Cu	%Pb	%Zn	g/t Ag	g/t Au
304051	1160 m	0.5 m	Upper Adit, chl., 10% qtz., 15% pyo., 6% cp. 1% ga. 3% sp.	1.39	0.29	1.14	>100	1.49
304052	1160 m	0.5 m	Upper Adit, chl., 10% qtz. 15% pyo., 4% cp. 1% ga. 3% sp.	1.51	0.25	1.37	>100	0.01
304053	1160 m	1.0 m	Upper Adit, chl., ep., qtz., 8% pyo., 2% cp. 1% ga. 1% sp.	0.86	0.19	0.97	>100	0.01
304054	920 m	0.5 m	Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp.	0.97	0.22	7.38	>100	0.03
304055	920 m	0.5 m	Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp.	0.53	0.06	2.81	72.3	0.04
304056	890 m	0.5 m	Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp.	0.48	0.63	2.42	>100	0.07
304057	890 m	0.5 m	Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp.	0.17	0.98	5.05	>100	0.13
304058	890 m	1.0 m	Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp.	0.11	0.60	1.09	54.2	0.01

Sample No.	Elev (m.)	Width (m.)	Description	% SiO ₂	% MgO	% CaO	% K ₂ O	Ba ppm
304059	1200 m	1.0 m	Cherty latite, 0.1-2.0 cm pink K-spar bands, 10% qtz as 0.1-0.5 cm wide vns, 3% tremolite, epidote, actinolite	59.82	3.00	11.78	1.87	1312
304060	1240 m	1.0 m	Silicified, fine grained latite, chalky white, 15% qtz as 0.1-1.0 cm wide vns, 3% ep	69.44	2.09	5.82	0.15	144

30 element ICP geochemical analysis indicates a positive correlation of elevated Zn and Cd (Appendix C). To a lesser degree, elevated Bi correlates with Au. The upper adit samples (304051-53) are higher in Cu and Au, and ultratrace ICP shows a relative increase in Bi-Te associated with higher Cu-Au values. The lower adit samples (304054-58) exhibit a Cu-Au and a Pb-Ag positive correlation, and ultratrace ICP shows a relative increase in Ga associated with higher Pb-Zn-Ag values.

Felsic host rock samples taken 150 m east of the upper adit are altered with K-spar and calc-silicate as veins and replacement textures (sample 304059) and quartz and calc-silicate with textures suggesting contact metamorphism, e.g. branching veinlets (sample 304060).

6.4 GEOPHYSICS

VLF-EM was performed with a Geonics EM-16 using Cutler, Maine (24.0 kHz). Magnetometer readings were taken along 1.6 kilometres of line grid at 12.5 metre spacing. Readings were taken from L 11+00 N to L 14+00 N (Fig. 5). Results from the 2 instrument geophysical surveys are listed in Appendix C and summarized in plan view (Figures 5), and drawn as a section 6A-6H.

VLF-EM dip angles (measured in % change) of in phase and quadrature of the vertical magnetic component show moderate to weak conductive zones that roughly follow the surface trace of a fault gully 75-125 m east of the baseline from L 11+00 N to L 13+00 N. Another zone of weak to moderate strength conductive zones are located 25-150 west of the baseline that roughly coincides with creeks and or slide gullies. The poor linear correlation of the conductive zones suggests there are numerous cross faults as is the case in the area of the upper adit which is located 200 m south from the grid area of L 11+00 N to L 14+00 N. The poor linear correlation or breaking up of the upper adit zone to the north and northwest is reflected on surface topography by the confluence of 3 creeks and an arcuate flexure of the main drainage which suggests a splay zone is affecting local structural trends.

Magnetometer results show 40-200 gamma increases in total field along the 340 trend 25-50 m east of the baseline (L11+00 N to L 14+00 N). This increase occurs along the area near the slide gully, suggesting there may be an intrusive (magnetite enriched e.g. mafic flow and/or diorite) unit in this area and/or increased pyrrhotite.

6.5 PETROGRAPHY

Polished and thin section reports by Vancouver Petrographics indicate there is abundant thermal metamorphism of the volcanic-sedimentary sequence with the presence of garnet and minor tremolite-diopside. The skarn minerals occur as replacement patches and bands and probably reflect the effects of the Coast Range intrusive emplacement which resulted in tilting the volcanic-sediment sequence from a horizontal to a vertical attitude. There is also brecciation and replaced/cemented textures. This crackled texture is indicative of recrystallization, which was likely enhanced by the Coast Range intrusive events. The relative abundance of secondary K-spar patches and chlorite in the wall rock and the Cu-Pb-Zn-Ag mineral assemblage supports a shallow submarine environment for ascending hydrothermal fluids e.g. Kuroko type volcanogenic massive sulphide deposits which have been deformed and recrystallized.

7.0 DISCUSSION OF RESULTS

The Rox 1-12 Claim Group has significant polymetallic prospects and gold bearing quartz veins as described below that warrant detailed exploration.

Located in the northeast portion of the Rox 2 Claim, at an elevation of 1,100 metres, a gold bearing quartz vein occurs in a shear zone that is exposed in five creek beds at the headwaters of No Man's Creek. The vein/shear trends northeast and dips steeply northwest. The zone can be traced for a strike length of 475 metres. Width of mineralized quartz veins varies from 0.1-0.3 metres. Wall rock zones of gouge clay, silicification, and fracture filling sulphide mineralization ranging from 0.5-2.0 metres in width adjacent to the quartz vein. Assay values of 7.268 oz/t Au across 0.2 metres were obtained from trenched rock chip samples of the No Man's Creek quartz-gold vein.

Base metals and silver-gold showings (upper & lower adits, and upper trenches) are considered to be the primary exploration targets because of tonnage potential. Previous drilling by Anaconda in 1984 suggest that this target contains economically significant grade (>.3 opt Au equivalent) and width (2-5 metres) to a depth of over 50 metres, strike length of over 100 metres, and is worthy of a systematic program of core drilling. Mineralization consists of massive and semi-massive sphalerite, chalcopyrite, pyrrhotite, and minor galena, arsenopyrite developed within steeply dipping shears which trend 330 to 005 degrees. Massive, shear and stratigraphic controlled mineralized lenses are spatially related to a sediment-volcanic contact.

Results from the geophysical and geochemical program carried out on the upper and lower adit zones are summarized as follows:

8.0 CONCLUSION

Rox 1-12 Claim Group has potential to host an economic mineral deposit of gold, silver, copper, lead, and zinc based on the following facts:

- 1) Drill hole values of 2.14% Cu, 2.45% Pb, 7.92% Zn, 359.4 g/t Ag, 0.05 g/t Au across 4 m.
- 2) Well defined volcanic-sediment contact zones mineralization and is traceable for 1,600 metres (from lower and upper adit to upper trench). Geological mapping suggests extensive down dip extension of the mineralized zones.
- 3) Mineral zones are oriented vertically which is well suited to shrinkage stope mining methods.
- 4) Access to the property has been enhanced by logging roads up the Lois River which terminate at the base of Mt. Diadem.

9.0 RECOMMENDATIONS

A follow up program of core drilling and trenching the upper and lower adit zones are recommended. The objective of this program is to test continuity of sulphide mineralization and related alteration in wall rock. The following program of drilling is recommended:

Grid location	Grid location	Azimuth	Dip	Depth	Elevation
L 0+00 N	0+40 W	250	-45	250 ft	2,920 ft
L 0+00 N	0+90 W	250	-45	550 ft	2,920 ft
L 1+00 N	0+30 W	250	-45	600 ft	3,007 ft
L 2+00 N	0+30 W	250	-45	600 ft	3,070 ft
L 8+00 N	0+90 W	250	-45	666 ft	3,915 ft
L 8+50 N	1+10 W	250	-45	666 ft	4,025 ft
L 9+00 N	1+25 W	250	-45	668 ft	4,055 ft
L 8+50 N	1+50 W	250	-45	1000 ft	4,040 ft
L 12+00 N	1+88 E	250	-45	332 ft	4,280 ft
L 13+00 N	2+00 E	250	-45	668 ft	4,400 ft
				total 6,000 ft	

An approximate budget of \$250,000 (includes mob, assays, food, accommodation, helicopter, technical, bond, etc.) is required to complete the proposed 1,830 m. (6,000 feet) of core drilling from 11 drillpads.

Contingent on the results of core drilling, follow up core drilling and/or underground exploration is recommended.

10.0 REFERENCES

Bacon, W.R., 1950, Geology and Mineral Deposits of Lower Jervis Inlet, B.C. Dept of Mines Bulletin.

Bidwell, G., et.al., 1993, Geological and Geochemical Report on the Rox 1-5 Claim Group, for Noranda Exploration Co. Ltd., B.C. Min. E.M. & P.Res. Assessment Report.

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McMillan, et.al., 1991, Ore Deposits, Tectonics, and Metallogeny in the Canadian Cordillera, B.C. Min.E.M.&P.Res. Paper 1991-4.

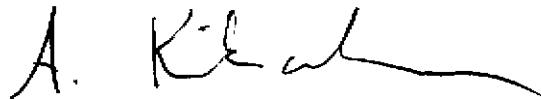
Scott, Allen, Riccio, Luca, 1984, Geological, Geochemical, and Geophysical Report on the Diadem, Fox and Lois Claims, for Anaconda Canada Explorations Ltd., B.C. Min.E.M.& P.Res Assessment Report # 11,641.

CERTIFICATE

I, Andris Kikauka, of Sooke, B.C., hereby certify that;

- 1. I am a graduate of Brock University, St. Catharines, Ont., with an Honours Bachelor of Science Degree in Geological Sciences, 1980.**
- 2. I am a Fellow in good standing with the Geological Association of Canada.**
- 3. I am registered in the Province of British Columbia as a Professional Geoscientist.**
- 4. I have practiced my profession for fifteen years in precious and base metal exploration in the Cordillera of Western Canada, U.S.A., South America, and for three years in uranium exploration in the Canadian Shield.**
- 5. The information, opinions, and recommendations in this report are based on fieldwork carried out in my presence on the subject properties.**
- 6. I have a direct interest in the subject claims and securities of Fundamental Resources Inc. and this report is not intended for the purpose of statement of material facts and/or related public financing.**

Andris Kikauka, P. Geo.,

A handwritten signature in black ink, appearing to read "A. Kikauka", with a long horizontal flourish extending to the right.

July 29, 2001

ITEMIZED COST STATEMENT- ROX 1-12 CLAIM GROUP, VANCOUVER
MINING DIVISION, FIELDWORK PERFORMED MAY 31- JUNE 8, 2001

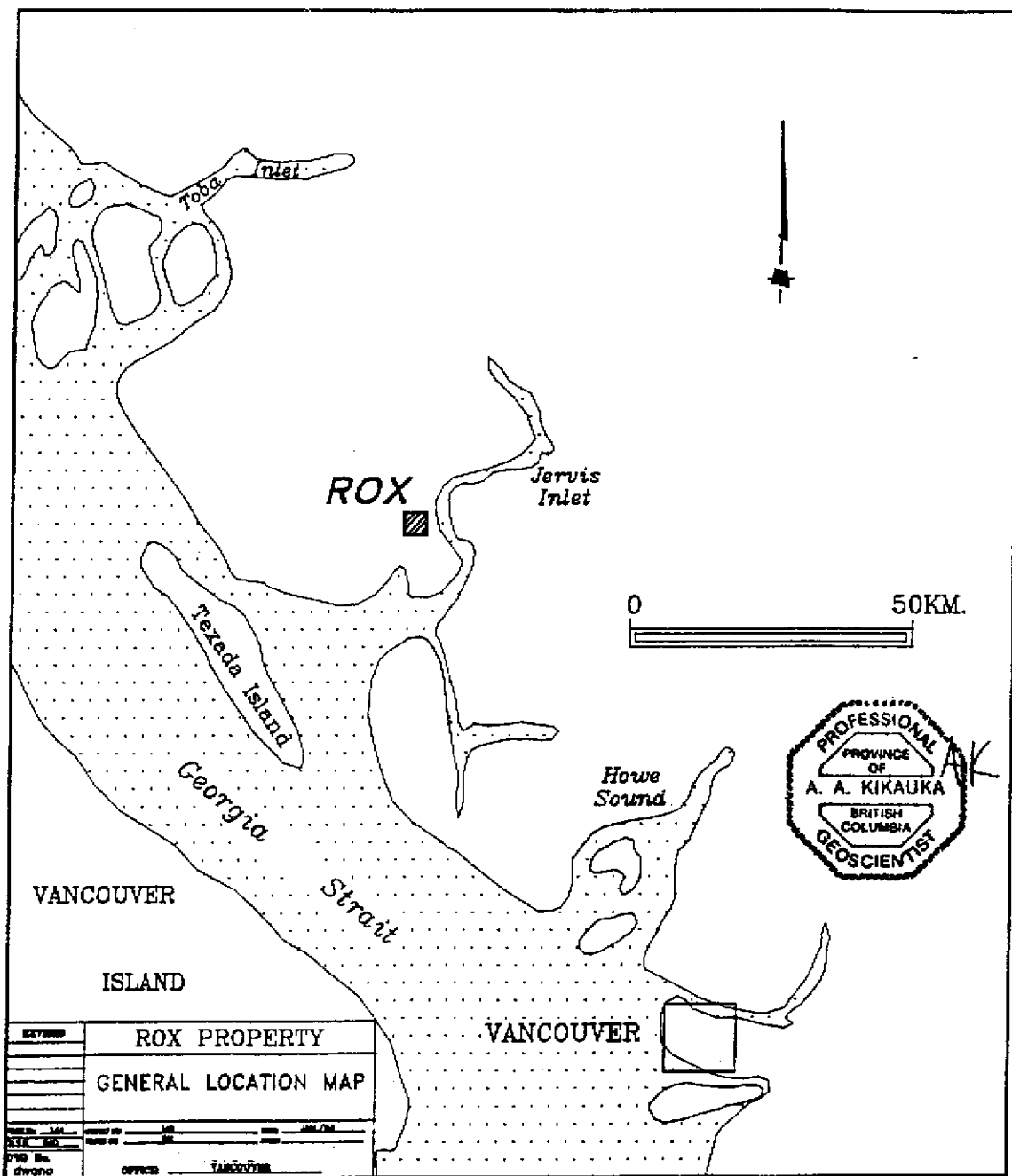
FIELD CREW:

A.Kikauka (geologist) 9 days	\$ 2,475.00
B. Johnson (geotechnician) 9 days	1,800.00

FIELD COSTS:

Unimag G-836 rental	225.00
VLF-EM 16 rental	310.00
Food and accomodation	690.00
Assays- 10 rock	345.00
Petrographic	770.00
mob/demob	370.00
Truck rental	410.00
Equipment & supplies	290.00
Report (writing, editing, drafting, reproduction)	375.00

TOTAL= \$ 8,060.00



FUNDAMENTAL RESOURCES CORP.

Figure 1 General Location Map

THIS TO BE ASS FOR INFO MAD

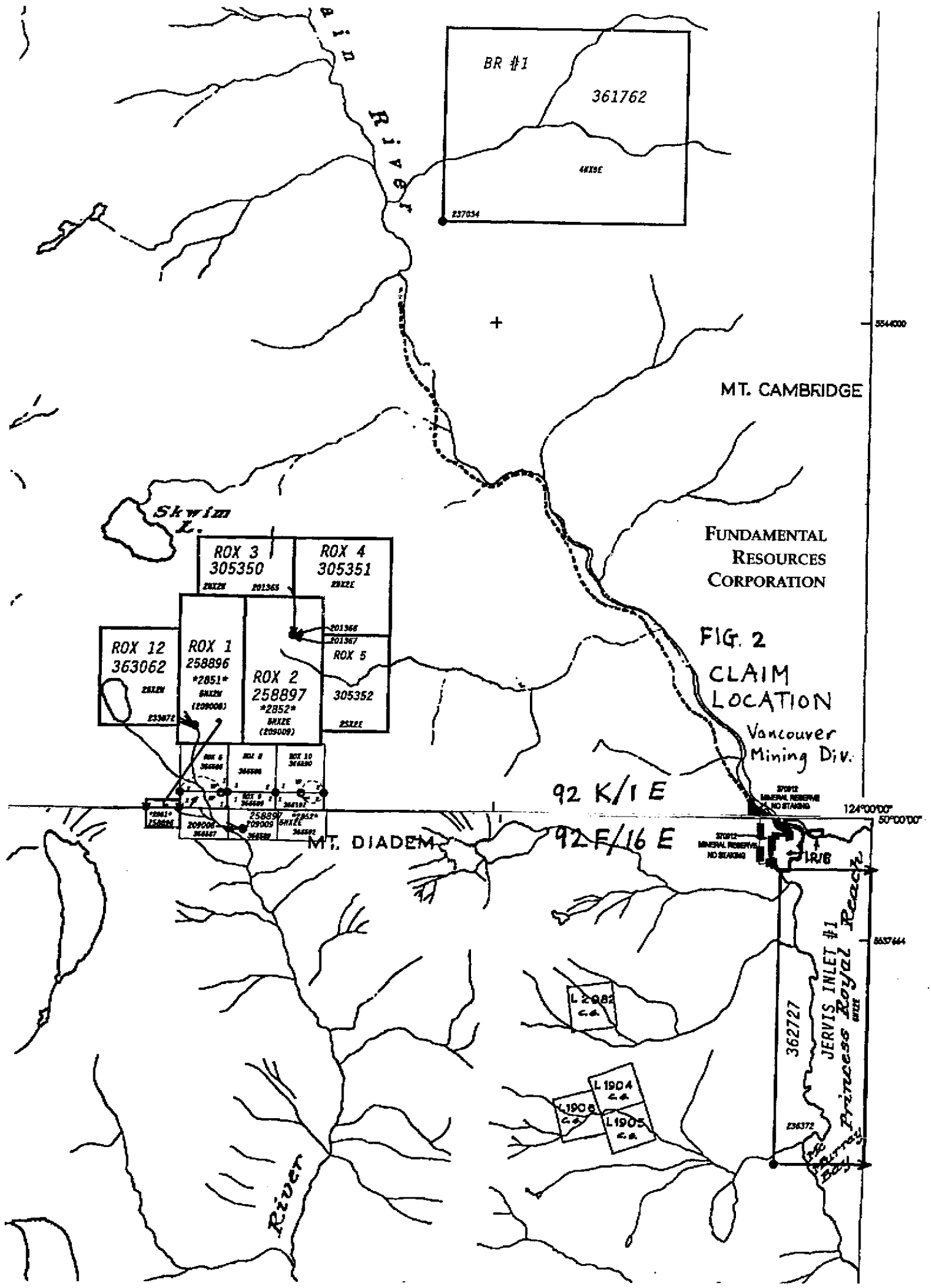


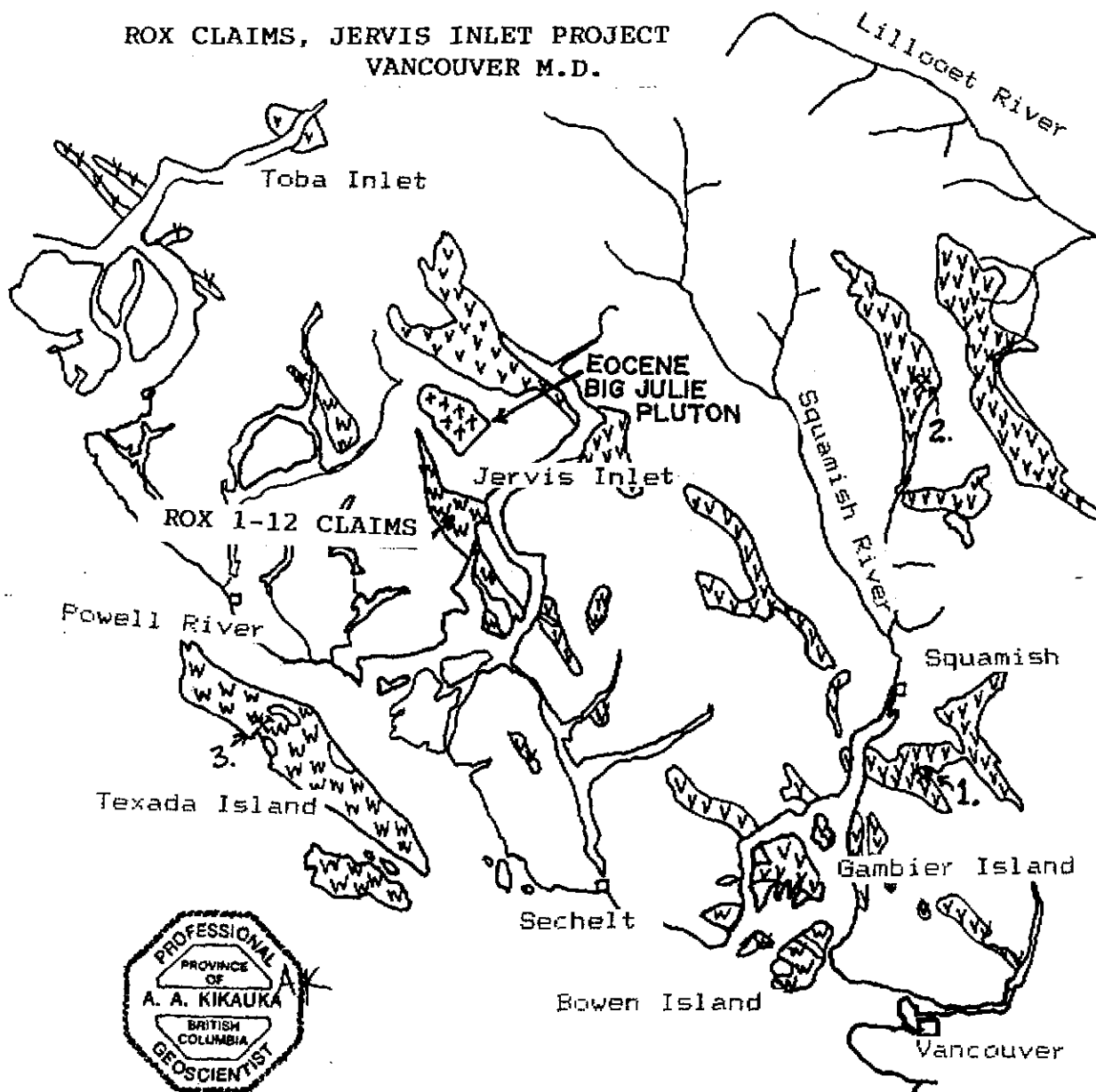
FIG. 2 CLAIM LOCATION

Vancouver Mining Div.

ENEPI

FUNDAMENTAL RESOURCES CORP.

ROX CLAIMS, JERVIS INLET PROJECT
VANCOUVER M.D.



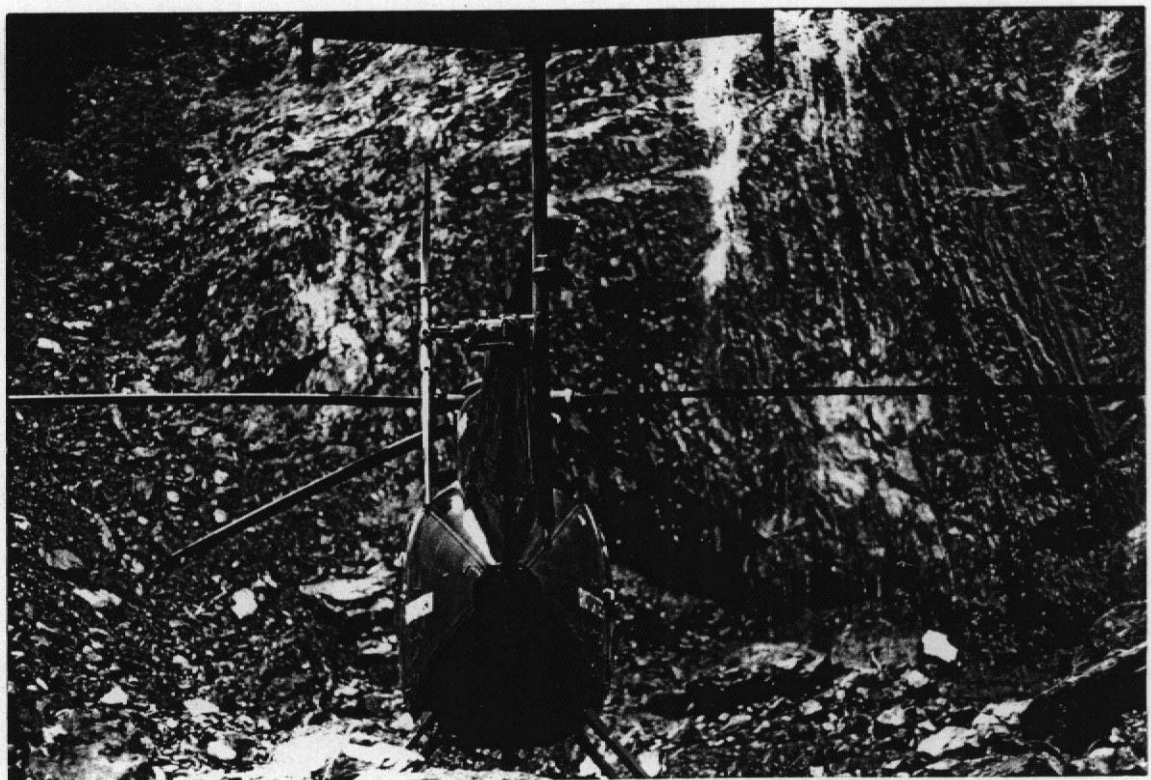
DISTRIBUTION OF MESOZOIC ROOF PENDANTS NW OF VANCOUVER FIG. 3
LEGEND

- Cretaceous Coast Range Plutonic Complex
 granodiorite, quartz diorite, diorite as massive plutons
 including some elongated belts of amphibolite grade migmatite
 and Quaternary Garibaldi Group volcanics
- V
 Lower Cretaceous Gambier Group Volcanics & Sediments
 basalt, andesite, dacite, to rhyolite composition tuffs
 and/or flows, siltstone, sandstone, limestone, argillite
- W
 Triassic and/or Jurassic Bowen Island and Karmutsen Vol. & Seds.
 basalt, andesite, to dacite composition tuffs and/or flows,
 siltstone, sandstone, limestone, chert

1. Britannia Cu-Zn-Ag-Au massive sulphide
2. Northair Cu-Pb-Zn-Ag-Au vein/replacement
3. Texada Cu-Ag-Au skarn/replacement



Lower adit on Rox 9 claim is approx. 2,975 feet above sea level, trends 340.



Fault Gully Creek between upper and lower adit (photo at approx. 3,600 feet a.s.l.).



Upper Lois River valley and Mount Diadem looking north. The south end of the Rox claim group is visible in the upper left portion of the photo.



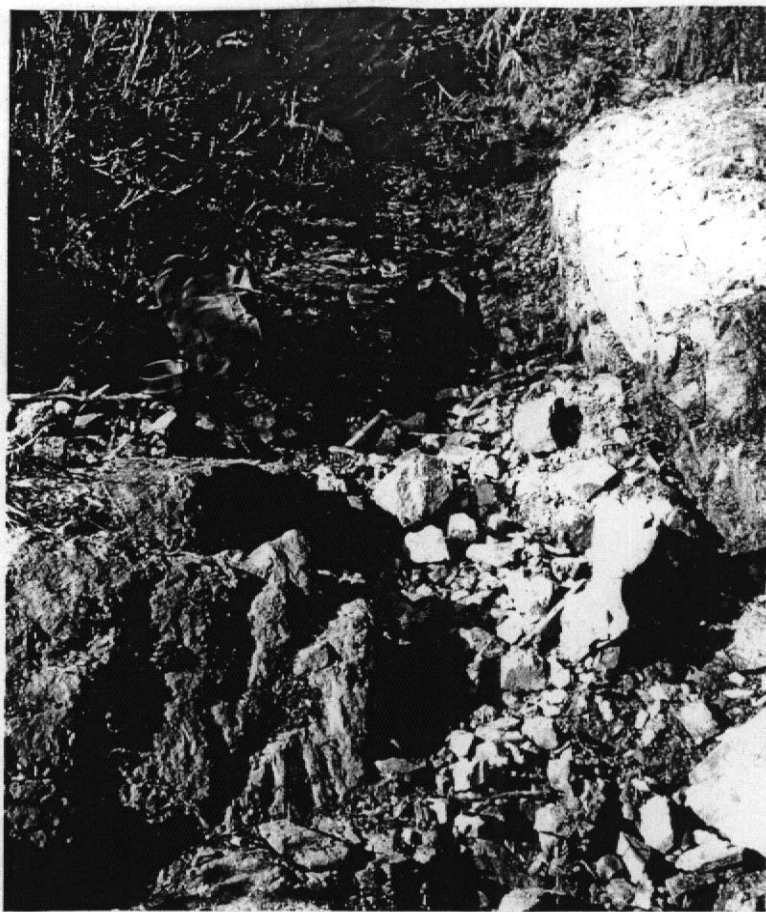
Mount diadem looking southeast. Jervis Inlet visible above helicopter.



Mount Diadem looking southeast. The upper adit is 180 m past the group of trees in the lower right foreground.



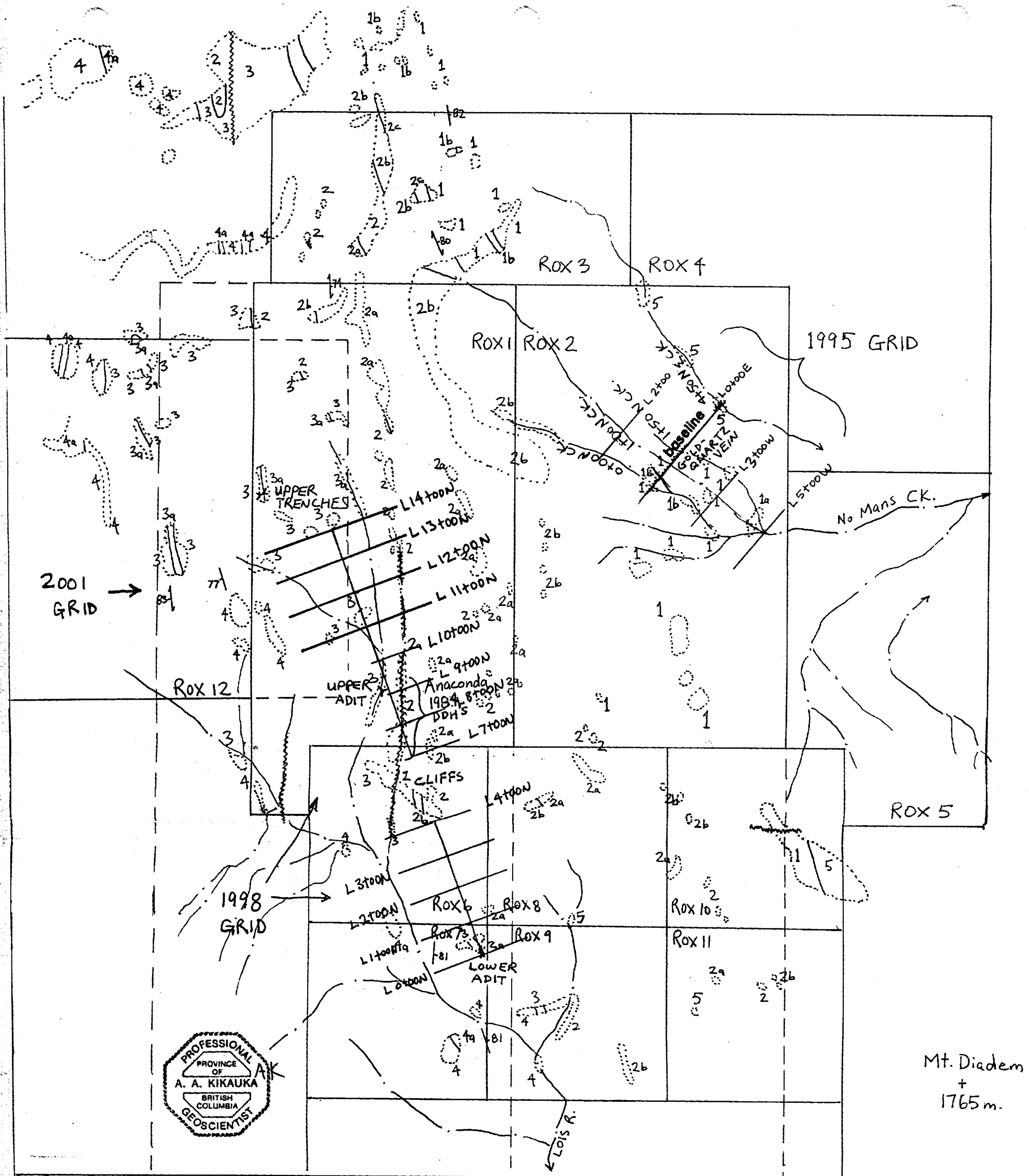
Upper trench located at approximately 4,900 feet a.s.l. On the west portion of Rox 1 claim.



No Man's Creek gold bearing quartz vein exposed across 28 cm width trending northeast and dipping 85 NW.



Looking southeast at No Man's Creek. Gold bearing qtz. vein is 25 m below tent campsite.



ROX 1-12 CLAIM GROUP - 1995, 1998 & 2001 GRIDS - VANCOUVER M.D.
 NTS 92 K/1E, 92 F/16E - SCALE 1 Km = 9 cm - COMPILED BY A.K.,

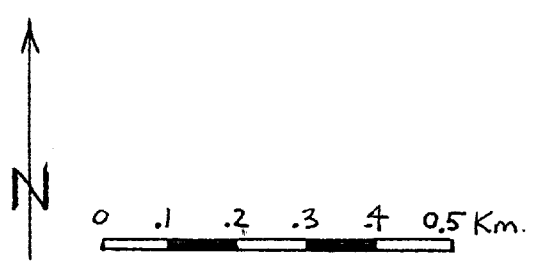
- CRETACEOUS Coast Range Plutonic Complex
- 5 Quartz diorite, diorite, granodiorite, granite.
 - 4 LOWER AND MIDDLE JURASSIC
 Argillaceous siltstone (banded), sandstone, and laminated chert, minor lapilli tuff and carbonate interbeds. 4a) Andesitic-basaltic venticular flows and diorite-andesite flows and/or sills.
 - 3 Argillaceous siltstone - thin bedded to finely laminated and locally graphitic, minor carbonate and lapilli tuff interbeds. 3a) Andesitic-basaltic venticular flows and diorite-andesite flows and intrusives.
 - 2 Tuffaceous sandstone, siltstone (chlorite rich), interbedded coarse lapilli tuff. 2a) Felsic lapilli tuff, venticular flows, and tuffaceous sandstone and siltstone. 2b) Massive diorite-andesite flows and intrusives. 2c) Pillowed andesitic flows.
 - 1 Tuffaceous sandstone, siltstone, minor argillite and chloritic schist. 1a) Andesitic flows, lapilli tuff and chloritic schist. 1b) Massive diorite-andesite flows and/or intrusives.

FUNDAMENTAL RESOURCES CORP.

PROPERTY GEOLOGY

FIGURE 4 June, 01

○ outline of outcrop

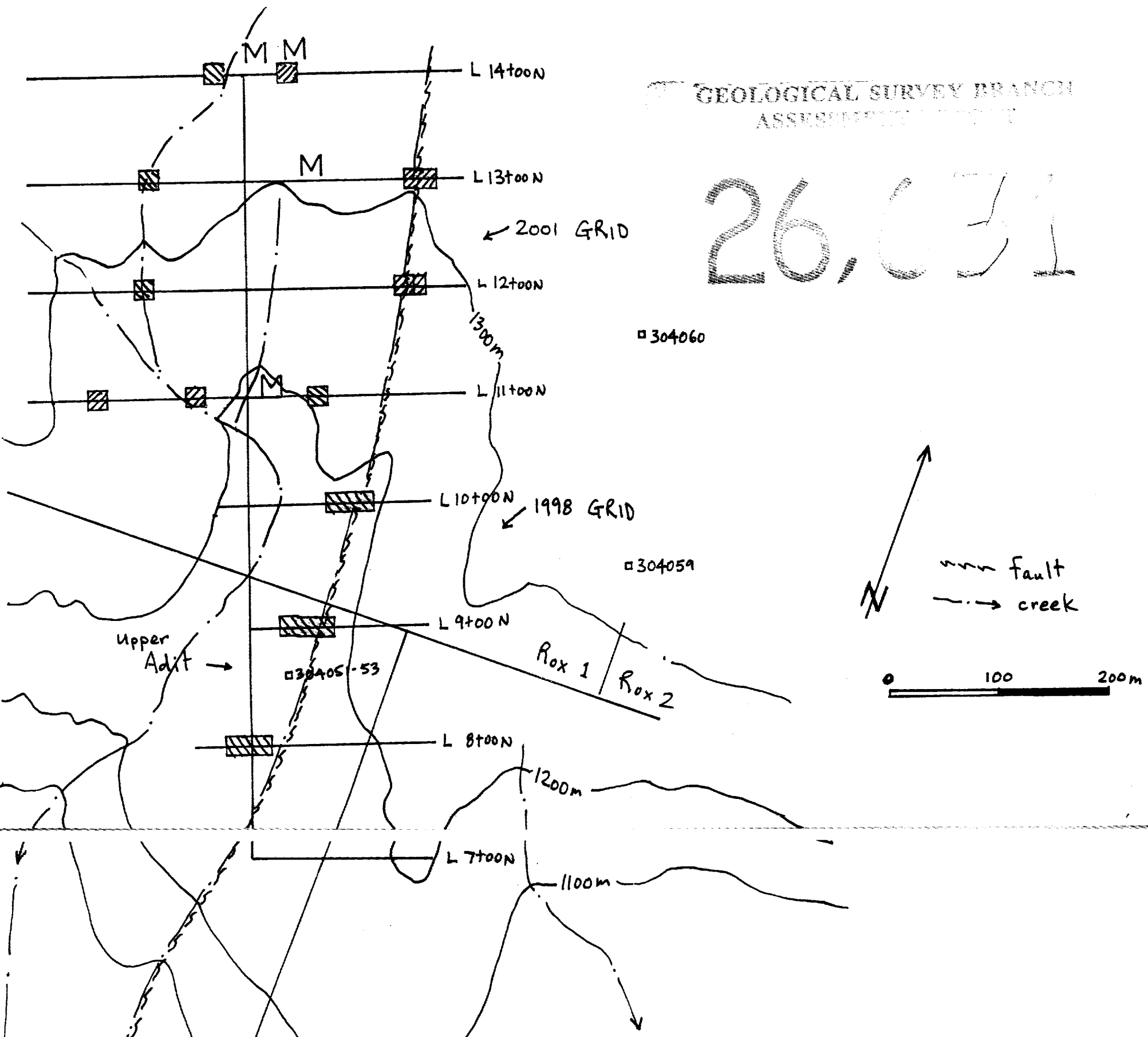


~~~~~ FAULT/SHEAR    - - - BEDDING    <- - FOLIATION    - - - CREEK

Mt. Diadem  
+  
1765m.



26,031



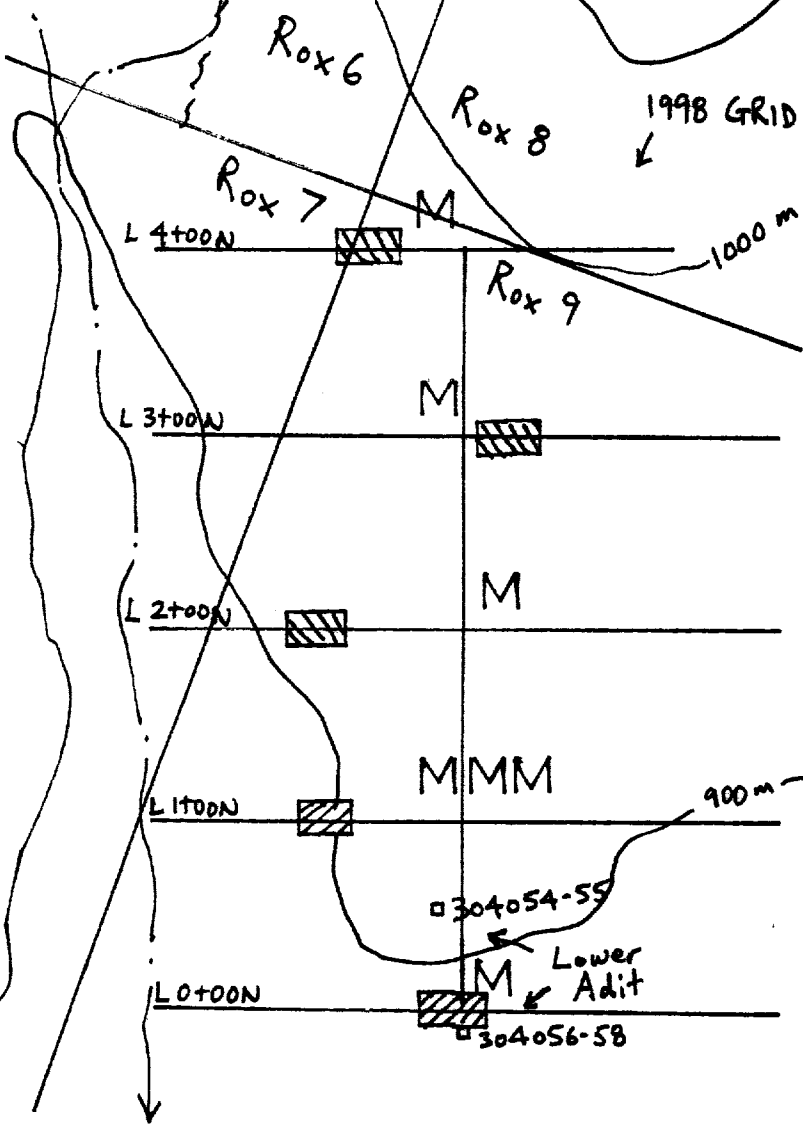
FUNDAMENTAL RESOURCES CORP.

FIG. 5 GEOPHYSICS AND ROCK GEOCHEM COMPILATION

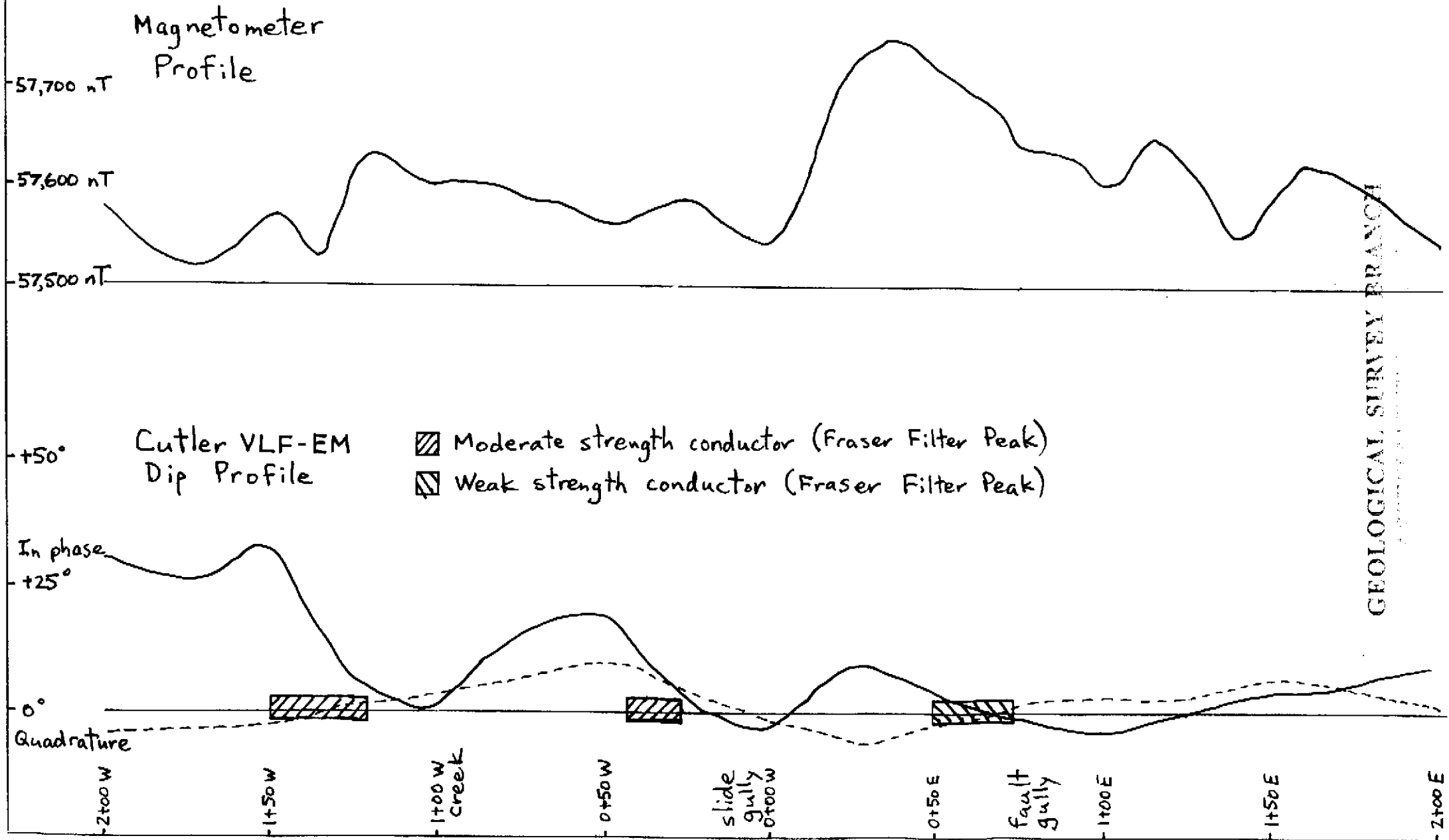
- 304051 ROCK CHIP SAMPLE
- M MAGNETOMETER VALUES >57,650 Nt
- ▨ VLF-EM WEAK CONDUCTOR
- ▩ VLF-EM MODERATE CONDUCTOR

| Sample No. | Elev. (m.) | Width (m.) | Description                                                | %Cu  | %Pb  | %Zn  | g/t Ag | g/t Au |
|------------|------------|------------|------------------------------------------------------------|------|------|------|--------|--------|
| 304051     | 1160 m     | 0.5 m      | Upper Adit, chl., 10% qtz., 15% pyo., 6% cp. 1% ga. 3% sp. | 1.39 | 0.29 | 1.14 | >100   | 1.49   |
| 304052     | 1160 m     | 0.5 m      | Upper Adit, chl., 10% qtz., 15% pyo., 4% cp. 1% ga. 3% sp. | 1.51 | 0.25 | 1.37 | >100   | 0.01   |
| 304053     | 1160 m     | 1.0 m      | Upper Adit, chl., ep., qtz., 8% pyo., 2% cp. 1% ga. 1% sp. | 0.86 | 0.19 | 0.97 | >100   | 0.01   |
| 304054     | 920 m      | 0.5 m      | Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp. | 0.97 | 0.22 | 7.38 | >100   | 0.03   |
| 304055     | 920 m      | 0.5 m      | Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp. | 0.53 | 0.06 | 2.81 | 72.3   | 0.04   |
| 304056     | 890 m      | 0.5 m      | Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp. | 0.48 | 0.63 | 2.42 | >100   | 0.07   |
| 304057     | 890 m      | 0.5 m      | Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp. | 0.17 | 0.98 | 5.05 | >100   | 0.13   |
| 304058     | 890 m      | 1.0 m      | Lower Adit, chl., ep., qtz., 5% pyo., 4% cp. 2% ga. 8% sp. | 0.11 | 0.60 | 1.09 | 54.2   | 0.01   |

| Sample No. | Elev. (m.) | Width (m.) | Description                                                            | %SiO <sub>2</sub> | %MgO | %CaO  | %K <sub>2</sub> O | Ba ppm |
|------------|------------|------------|------------------------------------------------------------------------|-------------------|------|-------|-------------------|--------|
| 304059     | 1200 m     | 1.0 m      | Altered felsite, 0.1-2.0 cm pink bands, 10% qtz as 0.1-0.5 cm wide vns | 59.82             | 3.00 | 11.78 | 1.87              | 1312   |
| 304060     | 1240 m     | 1.0 m      | Altered felsite, chalky white, 15% qtz as 0.1-1.0 cm wide vns, 3% ep   | 69.44             | 2.09 | 5.82  | 0.15              | 144    |



**FIG. 6A L 11+00 N**



26/1/77

**FIG. 6B L 12+00N**

Magnetometer  
Profiles

26,631

-57,700 nT

-57,600 nT

-57,500 nT

Cutler VLF-EM  
Dip Profiles

▨ Moderate strength conductor (Fraser Filter Peak)  
▨ Weak strength conductor (Fraser Filter Peak)

+50°

+25°  
In phase

0°  
Quadrature

-2+00 W

-1+50 W  
creek

creek  
-1+00 W

-0+50 W

-0+00 W

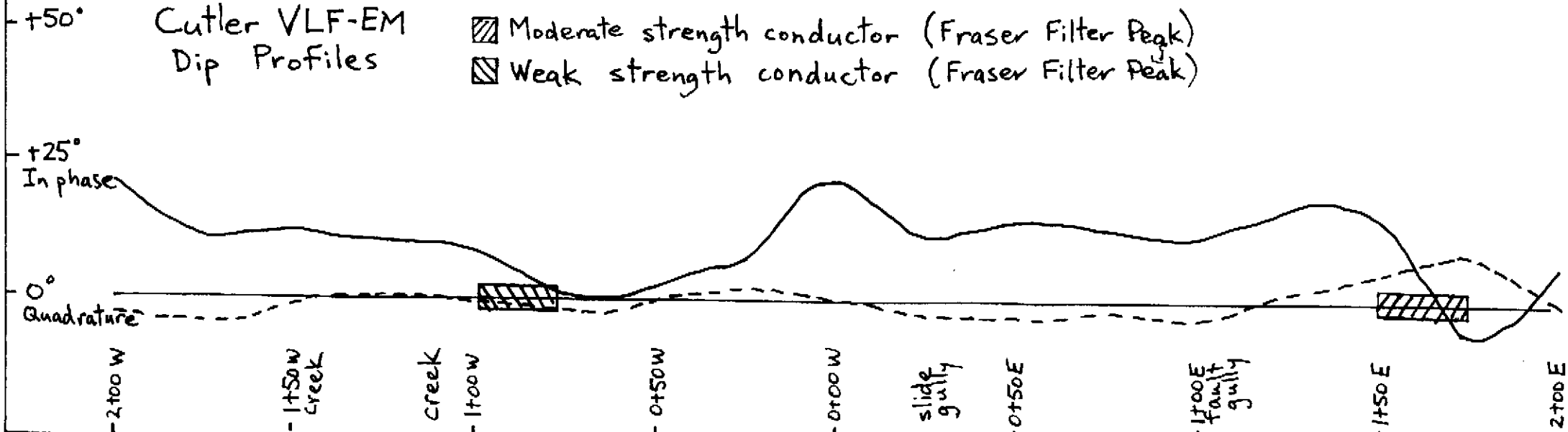
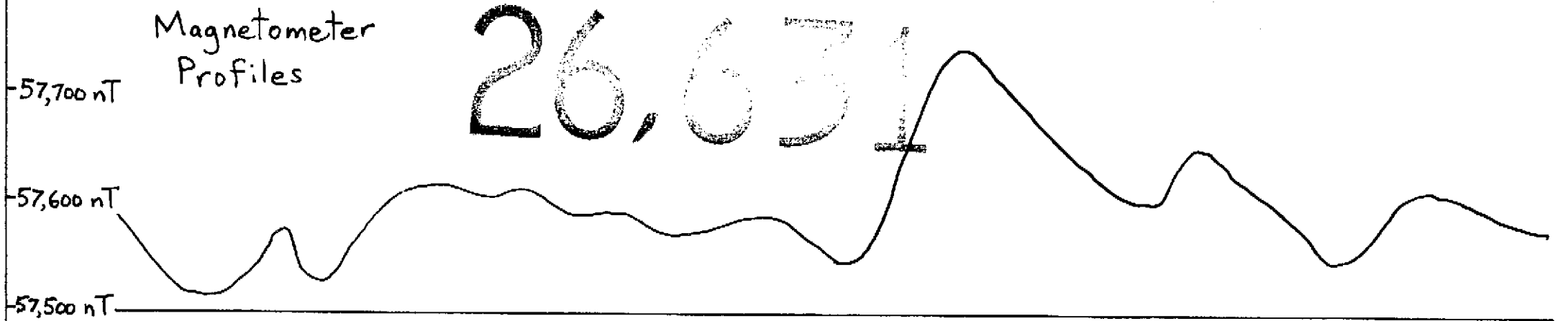
slide  
gully

-0+50 E

-1+00 E  
fault  
gully

-1+50 E

-2+00 E



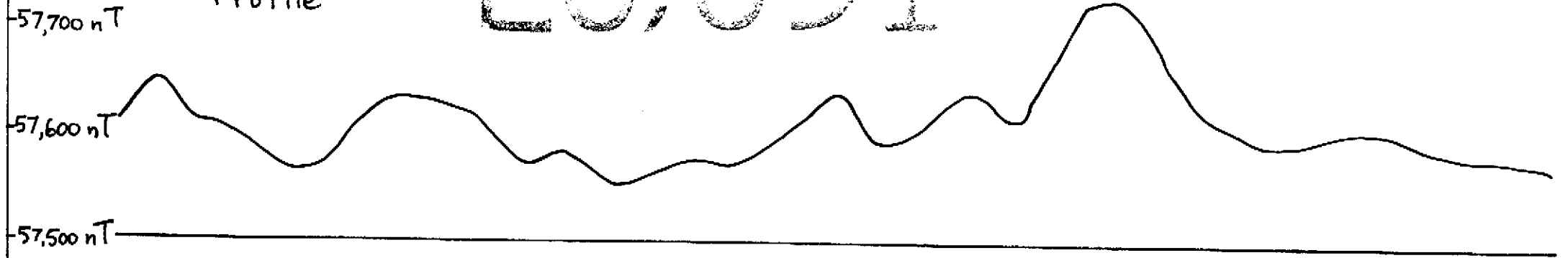


26,631

FIG. 6C

L 13+00 N

Magnetometer Profile

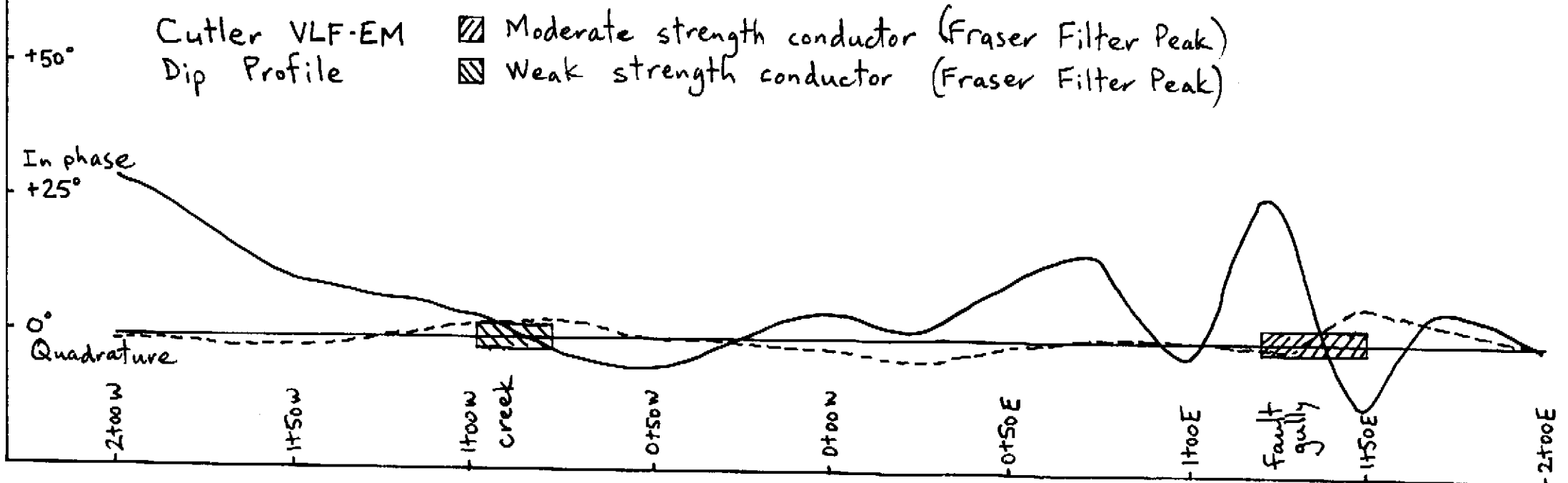


Cutler VLF-EM Dip Profile

▨ Moderate strength conductor (Fraser Filter Peak)  
 ▩ Weak strength conductor (Fraser Filter Peak)

In phase +25°

0° Quadrature



-2+00 W

-1+50 W

1+00 W creek

0+50 W

0+00 W

-0+50 E

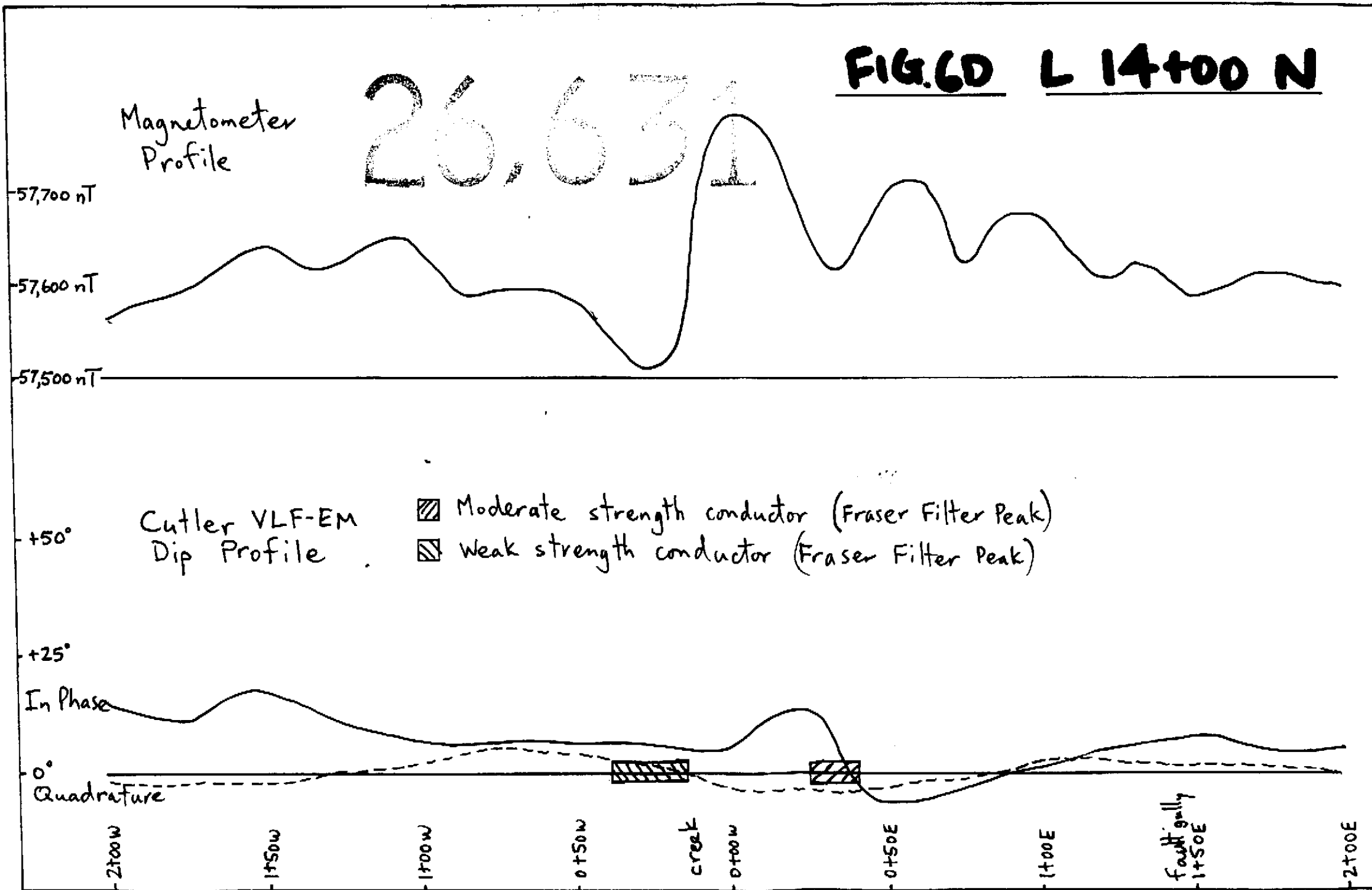
-1+00 E

fault gully

-1+50 E

-2+00 E

FIG. 6D L 14+00 N





# Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V3A 4P9  
PHONE (604) 888-1323 • FAX (604) 888-3642

Report 010363 for

**Andris Kikauka,**  
**Fundamental Resource Corp.,**  
**4083 Monarch Place,**  
**Victoria, B.C., V8N 4B9**

**June 2001**

**Samples: 304052, 304055, 304057, 304059, 304060**

## **Summary:**

**Sample 304052 (upper adit)** is a moderately foliated, cherty argillite dominated by quartz and possibly plagioclase. It was cut by early veinlets of quartz, a few of which contain patches of galena. Replacement bands are of garnet, with or without sulfide inclusions. It was brecciated and replaced/cemented irregularly by abundant patches of plagioclase, quartz, sulfides, garnet, ankerite, and tremolite, with minor epidote and diopside. Sulfides are dominated by pyrrhotite with lesser chalcopyrite, much less abundant sphalerite, and trace galena and arsenopyrite. Minor late patches and veinlets are of chlorite and limonite.

**Sample 304055 (lower adit A)** is a metamorphosed latite that is dominated by slightly foliated intergrowths of plagioclase with minor to moderately abundant sericite, and minor chlorite and quartz. Lenses and seams parallel to foliation are rich in sericite and contain disseminated ilmenite. Abundant replacement patches are of sulfides and lesser quartz. Sulfides are dominated by pyrrhotite and sphalerite, with less abundant chalcopyrite and minor arsenopyrite and galena.

**Sample 304057 (lower adit B)** is a cryptocrystalline to extremely fine grained latite dominated by plagioclase with much less abundant quartz and minor ilmenite. In 2/3 of the sample it contains minor to moderately abundant interstitial flakes and lensy patches of chlorite. At one end, it was replaced moderately along foliation by epidote. Later, the rock was cut by veinlets and replaced in irregular patches by aggregates of one or more of epidote, quartz, pyrrhotite, chalcopyrite, sphalerite, chlorite, and locally garnet. A vein at one end of the section is dominated by sphalerite with lesser chlorite and minor chalcopyrite. A vein in one corner is of quartz with minor disseminated garnet, chlorite, and epidote.

**Sample 304059 (wallrock Unit 2A)** contains three main zones. The dark grey zone at one end (Zone A) is a cherty latite with abundant calcsilicate alteration. The central zone (Zone B) is a latite that was replaced strongly by lensy bands of K-feldspar and patches of calcsilicate. At the other end (Zone C) is andesite/latite that contains minor lathy plagioclase grains. Veinlets and veins are of calcsilicate-K-feldspar and of calcsilicate-tremolite/actinolite-(chlorite). Minor veinlets are of epidote-(quartz).

**Sample 304060 (wallrock Unit 2A)** is a very fine grained latite dominated by plagioclase with much less abundant quartz, and minor tremolite and sphene. The texture suggests that it is in a zone of contact metamorphism. Near one end is an irregular, branching vein up to 10 mm wide dominated by quartz. At the other end is a replacement patch dominated by epidote with less abundant quartz. A few wispy veinlets are of one or more of chlorite, epidote, quartz, and tremolite. One discontinuous veinlet is of diopside-(quartz).

A handwritten signature in black ink that reads "John G. Payne". The signature is written in a cursive, flowing style.

**John G. Payne, Ph.D.,**

**Tel: (604)-986-2928**

**Fax: (604)-983-3318**

**email: [johnpayn@istar.ca](mailto:johnpayn@istar.ca)**

**Sample 304059 (wallrock Unit 2A) Latite/Andesite; Replacement by K-feldspar-Calcsilicate;  
Veinlets: Calcsilicate-K-feldspar, Calcsilicate-Tremolite/Actinolite-Chlorite**

The sample contains three main zones. The dark grey zone at one end (Zone A) is a cherty latite with abundant calcsilicate alteration. The central zone (Zone B) is a latite that was replaced strongly by lensy bands of K-feldspar and patches of calcsilicate. At the other end (Zone C) is andesite/latite that contains minor lathy plagioclase grains. Veinlets and veins are of calcsilicate-K-feldspar and of calcsilicate-tremolite/actinolite-(chlorite). Minor veinlets are of epidote-(quartz).

| <b>mineral</b>                             | <b>abundance</b> | <b>main grain size range (mm)</b>     |
|--------------------------------------------|------------------|---------------------------------------|
| plagioclase                                | 50-55%           | 0.005-0.01                            |
| clinozoisite                               | 20-25            | 0.01-0.02                             |
| K-feldspar                                 | 15-17            | 0.02-0.05, coarser patches 0.1-0.4 mm |
| Ti-oxide                                   | 0.3              | 0.005-0.01                            |
| <b>veinlets, veins</b>                     |                  |                                       |
| calcsilicate-(K-feldspar)                  | 2-3              |                                       |
| calcsilicate-actinolite-chlorite-(epidote) | 1                |                                       |
| epidote-(quartz)                           | minor            |                                       |

Zone A is dominated by slightly interlocking, equant grains of plagioclase with much less abundant quartz. It was replaced moderately by wispy calcsilicate seams parallel to foliation and strongly in bands up to 1.5 mm wide by interlocking grains of calcsilicate. The calcsilicate may be zoisite/clinozoisite; it has a lower birefringence than epidote.

A few veinlets of similar calcsilicate cut the rock about perpendicular to the foliation. Two discontinuous veins up to 1.5 mm wide are of slightly coarser grained calcsilicate. They contain 5-25% interstitial patches up to 1 mm in size of K-feldspar grains mainly from 0.1-0.2 mm in size.

Zone B is replaced strongly. Some bands up to a few mm across are of extremely fine grained K-feldspar, some of which contain moderately abundant disseminated calcsilicate and some of which contain up to 5% disseminated quartz. Some patches up to a few mm across are of coarser grained, slightly interlocking K-feldspar grains and disseminated grains of calcsilicate (probably epidote). Other patches up to several mm across are of cryptocrystalline to extremely fine grained calcsilicate.

One replacement patch up to a few mm across is of an intimate intergrowth of irregular fine grains of quartz and K-feldspar, and very fine grains of epidote.

Zone C contains minor lathy plagioclase grains up to 0.1 mm long in an extremely fine grained groundmass of plagioclase, sericite, biotite, and calcsilicate. It was replaced in irregular, somewhat diffuse patches by extremely fine grained K-feldspar.

It is cut by a few veinlets and veins up to 0.4 mm wide dominated by calcsilicate with much less abundant light to medium green actinolite and light green chlorite, and minor disseminated epidote. Grains of this calcsilicate range up to 0.3 mm in size, and many have an inclined extinction of about 40°. The R.I. is too low for clinopyroxene.

A few late veinlets up to 0.1 mm wide are of calcsilicate. These are cut at a small angle by a few subparallel veinlets up to 0.01 mm wide of epidote(?) and quartz.

**Sample 304052 (upper adit) Cherty Argillite; Replacement Patches of Quartz-  
Plagioclase-Pyrrhotite-Garnet-Ankerite-Chalcopyrite-Sphalerite**

The sample is a moderately foliated, cherty argillite dominated by quartz and possibly plagioclase. It was cut by early veinlets of quartz, a few of which contain patches of galena. Replacement bands are of garnet, with or without sulfide inclusions. It was brecciated and replaced/cemented irregularly by abundant patches of plagioclase, quartz, sulfides, garnet, ankerite, and tremolite, with minor epidote and diopside. Sulfides are dominated by pyrrhotite with lesser chalcopyrite, much less abundant sphalerite, and trace galena and arsenopyrite. Minor late patches and veinlets are of chlorite and limonite.

| <b>mineral</b>                | <b>abundance</b> | <b>main grain size range (mm)</b> |
|-------------------------------|------------------|-----------------------------------|
| <b>argillite</b>              |                  |                                   |
| quartz/plagioclase            | 17-20%           | cryptocrystalline-0.005           |
| early quartz veinlets         | 3- 4             | 0.01-0.03                         |
| galena                        | trace            | 0.02-0.05                         |
| <b>replacement</b>            |                  |                                   |
| quartz                        | 20-25            | 0.05-0.1                          |
| plagioclase                   | 20-25            | 0.1-0.3                           |
| pyrrhotite                    | 10-12            | 0.1-0.5                           |
| garnet                        | 4- 5             | 0.1-0.5                           |
| tremolite                     | 4- 5             | 0.05-0.2                          |
| ankerite                      | 3- 4             | 0.01-0.3                          |
| chalcopyrite                  | 3- 4             | 0.1-0.5                           |
| sphalerite                    | 1- 2             | 0.05-0.3                          |
| diopside                      | 0.2              | 0.2-0.5                           |
| epidote                       | 0.2              | 0.05-0.1                          |
| arsenopyrite                  | trace            | 0.02-0.05                         |
| <b>late patches, veinlets</b> |                  |                                   |
| chlorite                      | 0.2              | cryptocrystalline                 |
| limonite                      | minor            | isotropic                         |

Several patches (possibly brecciated fragments) up to 1 cm across are of moderately banded, cherty argillite dominated by slightly interlocking, equant grains of quartz and possibly some plagioclase. (Grain size is too fine to distinguish quartz and plagioclase optically, but the abundance of plagioclase in the replacement patches suggests that some of the host rock was plagioclase.) Much of this contains dusty, non-reflective opaque that is concentrated in wispy trains parallel to foliation and which gives the rock a grey colour in thin section and a dark grey to black colour in hand sample. Several patches are replaced by bands of massive garnet up to 0.3 mm wide with some of the delicate host-rock texture preserved in the garnet aggregates. Some patches in this garnet also contain abundant dusty, non-reflective opaque inclusions that make the mineral opaque in transmitted light. Some contain minor to moderately abundant, irregular inclusions of one or more of sphalerite, chalcopyrite, pyrrhotite, and galena.

Many argillite fragments are cut by a network of unoriented, irregular quartz veins mainly from 0.03-0.1 mm wide and locally from 0.3-1 mm wide. A few of these contain minor patches up to 0.1 mm in size of galena and other sulfides.

(continued)

The replacement patches are variable in composition and texture and may be of more than one age.

Some patches are dominated by equant plagioclase grains intergrown with ankerite and interstitial patches of sulfides. Much of the ankerite probably was formed by replacement of plagioclase.

Sulfide-rich patches are irregular in outline and commonly are rimmed by zones of tremolite. Pyrrhotite forms equant grains, many of which are coarsely intergrown with patches of chalcopyrite. Locally, pyrrhotite was replaced along fractures by secondary pyrite. Many smaller patches of pyrrhotite and/or chalcopyrite are intergrown intimately with silicates, mainly tremolite or garnet. Chalcopyrite is concentrated moderately near one end of the section as coarse patches intergrown with pyrrhotite and minor sphalerite.

Sphalerite forms anhedral patches mainly less than 1 mm in size; it is deep reddish brown in colour.

Garnet forms a few patches up to 2 mm across of anhedral, equant grains that are surrounded by interstitial pyrrhotite and cut by a few wispy veinlets of pyrrhotite.

Ankerite forms extremely fine grained replacement patches in plagioclase and a few coarser grained patches from 0.1-0.3 mm in grain size.

Diopside occurs in a few patches up to 1.5 mm across as equant, anhedral grains.

Epidote occurs in a few patches as equant to prismatic and locally acicular grains intergrown with quartz, and containing tiny inclusions of chalcopyrite.

Arsenopyrite forms subhedral to euhedral grains that are concentrated in a few replacement patches of quartz and less commonly with pyrrhotite.

Chlorite is concentrated near one end of the section as patches from 0.1-0.2 mm in size interstitial to pyrrhotite and chalcopyrite, and as wispy veinlets up to 0.03 mm wide. It has a light, brownish green colour. Associated with chlorite in patches and veinlets are patches of isotropic, orange limonite.

**Sample 304055 (lower adit A)****Latite; Replacement Patches of Pyrrhotite-Sphalerite-Quartz-Chalcopyrite**

The sample is a metamorphosed latite that is dominated by slightly foliated intergrowths of plagioclase with minor to moderately abundant sericite, and minor chlorite and quartz. Lenses and seams parallel to foliation are rich in sericite and contain disseminated ilmenite. Abundant replacement patches are of sulfides and lesser quartz. Sulfides are dominated by pyrrhotite and sphalerite, with less abundant chalcopyrite and minor arsenopyrite and galena.

| <b>mineral</b>             | <b>abundance</b> | <b>main grain size range (mm)</b>   |
|----------------------------|------------------|-------------------------------------|
| plagioclase                | 50-55%           | 0.005-0.02                          |
| sericite                   | 12-15            | 0.005-0.05                          |
| quartz                     | 5- 7             | 0.03-0.05                           |
| chlorite                   | 4- 5             | 0.005-0.02                          |
| ilmenite                   | 0.7              | 0.02-0.03                           |
| <b>replacement patches</b> |                  |                                     |
| pyrrhotite                 | 10-12            | 0.2-1                               |
| sphalerite                 | 4- 5             | 0.2-1                               |
| quartz                     | 4- 5             | 0.05-0.2                            |
| chalcopyrite               | 2- 3             | 0.2-0.7                             |
| arsenopyrite               | minor            | 0.03-0.05, a few up to 0.08 mm long |
| galena                     | trace            | 0.02-0.05                           |

Much of the groundmass is dominated by equant plagioclase grains with minor sericite, chlorite, and quartz. Several seams and lenses up to 2.5 mm wide are dominated by sericite with 2-5% disseminated lenses of ilmenite. Some of these may be fragments, but deformation has obscured textures too much to be certain of their origin. Some patches are of plagioclase containing minor to very abundant disseminated sericite; these contain only minor ilmenite in contrast to the sericite-rich bands that contain much more abundant ilmenite.

Replacement patches up to several mm across are dominated by sulfides and quartz. Pyrrhotite and red-brown sphalerite form patches up to a few mm in size. Pyrrhotite is replaced moderately along grain borders and fractures by patches of secondary pyrite-(siderite). Some sphalerite grains contain minor to 2% exsolution inclusions of chalcopyrite mainly from 1-5 microns in size and a few related lenses up to 0.03 mm long.

Chalcopyrite forms a few coarse patches up to 1 mm in size intergrown with pyrrhotite, and smaller grains that are mainly intergrown with sphalerite and quartz.

Quartz forms anhedral to euhedral grains enclosed in sulfides and patches of anhedral grains bordering sulfide patches.

Arsenopyrite forms a few disseminated euhedral grains and clusters of grains in quartz and in adjacent patches of sulfides, mainly associated with sphalerite. One patch 0.2 mm across consists of skeletal, subhedral arsenopyrite grains intergrown intimately with patches of pyrrhotite and sphalerite.

Galena forms a few grains associated with patches of sphalerite-chalcopyrite and with chalcopyrite in quartz.

A few discontinuous veinlets up to 0.01 mm wide of pyrrhotite cut a few grains of sphalerite.



**Sample 304057 (lower adit B) Latite; Epidote Alteration;  
Veins/Replacement: Epidote-Quartz-Pyrrhotite-Sphalerite-Chlorite  
Veins: Sphalerite-(Chlorite-Galena-Chalcopyrite-Pyrrhotite), Quartz**

The sample is a cryptocrystalline to extremely fine grained latite dominated by plagioclase with much less abundant quartz and minor ilmenite. In 2/3 of the sample it contains minor to moderately abundant interstitial flakes and lensy patches of chlorite. At one end, it was replaced moderately along foliation by epidote. Later, the rock was cut by veinlets and replaced in irregular patches by aggregates of one or more of epidote, quartz, pyrrhotite, chalcopyrite, sphalerite, chlorite, and locally garnet. A vein at one end of the section is dominated by sphalerite with lesser chlorite and minor chalcopyrite. A vein in one corner is of quartz with minor disseminated garnet, chlorite, and epidote.

| <b>mineral</b>                            | <b>abundance</b> | <b>main grain size range (mm)</b> |
|-------------------------------------------|------------------|-----------------------------------|
| plagioclase                               | 60-65%           | cryptocrystalline-0.02            |
| epidote                                   | 5- 7             | 0.01-0.03                         |
| chlorite                                  | 3- 4             | 0.005-0.02                        |
| quartz                                    | 3- 4             | 0.01-0.02                         |
| ilmenite                                  | 0.3              | 0.01-0.02                         |
| <b>replacement and veinlets</b>           |                  |                                   |
| epidote                                   | 8-10             | 0.01-0.1                          |
| quartz                                    | 5- 7             | 0.03-0.05                         |
| pyrrhotite                                | 2- 3             | 0.05-0.5                          |
| chalcopyrite                              | 1                | 0.02-0.7                          |
| chlorite                                  | 1                | 0.02-0.05                         |
| sphalerite                                | 0.5              | 0.1-0.3                           |
| garnet                                    | 0.3              | 0.2-1.2                           |
| galena                                    | 0.3              | 0.02-0.7                          |
| tremolite                                 | 0.3              | 0.02-0.05                         |
| <b>veins, sulfide-rich lenses</b>         |                  |                                   |
| sphalerite-galena-chlorite-(chalcopyrite) | 3- 4             | 0.1-0.8                           |
| quartz                                    | 1- 2             | 0.03-0.5                          |

The host rock is dominated by interlocking plagioclase and much less abundant quartz. At one end (lighter green in hand sample), plagioclase is replaced pervasively in very irregular patches and seams parallel to foliation by epidote. Bordering some sulfide-rich replacement patches, the epidote alteration of the rock is very strong. In the rest of the sample (darker green), chlorite is interstitial to plagioclase and is concentrated locally in patches up to 0.5 mm in size. Quartz forms grains intergrown with plagioclase, and commonly difficult to distinguish optically from plagioclase. It also is concentrated in wispy quartz-rich patches and veinlets. Ilmenite forms disseminated grains and lenses.

Coarser grained replacement patches up to a few mm across are dominated by epidote and/or quartz with minor to abundant pyrrhotite and chalcopyrite, lesser sphalerite, and minor galena. Some replacement patches contain chlorite. One large patch contains moderately abundant tremolite intergrown intimately with epidote and with chalcopyrite.

(continued)

Sulfide-rich patches are up to a few mm across. Most are dominated by pyrrhotite with lesser chalcopyrite and sphalerite. Pyrrhotite is altered slightly in irregular patches to secondary pyrite-(siderite). In some patches, sulfides are intergrown intimately with epidote. Galena forms disseminated patches in epidote.

A few irregular vein-like replacement patches up to 2 mm wide in the chlorite-bearing part of the rock contain scattered, ragged patches up to 1.2 mm in size of garnet. Some of these contain up to 5% very fine grained inclusions of galena and minor chalcopyrite. Surrounding garnet grains are irregular intergrowths of very fine grained epidote and/or chlorite and coarser grained quartz.

A few, subparallel sulfide-rich lenses and veins up to 1.5 mm across are dominated by sphalerite with much less pyrrhotite and chalcopyrite. One of these contains a few patches up to 0.8 mm in size of galena. This lens contains patches of quartz and epidote, and borders a zone of strong epidote-alteration in the host rock. Near one end of the section, a vein up to 1.5 mm wide is dominated by red-brown sphalerite with much less abundant patches of chlorite and of quartz and minor patches of chalcopyrite and pyrrhotite.

In one corner of the section is a vein 0.7 mm wide dominated by prismatic quartz grains oriented perpendicular to vein walls. Scattered much finer grains are of epidote, garnet, and chlorite.

A set of three parallel quartz-rich veinlets up to 0.2 mm wide cut the chlorite-bearing part of the rock.

**Sample 304060 (wallrock Unit 2A) Latite; Quartz Vein;  
Veinlets of Chlorite, Epidote, Quartz, Diopside**

The sample is a very fine grained latite dominated by plagioclase with much less abundant quartz, and minor tremolite and sphene. The texture suggests that it is in a zone of contact metamorphism. Near one end is an irregular, branching vein up to 10 mm wide dominated by quartz. At the other end is a replacement patch dominated by epidote with less abundant quartz. A few wispy veinlets are of one or more of chlorite, epidote, quartz, and tremolite. One discontinuous veinlet is of diopside-(quartz).

| <b>mineral</b>                       | <b>abundance</b> | <b>main grain size range (mm)</b>         |
|--------------------------------------|------------------|-------------------------------------------|
| plagioclase                          | 70-75%           | 0.02-0.07, a few from 0.1-0.2 mm          |
| quartz                               | 7- 8             | 0.05-0.1                                  |
| tremolite                            | 1- 2             | 0.05-0.2, a few up to 1 mm                |
| sphene                               | 1- 2             | 0.02-0.15                                 |
| epidote                              | 0.3              | 0.03-0.05                                 |
| <b>replacement patch</b>             |                  |                                           |
| epidote                              | 2- 3             | 0.05-0.3, a few grains from 0.7-1 mm long |
| quartz                               | 1                | 0.05-0.2                                  |
| <b>veins, veinlets</b>               |                  |                                           |
| quartz                               | 12-15            | 0.1-1                                     |
| diopside-quartz                      | 0.1              | 0.3-1.5                                   |
| chlorite, epidote, quartz, tremolite | minor            | 0.02-0.05                                 |

Plagioclase forms anhedral, equant, slightly interlocking grains. Adjacent to patches of quartz, it commonly is coarser grained than normal.

Quartz forms disseminated grains, in part interstitial to plagioclase. It is concentrated moderately in coarser grained patches up to a few mm across, in which it is intergrown with plagioclase.

Tremolite forms disseminated, ragged to equant, prismatic grains, and is concentrated in a few irregular patches of coarser, in part porphyroblastic grains.

Sphene forms abundant disseminated anhedral grains and clusters up to 0.5 mm in size of grains. One cluster is intergrown with a patch of epidote.

Epidote forms minor disseminated grains, mainly associated with tremolite.

At one end of the section is a replacement zone up to a few mm across dominated by epidote with patches of quartz. Epidote forms irregular, interlocking grains and a few subhedral prismatic grains up to 1 mm long.

A branching vein zone up to 1 cm wide is of quartz. Quartz is strained slightly to moderately and in places has slightly sutured grain borders. Plagioclase forms a few equant, anhedral grains up to 0.5 mm in size, probably recrystallized from wall-rock plagioclase. Near the vein are a few anhedral grains up to 1 mm in size of epidote. The quartz vein is cut by a discontinuous veinlet 0.08 mm wide of epidote.

A veinlet 0.2 mm wide is of porphyroblastic diopside grains and minor quartz.

Chlorite forms a discontinuous veinlet up to 0.05 mm wide.

A few wispy veinlets are of one or more of quartz, epidote, and tremolite.

ROX CLAIMS VLF-EM AND MAGNETOMETER DATA- MAY, 2001

| Line    | Station | Quadrature | Cutler Dip | Sum | Fraser Filter | Mag reading | Topo remark     |
|---------|---------|------------|------------|-----|---------------|-------------|-----------------|
| 11+00 N | 2+00 W  | -5         | 30         |     |               | 57590       |                 |
|         |         |            |            | 56  |               | 57540       |                 |
|         | 1+75 W  | -3         | 26         |     |               | 57520       |                 |
|         |         |            |            | 55  | 21            | 57530       |                 |
|         | 1+50 W  | -3         | 29         |     |               | 57580       |                 |
|         |         |            |            | 35  | 49            | 57520       |                 |
|         | 1+25 W  | 2          | 6          |     |               | 57620       |                 |
|         |         |            |            | 6   | 20            | 57630       |                 |
|         | 1+00 W  | 3          | 0          |     |               | 57600       | main ck.        |
|         |         |            |            | 15  | -29           | 57620       |                 |
|         | 0+75 W  | 7          | 15         |     |               | 57590       |                 |
|         |         |            |            | 35  | -7            | 57580       |                 |
|         | 0+50 W  | 11         | 20         |     |               | 57560       |                 |
|         |         |            |            | 22  | 37            | 57590       |                 |
|         | 0+25 W  | 4          | 2          |     |               | 57590       |                 |
|         |         |            |            | -2  | 15            | 57570       | slide gulley    |
|         | 0+00 W  | -2         | -4         |     |               | 57540       |                 |
|         |         |            |            | 7   | -17           | 57590       |                 |
|         | 0+25 E  | -6         | 11         |     |               | 57720       |                 |
|         |         |            |            | 15  | 5             | 57750       |                 |
|         | 0+50 E  | -3         | 4          |     |               | 57710       |                 |
|         |         |            |            | 2   | 22            | 57690       |                 |
|         | 0+75 E  | 1          | -2         |     |               | 57630       | fault gully ck. |
|         |         |            |            | -7  | 7             | 57620       |                 |
|         | 1+00 E  | 3          | -5         |     |               | 57600       |                 |
|         |         |            |            | -5  | -11           | 57660       |                 |
|         | 1+25 E  | 3          | 0          |     |               | 57610       |                 |
|         |         |            |            | 4   | -15           | 57550       |                 |
|         | 1+50 E  | 6          | 4          |     |               | 57590       |                 |
|         |         |            |            | 10  | -11           | 57640       |                 |
|         | 1+75 E  | 4          | 6          |     |               | 57600       |                 |
|         |         |            |            | 15  |               | 57580       |                 |
|         | 2+00 E  | 1          | 9          |     |               | 57550       |                 |

## ROX CLAIMS VLF-EM AND MAGNETOMETER DATA- MAY, 2001

| Line    | Station | Quadrature | Cutler Dip | Sum | Fraser Filter | Mag reading | Topo remark     |
|---------|---------|------------|------------|-----|---------------|-------------|-----------------|
| 12+00 N | 2+00 W  | -3         | 22         |     |               | 57590       |                 |
|         |         |            |            | 32  |               | 57540       |                 |
|         | 1+75 W  | -5         | 10         |     |               | 57520       |                 |
|         |         |            |            | 22  | 11            | 57530       |                 |
|         | 1+50 W  | -1         | 12         |     |               | 57580       | main ck.        |
|         |         |            |            | 21  | 3             | 57520       |                 |
|         | 1+25 W  | 1          | 9          |     |               | 57620       |                 |
|         |         |            |            | 18  | 12            | 57630       | ck.             |
|         | 1+00 W  | -1         | 9          |     |               | 57600       |                 |
|         |         |            |            | 9   | 16            | 57620       |                 |
|         | 0+75 W  | -2         | 0          |     |               | 57590       |                 |
|         |         |            |            | 2   | 0             | 57580       |                 |
|         | 0+50 W  | 1          | 2          |     |               | 57560       |                 |
|         |         |            |            | 9   | -27           | 57590       |                 |
|         | 0+25 W  | 2          | 7          |     |               | 57590       |                 |
|         |         |            |            | 29  | -24           | 57570       |                 |
|         | 0+00 W  | 0          | 22         |     |               | 57540       |                 |
|         |         |            |            | 33  | 4             | 57590       |                 |
|         | 0+25 E  | -3         | 11         |     |               | 57720       | slide gully     |
|         |         |            |            | 25  | 6             | 57750       |                 |
|         | 0+50 E  | -3         | 14         |     |               | 57710       |                 |
|         |         |            |            | 27  | 1             | 57690       |                 |
|         | 0+75 E  | -2         | 13         |     |               | 57630       |                 |
|         |         |            |            | 24  | -1            | 57620       |                 |
|         | 1+00 E  | -3         | 11         |     |               | 57600       | fault gully ck. |
|         |         |            |            | 28  | -8            | 57660       |                 |
|         | 1+25 E  | 3          | 17         |     |               | 57610       |                 |
|         |         |            |            | 32  | 20            | 57550       |                 |
|         | 1+50 E  | 5          | 15         |     |               | 57590       |                 |
|         |         |            |            | 8   | 32            | 57640       |                 |
|         | 1+75 E  | 8          | -7         |     |               | 57600       |                 |
|         |         |            |            | 0   |               | 57580       |                 |
|         | 2+00 E  | 1          | 7          |     |               | 57550       |                 |

ROX CLAIMS VLF-EM AND MAGNETOMETER DATA- MAY, 2001

| Line    | Station | Quadrature | Cutler Dip | Sum | Fraser Filter | Mag reading | Topo remark     |
|---------|---------|------------|------------|-----|---------------|-------------|-----------------|
| 13+00 N | 2+00 W  | -2         | 30         |     |               | 57620       |                 |
|         |         |            |            | 51  |               | 57650       |                 |
|         | 1+75 W  | -2         | 21         |     |               | 57610       |                 |
|         |         |            |            | 33  | 31            | 57600       |                 |
|         | 1+50 W  | -1         | 12         |     |               | 57560       |                 |
|         |         |            |            | 20  | 19            | 57590       |                 |
|         | 1+25 W  | 0          | 8          |     |               | 57640       |                 |
|         |         |            |            | 14  | 16            | 57630       |                 |
|         | 1+00 W  | 3          | 6          |     |               | 57620       |                 |
|         |         |            |            | 4   | 20            | 57570       | ck.             |
|         | 0+75 W  | 4          | -2         |     |               | 57580       |                 |
|         |         |            |            | -6  | 5             | 57550       |                 |
|         | 0+50 W  | 1          | -4         |     |               | 57560       |                 |
|         |         |            |            | -1  | -16           | 57580       |                 |
|         | 0+25 W  | 0          | 3          |     |               | 57570       |                 |
|         |         |            |            | 10  | -11           | 57620       |                 |
|         | 0+00 W  | -2         | 7          |     |               | 57650       |                 |
|         |         |            |            | 10  | -5            | 57590       |                 |
|         | 0+25 E  | -3         | 3          |     |               | 57630       |                 |
|         |         |            |            | 15  | -20           | 57650       |                 |
|         | 0+50 E  | -1         | 12         |     |               | 57610       |                 |
|         |         |            |            | 30  | -1            | 57690       |                 |
|         | 0+75 E  | 1          | 18         |     |               | 57740       |                 |
|         |         |            |            | 16  | 2             | 57710       |                 |
|         | 1+00 E  | 0          | -2         |     |               | 57610       |                 |
|         |         |            |            | 28  | -3            | 57600       |                 |
|         | 1+25 E  | -1         | 30         |     |               | 57600       | fault gully ck. |
|         |         |            |            | 19  | 26            | 57590       |                 |
|         | 1+50 E  | 6          | -11        |     |               | 57610       |                 |
|         |         |            |            | -2  | 9             | 57610       |                 |
|         | 1+75 E  | 3          | 9          |     |               | 57580       |                 |
|         |         |            |            | 10  |               | 57580       |                 |
|         | 2+00 E  | 2          | 1          |     |               | 57570       |                 |

ROX CLAIMS VLF-EM AND MAGNETOMETER DATA- MAY, 2001

| Line    | Station | Quadrature | Cutler Dip | Sum | Fraser Filter | Mag reading | Topo remark     |
|---------|---------|------------|------------|-----|---------------|-------------|-----------------|
| 14+00 N | 2+00 W  | -2         | 15         |     |               | 57560       |                 |
|         |         |            |            | 26  |               | 57580       |                 |
|         | 1+75 W  | -3         | 11         |     |               | 57590       |                 |
|         |         |            |            | 28  | -3            | 57610       |                 |
|         | 1+50 W  | -3         | 17         |     |               | 57640       |                 |
|         |         |            |            | 29  | -3            | 57620       |                 |
|         | 1+25 W  | 0          | 12         |     |               | 57620       |                 |
|         |         |            |            | 31  | -1            | 57630       |                 |
|         | 1+00 W  | 1          | 19         |     |               | 57660       |                 |
|         |         |            |            | 30  | 3             | 57580       |                 |
|         | 0+75 W  | 6          | 11         |     |               | 57590       |                 |
|         |         |            |            | 28  | 16            | 57590       |                 |
|         | 0+50 W  | 4          | 7          |     |               | 57590       |                 |
|         |         |            |            | 14  | 16            | 57560       |                 |
|         | 0+25 W  | 2          | 7          |     |               | 57500       |                 |
|         |         |            |            | 12  | -5            | 57610       | ck.             |
|         | 0+00 W  | -2         | 5          |     |               | 57780       |                 |
|         |         |            |            | 19  | 5             | 57760       |                 |
|         | 0+25 E  | -3         | 14         |     |               | 57640       |                 |
|         |         |            |            | 7   | 28            | 57610       |                 |
|         | 0+50 E  | -3         | -7         |     |               | 57700       |                 |
|         |         |            |            | -9  | 9             | 57730       |                 |
|         | 0+75 E  | -1         | -2         |     |               | 57610       |                 |
|         |         |            |            | -2  | -12           | 57670       |                 |
|         | 1+00 E  | 3          | 0          |     |               | 57630       |                 |
|         |         |            |            | 3   |               | 57650       |                 |
|         | 1+25 E  | 3          | 3          |     | -15           | 57600       |                 |
|         |         |            |            | 13  |               | 57630       |                 |
|         | 1+50 E  | 2          | 10         |     | -12           | 57580       | fault gully ck. |
|         |         |            |            | 15  |               | 57590       |                 |
|         | 1+75 E  | 2          | 5          |     | 2             | 57610       |                 |
|         |         |            |            | 11  |               | 57590       |                 |
|         | 2+00 E  | 1          | 6          |     |               | 57590       |                 |

GEOCHEMICAL ANALYSIS CERTIFICATE

Geo-Facts Consulting File # A101619

4-6-4901 East Sooke Road, Sooke BC V0S 1N0 Submitted by: Andris Kikauks



| SAMPLE#      | Mo    | Cu       | Pb      | Zn      | Ag    | Ni   | Co    | Mn   | Fe    | As     | U   | Au     | Th  | Sr   | Cd     | Sb    | Bi     | V   | Ca | P    | La   | Cr    | Mg   | Ba    | Tl   | B    | Al   | Na   | K    | W   | Sc  | Ti   | S     | Hg   | Se   | Te   | Ga    | Ge  | Sample |    |
|--------------|-------|----------|---------|---------|-------|------|-------|------|-------|--------|-----|--------|-----|------|--------|-------|--------|-----|----|------|------|-------|------|-------|------|------|------|------|------|-----|-----|------|-------|------|------|------|-------|-----|--------|----|
|              | ppm   | ppm      | ppm     | ppm     | ppb   | ppm  | ppm   | ppm  | %     | ppm    | ppm | ppb    | ppm | ppm  | ppm    | ppm   | ppm    | ppm | %  | %    | ppm  | ppm   | %    | ppm   | %    | ppm  | %    | %    | ppm  | ppm | ppm | %    | ppb   | ppm  | ppm  | ppm  | ppm   | ppm | gm     |    |
| 304051       | 2.63  | 13878.64 | 2901.89 | 11353.7 | 99999 | 64.3 | 329.1 | 1063 | 37.85 | 440.8  | .1  | 1490.2 | .1  | 2.3  | 129.71 | 27.18 | 1333   | 67  | 5  | .08  | .004 | <5    | 1.5  | .01   | 8.6  | .001 | <1   | .11  | .007 | .01 | 4   | 2    | .05   | 4.10 | 32   | 81.7 | 11.53 | 7   | .7     | 15 |
| 304052       | 4.81  | 15107.17 | 2457.76 | 13662.9 | 99999 | 29.9 | 147.7 | 2271 | 17.11 | 248.3  | .3  | 12.7   | .5  | 28.2 | 157.02 | 8.15  | 209.07 | 30  | 55 | .028 | 1.3  | 16.5  | .09  | 36.7  | .031 | <1   | .83  | .052 | .15  | .9  | .9  | .16  | 8.81  | 33   | 32.9 | 1.76 | 2.7   | .3  | 15     |    |
| 304053       | 7.15  | 8610.68  | 1891.15 | 9682.0  | 99999 | 27.3 | 127.3 | 1049 | 14.28 | 372.0  | .7  | 2.7    | 1.0 | 18.4 | 104.99 | 5.08  | 121.57 | 30  | 32 | .031 | 1.7  | 11.5  | .07  | 33.0  | .028 | <1   | .63  | .028 | .19  | .9  | .6  | .15  | 10.02 | 16   | 29.4 | 1.25 | 2.1   | .2  | 15     |    |
| 304054       | 3.07  | 9700.36  | 2207.68 | 73753.4 | 99999 | 47.4 | 215.3 | 4401 | 19.99 | 461.2  | <1  | 26.0   | <1  | 4.5  | 887.98 | 3.27  | 132.55 | 26  | 16 | .037 | <5   | 36.7  | .38  | 69.8  | .044 | <1   | 1.07 | .006 | .24  | 6.0 | 3.6 | .09  | 7.62  | 134  | 51.9 | .51  | 4.0   | .4  | 15     |    |
| 304055       | 5.68  | 5328.17  | 625.02  | 28069.2 | 72299 | 30.5 | 108.8 | 3848 | 11.96 | 236.5  | .2  | 37.2   | .3  | 15.7 | 342.20 | 1.68  | 26.07  | 68  | 65 | .040 | 8    | 30.0  | .35  | 76.9  | .072 | 1    | 1.62 | .025 | 31   | 6.4 | 4.3 | .17  | 6.10  | 45   | 16.1 | .05  | 4.5   | .2  | 15     |    |
| 304056       | 2.54  | 4776.47  | 6326.65 | 24182.1 | 99999 | 44.8 | 195.8 | 4657 | 17.97 | 782.2  | .2  | 69.7   | .5  | 5.3  | 308.72 | 5.40  | 180.88 | 160 | 24 | .072 | 1.0  | 8.2   | 1.01 | 107.1 | .066 | <1   | 3.20 | .007 | 26   | 9.3 | 5.5 | .38  | 4.88  | 47   | 37.5 | 3.40 | 11.3  | .6  | 15     |    |
| 304057       | 1.67  | 1700.88  | 9830.87 | 50464.3 | 99999 | 44.6 | 166.4 | 4959 | 13.68 | 1115.2 | <1  | 127.7  | .3  | 7.6  | 593.20 | 8.02  | 235.44 | 146 | 33 | .092 | .7   | 25.4  | 1.09 | 114.5 | .098 | <1   | 3.06 | .008 | 22   | 3.9 | 6.0 | .31  | 4.95  | 90   | 48.7 | 3.05 | 11.2  | .5  | 15     |    |
| 304058       | 15.27 | 1076.82  | 6140.66 | 10947.7 | 54229 | 14.9 | 15.1  | 3899 | 6.01  | 97.3   | .8  | 6.2    | .5  | 28.9 | 125.86 | 7.63  | 53.21  | 76  | 70 | .054 | 1.8  | 22.9  | .32  | 158.1 | .067 | 17   | 1.12 | .007 | 19   | 4.7 | 1.3 | .24  | 1.71  | 33   | 29.3 | 84   | 4.5   | .4  | 15     |    |
| RE 304058    | 14.64 | 1062.89  | 6023.39 | 10801.0 | 53023 | 13.8 | 14.7  | 3819 | 5.90  | 94.4   | .7  | 6.5    | .5  | 27.6 | 123.50 | 7.18  | 51.75  | 76  | 70 | .051 | 1.7  | 21.7  | .32  | 167.0 | .075 | 16   | 1.10 | .006 | .18  | 4.4 | 1.3 | .22  | 1.67  | 31   | 28.3 | .87  | 4.2   | .3  | 15     |    |
| STANDARD DS3 | 9.55  | 123.36   | 35.04   | 154.7   | 270   | 34.1 | 12.1  | 786  | 3.06  | 32.8   | 6.7 | 22.0   | 4.2 | 33.6 | 5.36   | 4.54  | 5.55   | 76  | 55 | .085 | 17.3 | 184.5 | .59  | 156.6 | .099 | 1    | 1.77 | .028 | .17  | 3.5 | 2.7 | 1.10 | .01   | 244  | 1.1  | 1.13 | 6.2   | .1  | 15     |    |

GROUP 1F15 - 15.00 GM SAMPLE, 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 300 ML, ANALYSIS BY ICP/ES & MS.  
 UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.  
 - SAMPLE TYPE: ROCK R150 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUN 11 2001 DATE REPORT MAILED: *June 25/01* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS





WHOLE ROCK ICP ANALYSIS



Geo-Facts Consulting File # A101620  
4-6 4901 East Sooke Road, Sooke BC V0S 1N0 Submitted by: Andris Kikauka

| SAMPLE#            | SiO2  | Al2O3 | Fe2O3 | MgO  | CaO   | Na2O | K2O  | TiO2 | P2O5 | MnO  | Cr2O3 | Ba   | Ni  | Sr  | Zr  | Y   | Nb  | Sc  | LOI | TOT/C | TOT/S | SUM   |
|--------------------|-------|-------|-------|------|-------|------|------|------|------|------|-------|------|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
|                    | %     | %     | %     | %    | %     | %    | %    | %    | %    | %    | %     | ppm  | ppm | ppm | ppm | ppm | ppm | ppm | %   | %     | %     | %     |
| 304059             | 59.82 | 14.39 | 4.94  | 3.00 | 11.78 | 1.84 | 1.87 | .70  | .32  | .10  | .015  | 1312 | 54  | 555 | 124 | 46  | <10 | 20  | .9  | .03   | <.01  | 99.92 |
| 304060             | 69.44 | 13.91 | 1.16  | 2.09 | 5.82  | 5.14 | .15  | .59  | .10  | .06  | .013  | 144  | 22  | 418 | 116 | 29  | 11  | 16  | 1.0 | .01   | <.01  | 99.56 |
| RE 304060          | 69.64 | 13.93 | 1.15  | 2.08 | 5.84  | 5.17 | .15  | .59  | .12  | .06  | .010  | 142  | 22  | 418 | 94  | 27  | 10  | 16  | 1.0 | .03   | <.01  | 99.83 |
| STANDARD SO-15/CSB | 49.14 | 12.81 | 7.35  | 7.28 | 5.85  | 2.36 | 1.94 | 1.71 | 2.70 | 1.38 | 1.045 | 1927 | 85  | 392 | 942 | 24  | 15  | 13  | 5.9 | 2.54  | 5.53  | 99.87 |

GROUP 4A - 0.200 GM SAMPLE BY LIBO2 FUSION, ANALYSIS BY ICP-ES. LOI BY LOSS ON IGNITION.  
TOTAL C & S BY LECO. (NOT INCLUDED IN THE SUM)  
- SAMPLE TYPE: ROCK R150  
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUN 11 2001 DATE REPORT MAILED: *June 20/01* SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ASSAY CERTIFICATE



Geo-Facts Consulting File # A101619R  
4-6 4901 East Sooke Road, Sooke BC V0S 1N0 Submitted by: Andris Kikauka

| SAMPLE#      | Ag**<br>gm/mt |
|--------------|---------------|
| 304051       | 229.9         |
| 304052       | 245.2         |
| 304053       | 124.0         |
| 304054       | 166.4         |
| 304056       | 168.8         |
| 304057       | 148.1         |
| RE 304057    | 152.9         |
| STANDARD R-1 | 99.5          |

GROUP 6 - PRECIOUS METALS BY FIRE ASSAY FROM 1 A.T. SAMPLE, ANALYSIS BY ICP-ES.  
- SAMPLE TYPE: ROCK PULP  
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 2 2001 DATE REPORT MAILED: *Aug 13/01* SIGNED BY: *C. Leong* TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS