

NTS 92 K/1 E, 92 F/16 E LAT. 50 03' N LONG. 124 02' W

GEOLOGICAL AND PETROGRAPHIC REPORT on the ROX 1-2 CLAIM GROUP JERVIS INLET, B.C.

VANCOUVER MINING DIVISION

FOR

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

BY

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SUMMARY

The Rox 1-2 Claim Group consists of 2 contiguous mineral claims comprising 24 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 1-2 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.

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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 geological mapping and diamond drill core sampling with subsequent petrographic analysis, carried out by A. Kikauka (Geologist) from November 29-December 1, 2002 on the Rox 1-2 Claim Group in the Vancouver Mining Division in the Mt. Diadem area of Jervis Inlet. Subsequent petrographic preparation and analysis was carried out by Jim Vinnel and Dr. John Payne of Vancouver Petrographics Ltd., Langley, B.C.

The field work was undertaken for the purpose of identifying mineralized and related geological structures with detailed petrology.

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 1-2 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:

Name		Claim Name	Record No.	Units	Record Date	Expiry Date	Ownership
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Rox 1	398607	12	November 28, 2002 November 28, 2005	*
Rox 2	398620	12	November 28, 2002 November 28, 2005	*
		1 / 15		

* Claims are registered to Dr. William Pfaffenberger.

A statement of work (filed with this report) has extended the expiry dates for Rox 1,2 to 2005.

The total area covered by the claims is approximately 600 hectares (1,524 acres).

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, except for the fact that Ministry of Forests has been made aware of certain rare tree species in the extreme northeast corner of the Rox 2 claim (at lower elevations near the Britain River). This rare tree species occurs in an area of the claim group that has had little or no work done on it and would not directly affect continued exploration and development of the centrally located polymetallic sulphide zone.

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 Mount 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 adits. 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 argiflite)-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:

Location	<u>Assay</u>	<u>Width</u>
No Man's Ck.(el.1,100 m.)	24.3 g/t Au	16 cm.
H .	27.0 g/t Au	8 cm.
F#	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
#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
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HOLE	FROM	TO(m	WIDTH	% Cu	% Pb	% Zn	g/t Ag	g/t Au
#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-Н	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 **On Mount Elphinstone**, strongly foliated elsewhere it is a tectonic fabric. 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 1-2 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 2002 WORK PROGRAM 6.1 METHODS AND PROCEDURES

A total of 6 diamond drill core and 1 rock chip sample were collected from the

program of core drilling carried out by Anaconda Canada Explorations Ltd in 1984 (Appendix B). The core was removed from storage near the helicopter pad at the Upper Adit, and marked with a wooden block. The core boxes were returned to their original condition in a cross-pattern pile. The selected core samples were marked and sent to Vancouver Petrographics, Langley, B.C. for polished thin section reports (Appendix A).

A 180 X 210 meter area was mapped at a scale of 1:1,000 (Figure 5). A grid was established with stations were marked every 25 metres using marked flagging. The baseline trends 000 degrees and is tied into the previous upper adit grid, covering from L 7+00 N to 10+00 N, with the 4 east-west tie-lines covering a distance of 200 meters (Kikauka, 1998). Baseline and tie lines were surveyed using a hip chain, compass, and marked with orange flagging. Tie lines were surveyed to measure distance and slope between grid lines. Total line surveyed was 1.1 kilometres.

A property geological map was compiled at a scale of 1:5,000 (Figure 4).

6.2 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:

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

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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.

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. 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 in a 210 degree azimuth creek bed.

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 (with a steep east dip) in the upper and lower adit zones, and 100 degrees (with a steep north dip) in the Mt.Diadem adit zone.

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 GEOLOGICAL MAPPING, UPPER ADIT (FIG. 5)

The area of detailed geological mapping covers the Upper Adit (Fig. 5). There appears to be a correlation between increased sulphide mineralization and thickening of unit 2 (chloritic tuff-flow, & diorite) within the central part of the Upper Adit Zone. Minor fold axes in meta-sediments near and adjacent to the contact with unit 2 plunge and converge north at moderate to low angles, suggesting that the thickening of the sulphide zone may follow a thickening of unit 2 in a north direction. To date, there has not been any drilling north of the Upper Adit Zone sulphide mineralization. The parasitic fold axes (found on the fold-limbs, and around the hinge-zone of major fold) which occur in the meta-sediments suggests some drilling 200-1,000 meters north of the Upper Adit Zone is warranted.

The Upper Adit Zone also contains numerous EM conductive zones in the area between 1,200-1,300 meters elevation which were outlined in work done by Anaconda Canada Exploration Ltd. These EM conductive zones are located approximately 200-1,000 meters north-northwest of the Upper Adit (roughly following a 340 degree trend) and are shown and discussed in assessment report 11,641 (Riccio, et.al., 1983). There is also a possible south extension of the Upper Adit sulphide zone based on the identification of magnetite bearing diorite intrusive at the base of the cliff 100 meters south of DDH 84-2 (in the southeast portion of the Upper Adit Zone, see Fig. 5). This diorite was also picked up as a positive (+200 gamma) total field magnetic anaomaly by the 1983 magnetometer survey by Anaconda, summarized in A.R. 11,641 (Riccio, et.al., 1983). This diorite-chloritic tuff/flow unit 2b is the same unit that forms the hangingwall of the massive Zn-Pb-Cu-(Ag-Au) bearing sulphide zone of the Upper Adit drill holes (DDH 84-3,4,5,6, & 8). The 200 gamma increase is probably due to the presence of 0.1-0.3% disseminated magnetite which was observed and checked with a pencil magnet at the base of the cliff 100 meters south of DDH 84-2.

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 epidote-actinolite-tremolite-diopside. The skarn minerals occur as replacement patches and bands and probably reflect the effects of the Coast Range intrusive emplacement. The Coast Range batholith emplacement deforming the older volcanic-sedimentary roof pendant has resulted in tilting the volcanic-sediment sequence to a vertical attitude, i.e. isoclinal folding and attenuation of major fold hinges. The skarn mineral assemblages (garnetepidote-actinolite-tremolite-diopside-biotite) are widespread and it is postulated that skarn minerals formed from regional metamorphism resulting from Coast Range batholith emplacement. Increased volume of skarn mineral assemblages in the host volcanic-sediment roof pendant may be directly attributed to carbonate formations altering to calc-silicates during regional metamorphism by a process of metasomatism (i.e. contact metamorphism).

The less prevalent K-feldspar-sericite alteration mineral assemblage appears to be closely related to massive sulphide mineralization and is considered an indicator vector to ore. There is also brecciation and replaced/cemented textures. This crackled texture is indicative of recrystallization, which was likely created by the Coast Range intrusive events. Secondary K-spar and chlorite in the wall rock adjacent to the Cu-Pb-Zn-Ag-Au bearing mineral assemblage supports a shallow submarine environment of deposition for ascending hydrothermal bearing fluids resulting in irregular massive sulphide lenses which have been deformed and recrystallized.

The following	table	gives	geochemical	analysis	values	for	each	petrographic
sample as give	n by A	nacond	la.s 1984 drill	logs (App	oendix B	3):		

Sample #	DDH #	Depth	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1	84-6	84.3 m	500	5,600	23,700	11.0	15
2	84-6	98.7 m	1,100	200	2,200	6.9	5
3	84-6	106.2 m	14,300	100	1,400	85.7	100
4	84-6	115.2 m	225	2	92	0.4	5
5	84-8	99.1 m	16,200	2,800	12,000	175.2	40
6	84-8	101.7 m	500	7,800	26,700	8.9	15

7.0 DISCUSSION OF RESULTS

The Rox 1-2 Claim Group has 4 significant polymetallic prospects and 1 gold bearing quartz vein 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 semimassive 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.

8.0 CONCLUSION

Rox 1-2 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

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A follow up program of core drilling and trenching the Upper (L 8+50 N to L 13+00 N) and Lower (L 0+00 N to L 2+00 N) 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:

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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.

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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 practised my profession for eighteen years in precious and base metal exploration in the Cordillera of Western Canada and 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 and on published and unpublished literature and maps.
- 6. I have a direct interest in Fundamental Resources Corp & the subject property.
- 7. This report is intended for the purpose of filing a statement of work and is not intended for the purposes of public financing.

Andris Kikauka, P. Geo.,

A. Kikanta

Oct. 20, 2003

ITEMIZED COST STATEMENT- ROX 1-2 CLAIM GROUP, VANCOUVER MINING DIVISION, FIELDWORK PERFORMED NOV. 29-DEC. 1, 2002

FIELD CREW:

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A.Kikauka (geologist) 3 days	\$ 825.00
FIELD COSTS:	
Food and accomodation	180.00
Petrographic	910.00
mob/demob	170.00
Truck rental	260.00
Equipment & supplies	90.00
Report (writing, editing, drafting, reproduction)	400.00

TOTAL= \$ 2,835.00



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FUNDAMENTAL RESOURCES CORP.

Figure 1 General Location Map



FUNDAMENTAL RESOURCES CORPORATION

4083 Monarch Place, Victoria, British Columbia V8N 4B7 ph (250)-381-6181 ph/fax (250)-721-0887



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

Lower Cretaceous Gambier Group Volcanics & Sediments basalt, andesite, dacite, to rhyolite composition tuffs

basalt, andesite, dacite, to rhyolite composition tuffs and/or flows, siltstone, sandstone, limestone, argillite 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

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GEOLOGY LEGEND

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LOWER AND MIDDLE JURASSIC BOWEN ISLAND GROUP

Andesite, Tuffaceous sandstone (chlorite rich), interbedded coarse lapilli tuff. Felsic lapilli tuff, vesicular flows, and tufaceous sandstone and siltstone. Massive diorite-andesite flows and intrusive.

Garnet-biotite silicified argillite, bedded to finely laminated and locally graphitic, minor carbonate and lapilli tuff interbeds. Andesitic-basaltic vesicular flows and metamorphosed diorite/andesite intrusive/flow.



Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V1M 3S3 PHONE (604) 888-1323 • FAX (604) 888-3642 email: vanpetro@vancouver.net

Report 020696 for.

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

December 2002

Project: Skwim Lake - Mount Diadem

Samples: DDH 84-6: 84.3 m, 98.7 m, 106.2 m, 115.2 m DDH 84-8: 99.1 m, 101.7 m Lower Adit Hangingwall

Summary:

Sample DDH 84-6 84.3 m is a slightly banded, siliceous argillite containing patchy skarnified zones rich in garnet-biotite, commonly with sulphides, and others consisting of intimate intergrowths of quartz with garnet, biotite and actinolite in various textures. The contortion of a few quartz-rich bands indicates that the rock was folded tightly. The mineralogy and textures suggest that the parent rock was a banded argillite rather than an altered andesite.

2) Sample DDH 84-6 98.7 m is a foliated andesite dominated by bands rich in plagioclase and others rich in biotite with abundant rutile. It contains one main replacement band of actinolite-pyrrhotite-(epidote-chalcopyrite) and a smaller band and patches of actinolite-epidote-biotite-pyrrhotite. Minor K-feldspar occurs in the plagioclase-rich zones. Pyrrhotite is weakly magnetic.

3) Sample DDH 84-6 106.2 m is a metamorphosed andesite dominated by plagioclase with disseminated grains and patches of biotite and bands and patches of sulphides. The large curved arc on the left is dominated by pyrrhotite with a few patches of sphalerite and chalcopyrite. Patches in the centre are dominated by sphalerite or chalcopyrite. Pyrrhotite is weakly magnetic.

(4) Sample 84-6 115.2 m is a metamorphosed diorite sill that contains two main zones. One is dominated by equant plagioclase grains and interstitial patches of secondary tremolite/actinolite, with lesser biotite and disseminated patches of sphene. The other, probably in part of replacement origin, is dominated by tremolite/actinolite with much less abundant plagioclase and a few patches of epidote. Pyrrhotite with minor chalcopyrite forms disseminated irregular patches mainly in the tremolite/actinolite-rich zone. A few replacement patches are of quartz-epidote-pyrrhotite and of quartz-tremolite/actinolite.

(5) Sample DDH 84-8 99.1 m is zoned strongly. A massive andesite zone is dominated by cryptocrystalline plagioclase with much less abundant garnet and biotite. It is cut by several veinlets and trains of garnet. Bordering this are two recrystallized patches, one of which is adjacent to a garnet-rich skarn band and contains more abundant garnet and tremolite. The garnet-rich band 1-2 mm wide contains disseminated lenses and patches of chalcopyrite and lesser sphalerite and galena. A band of sphalerite-galena is on the edge of a broad band consisting of tremolite with abundant patches of sulphides dominated by chalcopyrite and pyrrhotite.

6 Sample DDH 84-8 101.7 m is a metamorphosed and variably replaced, banded meta-andesite. Some bands and lenses are dominated by plagioclase with wispy bands of biotite, defining a moderate to strong foliation, and disseminated grains and trains of garnet. A small, foliated band is dominated by plagioclase with wispy lenses of biotite and of garnet. One massive patch is of ragged slightly coarser plagioclase grains in an unfoliated groundmass of plagioclase-(biotite-sericite). Two large patches consist of plagioclase that was replaced strongly by quartz, garnet, and patches of sulphides, dominated by sphalerite with lesser galena and pyrrhotite. These grade into sulphide-rich patches dominated by sphalerite and lesser galena. One band is dominated by garnet, pyrrhotite, and sphalerite, with lesser galena, chalcopyrite, and quartz. A narrow, warped band is dominated by quartz and pyrrhotite with lesser sphalerite.

(7) Sample Lower Adit Hangingwall is a banded meta-andesite dominated by cryptocrystalline to extremely fine-grained plagioclase with minor seams of carbonaceous opaque. Some finer-grained bands and patches contain more abundant dusty carbonaceous opaque. It was replaced strongly, mainly in discrete bands, by one or more of epidote, quartz, and tremolite. Several veinlets are of quartz and a few are of epidote-(quartz).

Zones in the sections are indicated on the illustrations of the scanned sections. Where zone borders are along obvious colour changes, they are not outlined. Codes for zones are indicated in the text of the appropriate section.

John G. Payne, Ph.D., Tel: (604)-597-1080 Fax: (604)-597-1080 (call first) email: jgpayne@telus.net



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Sample DDH 84-6 84.3 m Deformed, Replaced Banded Argillite: Quartz-Biotite-Actinolite-Garnet Skarn; Sulphides: Pyrrhotite-Sphalerite-(Galena-Chalcopyrite)

The sample is a slightly banded, siliceous argillite containing patchy skarnified zones rich in garnet-biotite, commonly with sulphides, and others consisting of intimate intergrowths of quartz with garnet, biotite and actinolite in various textures. The contortion of a few quartz-rich bands indicates that the rock was folded tightly. The mineralogy and textures suggest that the parent rock was a banded argillite rather than an altered andesite.

mineral	percentage	main grain size range ((mm)
quartz	50-55%	0.03-0.1 (a few up to	0.3 mm)
garnet	17-20	0.1-1	
pyrrhotite	8-10	0.05-0.3	
biotite	7-8	0.003-0.05	
actinolite	4-5	0.1-0.7	
sphalerite	1-2	0.05-0.1	
ilmenite	0.5	0.01-0.03	
galena	0.2	0.05-0.2	
chalcopyrite	minor	0.03-0.05	

Quartz-rich zones (Q) consist of slightly interlocking grains (0.03-0.07 mm), with a few patches of coarser grains from 0.1-0.3 mm in size. In patches where it is intergrown with actinolite, quartz forms anhedral grains from 0.1-0.3 mm in size that contain abundant wispy actinolite grains, commonly in parallel orientation. These grade into zones of coarser grained actinolite with interstitial quartz. Quartz-rich patches also grade into intergrowths of quartz and biotite, with or without garnet and sulphides.

Garnet is concentrated in several patches up to several mm across as dense, anhedral intergrowths (G). These grade into patches of garnet-biotite and garnet-biotite-quartz, in which garnet commonly forms subhedral to euhedral grains (0.1-0.2 mm). In some patches, quartz and sulphides form minor interstitial patches between euhedrally terminated garnet grains.

Sulphides form irregular, disseminated patches that are intergrown slightly to very strongly with silicates, especially biotite-garnet and quartz-actinolite. Pyrrhotite forms anhedral grains. Sphalerite is concentrated in patches and bands as red-brown grains that are intergrown with pyrrhotite. Galena forms scattered patches and lenses, mainly associated with sphalerite on borders of pyrrhotite-rich patches. Chalcopyrite forms scattered patches mainly included in sphalerite or along borders of pyrrhotite.

Biotite is concentrated in irregular patches and seams, in part with garnet and in part with actinolite. It forms dense aggregates of equant grains (0.003-0.01 mm) and a few coarser grains (up to 0.1 mm; the latter are mainly associated with euhedral garnet. Biotite is pleochroic from light to medium brown to orange-brown. Textures are suggestive of contact metamorphism.

Actinolite (A) is concentrated moderately to strongly in a few actinolite-rich patches in which it forms equant to prismatic grains with pleochroism from light to medium green. In quartz-rich patches, it tends to form subparallel, prismatic to acicular grains, possibly oriented along a major crystallographic direction of quartz.

Ilmenite is concentrated strongly in a few bands with garnet and biotite as dense aggregates of anhedral grains (0.01-0.02 mm) and disseminated tabular grains (0.03-0.05 mm).

C Sample DDH 84-6 98.7 m Metasomatized Andesite: Plagioclase-Biotite Replacement Bands, Patches of Actinolite-Pyrrhotite-(Epidote)

The sample is a foliated andesite dominated by bands rich in plagioclase and others rich in biotite with abundant rutile. It contains one main replacement band of actinolite-pyrrhotite-(epidote-chalcopyrite) and a smaller band and patches of actinolite-epidote-biotite-pyrrhotite. Minor K-feldspar occurs in the plagioclase-rich zones. Pyrrhotite is weakly magnetic.

mineral	percentage	main grain	size range (mm)
plagioclase	50-55%	0.02-0.05	(a few from 0.1-0.2 mm)
biotite	17-20	0.01-0.03	
actinolite	15-17	0.3-1	(a few grains up to 2 mm long/across)
pyrrhotite	7-8	0.05-0.2	
epidote	1-2	0.03-0.1	(a few grains up to 0.3 mm long)
rutile	1-2	0.01-0.03	
K-feldspar	1-2	0.03-0.1	
chalcopyrite	0.3	0.05-0.3	
apatite	minor	0.05-0.07	
sphalerite	trace	0.01-0.03	

Plagioclase (P, light colored areas on scan) forms anhedral, interlocking grains whose textures suggests cataclastic granulation of coarser grains. A few relic patches are of coarser grains (0.1-0.2 mm). A few patches have relic textures suggesting that they were recrystallized from plagioclase phenocrysts from 0.5-1 mm in size. Many of the finest grained plagioclase-rich patches contain 5-10% ragged disseminated grains of actinolite.

Biotite (B) is concentrated strongly in bands and patches parallel to foliation that are intergrown coarsely with plagioclase-rich bands and patches. Pleochroism is from light to medium brown to orangish brown. It also forms disseminated, ragged grains in some plagioclase-rich zones, in part intergrown with ragged, extremely fine grains of actinolite. Biotite also occurs in one replacement band as anhedral grains and clusters of grains intergrown with actinolite, epidote, and pyrrhotite.

Actinolite (A) forms disseminated, ragged grains in plagioclase-rich bands and is concentrated moderately in a few small patches with plagioclase. It is concentrated strongly in one main band as subhedral, prismatic grains intergrown intimately with patches of sulphides. Pleochroism is from light to dark green. In a smaller band and a few patches it is concentrated strongly with lesser epidote, pyrrhotite, and biotite.

Epidote (E) is concentrated moderately to strongly in one band with actinolite and biotite. It also forms patches up to 2 mm in size in the actinolite-pyrrhotite-rich band. Locally bordering this band it is concentrated moderately to strongly in patches up to 2 mm in size intergrown intimately with plagioclase. One patch a few mm across of pyrrhotite-epidote is included in a band of biotite.

K-feldspar is concentrated moderately to strongly near the margins of the mafic-rich bands and patches. It forms skeletal grains intergrown with groundmass plagioclase. Its distribution is best seen on the stained offcut block.

Rutile is concentrated strongly in patches and lenses up to a few mm long associated with bands and patches of biotite.

(continued)

Apatite forms disseminated subhedral to anhedral grains mainly in plagioclase-rich patches.

Pyrrhotite (O) is concentrated strongly in the actinolite-pyrrhotite-rich band. It also forms ragged patches intergrown with biotite and locally with rutile. Along the left side of the scanned section, pyrrhotite is altered slightly along the 0001 cleavage to secondary Fe-sulfides and carbonates.

Chalcopyrite forms irregular patches intergrown with pyrrhotite and less commonly interstitial to actinolite in the actinolite-pyrrhotite band. A few coarser-grained patches of chalcopyrite are associated with epidote.

Sphalerite forms a few red-brown grains associated with chalcopyrite.

Sample DDH 84-6 106.2 m Metamorphosed Andesite: Plagioclase-Biotite-Garnet-Ilmenite; Patches of Epidote, Pyrrhotite, Sphalerite, Chalcopyrite,

The rock is dominated by plagioclase with disseminated grains and patches of biotite and bands and patches of sulphides. The large curved arc on the left is dominated by pyrrhotite with a few patches of sphalerite and chalcopyrite. Patches in the centre are dominated by sphalerite or chalcopyrite. Pyrrhotite is weakly magnetic.

mineral	percentage	main grain size range (mm)
plagioclase	65-70%	0.02-0.05 (some patches 0.1-0.5 mm)
biotite	15-17	0.005-0.03 (a few grains up to 0.07 mm)
pyrrhotite	5-7	0.1-0.5
epidote	4- 5	0.04-0.1 (a few grains up to 0.2 mm long)
ilmenite	2	0.01-0.02
sphalerite	1.5-2	0.05-0.5
chalcopyrite	1-1.5	0.05-0.5
garnet	0.3	0.05-0.1
galena	0.1	0.05-0.2
apatite	minor	0.05-0.1
tremolite/(actinolite)	minor	0.1-0.3

Plagioclase forms slightly to moderately interlocking grains averaging 0.02-0.05 mm in size. A variety of textures are present in irregular patches. Some patches may be replacements of plagioclase phenocrysts up to 1 mm in size; some of these contain 10-30% disseminated flakes of sericite/ muscovite that may represent early alteration of the original phenocrysts. Adjacent to and interstitial to many sulphide patches, plagioclase (P) forms aggregates of recrystallized, untwinned anhedral to subhedral grains averaging 0.1-0.5 mm in size. In some patches, plagioclase is replaced slightly to moderately to ragged aggregates of extremely fine-grained epidote.

Biotite is concentrated moderately in seams and patches up to 1 mm in width and also forms disseminated grains irregularly distributed in plagioclase-rich zones. Plagioclase-rich zones grade into biotite-rich zones. Coarser grained aggregates of biotite rim some patches of pyrrhotite.

Epidote (E) is concentrated strongly in one large patch up to 1 cm across and in a few patches up to 3 mm in size. Two of the latter are adjacent to the largest patch of pyrrhotite. In coarser grained patches, epidote forms subhedral prismatic grains with much less abundant interstitial plagioclase and/or biotite. It also is concentrated in clusters up to 1 mm in size as anhedral to subhedral grains intergrown with more abundant plagioclase and biotite, and locally occurs with patches of sphalerite and recrystallized plagioclase.

Garnet forms in two main modes. In some bands it forms subhedral to euhedral grains from 0.07-0.2 mm in size. It also forms several lenses up to 1 mm long that contain 2-5% patches and disseminated grains of sphalerite.

Ilmenite (I) is concentrated strongly in clusters up to 1.5 mm in size in which it forms patches from 0.05-0.15 mm in size intergrown with groundmass biotite and less commonly with plagioclase. The ilmenite patches (original crystals?) consist of interlocking, recrystallized, unoriented grains 0.007-0.015 mm in size.

Apatite forms disseminated, anhedral to subhedral grains. It is concentrated locally in clusters of several subhedral, prismatic grains intergrown with groundmass plagioclase.

(continued)

Sample DDH 84-6 106.2 m (page 2)

Tremolite forms ragged prismatic to acicular grains intergrown intimately with plagioclase and pyrrhotite at the top end of the largest pyrrhotite-rich patch. Tremolite/actinolite occurs in a few patches up to 1 mm in size as scattered acicular to prismatic grains up to 0.15 mm long intergrown with plagioclase and biotite; these grains are pleochroic from pale to light green and commonly are in subparallel orientation.

Sulphides form irregular patches up to several mm across. Those in a broad arc are dominated by pyrrhotite (O) with lesser patches dominated by chalcopyrite and sphalerite. Several up to 3 mm across are dominated by sphalerite (S) and/or chalcopyrite (C). Pyrrhotite grains are altered very slightly along the 0001 cleavage to secondary Fe-sulphide and carbonate. Galena (G) is concentrated moderately to strongly in the largest sphalerite-chalcopyrite-rich patches.

(4) Sample 84-6 115.2 m

Metamorphosed Diorite Sill; Plagioclase-Tremolite/Actinolite Replacement by Tremolite; Pyrrhotite, Epidote-Quartz

The sample contains two main zones. One is dominated by equant plagioclase grains and interstitial patches of secondary tremolite/actinolite, with lesser biotite and disseminated patches of sphene. The other, probably in part of replacement origin, is dominated by tremolite/actinolite with much less abundant plagioclase and a few patches of epidote. Pyrrhotite with minor chalcopyrite forms disseminated irregular patches mainly in the tremolite/actinolite-rich zone. A few replacement patches are of quartz-epidote-pyrrhotite and of quartz-tremolite/actinolite.

percentage	main grain	size range (mm)
60-65%	0.1-1	
17-20	0.5-2	
2-3	0.03-0.3	
1-2	0.02-0.05	
1-2	0.02-0.05	
3-4	0.3-1.5	
2-3	0.3-0.7	
1-2	0.5-1	(with quartz and/or epidote)
4-5	0.05-0.5	
0.3	0.05-0.1	
minor	0.05-0.15	
trace	0.015	
	percentage 60-65% 17-20 2-3 1-2 1-2 3-4 2-3 1-2 4-5 0.3 minor trace	percentage main grain 60-65% 0.1-1 17-20 0.5-2 2-3 0.03-0.3 1-2 0.02-0.05 1-2 0.02-0.05 1-2 0.3-1.5 2-3 0.3-0.7 1-2 0.5-1 4-5 0.05-0.5 0.3 0.05-0.1 minor 0.05-0.15 trace 0.015

Plagioclase is concentrated in part of the section (P) where it forms subhedral, equant grains enclosed in aggregates of very fine- to fine-grained tremolite/actinolite and much less abundant biotite and irregular patches of epidote. Plagioclase grains (white in scan) are altered moderately to more sodic plagioclase and disseminated, extremely fine grains of tremolite/actinolite, epidote, and biotite

In the plagioclase-bearing zone, tremolite forms patches up to a few mm across of extremely fineto fine-grained aggregates, with a variable, in part feathery texture. In the tremolite/actinolite-rich zone (T), textures and grain size vary widely. The coarsest grained patches of tremolite/actinolite are intergrown intimately with the large patches of sulphides. Pleochroism ranges from weak to slight; in the most pleochroic grains, pleochroism ranges from pale to light green.

Epidote forms disseminated grains and patches, mainly intergrown coarsely with tremolite/ actinolite; these grade texturally into the epidote-quartz replacement patches.

Biotite is concentrated strongly near one end of the section as equant flakes, mainly intergrown with tremolite/actinolite. Pleochroism is from pale to light/medium orange-brown.

Sphene forms patches up to 1 mm in size of dense, granular aggregates in the plagioclase-rich part of the sample.

Pyrrhotite and much less abundant chalcopyrite are concentrated in two main patches (O) in which sulphides are intergrown intimately with ragged prismatic grains of tremolite/actinolite. Chalcopyrite is concentrated moderately along some margins of the pyrrhotite-rich patches and forms patches up to 0.5 mm in size. The largest chalcopyrite patch contains a grain of sphalerite 0.015 mm across.

Sample DDH 84-08 99.1 m Andesite: Plagioclase-(Garnet) with Garnet-Sulphide veinlets; Banded Skarn Zone: 1) Garnet-Chalcopyrite, Tremolite-Chalcopyrite-Pyrrhotite-(Sphalerite-Galena):

The sample is zoned strongly. A massive andesite is dominated by cryptocrystalline plagioclase with much less abundant garnet and biotite. It is cut by several veinlets and trains of garnet. Bordering this are two recrystallized patches, one of which is adjacent to a garnet-rich skarn band and contains more abundant garnet and tremolite. The garnet-rich band 1-2 mm wide contains disseminated lenses and patches of chalcopyrite and lesser sphalerite and galena. A band of sphalerite-galena is on the border of this garnet-rich band on the edge of a broad band consisting of tremolite with abundant patches of sulphides dominated by chalcopyrite and pyrrhotite.

andesite mineral	(Zone A, Ar)	(33-37%) main grain size range (mm)
nlagioclase	27-30%	cryptocrystalline-0.01
garnet	1-2	0.05-0.15
biotite	1-2	0.02-0.05
quartz	0.5	0.01-0.03
sulphides	0.3	0.05-0.1
ilmenite	minor	0.01-0.02
veinlets		· · · ·
garnet-(biotite-quartz)	3-4	0.05-0.3 (ga), 0.01-0.02 (bi), 0.01-0.03 (qz)
biotite	minor	0.01-0.02

In the andesite (Zone A), plagioclase forms a dense aggregate of equant grains. Biotite forms disseminated patches, in part associated with garnet and sulphides. Pleochroism is from light to medium orangish brown. Garnet forms disseminated grains and clusters of a few to several grains. Some are equant and subhedral to euhedral in outline and others have ragged cores of anhedral grains with moderately abundant dusty inclusions surrounded by thin rims of inclusion-free garnet with subhedral to euhedral outlines. Quartz forms disseminated grains and clusters up to 0.1 mm in size of grains. Ilmenite forms disseminated patches up to 0.15 mm in size, commonly included in biotite-rich patches.

Sulfides form disseminated patches mainly from 0.05-0.2 mm in size. These consist of one or two of sphalerite, chalcopyrite, pyrrhotite, and galena.

Several veinlets consist of trains of porphyroblasts of garnet up to 1 mm in size with minor to moderately abundant wispy zones of cryptocrystalline biotite and/or extremely fine-grained quartz surrounding and connecting the porphyroblasts. Many garnet grains contain abundant dusty inclusions in their cores that render them nearly opaque. A few garnet grains have cores of extremely fine-grained ilmenite. Rims are generally free of inclusions and have euhedral outlines as in the disseminated garnet grains.

Some garnet veinlets have a core 0.05 mm wide of clear garnet surrounded by an irregular envelope of garnet containing abundant dusty inclusions. Veinlets contain minor patches of sulphides, mainly sphalerite, galena, and chalcopyrite.

One wispy veinlet 0.02 mm wide of biotite offsets the garnet-chalcopyrite veinlet 0.08 mm that elsewhere separates the andesite from the recrystallized andesite.

On one side of a garnet veinlet (Zone Ar), plagioclase was recrystallized moderately to a slightly coarser grain size (similar to that in Zone B), but no tremolite is present.
Sample DDH 84-08 99.1 m

recrystallized andesite	(Zone B)	(7-8%)
mineral	percentage	main grain size range (mm)
plagioclase	4- 5%	0.005-0.015
garnet	2-3	0.005-0.05
actinolite	1-2	0.1-0.15
calcite	minor	0.05-0.1
veinlets		
garnet-chalcopyrite	0.5	0.02-0.05

Bordering the andesite is a lensy zone of recrystallized andesite (Zone B) in which plagioclase forms slightly interlocking grains from 0.005-0.01 mm in size. Garnet forms disseminated patches up to a few mm across of anhedral, extremely fine grains with abundant dusty inclusions. Tremolite forms sheaves of acicular grains intergrown with plagioclase. A few patches of tremolite consist of acicular grains radiating outwards from a core of a garnet grain. Sulphides, dominated by chalcopyrite with lesser pyrrhotite form disseminated patches averaging 0.05-0.2 mm in size. Calcite forms a few anhedral grains.

On one side, this zone is separated from the andesite by a veinlet up to 0.2 mm wide of garnet and chalcopyrite with minor patches of sphalerite. Locally the veinlet is cut by a late seam $0.03\2$ mm wide of pyrite parallel to the length of the veinlet. Similar garnet-sulphide veinlets cut the andesite near the contact. The end of Zone B against Zone A is gradational.

garnet-rich zone mineral	(Zone G) percentage	(7-8%) main grain size range (mm)
garnet	5-7%	0.1-0.5
chalcopyrite	1-2	0.05-0.3
pyrrhotite	0.2	0.05-0.1
sphalerite	0.2	0.03-0.1
galena	minor	0.03-0.05

In the garnet-rich band (G), garnet forms dense aggregates of anhedral grains containing moderately abundant dusty inclusions. Garnet patches are fractured and fractures filled by patches of sulphides dominated by chalcopyrite with much less abundant pyrrhotite, sphalerite, and galena. Interstitial to garnet are patches of quartz and of tremolite-quartz.

Discontinuous veinlets up to 0.05 mm wide of sphalerite, chalcopyrite, and galena fill fractures in the massive garnet.

(continued)

Sample DDH 84-08 99.1 m

tremolite-sulphide zo	ne (Zone T)	(50%)
mineral	percentage	main grain size range (mm)
tremolite	30-35%	0.05-0.5
chalcopyrite	8-10	0.05-2
pyrrhotite	4-5	0.05-0.3
sphalerite	1-2	0.05-0.5
quartz	1-2	0.05-0.1
quartz/plagioclase	0.2	0.01-0.02
galena	0.3	0.05-0.5
calcite	0.1	0.05-0.2

Zone T consists of a very irregular, patchy intergrowth of tremolite and sulphides with much less abundant quartz and minor quartz/plagioclase. Tremolite grains commonly are very fine to fine with a moderately intergrown, feathery texture. Sulphides are mainly chalcopyrite with lesser pyrrhotite; pyrrhotite is moderately more abundant away from the garnet zone. Along the border with the garnet zone is a moderately continuous band up to 1 mm thick dominated by sphalerite with lesser galena and chalcopyrite, and only minor pyrrhotite. Quartz is concentrated in a few parts of the zone, in part near the border with the garnet zone as anhedral grains intergrown with lesser calcite, and in part as subhedral grains intergrown with patches of sulphides. A few patches up to 1.5 mm in size are of extremely fine-grained quartz/plagioclase containing abundant, very fine acicular grains of tremolite.

(6) Sample DDH 84-8 101.7 m

Meta-Andesite: Plagioclase-(Biotite-Garnet); Replacement: Quartz-Sphalerite-Galena-Pyrrhotite-(Chalcopyrite) Minor Early Quartz Veinlets

The sample is a metamorphosed and variably replaced, banded meta-andesite. Some bands and lenses (Zone A1) are dominated by plagioclase with wispy bands of biotite, defining a moderate to strong foliation, and disseminated grains and trains of garnet. A small, foliated band (Zone A2) is dominated by plagioclase with wispy lenses of biotite and of garnet. Zone B is a massive patch containing ragged slightly coarser plagioclase grains in an unfoliated groundmass of plagioclase-(biotite-sericite). Zone P consists of plagioclase that was replaced strongly by quartz, garnet, and patches of sulphides, dominated by sphalerite with lesser galena and pyrrhotite. Zone S is dominated by sphalerite and lesser galena, and grades into Zone P. Zone G is a band that is dominated by garnet, pyrrhotite, and sphalerite, with lesser galena, chalcopyrite, and quartz. Zone QO is a narrow, warped band dominated by quartz and pyrrhotite with lesser sphalerite. Overall abundances of sulphides are as follows: sphalerite 7- 8%, galena 2- 3%, pyrrhotite 2- 3%, and chalcopyrite 0.3%. Grain size of sulphides varies widely, being mainly between 0.05 and 0.3, and is coarser in coarser grained patches.

meta-andesite (Zone A1) 25-30%

One main band and a few parallel lenses are dominated by cryptocrystalline plagioclase and biotite with locally abundant sericite and minor quartz and sulphides. Biotite is concentrated in wispy lenses that define a moderate to strong foliation parallel to the length of the band and lenses. Sericite is concentrated in angular patches that suggest that these may represent altered plagioclase phenocrysts. Garnet forms scattered, ragged patches up to 0.5 mm in size of extremely fine grains and is concentrated in a few bands parallel to foliation. Quartz forms a few replacement patches and lenses up to 0.3 mm long. Sulphides, mainly sphalerite with much less abundant galena, pyrrhotite, and chalcopyrite occur mainly with garnet.

meta-andesite (Zone A2) (2- 3%)

One elongate band and one small patch are dominated by cryptocrystalline plagioclase with minor lenses of biotite and patches of garnet. The band has a moderate foliation. It contains two patches of replacement quartz (0.05-0.4 mm grain size); the larger is a vein 1 mm wide that is truncated at the borders of Zone A2; it contains a patch 0.3 mm across of garnet and galena.

meta-andesite (Zone B) (8-10%)

Two patches may be parts of the same band. It contains 10-25% ragged plagioclase grains (0.05-0.2 mm) in a groundmass of cryptocrystalline plagioclase and lesser biotite and sericite. Sericite also forms a few equant patches up to 0.1 mm in size.

plagioclase-quartz-garnet-sulphides (Zone P) (30-35%)

Two large bands consist of strong patchy replacement of the host rock by quartz, garnet, and sulphides. Plagioclase forms aggregates of equant grains (0.02-0.05 mm) with a few up to 0.2 mm in size. Biotite forms scattered to locally moderately abundant, disseminated flakes. Quartz forms replacement patches and bands (0.05-0.15 mm grain size). Garnet and sulphides form irregular patches. is concentrated in patches and biotite are scattered in these zones. Quartz forms irregular replacement zones. Sulphides are dominated by sphalerite with lesser galena, much less pyrrhotite, and minor chalcopyrite.

Sample DDH 84-8 101.7 m (page 2)

sphalerite-pyrrhotite-(galena)-quartz-plagioclase (Zone S) (15-20%) Sulphide-rich patches (S) are dominated by deep red-brown to semi-opaque sphalerite with lesser galena, much less pyrrhotite and minor chalcopyrite. Interstitial minerals are quartz and lesser relic plagioclase. With decreasing sulphide content, these grade into Zone P.

garnet-pyrrhotite-sphalerite-(quartz-galena-chalcopyrite) (Zone G) (5-7%)

Band G is 1.5-2 mm wide and is dominated by garnet (0.1-0.3 mm) intergrown with patches of sulphides, dominated by pyrrhotite with lesser sphalerite and locally abundant chalcopyrite and galena. Towards the end of the band in the middle of the section, sphalerite is the dominant sulphide with minor inclusions of pyrrhotite and chalcopyrite.

quartz-pyrrhotite-sphalerite-(plagioclase-tremolite) (Zone QO) (2-3%)

Band QO is up to 1.5 mm wide and consists of equant quartz grains and minor plagioclase grains intergrown with patches of sulphides, dominated by pyrrhotite with lesser sphalerite, minor galena, and trace chalcopyrite. Quartz contains 2-5% acicular grains of tremolite 0.03-0.05 mm long.

(7) Sample Lower Adit Hangingwall Metasomatized Andesite:

Epidote-Quartz-(Tremolite) Replacement Quartz Veinlets, Epidote Veinlets

The sample is a banded meta-andesite dominated by cryptocrystalline to extremely fine-grained plagioclase with minor seams of carbonaceous opaque. Some finer-grained bands and patches contain more abundant dusty carbonaceous opaque. It was replaced strongly, mainly in discrete bands, by one or more of epidote, quartz, and tremolite. Several veinlets are of quartz and a few are of epidote-(quartz).

mineral	percentage	main grain size range (mm)
plagioclase	40-45%	cryptocrystalline-0.02
opaque (carbonaceous)	0.3	cryptocrystalline
replacement		
epidote	30-35	0.05-0.15
quartz	15-17	0.05-0.1
tremolite	3-4	0.1-0.2
veinlets		
quartz-(epidote)	1	0.05-0.15 (qz), 0.02-0.1 (ep)
epidote-(quartz)	1	0.02-0.15 (ep), 0.02-0.05 (qz)

In Zone ET, epidote forms a dense mass of anhedral to subhedral grains (0.03-0.1 mm). Tremolite is concentrated strongly in several patches up to a few mm across of ragged, equant to slightly prismatic grains. Quartz forms scattered patches up to 0.5 mm in size that are interstitial to epidote and tremolite. Towards the upper edge, the zone consists of epidote with moderately abundant wispy seams of semi-opaque parallel to the contact. As well, in this part of the zone epidote contains moderately abundant dusty semi-opaque inclusions.

Near the edge of the zone is a veinlet 0.4-0.8 mm wide of quartz and minor epidote.

Zone QE is a replacement zoned dominated by quartz (0.02-0.05 mm) with disseminated grains of epidote (0.02-0.05 mm). A few coarser-grained patches consist of quartz (0.07-0.2 mm) containing subhedral to euhedral epidote grains (0.1-0.2 mm). Zone QE contains a large patch of Zone EA consisting of epidote with abundant dusty semi-opaque seams parallel to the length of the patch and to those in Zone EA. As well, a convoluted seam (C) up to 0.05 mm wide of non-reflective, soft opaque (carbonaceous?) occurs in and along the margin of this epidote-rich patch.

Zone P is dominated by slightly interlocking plagioclase grains (0.01-0.02 mm) with scattered irregular patches and seams of epidote (cryptocrystalline-0.05 mm) and opaque. Quartz (0.02-0.07 mm) forms minor replacement patches from 0.05-0.3 mm in size. A few veinlets up to 0.4 mm wide are of prismatic epidote and minor quartz and others are of quartz with minor epidote.

Within Zone P are two major patches of Zone PC that consists of plagioclase/quartz(?) (cryptocrystalline-0.005 mm) containing moderately abundant dusty opaque and a few seams of carbonaceous opaque-epidote. This zone has a cherty appearance. It contains moderately abundant wispy patches and veinlets of slightly coarser grained quartz and minor epidote.

(continued)

Sample Lower Adit Hangingwall (page 2)

Zone Q contains 30% equant quartz grains (0.05-0.15 mm) enclosed in finer grained quartz (0.01-0.03 mm) with minor disseminated grains and patches of epidote.

At one end of the section is a banded zone (PE) dominated by plagioclase (0.01-0.02 mm) with lesser epidote and moderately abundant dusty opaque. In part of one band, plagioclase forms equant grains 0.03-0.04 mm in size. One part of one band (EP) contains more abundant epidote and seams of opaque; this grades into a plagioclase-rich band at the other side of the section. Scattered veinlets and patches are of quartz and epidote. The band at the end of the section is finer grained (0.01 mm) and is dominated by plagioclase with moderately abundant dusty opaque and irregular lenses and veinlets of epidote-(quartz).



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		Hole ID: 1985-1	Geo-facts				Pr	oject: r	^{0X} 7.	A	- A.
From 7	fo I	Description	From	То	Width	Sample	ppm	ppm	ppm	ppm	ppn
0.00 -	4.60	Casing		1							
casing			f die 7431 10 (•••				
4.60 -	14.40	Siltstone									
Black a	argillaceous, sili	icified, interbedded tuffaceous sandstone, 1-5									
cm bai	nding @ 45-55 d	legrees to core axis, 0.1-2.0 cm carbonate									
veinlet	ts, 5% chlorite, 0	.1-3.0 cm pyo blebs with chlorite.		-							
14.40 - 1	16.80	andesitic tuff (chloritic)	14.40	15.60	1.20	115	164	4	95	0.2	0.00
8% int	tercalated tufface	eous sandstone, 3% disseminated and fracture	15.60	16.80	1.20	116	68	2	88	0.2	0.00
filling	руо										
16.80 - 2	24.70	Siltstone									
Black	argillaceous, sil	icified, interbedded tuffaceous sandstone, 5%									
chlorit	tic andesite, wea	k contorted bedding and brecciation			-						
24.70 -	25.90	Massive Sulphide	24.70	25.30	0.60	117	1580	10	1430	2.3	0.11
massiv	ve руо, 1-5 % ср	y, 15% chlorite	25.30	25.90	0.60	118	1840	9	6800	2.9	0.0
25.90 - 2	28.10	andesitic tuff (chloritic)									
0.1-1.0	0 cm chlorite-epi	dote veinlets, disseminated pyo									
28.10 -	37.80	Siltstone									
Black	argillaceous, sil	icified, banding @ 70 degrees to core axis, 5%									
chlorii	ite, 3% pyo, qtz-c	al veinlets									
37.80 -	39.10	chert (green-purple)	37.89	39.10	1.21	119	130	3	84	0.2	0.03
1-6 cm	n quartz veins, be	anding 90 degrees to core axis									
39.10 -	49.10	andesitic tuff (chloritic)									
3% dis	sseminated and f	fracture filling pyo, 0.1-1.0 cm. epidote									
veinlei	ts, contorted ban	ds and fragments of black argillaceous									
siltsto	ne										
			45.60	46.60	1.00	120	240	5	155	0.2	0.00
			46.60	47.60	1.00	121	310	3	87	0.2	0.00
49.10 -	54.00	Diorite									
Mediu	ım grain, diffuse	contact with andesitic tuff	have a set of the set of th								
54.00 -	60.50	andesitic tuff (chloritic)									
1-15 c	m wide epidote-	chlorite bands with 5% blebs & stringers pyo									
(0 60	64 40	Siltstone	60.50	61.70	1.20	122	172	4	1080	0.2	0.00

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From To	Description		From	То	Width	Sample	ppm	r Þ ppm	∠n ppm	ppm	ррш
Strong epidote-q	uartz alteration, 0.4% sphalerite, 6% pyo										
64.40 - 65.90	Felsic Dyke]									
Light green color	ur, 2-4 mm plagioclase phenocrysts										
65.90 - 93.00	Siltstone		,							j	
Increased quartz	-chlorite and minor graphite 70.9-71.4 m, stringer										Ī
zone of epidote-	chlorite-pyo-cpy 81.3-82.6 m. and at 91.6-93.0 m,		······································								
			68.90	69.90	1.00	123	131	3	275	0.3	0.005
			70.90	71.40	0.50	124	430	60	2500	3.8	0.440
			77.10	79.60	2.50	125	130	3	275	0.3	0.040
			81.30	82.60	1.30	126					
			91.60	92.60	1.00	127	600	100	100	3.1	0.170
			92.60	93.00	0.40	128	6000	100	300	12.7	0.070
93.00 - 94.00	Massive Sulphide		93.00	93.50	0.50	129	23800	100	600	52.5	0.070
5% сру, 4% руо,	as veins stringers and massive bands		93.50	94.00	0.50	130	17600	100	500	41.8	0.070
94.00 - 96.00	Siltstone		94.00	95.00	1.00	131	300	100	100	1.4	0.070
Black argillaced	us, silicified, bleached alteration along chlorite-cpy		95.00	96.00	1.00	132	2200	100	200	12.3	0.070
veins that x-cut i	banding										
96.00 - 101.40	Massive Sulphide		96.00	96.50	0.50	133	200	100	3600	2.1	0.070
sphalerite-galen	a-cpy stringers 0.5 cm wide, 3-5 cm galena blebs,		96.50	97.00	0.50	134	4300	22500	8600	55.9	0.070
polymetallic qua	artz veinlets associated with red garnet , 10 cm wide		97.00	97.50	0.50	135	1300	13300	8100	53.8	0.070
quartz-sulphide	breccia zones, x-cut and parallel sulphide veins,		97.50	98.00	0.50	136	2400	9100	20000	22.6	0.070
blebs and string	ers, trace arsenopyrite		98.00	98.45	0.45	137	1000	3400	22500	10.3	0.070
			98.45	98.95	0.50	138	55008	800	5600	23.0	0.170
			98.95	9 9 .40	0.45	139	3600	300	800	6.9	0.070
	·		99.40	99 .90	0.50	140	10400	100	900	19.5	0.070
			99.90	100.40	0.50	141	23200	200	1600	46.6	0.17(
			100.40	100.90	0.50	142	10000	. 1100	7200	22.6	0.170
			100.90	101.40	0.50	143	10400	3200	5600	27.4	0.070
01.40 - 108.40	Siltstone	-	101.40	101.90	0.50	144	6100	2900	6600	20.6	0.170
Black argillaced	ms, graphitic, silicified, pyo-cpy stringers, bleached		101.90	102.40	0.50	145	3600	3200	11000	25.4	0.206
alteration patch	es, trace gypsum-anhydrite		102.40	102.90	0.50	146	2100	800	5800	16.1	0.170
			102.90	103.40	0.50	147	900	11800	38300	17.8	0.170
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From	То	Description	From	То	Width	Sample	ppm	ррт	ppm	ppm	ppm
			103.40	103.90	0.50	148	400	12200	37000	17.8	0.0700
			103.90	104.90	1.00	149	100	1700	4600	3,1	0.0700
			104.90	106.60	1.70	150	500	700	4600	5.4	0.0700
			106.60	107.60	1.00	151	2300	100	6700	13.7	0.0700
			107.60	108.35	0.75	152	900	200	11600	16.1	0.1700
			108.35	108.90	0.55	153	100	100	6900	1.3	0.0700
108.40 -	108.90	Felsic Dyke									
2	% sphalerite as	stringers and veinlets							-		
108.90 -	111.40	andesitic tuff (chloritic)	108.90	111.40	2.50	154	20 0	7	635	1.4	0.0100
eį	pidote-biotite-q	uartz veining, blebs and stringers pyo									
111.40 -	112.80	Siltstone	111.40	112.80	1.40	155	166	58	1250	0.8	0.0050
В	lack argillaceo	us, silicified, 1% pyo									
112.80 -	116.10	Diorite									
x	-cut pyo veins 1	-2 cm wide									
			115.80	116.80	1.00	156	320	11	560	0.8	0.0300
116.10 -	116.80	Siltstone									
В	lack argillaceo	us, banding @ 60 degrees to core axis						·		,	
116.80 -	119.20	Diorite									
<i>p</i> .	yo x-cut veins l	-5 cm wide									
			118.20	119.20	1.00	157	155	13	263	1.0	0.0450
119.20 -	134.70	Siltstone	119.20	121.00	1.80	158	360	15	207	1.2	0.0450
В	lack argillaceo	us, interbedded nuffaceous sandstone, banding @ 60									
d	legrees to core d	æcis, weak chl-ep									
			127.60	128.30	0.70	159	260	10	213	0.9	0.0200
			130.90	131.40	0.50	160	170	270	168	3.3	0.0250

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		Hole ID: 1985-2	Geo-fac	ts			Pr	oject: r	ox.		/
From	То	Description	From	То	Width	Sample	ppm Cu	ppm Pb	ррт Zл	ppm Ag	ppm At
0.00 -	1.80	Casing									
1.80 -	2.60	andesitic tuff (chloritic)									
1-3	mm lapilli cla	sts stretched oblate									ļ
2.60 -	44.80	Siltstone									
Bla	ck argillaceou	s, silicified quartz breccia with pyo-sphalerite at			ļ						
4.1-	5.1 m, banding	g 45-55 degrees to core axis	4.1	0 5.10	1.00	161	112	19	2100	0.3	0.0050
			12.7	0 13.40	0.70	162	900	7	660	1.9	0.0050
44.80 -	46.30	andesitic tuff (chloritic)									
qua	rtz-chlorite al	teration									-
46.30 -	52.80	Siltstone									
0.1-	6.0 cm epidot	e veinlets, 1-8 cm pyo veins, banding at 45 degrees									
to c	ore axis										
			52.3	53.30	1.00	163	670	6	1480	1.8	0.0050
52.80 -	60.10	andesitic tuff (chloritic)									ļ
1-3	cm quartz vei	ns									
60,10 -	62.50	Diorite									
diff	use contacts, i	I-4 cm quartz-calcite veining									
62.50 -	67.80	andesitic tuff (chloritic)									
lapi	illi fragments e	elongated 45 degrees to core axis									
67.80 -	75.00	Siltstone]								
Bal	ck argillaceou	is, silicified, 15% epidote-chlorite as 1-12 cm wide									
stri	ngers and vein	ns, bedding @ 45 degrees to core axis									
											1



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		Hole ID: 1985-3		Geo-facts				Pr	0X				
From	То	Description		From	To	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppm A	
0.00 -	3.10	Casing											
3.10 -	5.70	Siltstone											
Blac	ck argillaceou	s, silicified, interbedded tuffaceous sandstone,		4.60	5.70	1.10	164	200	134	1020	1.0	0.055	
Ban	ding @ 60 de	grees to core axis, 1% pyo				-							
5.70 -	6.10	Mafic-Dyke		5.70	6.10	0,40	165	14	117	525	0.4	0.00	
1-4	mm plagiocla	se phenocrysts, sharp contact @ 70 degrees to core								ļ			
axis	F												
6.10 -	7.00	Siltstone		6.10	7.00	0.90	166	170	1150	17100	2.7	0.01	
Bale	ck argillaceou	s, silicified	·····										
7.00 -	10.30	andesitic tuff (chloritic)		7.00	8.00	1.00	167	310	35	1740	0.9	0.01	
1-5	cm blebs pyo,	stretched variolitic structures near contact with		8.00	9.00	1.00	168	270	12	14400	0.9	0.00	
dior	rite			9.00	10.00	1.00	169	380	10	10900	1.2	0.00	
				10.00	11.00	1.00	170	420	10	200	1.2	0.00	
10.30 -	12.70	Diorite											
gra	dational conta	act with andesite, 1-3% pyo	<u>.</u>	11.00	12.00	1.00	171	390	10	360	1.9	0.00	
				12.00	13.00	1.00	172	620	23	318	4.0	0.00	
12.70 -	14.50	andesitic tuff (chloritic)											
1-2	cm pyo string	ers, trace-0.2% sphalerite, cpy		13.00	14.50	1.50	173	275	11	99	1.4	0.00	
14.50 -	16.00	Massive Sulphide		14.50	16.00	1.50	174	360	575	12300	5.8	0.01	
2%	руо, 5-8% spl	halerite, 0.5% cpy											
16.00 -	19.70	andesitic tuff (chloritic)		16.00	17.50	1.50	175	180	16	317	+ 1.2	0.00	
1-3	% Sphalerite a	zs 0,1-0,3 cm wide stringers, 3% pyo		17.50	19.00	1.50	176	168	16	183	1.0	0.00	
				19.00	19.70	0,70	177	430	73	1960	5.3	0.00	
19.70 -	24.70	Massive Sulphide		19.70	20.20	0.50	178	430	42	6400	3.6	0.01	
poh	ymetallic 0.1-	5.0 cm wide pyo veins x-cut brown sphalerite, 10%		20.20	20.70	0.50	179	560	440	60000	24.0	0.01	
qua	artz, 3% calcite	e, 1-5 cm galena-sphalerite-chalcopyrite as veinlets		20.70	21.20	0.50	180	215	990	7900	6.0	0.01	
ana	l massive			21.20	21.70	0.50	181	270	405	4200	6.7	0.01	
				21.70	22.20	0.50	182	440	365	1520	12.0	0.02	
				22.20	22.70	0.50	183	1100	3440	27200	30.0	0.20	
				22.70	23.20	0.50	184	1520	3020	8400	43.0	0.09	
				23.20	23.70	0.50	185	7600	89 00	27400	155.3	0.44	
				23.70	24.20	0.50	186	1690	905	6800	22.0	0.16	
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	~	Hole ID: 1985-3	Geo-fact	S			Pr	oject: r	ox	Ĺ	~
From	То	Description	From	То	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppm A
<u> </u>			24.20	24.70	0.50	187	800	1720	12800	8.0	0.680
24.70 -	28.20	Stringer Zone	24.70) 25.70	1.00	188	520	495	3000	9.0	0.010
de	creased sulphi	des and brecciation	25.70	26.70	1.00	189	520	435	6900	6.1	0.005
			26.70) 27.20	0.50	190	1500	38	2400	7.0	0.005
			27.20) 27.70	0.50	191	15100	100	3000	123.8	0.050
			27.7) 28.20	0.50	192	37200	81	3200	236.9	0.080
28.20 -	31.20	Massive Sulphide	28.20) 28.70	0.50	193	80700	28700	36000	582.8	0.060
m	assive pods of	galena-sphalerite, minor chalcopyrite, 3-8% pyrrhotite	28.7) 29.20	0.50	194	12000	53500	26800	237.3	0.030
			29.2) 29.70	0.50	195	4600	8650	5800	36.3	0.003
			29.7) 30.20	0.50	196	6600	83500	42500	169.0	0.04
			30.2	30.70	0.50	197	5500	302000	41500	812.6	0.03:
			30.7	31.20	0.50	198	9600	157500	37300	677.1	0.05
31.20 -	39.80	Siltstone	31.2	32.20	1.00	199	580	1320	5900	9.9	0.00
A	rgillaceous, sil	icified, interbedded tuffaceous sandstone	32.2	33.70	1.50	200	280	880	1620	6.0	0.00
			33.7	35.20	1.50	201	162	735	3500	2.4	0.00
			35.2	36.70	1.50	202	90	600	3000	1.6	0.00
			36.7	38.20	1.50	203	44	192	595	0.6	0,00
			38.2	39.70	1.50	204	68	377	1130	1.1	0.00
			39.7	0 41.50	1.80	205	25	60	253	0.5	0.00
39.80 -	41.00	Felsic Dyke									
	-3 mm plagiocl	ase phenocrysts, 3% chlorite									
41.00 -	41.50	Siltstone									
	lack argillaceo	us silicified									



				Lon_facts	<u>.</u>			Pr	oject: n	ox		/
- ~	T.	Hole ID: 1985-4	- (JCO-IACIS	T -	XX7: J4L	Samula	nnm Cu	nom Pb	DOM Zn	opm Ag	opm Au
F rom	10	Description		From	10	W JUCH	Sample				1. 0	
0.00 -	2.40	Casing										
2.40 -	10.80	Siltstone										
Bla	ck argillaceous	, silicified, interbedded tuffaceous sandstone,										
bed	ding @ 40 deg	rees to core axis		4.20	6.40	2.20	206	150	23	107	1.2	0.0050
				6.40	8.60	2.20	207	300	21	1340	1.8	0.0250
				8.60	10.80	2.20	208	200	130	3200	2.3	0.0250
10.80 -	11.90	Felsic Dyke		10.80	11.90	1.10	209	25	19	390	0.2	0.0050
Chl	oritized plagio	clase phenocrysts, 5% brown biotite										
11.90 -	13.20	Siltstone		11.90	13.20	1.30	210	96	39	1240	0.6	0.0050
Arg	illaceous, beda	ling @ 40 degrees to core axis,										
che	rt lens at 12.7-	12.9 m										
13.20 -	20.70	Stringer Zone		13.20	14.70	1.50	211	130	10	5500	0.7	0.0050
chle	oritic stretched	fragments/phenocrysts, elongated @ 40 degrees to		14.70	16.20	1.50	212	230	12	615	1.2	0.0050
cor	e axis, 1-5 cm	quartz veins, 3% pyo, 3% sphalerite at 16.2-17.7 m										
				16.20	17.70	1.50	213	172	. 18	11000	1.4	0.0050
				17.70	19.20	1.50	214	280	23	5900	1.7	0.0050
				19.20	20.70	1.50	215	600	70	4600	3.9	0.0050
20.70 -	25.70	Diorite		20.70	22.20	1.50	216	510	1230	15200	12.0	0.0050
Gre	een colour from	strong chlorite alteration, 3-10% sphalerite as 2-5										
cm	wide veins froi	n 20.7-24.7 m		22.20	23.70	1.50	217	110	73	6200	1.4	0.0050
				23.70	24.70	1.00	218	565	319	74700	13.0	0.0100
				24.70	25.70	1.00	219	400	111	2200	3.7	0.0150
25 70 -	28.70	andesitic tuff (chloritic)		25.70	26.70	1.00	220	470	224	17100	4.9	0.0100
elor	ngated chlorite	-epidote clots and bands @ 40 degrees to core axis		26.70	27.70	1.00	221	250	25	161	1.3	0.0050
	-			27.70	28.70	1.00	222	810	30	770	6.0	0.0050
28.70 -	30.30	Massive Sulnhide		28.70	29.20	0.50	223	800	400	33200	10.9	0.0700
Ma	ssive sphalerit	e, minor galena-pyrrhotite-garnet-chlorite	I	29.20	29.70	0.50	224	400	15900	32400	74.4	0.0700
	-			29.70	30.30	0.60	225	200	9000	46200	39.8	0.0700
30.20	32 60	Void			•		-					
	core, mislatch	T UAR	l								İ	
27 60	30.00	Siltetono		32.60	33.10	0.50	226	1900	400	5100	34.0	0.0700
34.00	J7.00	s silicified, hedding @ 38 degrees to core axis.		33.10	33.60	0.50	227	2000	400	1680	33.0	0.0450
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Hole ID: 1985-4	Geo-facts				Pr	Project: rox			\sim
rom To Description	From	To	Width	Sample	ррт Си	ppm Pb	ppm Zn	ppm Ag	ppm A
brown sphalerite, 1% pyo as stringers	33.60	35.80	2.20	228	110	328	1040	2.5	0.005
	35.80	37.30	1.50	229	50	250	382	2.4	0.005
	37.30	39.00	1.70	230	85	855	3000	1.5	0.005
39.00 - 39.80 Fetsic Dyke									
1-4 mm plagioclase phenocrysts									
39.80 - 44.80 Siltstone									
Black argillaceous, interbedded tuffaceous sandstone, bedding @ 40-45			,						
degrees to core axis, quartz-epidote breccia (41.8-47.3),	41.80	42.80	1.00	231	130	1170	2500	7.0	0.00
epidote-garnet associated with mineralization	42.80	43.80	1.00	232	2500	730	860	23.0	0.00
	43.80	44.80	1.00	233	61	510	1140	1.6	0.07
14.80 - 47.30 Massive Sulphide	44.80	45.30	0.50	234	100	5700	26500	12.7	0.07
Polymetallic zone with Cu/Zn zoning	45.30	46.30	1.00	235	100	6800	22400	13.4	0.07
	46.30	46.80	0.50	236	13300	3000	1900	160.4	0.07
	46.80	47.30	0.50	237	3400	1600	700	46.6	0.07
7.30 - 49.20 Felsic Dyke									
1-6 mm plagioclase phenocrysis 19.20 - 62.00 Siltstone	49.20	51.20	2.00	238	152	87	410	2.0	0.00
Black argillaceous, silicified, interbedded tuffaceous sandstone,									
bedding @ 40 degrees to core axis	51.20	53.20	2.00	239	51	180	298	0.4	0.00
	53.20	55.20	2.00	240	131	103	511	0.7	0.0
	55.20	57.20	2.00	241	180	155	398	0.5	0.0
	57.20	59.20	2.00	242	101	141	612	0.4	0.0
	59.20	61.20	2.00	243	77	198	1101	0.7	0.0
	61.20	63.20	2.00	244	201	290	1811	1.3	0.0
52.00 - 78.10 andesitic tuff (chloritic)									
quartz-chlorite-epidote alteration	63.20	65.20	2.00	245	96	104	1044	0.8	0.0
	65.20	67.20	2.00	246	155	160	1200	3.2	0.0
	67.20	69.20	2.00	247	123	78	1002	1.0	0.0
	69.20	71.20	2.00	248	162	99	1203	1.3	0.0
	71.20	73.20	2.00	249	129	45	798	0.8	0.0
	73.20	75.20	2.00	250	115	66	1670	1.0	0.0
78.10 - 88.80 Siltstone	78.10	80.10	2.00	251	129	45	2430	1.0	0.0
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(Hole ID: 1985-4	Geo-facts				Pr	oject: r	ox		/
From	То	Description	From	То	Width	Sample	ррт Сч	ppm Pb	ppm Zn	ppm Ag	ppm Au
E	Black argillace	eous, interbedded tuffaceous sandstone, 1-3 cm quartz									
ν	eins, pyo-sph	alerite	80.10	82.10	2.00	252	184	67	1010	2.1	0.0050
			82.10	84.10	2.00	253	146	29	1980	2.1	0.0100
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———(G	eo-facts				Pr	oject: ro	DX	C	/
From To Description		From	То	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppm Au
0.00 - 1.80 Casing									ļ	ļ
1.80 - 5.40 Siltstone	··									
Black argillaceous, interbedded tuffaceous sandstone, bedding @ 45-50	ليعين									
degrees to core axis										
5.40 - 7.10 andesitic tuff (chloritic)										
0.5 mm grey elogated clasts/phenocrysts @ 45 to core axis										
7.10 - 16.30 Siltstone										<u> </u>
Grey-black argillaceous, interbedded tuffaceous sandstone, bedding @		8,40	10.40	2.00	254	228	6	152	1.2	0.0100
50 degrees to core axis, 1-30 cm quartz veins (vuggy), 1-4%										
pyo-sphalerite-cpy 8.4-12.0 m		10.40	12.00	1.60	255	1205	8	1110	4.7	0.005
16.30 - 18.60 andesitic tuff (chloritic)										
Sharp contact with siltstone @ 40 degrees to core axis, fracture										
filling epidote x-cut by 1-2 cm wide calcite veins										
18.60 - 27.80 Siltstone										
Grey-black, interbedded tuffaceous sandstone, bedding @ 30-45 degrees										
to core acis										
		27.50	28.20	0.70	256	292	119	16700	2.2	0.005
27.80 - 29.70 andesitic tuff (chloritic)										
pyo-sphalerite-cpy associated with quartz-epidote veins and breccia at		28.20	29.70	1.50	257	40	46	230	0.2	0.005
27. 5-2 8.2 m										
29.70 - 59.80 Siltstone		29.70	30.70	1.00	258	146	10	2460	0.3	0.005
Black argillaceous, interbedded tuffaceous sandstone, bedding @ 45-50										
degrees to core axis, chlorite brecccia and graphitic slickensides										
43.6-44.6 m								-		
		43.60	44.60	1.00	259	117	41	485	0.2	0.020
		58.00	59.50	1.50	260	480	11	630	1.8	0.005
		59.50	61.00	1.50	261	396	13	2880	0.9	0.005
59.80 - 67.00 andesitic tuff (chloritic)										
sheared and brecciated 61.7-65.0 m., bedding @ 45 degrees to core										
æxis, 1% pyo, trace sphalerite-cpy		61.00	62.50	1.50	262	105	18	880	1,8	0.005
		62.50	64.00	1.50	263	117	25	620	0.8	0.00
		64.00	65.50	1.50	264	308	26	1870	0.9	0.005
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Hole ID: 1985-5 From To Description	\sim_{0}	eo-facts From	To	Width	Sample	Pr ppm Cu	oject: r ppm Pb	ox ppm Zn	ppm Ag	; ppm At
		65.50	67.00	1.50	265	111	6	214	0.4	0.0050
67.00 - 74.30 Siltstone		67.00	68.50	1.50	266	82	26	163	0.3	0.0050
Black argillaceous, silicified, interbedded tuffaceous sandstone,	J	68.50	70.00	1.50	267	224	6	145	0.5	0.0050
bedding 30-50 degrees to core axis, 5-10 cm quartz veins 68.4-69.0 m,										
epidote breccia at 70.6-71.8 m, 3% pyo at contact 74.0-74.3 m		70.00	71.50	1.50	268	580	580	10440	12.0	0.0150
		71.50	73.00	1.50	269	74	6	147	0.2	0.0050
		73.00	74.30	1.30	270	240	8	170	0.8	0.0050
74.30 - 77.50 andesitic tuff (chloritic)		74.30	75.80	1.50	271	176	22	105	0.9	0.0050
quartz-epidote breccia 5% pyo, 0.1% cpy		75.80	77.50	1.70	272	317	13	112	1.8	0.0150
77.50 - 93.60 Siltstone										
Black argillaceous, interbedded tuffaceous sandstone					÷					

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	/	Hole ID: 1985-6	Seo-facts				Pr	oject: r	0X		~
From	То	Description	From	То	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppm A
0.00 -	1.80	Casing									
1.80 -	14.60	Siltstone									
Blaci	t argillaceous	s, silicified, interbedded tuffaceous sandstone,									
epide	ote stringers,	minor pyo-cpy, bedding @ 12 degrees to core axis									ļ
14.60 -	15.60	Massive Sulphide	14.60	15.60	1.00	273	71500	100	4900	319.2	1.800
Mass	sive cpy, minc	or pyo-sphalerite, sharp contact at 30 degrees to core									
axis						<u>.</u>					
15.60 -	32.60	Siltstone	15.60	16.60	1.00	274	3570	6	2460	21.0	0.01
Blac	k argillaceou.	s, silicified, interbedded tuffaceous sandstone,								•	
bedd	ling @ 10 deg	rees to core axis, trace sphalerite-cpy									
32.60 -	38.20	andesitic tuff (chloritic)									
2-7 n	nm dark gree	n chloritic clots elongated 10-15 degrees to core	r								
axis,	2-15 cm wide	e clois and patches of chlorite									
38.20 -	53.40	Siltstone				-					
Blac	k argillaceou	s, silicified, interbedded tuffaceous sandstone, 40	·								
cm q	uartz vein @	51.7 m, minor quartz-epidote breccia									
			49.00	50.20	1.20	275	1320	4	1630	5.6	0.00
			50.20	51.40	1.20	276	500	100	1600	1.7	0.00
			51.40	52.40	1.00	277	1100	100	2400	4.1	0.06
			52.40	53.40	1.00	278	1600	100	8400	6.9	0.04
53.40 -	62.20	andesitic tuff (chloritic)	53.40	54.40	1.00	279	3700	400	9300	11.7	0.00
dark	green chlori	tic clots stretched 10-15 degrees to core	54.40	55.40	1.00	280	600	500	15900	2.7	0.00
axis	- x-cutting pyo-	cpy-sphalerite stringers	55.40	56.40	1.00	281	200	800	19500	2.7	0.00
	017		56.40	57.40	1.00	282	400	200	18300	2.1	0.00
			57.40	59.40	2.00	283	41	17	1790	0.2	0.00
			59.40	60,40	1.00	284	400	100	10200	1.4	0.00
			60.40	61.40	1.00	285	10400	100	2700	34.6	0.01
			61.40	62.40	1.00	286	1300	100	400	5.5	0.00
62.20 -	62.40	Siltstone	·								
Blac	k argillaceou	s, silicified, interbedded tuffaceous sandstone,									
beda	- ling @ 20 des	greese to core axis									
62.40 -	66.40	Massive Sulphide	62.40	63.40	1.00	287	4000	100	500	14.7	0.00
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Hole ID: 1985-6	Geo-facts				Pr	oject: re	DX		-/
rom To Description	From	То	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppm A
3-15% pyrrhotite-sphalerite-chalcopyrite-galena as lenses and fracture	63.40	64.40	1.00	288	13200	2600	3900	127.2	0.010
filling	64.40	65.40	1.00	289	10800	3600	4400	120.7	0.010
	65.40	66.40	1.00	290	4100	600	1600	27.4	0.005
6.40 - 81.90 Stringer Zone	66.40	68.40	2.00	291	71	70	580	0.4	0.005
Black argillaceous siltstone, silicified, interbedded tuffaceous									_
sandstone, fracture filling pyo-cpy-sph-gal	68.40	70.40	2.00	292	48	12	2010	0.4	0.00:
	70.40	72.40	2.00	293	71	36	1000	0.8	0.00
	72.40	73.40	1.00	294	700	200	9500	12.0	0.02
	73.40	74.40	1.00	295	800	200	80 0	8.9	0.10
	74,40	75.40	1.00	296	400	100	200	2.1	0.00
	75.40	76.40	1.00	297	400	100	600	3.8	0.01
	76.40	77.40	1.00	298	600	300	1400	6.5	0.01
	77.40	78.90	1.50	299	1140	52	1000	8.0	0.01
	78.90	80.40	1.50	300	530	39	800	3.9	0.07
	80.40	81.90	1.50	301	1690	1015	9040	23.0	0.08
Felsic Dyke	81.90	83.90	2.00	302	268	212	925	4.0	0.01
1-5 mm plagioclase phenocrysts, 1-8 mm chlorite clots	l								
33.90 - 96.90 Massive Sulphide	83.90	84.40	0.50	303	500	5600	23700	11.0	0.01
3-15% pyo-sph-gal-cpy as fracture filling as massive pods in	84.40	84.90	0.50	304	100	3500	14000	5.8	0.01
chlorite-calcite altered tuff, stretched fragments (a) $0-30$ degrees to	84.90	85.40	0.50	305	200	1400	11800	3.4	0.01
core axis	85.40	85.90	0.50	306	200	6900	12800	8 .6	0.0
	85.90	86.40	0.50	307	400	4900	18100	18.2	0.0
	86.40	86.90	0.50	308	600	12400	8 4000	93.9	0.1
	86.90	87.90	1.00	309	200	200	1500	3.1	0.0
	87.90	88.90	1.00	310	700	1100	17800	26.1	0.01
	88.90	89.90	1.00	311	445	199	10500	8.2	0.0
	89.90	90.90	1.00	312	565	420	15300	15.0	0.00
	90,90	91.90	1.00	313	740	167	10310	9.1	0.00
	91.90	92.90	1.00	314	700	193	5050	7.6	0.00
	92.90	93.90	1.00	315	391	129	2200	3.9	0.00
	93.90	94.90	1.00	316	500	100	4100	4.1	0.00
	94.90	95.90	1.00	317	700	100	4900	5.8	0.00
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Hole ID: 1085-6	C	eo-facts				Pr	oject: r	0X .	\sim	
From To Description		From	То	Width	Sample	ррт Си	ppm Pb	ppm Zn	ppm Ag	, ppm Aı
	······	95.90	96.90	1.00	318	1100	200	2200	6.9	0.0050
96.90 - 98.90 andesitic tuff (chloritic)		96.90	97.90	1.00	319	700	100	600	2.1	0.0050
5% epidote, 3% quartz		97.90	98.90	1.00	320	1800	100	400	5.1	0.0150
98.90 - 103.40 Diorite		98 .90	99.90	1.00	321	29	6	109	1.0	0.0050
8% chlorite, 5% epidote, 1% pyo, trace cpysph		99.90	100.90	1.00	322	70	5	200	0.4	0.0050
		100.90	101.90	1.00	323	105	6	110	0.6	0.0050
		101.90	102.90	1.00	324	145	6	110	0.9	0.0050
		102.90	103.40	0.50	325	361	18	520	2.6	0.0050
103.40 - 105.90 Massive Sulphide		103.40	103.90	0.50	326	2000	400	18300	34.3	0.0150
3-15% pyo-cpy-sph-gal as fracture filling and lenses, 8% chlorite 3%		103.90	104.40	0.50	327	3200	200	700	35.7	0.0150
epidote 3% quartz, sulphides x-cut @ 20-60 degrees to core axis with	-	104.40	104.90	0.50	328	200	100	700	4.4	0.0050
epidote rind		104.90	105.40	0.50	329	1200	1100	11000	43.2	0.0100
		105.40	105.90	0.50	330	1500	1000	17900	83.6	0.0150
05.90 - 114.40 andesitic tuff (chloritic)		105.90	106.40	0.50	331	14300	100	1400	85.7	0.1000
Strong chlorite-epidote alteration, minor contorted fabric		106.40	106.90	0.50	332	10800	100	400	65.5	0.0400
		106.90	107.40	0.50	333	6200	100	200	35.0	0.0150
		10 7 .40	107.90	0.50	334	6200	100	400	31.9	0.0100
		107.90	108.90	1.00	335	800	100	200	2.7	0.0050
		108.90	109.40	0.50	336	1300	100	100	4.1	0.0050
		109.40	109.90	0.50	337	1600	100	100	5.5	0.0050
		109.90	110.40	0.50	338	2500	100	200	11.7	0.0050
		110.40	111.40	1.00	339	1300	100	100	4.5	0.0050
		111.40	112.40	1.00	340	500	6	71	1.4	0.0050
		112.40	113.40	1.00	341	182	4	352	0.3	0.0050
		113.40	114.40	1.00	342	530	3	685	0.7	0.0050
14.40 - 124.10 Diorite		114.40	115.40	1.00	343	225	2	92	0.4	0.0050
2-6 mm plagioclase phenocrysts, 3-8 mm chlorite clots, 1% calcite, 1%		115.40	116.40	1.00	344	49	2	166	0.2	0.0050
pyo, trace sph-cpy		116.40	117.40	1.00	345	191	2	136	0.3	0.0050
		117.40	118.40	1.00	346	328	2	560	0.4	0,0050
		118.40	119.40	1.00	347	156	2	113	0.2	0.0050
		119.40	120.40	1.00	348	95	2	99	0.2	0.0050
		120.40	121.40	1.00	349	62	2	720	0.2	0.0050
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~	Hole ID: 1985-6	Geo-facts				Pr	oject: r	DX		~
То	Description	From	To	Width	Sample	ррт Сч	ppm Pb	ppm Zn	ppm Ag	ppm Au
		121.40	122.70	1.30	350	175	2	108	0.2	0.0050
		122.70	124.10	1.40	351	43	2	105	0.2	0.0050
-	 To	Hole ID: 1985-6 To Description	Hole ID: 1985-6 Geo-facts To Description From 121.40 122.70	Hole ID: 1985-6 Geo-facts To Description From To 121.40 122.70 124.10	Hole ID: 1985-6 Geo-facts To Description From To Width 121.40 122.70 1.30 122.70 124.10 1.40	Hole ID: 1985-6 Geo-facts To Description From To Width Sample 121.40 122.70 1.30 350 122.70 124.10 1.40 351	Hole ID: 1985-6 Geo-facts Promotion To Description From To Width Sample ppm Cu 121.40 122.70 1.30 350 175 122.70 124.10 1.40 351 43	Hole ID: 1985-6 Geo-facts Project: ro To Description From To Width Sample ppm Cu ppm Pb 121.40 122.70 1.30 350 175 2 122.70 124.10 1.40 351 43 2	Hole ID: 1985-6 Geo-facts Project: rox To Description From To Width Sample ppm Cu ppm Pb ppm Zn 121.40 122.70 1.30 350 175 2 108 122.70 124.10 1.40 351 43 2 105	Hole ID: 1985-6 Geo-facts Project: rox To Description From To Width Sample ppm Cu ppm Zn ppm Ag 121.40 122.70 1.30 350 175 2 108 0.2 122.70 124.10 1.40 351 43 2 105 0.2



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		Hole ID: 1985-7	G	eo-facts				Pr	oject: r	0X		
From	То	Description		From	Тө	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppns A
0.00 -	1.80	Casing										
1.80 -	5.20	Siltstone										
Bla	ck argillaceou	s, silicified, bedding @ 43 degrees to core axis,	[<u>}</u>	
min	oe quartz vein	ing, 3% epidote										
5.20 -	6.00	andesitic tuff (chloritic)										
Fab	oric developed	@ 40 degrees to core axis										
6.00 -	25.60	Siltstone										
Bla	ck argillaceou	s, silicified, interbedded tuffaceous sandstone,										
min	or quartz bree	ccia, 0.1-0.8 cm calcite veins	-									
25.60 -	28.30	andesitic tuff (chloritic)										
Wed	ak pyo-sph-cpy	y mineralization										
				27.90	28.60	0.70	352	680	5	840	1.3	0.00
28.30 -	50.30	Siltstone										
руо	stringers with	minor sph-cpy, contorted beds at 34.9-35.7 m,	·	29.80	31.30	1.50	353	700	68	2790	9.2	0.03
gra	phitic slickens	ides 41.0-41.1 m						****				
			-	31.30	33.00	1.70	354	275	192	2450	3.0	0.01
			-	47.60	48.40	0,80	355	315	49	4210	1.4	0.01
				48.40	49.30	0.90	356	1020	8	1060	2.0	0.08
			ľ	49.30	50.30	1.00	357	119	6	305	0.2	0.00
50.30 -	51.30	andesitic tuff (chloritic)	·····	50.30	51.30	1.00	358	379	8	825	1.1	0.01
руо	stringers with	epidote rinds	I								• •	
51.30 -	52.50	Siltstone										
Bla	ck argillaceou	s, interbedded tuffaceous sandstone	i									A
52.50 -	53.50	andesitic tuff (chloritic)								1		
fabi	ric developed ((a) 40 degrees to core axis, weal epidote breccia	ŀ									
53.50 -	63.80	Siltstone										
Bla	ck argillaceou	s, silicified, interbedded tuffaceous sandstone,										
min	eralized quart	z-epidote breccia 60.0-61.5 m										
				60.00	60.80	0.80	359	330	227	8070	2.9	0.00
			f	60,80	61.50	0.70	360	236	445	3390	2.8	0.00
			ŀ	62.80	63.80	1.00	361	157	65	242	0.6	0.00
63.80 -	75.90	andesitic tuff (chloritic)		63.80	65.90	2.10	362	115	5	212	0.4	0.00
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	Hole ID: 1985-7	Geo-facts				Pr	oject: r	ox	Ĺ	1
From To	Description	From	То	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppm Av
chlorite clots	and bands elongated @ 48 degrees to core axis, 5%								ſ	
epidote, trace	garnet	65.90	67.90	2.00	363	128	2	284	0.5	0.0050
		67.90	69.90	2.00	364	55	2	155	0.2	0.0050
		69.90	71.90	2.00	365	62	2	166	0.3	0.0050
		71.90	73.90	2.00	366	110	2	155	0.2	0.0050
		73.90	75.90	2.00	367	865	29	318	16.0	0.0050
75.90 - 76.60) Massive Sulphide	75.90	76.60	0.70	368	1300	15700	62300	68.9	0.0200
pyo-sph-gal-c	py in a gangue of chlorite-epidote-garnet									
76.60 - 79.60) Stringer Zone	76.60	78.10	1.50	369	1035	246	890	11.0	0.0150
Fracture fillin	ng pyo-cpy-sph with chlorite-epidote alteration									
		78.10	79.60	1.50	370	1030	133	3750	8.3	0.0100

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	/	Hole TD: 1985-8		Geo-facts				Pr	oject: r	ox		
From	То	Description		From	То	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppm A
0.00 -	2.50	Casing				<u>_</u>						
2.50 -	3.70	Massive Sulphide		2.50	3.70	1.20	372	32500	100	1800	86.7	0.0150
Ma	ssive pyo-sph-a	cpy in silicified zone										
3.70 -	17.10	Siltstone										
Bla	ck argillaceou	s, silicified, graphitic, interbedded tuffaceous										
san	dsto <mark>ne</mark> , beddin	g @ 18 degrees to core axis, weak pyo-sph-cpy					_					
strii	nger zone deve	loped 14.7-17.1 m										
				12.20	13.00	0.80	373	3620	5	420	4.0	0.005
				14.70	16.20	1.50	374	101	6	1940	1.2	0.005
				16.20	17.10	0.90	375	36	4	2600	0.2	0.005
17.10 -	22.10	Stringer Zone		17.10	18.10	1.00	376	317	12	10400	1.1	0.005
Chl	o <mark>rite-q</mark> uartz-e _l	pidote breccia with pyo-sph-cpy stringers in		18,10	19.10	1.00	377	1650	93	1300	9.0	0.005
silic	cified, contorte	d black argillaceous siltstone		19.10	20.10	1.00	378	134	26	720	0.6	0.005
				20.10	21.10	1.00	379	225	115	2700	1.2	0.005
				21.10	22.10	1.00	380	213	129	1540	2.6	0.005
22.10 -	74.90	Siltstone		22.10	23.60	1.50	381	36	12	1740	0,6	0.005
Bla	ck argillaceou.	s, silicified, interbedded tuffaceous sandstone,									ſ	
faul	lt gouge 31.0-3	1.7 m, weak pyo-sph-cpy stringer zones at										
29 .8	8-31.8, 36.2-38	8.7 m, & 61.8-62.6 m										
				29.80	31.80	2.00	382	1560	6	3000	3.7	0.150
				36.20	37.70	1.50	383	8 60	6	7400	7.8	0.010
				37.70	38.70	1.00	384	2850	102	2900	24.0	0.055
				40.10	41.90	1.80	385	595	39	800	4.6	0,005
				41.90	43.70	1.80	386	990	11	340	5.8	0.020
				48.90	50.70	1.80	387	1000	97	320	8.0	0.120
				53.50	54.70	1.20	388	990	450	920	14.0	0.040
				61.80	62.60	0.80	389	3400	860	2500	39.0	0.005
				67.00	67.70	0.70	390	127	900	650	2.6	0.005
74.90 -	75.30	Felsic Dyke										
2-5	mm chlorite cl	ots, vuggy calcite, gypsum?	,									
75.30 -	89.00	Siltstone		75.50	76.50	1.00	391	321	38	50	2.7	0.005
	ck argillaceou	s, interbedded tuffaceous sandstone (coarse grained).		76.50	77 50	1.00	397	1310	78	340	10.0	0.045

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(Pr	oject: r	OX.		
From To I	Hole ID: 1985-8 Description	-Geu-iacis	То	Width	Samula	ppm Cu	ppm Pb	 ppm Zn	ppm Ag	ppm At
	76501 Sprion	F (VII)	79.50	1.00	202	2300	100	1100	20.6	0.1800
pyo-cpy-sph stringers 7	7.3-76.3 m	77.50	20.30 00.00	1.00	304	615	280	1180	8.3	0.0050
		78.30	00.00 87 20	1.50	205	640	200	390	3.6	0.0050
		86.20	87.30	1.10	393	400	1200	6000	80	0.0050
89.00 - 91.00	Massive Sulphide	89.00	90.00	1.00	396	400	2200	4200	15.8	0.1500
Fracture filling and len	ses of pyo-sph-cpy	90.00	91.00	1.00	397	000	3200	4300	20	0.1900
91.00 - 98.90	Stringer Zone	91.00	92.00	1.00	398	208	350	410	2.9	0.1800
0.1-0.2 cm wide epidote	e-quartz veinlets, weak breccia developed in	92.00	93.00	1.00	399	173	750	1870	2.8	0.1800
sheared argillaceous si	ltstone, strong chlorite alteration with greasy	93.00	94.00	1.00	400	222	850	1860	3.8	0.0050
lustre		94.00	95.00	1.00	401	900	800	1900	8.9	0.0100
		95.00	96.40	1.40	402	70	270	760	0.9	0.0050
		96.40	97.40	1.00	403	200	1100	9500	2.7	0.0050
		97.40	98.90	1.50	404	32	290	380	0.7	0.005
98.90 - 102.40	Massive Sulphide	98.90	99.90	1.00	405	16200	2800	12000	175.2	0.040
Copper zone from 98.9	-99.9 with increased lead-zinc and decreased	99.90	101.40	1.50	406	241	630	1140	4.9	0.005
copper at 101.4-102.4	m									
		101.40	102.40	1.00	407	500	7800	26700	8.9	0.015
02.40 - 133.20	Siltstone	102.40	103.40	1.00	408	314	1660	6800	5.3	0.005
Black argillaceous, inte	erbedded tuffaceous sandstone, bedding @ 35	103.40	104.40	1.00	409	102	555	1950	1.2	0.005
degrees to core axis, w	eak epidote breccia throughout section	104.40	105.40	1.00	410	142	171	850	1.2	0.005
-		105.40	106.40	1.00	411	249	910	3400	4.2	0.005
		107.90	109.20	1.30	412	1900	300	1100	6.0	0.005
133.20 - 134.20	Massive Sulphide	133.20	134.20	1.00	413	725	3300	25900	32.0	0.005
gal-sph mineralization	associated with quartz-epidote									
134.26 - 159.20	Siltstone			- 14						
Black argillaceous, int	erbedded tuffaceous sandstone, bedding @ 35									
degrees to core axis. w	eak epidote breccia throughout section, 2%									
sphalerite-galena 140.	6- 141.6 m									
Spinarer ne Bareina I For		140.60	141.60	1.00	414	222	9250	15000	45.0	0.005
		158.20	159.20	1.00	415	396	1620	600	28.0	0.005
		120.20							··	

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Hole ID: 1985-9	Geo-facts				Pr	oject: r	0X		
From To Description	 From	То	Width	Sample	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppm Au
0.00 - 1.80 Casing	 								
1.80 - 9.40 Siltstone									
Black argillaceous, silicified, interbedded tuffaceous sandstone,	 	1				ļ			
bedding @ 30 degrees to core axis									
	 7.90	9.00	1.10	416	2950	148	950	6.2	0.0050
9.40 - 12.70 andesitic tuff (chloritic)									
Sheared with foliation and stretched chlorite clots @ 30 degrees to	10.40	11.10	0.70	417	4290	6	263	5.0	0.0050
core axis	 								
12.70 - 21.30 Siltstone									
Black argillaceous, silicified, interbedded tuffaceous sandsione,									
bedding @ 38 degrees to core axis	14.10	14.80	0.70	418	5120	4	235	6.3	0.0050
	15.50	16.80	1.30	419	4450	3	133	4.8	0.0050
	 17.30	18.30	1.00	420	2150	2	267	2.1	0.0050
21.30 - 26.20 andesitic tuff (chloritic)									
1-3 mm stretched chlorite clots	 	-							
26.20 - 27.00 Massive Sulphide	26.20	27.00	0.80	421	16760	7	1400	20.0	0.0050
Lenses of pyo-cpy-sph in massive chlorite band									
27.00 - 29.90 andesitic tuff (chloritic)	27.00	27.80	0.80	422	6250	6	455	4.0	0.0050
1-3 mm stretched chlorite clots									
29.90 - 47.60 Siltstone									
Black argillaceous, silicified, interbedded tuffaceous sandstone,	30.00	31.80	1.80	423	1320	14	274	2.7	0.0050
bedding @ 35 degrees to core axis, chlorite-epidote veinlets									
throughout	32.60	33.60	1.00	424	645	12	8000	1.6	0.0050
	33.60	34.70	1.10	425	1400	13	11700	4.2	0.0150
	34.70	35.80	1.10	426	304	18	2500	1.3	0.0050
	 35.80	36.80	1.00	427	189	11	390	0.6	0.0050
47.60 - 58.50 Stringer Zone	47.60	48.60	1.00	428	179	50	2800	0.6	0.0050
Epidote-chlorite-quartz veinlets and breccia in black argillaceous	 48.60	49.60	1.00	429	815	290	1330	4.6	0.0150
siltstone with weak to moderate pyo-sph-cpy	49.60	50.60	1.00	430	79	49	750	0.4	0.0050
	50.60	52.10	1.50	431	93	350	1280	1.5	0.0050
	52.10	53.60	1.50	432	123	780	3400	3.0	0.0050
	54.00	55.00	1.00	433	103	630	1210	'1 .7	0.0050
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	To	Hole ID: 1985-9 Description	Geo-lacts				Pr	Project: rox			\sim	
From			From	То	Width	Sample	ррт Си	ppm Pb	ppm Zn	ppm Ag	; ppm Av	
			55.00	56.00	1.00	434	64	197	1000	1.4	0.0050	
			56.00	57.00	1.00	435	555	33	645	1.0	0.0050	
			57.00	58.50	1.50	436	115	610	945	2.0	0.0050	
58.50 -	59.70	andesitic tuff (chloritic)	58.50	59.70	1.20	437	256	660	1390	5.2	0.0050	
Qu	lartz veing with	h pyo-sph-gal near contacts										
59.70 -	65.00	Siltstone										
Bla	ack argillaceou	us, silicified, interbedded tuffaceous sandstone,										
bea	dding @ 25 de	grees to core axis, epidote-calcite-quartz veining with	61.20	62.50	1.30	438	190	1090	3400	10.0	0.0100	
pyo	o-sph-gal		62.50	63.80	1.30	439	247	820	430	10.0	0.0100	
			63.80	65.00	1.20	440	326	720	1690	9.5	0.0100	
65.00 -	66.50	andesitic tuff (chloritic)	65.00	66,00	1.00	441	28	50	4100	1.0	0.0050	
dis	seminated sph	nalerite	66.40	67.70	1.30	442	65	740	6500	2.2	0.0050	
66,50 -	72.70	Stringer Zone									1	
Bla	nck argillaceon	us, silicified, interbedded tuffaceous sandstone,	67.70	69.20	1.50	443	86	700	3700	1.6	0.0050	
bed	dding @ 60 de	grees to core axis, contorted, 1-2 mm sphalerite										
stri	ingers through	nout										
			70.70	71.70	1.00	444	54	665	1780	0.9	0.0050	
			71.70	72.70	1.00	445	163	825	3100	2.2	0.0050	
72.70 -	78,40	Massive Sulphide	72.70	73.40	0.70	446	247	3200	870 0	5.2	0.0050	
Ma	inty lead-zinc	mineralization with no copper-rich zoning	73.40	74.10	0.70	447	600	10800	25900	22.8	0.0050	
			74.10	74.70	0.60	448	400	10600 .	16500	17.1	,0.0050	
			74.70	75.70	1.00	449	300	11200	43300	17.2	0.0600	
			75.70	76.70	1.00	450	228	1230	6800	7.7	0.0150	
		•	76.70	77.70	1.00	451	179	2300	12400	4.3	0.0150	
			77.70	78.40	0.70	452	181	1155	3200	3.7	0.0050	
78.40 -	90,80	Siltstone	78.40	79.40	1.00	453	1300	12300	51500	261.6	0.4800	
Bla	ck argillaceou	is, silicified, interbedded tuffaceous sandstone,	79.40	80.40	1.00	454	2140	800	2500	42.0	0.0200	
bed	lding @ 30 deş	grees to core axis, weak epidote-quartz breccia 89.3-	80.40	81.10	0.70	455	3870	575	1260	44.0	0.0050	
90.3	3 m									8 tu# . t		
			85.50	87.10	1.60	456	585	330	650	6.9	0.0150	
			89.30	90.30	1.00	457	309	390	4650	3,4	0.0050	
	02.40	Stainger 7 and		0 0 10	1.00	100	0 00	970			1	
(\bigcap)				\frown	
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		Hole 1D: 1985-9		Geo-facts		becheen termination in the month of the state of the stat						
From	To Des	Description		From	Тө	Width	Sample	epape Cu	ррт Рь	орта Zas	ppm Ag	ppm Au
Q	Quartz-epidote veins with sph-gal											
92.40 -	102.80	Siltstone			 							
B.	lack argillaceou	s, silicified, interbedded tuffaceous sandstone,										
bedding @ 40 degrees to core axis												

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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.



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ROX: A significant feature of the property is the zoned alteration adjacent to the mineral zones (i.e. potassium enrichment and sodium depletion), similar to "Kuroko"island arc Cu-Ag-Pb-Zn enriched VMS. The upper and lower adit showings are located below the tree line (left center of photo). The prominent "Matterhorn" style peak is called Mt. Diadem (upper right of photo).

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ROX: The northeast portion of the Rox claims contain narrow but very high grade quartz fissure veins with Au "sweeteners". The surface trace of the No Man's Creek gold bearing quartz vein is over 500 m. This showing is exposed at 1,100 m. elevation on the north side of Mt. Diadem.



SCALE 1 : 5,000

100	0	100	200	300	
		METERS			

GEOLOGY LEGEND- ROX 1,2 CLAIMS

CRETACEOUS

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

LOWER AND MIDDLE JURASSIC BOWEN ISLAND GROUP

- Argillaceous siltstone (banded), sandstone, and laminated chert, minor lapilli tuff and carbonate interbeds. 4
- 4a) Andesitic-basaltic vesicular flows and diorite-andesite flows and/or sills.
- 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. Felsic lapilli tuff, vesicular flows, and tufaceous sandstone and siltstone. 2a)
- 2b) Massive diorite-andesite flows and intrusive.
- Pillowed andesitic flows. 2c)

Tufaceous sandstone, siltstone, minor argillite and chloritic schist.
 1a) Andesitic flows, lapilli tuff and chloritic schist.
 1b) Massive diorite-andesite flows and/or intrusive.

FUNDAMENTAL RESOURCES CORP. ROX PROJECT- FIG. 4 PROPERTY GEOLOGY

ROX 1 & 2 CLAIMS, VANCOUVER M.D. NTS 92 K/1 E, 92 F/16/E, JERVIS INLET Scale 1:5,000 Contour Interval = 20 meters

SYMBOL LEGEND

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Outline of Outcrop ---- Adit

mann Fault Creek

Foliation MINFILE Occurrence

Bedding

TOLOGICAL SURVEY BRANCH VOCUSOMENT PEPORT

Fossil Ammonites

