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GEOLOGICAL AND GEOCHEMICAL REPORT

CAD, CAD 1-6, DIAL, BRI, AND NBR 8 CLAIMS

NORTH BARRIERE LAKE AREA KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

> N.T.S. MAP SHEET 82-M-5W LAT. 51° 17'N, LONG. 119° 52'W

> > FOR

RICH COAST RESOURCES LTD. VANCOUVER, BRITISH COLUMBIA

BY

MICHAEL FOX, P.GEOL. CALGARY, ALBERTA

> MARCH 23 6 20 LOGICAL BRANCH ASSESSMENT REPORT

CERTIFICATE

I, the undersigned, of the City of Calgary in the Province of Alberta, do hereby certify that:

- I am a Consulting Geologist with an office at 120 Hawkwood Hill N.W., Calgary, Alberta;
- 2. I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology (1974);
- 3. I have worked in the field of mineral exploration since 1965;
- 4. I am a member of the Association of Professional Engineers, Geologists, and Geophysicists of Alberta.
- 5. I personally supervised and participated in the work described in the attached report.

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SUMMARY

period September 22 to October 12, 1992 During the reconnaissance geological mapping and rock geochemical sampling carried out at the CAD et al claims located in N.T.S. map was area 82-M-5W in the Adams Plateau area, approximately 70 km north of Kamloops, British Columbia. The claims are underlain by rocks of the Eagle Bay Formation, which host numerous massive sulphides type mineral occurrences, including the Samatosum mine. Previous out at the claims included geochemical work carried and geophysical surveying as well as diamond drilling. This work was re-evaluated based upon observations made at the property during September and October, 1992. Ground control was established from airphotos, and by retrieving and rechaining some of the preexisting cut grid lines, and by chain and compass survey along logging roads.

As part of the work conducted in September and October of 1992, a total of 5 rock samples were collected and analyzed for 30 elements by ICP scan. The rocks submitted for analysis were samples of quartz float and fragments of subcropping bedrock, all collected in the northeast sector of the CAD claim. Several of the samples contained weakly anomalous levels of Cu and/or Pb It is considered probable that this type of vein and/or Zn. mineralization is responsible for a coincident Pb-Zn-Ag soils geochemical anomaly located in the northeast sector of the CAD The claim group is also considered to have good potential claim. for hosting massive sulphides type mineralization at the mafic/felsic volcanic and metasedimentary interface, but further work is required to delineate this important contact in the area of the property.

INTRODUCTION

LOCATION AND ACCESS

The CAD, CAD 1-6, DIAL, BRI, and NBR 8 claims are a contiguous block of mineral claims located in the Adams Plateau region in the Kamloops Mining Division of central British Columbia (Figure 1). The claims are situated on the south side of North Barriere Lake in N.T.S. map-area 82-M-5W. The centre of the claim block is located approximately at LAT. $51^{\circ}17$ 'N and LONG. $119^{\circ}52$ 'W (Figure 2). The claims are accessible by logging roads branching from the main road between the town of Barriere and the community of East Barriere Lake. Several old logging roads provide access to different parts of the claim block.

PROPERTY AND OWNERSHIP

The property consists of ten contiguous mineral claims totalling 47 units, described as follows:

CLAIM	<u>No. of Units</u>	<u>Record No.</u>	<u>Record Date</u>
CAD	12	4937	Nov. 16
CAD 1	1	4938	Nov. 16
CAD 2	1	4950	Nov. 16
CAD 3	1	4951	Nov. 16
CAD 4	1	4952	Nov. 16
CAD 5	1	4953	Nov. 16
CAD 6	1	4954	Nov. 16
DIAL	15	5030	Nov. 22
BRI	6	6344	August 21
NBR 8	8	5944	Nov. 7

The recorded title holder of the claims is Mr. John Donald Graham of Vancouver, B.C. The writer did not personally check any title documents.



(SCALE: 1:50,000)

PHYSIOGRAPHY AND GLACIATION

The Adams Plateau region is part of the Shuswap Highland division of the Interior Plateau physiographic province of British Columbia. The Shuswap Highland is characterized by plateau areas of moderate relief rising from 5,000' to 7,000' above sea level, dissected by the Clearwater, North Thompson, Adams, and Shuswap Rivers and their tributaries. Some of the peaks in the Shuswap Highland reach elevations of 9,000' and although the region has been glaciated, most ridges and mountain tops are rounded and do not exhibit the classic landforms of alpine glaciation. During the Pleistocene, the Interior Plateau was covered by an ice sheet whose upper surface reached elevations of 8,000'. Valleys were generally deepened and valley walls were steepened by the glacial erosion, and the relief of upland areas was diminished.

The CAD et al claims are situated towards the southwest end of a twelve kilometre long, southwest-northeast elongated height of land which separates North Barriere Lake and East Barriere This upland is about six kilometres wide and at higher Lake. elevations it exhibits a plateau-like surface of subdued relief ranging from 3500' to 4500' ASL. Ridge tops are rounded and The northwest facing side of the upland -- the gently sloping. side which overlooks North Barriere Lake -- is very steeply sloping and forms part of the south valley wall of Barriere was deepened by glacial erosion during the River, which Pleistocene. The southeast facing side of the heigth of land -which overlooks East Barriere Lake -- displays similar geomorphic features, but is not as steeply sloping.

Overburden thicknesses are probably only 5m to 10m over most of the upland parts of the height of land separating the two lakes. No glacial deposits were observed along the ridge crests at the CAD et al claims, and overburden there is composed of a disorganized colluvium of bedrock fragments, decomposed organic material, and poorly developed soil. Some morainal deposits may be present in the low-lying, bench-like saddle area in the vicinity of the NBR 8 claim, and along the north facing valley wall overlooking North Barriere Lake, but none were definitely identified.

PREVIOUS WORK

Previous work in the area of the present CAD et al claims dates back to at least 1971 when soil and stream sediment geochemical sampling was done over the "C", "G", and "Den" claims by Ducanex Resources. In 1984 Noranda Exploration Company Ltd. conducted soils geochemical sampling and geophysical surveying (horizontal loop EM and ground magnetics) over a grid covering In 1985 this work was followed up with detailed the property. IP, horizontal loop EM, and soil geochemical surveying over an area of anomalous Pb, Zn, and Ag response in the northeastern part of the claim block. Two diamond drill holes totalling 184.7 metres were drilled to test the geophysical and geochemical targets. In 1987 Merritech Development Corp. arranged for a Genie EM survey to be carried out over the northeastern part of the CAD claim. Subsequently, the company drilled three diamond drill holes, totalling 394 metres, to further test geochemical and geophysical anomalies. Minor amounts of galena and chalcopyrite were reported from a 1.5m intersection near the bottom of drill hole 87-1. Minor quartz veining containing an estimated 10% sphalerite were reported from drill hole 85-1.

1992 PROGRAM

Work carried out at the CAD et al claims during the period September 22 to October 12, 1992 consisted of reconnaissance geological mapping and rock geochemical sampling. Previous work carried out at the claims was re-evaluated based upon observations made at the property during this period. Ground control was established from airphotos, and by retrieving and rechaining some of the pre-existing cut grid lines, and by chain and compass survey along logging roads.

GEOLOGY

REGIONAL GEOLOGY

The geology of the Shuswap Highland area extending southeastwards from the vicinity of the town of Clearwater to the southeast side of Adams Lake has been mapped in detail by personnel of the Ministry of Energy, Mines and Petroleum Resources of the Province of British Columbia. This work was carried out from 1977 to 1980 and the results were published at a scale of 1:100,000 in 1984 as Preliminary Map No. 56, covering portions of N.T.S. map-areas 82-L-13, 82-M-3,4,5,6,12, and 92-P-1,8,9. An excerpt from this map covering the area around the CAD et al claims is included with this report as Figure 3.

The provincial mapping elucidated the stratigraphy and structure of rocks of the Fennell and Eagle Bay Formations adjacent to the western and southern margins of the Baldy Both the Fennell Formation and the Eagle Bay Batholith. Formation consist of successions of mafic and felsic volcanic rocks, related volcaniclastic and volcanisedimentary rocks, turbiditic and fine-grained clastic sediments, cherts, and The Fennell Formation has been regionally carbonate rocks. metamorphosed to lower greenschist facies. Metamorphic grade is slightly higher in Eagle Bay Formation rocks which are now composed predominantly of phyllites and schists. Fennell Formation rocks outcrop several kilometres west of the CAD et al claims in a steeply dipping north-northwesterly striking belt which is in (thrust) fault contact with Eagle Bay Formation rocks to the east. In the vicinity of the CAD et al claims, Eagle Bay complexly deformed, but the Formation rocks are dominant structure appears to be a faulted, northwesterly trending synformal fold. The different divisions and units of the Fennell Formation and the Eagle Bay Formation are described in the legend accompanying Figure 3.

PROPERTY GEOLOGY

The CAD et al claims are underlain by unit "EBG" and its subunits of the Eagle Bay Formation (see Legend accompanying Figure 3) which are Devonian or older, and apparently form the lower, oldest part of the Eagle Bay Formation.

Outcrop at the property is scarce, but is sufficient to piece together a generalized picture of the local stratigraphy and structure. The northwest portion of the claim group is underlain by several bands of the Tshinakin limestone (Unit "EBGt") which is intercalated with dark green chlorite schist (Unit "EBG"). In the southwest part of the property intercalated sedimentary rocks include bands of conglomerate, guartzite, and



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MIOCENE OR PLIOCENE	FENNELL FORMATION
TD PLATEAU LAVA: OLIVINE BASALT	UPPER STRUCTURAL DIVISION
EOCENE KAMLOOPS GROUP	UFD GREY AND GREEN PILLOWED AND MASSIVE META- BASALT; MINOR AMOUNTS OF BASALTIC BRECCIA, TUFF, DIABASE, GABBRO, AND CHERT
eTS SKULL HILL FORMATION AND RELATED ROCKS: ANDESITE AND BASALT; INCLUDES MINOR AMOUNTS OF MUDSTONE AND SHALE IN THE VICINITY OF	UFC GREY AND GREEN BEDDED CHERT
ALEX AND HAGGARD CREEKS	IFC GREY AND GREEN BEDDED CHERT, CHERTY
CRETACEOUS OR TERTIARY	IFD GREY AND GREEN PILLOWED AND MASSIVE META- BASALT: MINOR AMOUNTS OF BASALTIC BRECCIA
CRETACEOUS	AND TUFF IFg GABBRO, DIORITE, DIABASE
BALDY BATHOLITH, RAFT BATHOLITH, AND RELATED Rocks	FP LIGHT TO MEDIUM GREY QUARTZ-FELDSPAR
Kg GRANITE AND GRANODIORITE	IFS LIGHT TO DARK GREY SANDSTONE, SILTSTONE, SLATE, PHYLLITE, AND QUARTZITE; MINOR
di FOLIATED DIORITE, QUARTZ DIORITE, AND GABBRO	INCLUDES GREY TO GREEN QUARTZOSE AND FELDSPATHIC PHYLLITE (METATUFF)
	FCG INTRAFORMATIONAL CONGLOMERATE; CLASTS DE- RIVED EXCLUSIVELY FROM FENNELL FORMATION
Dgn GRANITE AND GRANODIORITE ORTHOGNEISS; Dgnp INCLUDES SILLIMANITE-BEARING PARAGNEISS	IFU UNDIVIDED; MAINLY IFC, IFG, and IFD, BUT MAY INCLUDE ANY OR ALL OF ABOVE ROCK TYPES

FIGURE 3. (continued) LEGEND TO ACCOMPANY GEOLOGIC MAP

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EAGLE BAY FORMATION (EBP TO EBG)

MISSISSIPPIAN

EBP DARK GREY PHYLLITE AND SLATE WITH INTER-BEDDED SILTSTONE, SANDSTONE, AND GRIT; MINOR AMOUNTS OF CONGLOMERATE, LIME-STONE, AND METATUFF: <u>EBPI</u>-LIMESTONE; <u>EBP</u>V-METAVOLCANIC BRECCIA AND TUFF

DEVONIAN AND/OR MISSISSIPPIAN

EBF LIGHT TO MEDIUM GREY, RUSTY WEATHERING FELDSPATHIC PHYLLITE AND FRAGMENTAL PHYL-LITE DERIVED FROM INTERMEDIATE TO FELSIC TUFF AND VOLCANIC BRECCIA; MINOR AMOUNTS OF DARK GREY PHYLLITE AND SILTSTONE; EBFQ-LIGHT GREY MASSIVE "CHERTY QUARTZITE" (SILICEOUS EXHALITE ?)

DEVONIAN

EBA | LIGHT SILVERY GREY TO MEDIUM GREENISH GREY SERICITE-QUARTZ PHYLLITE AND SERICITE-CHLORITE-QUARTZ PHYLLITE DERIVED FROM FELSIC TO INTERMEDIATE VOLCANIC AND VOL-CANICLASTIC ROCKS INCLUDING PYRITIC, FELD--SPATHIC, AND COARSELY FRAGMENTAL VARIETIES; LESSER AMOUNTS OF DARK GREY PHYLLITE, SILTSTONE, AND GREEN CHLORITIC PHYLLITE; INCLUDES BIOTITE-FELDSPAR-QUARTZ SCHIST AND GNEISS, BIOTITE-QUARTZ HORNFELS AND AMPHIBOLITE ADJACENT TO BALDY BATHOLITH; EBA1-FELDSPAR PORPHYRY, FELDSPATHIC PHYL-LITE, PYRITIC SERICITE-FELDSPAR-QUARTZ PHYL-LITE, METAVOLCANIC BRECCIA; EBAi-SERICITIC QUARTZO-FELDSPATHIC SCHIST AND GNEISS DE-RIVED FROM FELSIC INTRUSIVE ROCKS; EBAU-UNDIVIDED EBA and EBAi

DEVONIAN (?) AND/OR OLDER (?) (UNITS EBU TO EBG)

- EBU LIGHT TO DARK GREEN CHLORITIC PHYLLITE, DARK GREY PHYLLITE AND SILTSTONE, LIME-STONE, QUARTZITE
- EBM GREY AND GREEN VESICULAR AND PILLOWED METABASALT, GREENSTONE, CHLORITE SCHIST; MINOR AMOUNTS OF BEDDED CHERT, SILICEOUS PHYLLITE AND FINE-GRAINED QUARTZITE
- EBK BANDED LIGHT GREY AND GREEN ACTINOLITE-QUARTZ SCHIST AND EPIDOTE-ACTINOLITE-QUARTZ ROCK; LESSER AMOUNTS OF GARNET-EPIDOTE SKARN, CHLORITIC SCHIST, AND SERICITE-QUARTZ SCHIST

DEVONIAN (?) AND/OR OLDER (?) (UNITS EBU TO EBG) (CONTINUED)

- EBL CALCAREOUS BLACK PHYLLITE, DARK GREY LIMESTONE AND ARGILLACEOUS LIMESTONE
- EBS GREY AND GREEN PHYLLITIC SANDSTONE AND GRIT, PHYLLITE, AND QUARTZITE; LESSER AMOUNTS OF LIMESTONE, DOLOSTONE, GREEN CHLORITIC PHYLLITE, SERICITE-QUARTZ PHYLLITE, AND FELDSPATHIC SERICITE-QUARTZ PHYLLITE; EBSq-LIGHT GREY TO WHITE QUARTZITE; EBSc-LIME-STONE, DOLOSTONE, MARBLE; EBSD-GREENSTONE, PILLOWED METABASALT, CHLORITIC PHYLLITE; EBScg-CON&LOMERATE; EBSp-GREY PHYLLITE AND SILTSTONE; EBSI-SIDERITE-SERICITE-QUARTZ PHYLLITE AND FELDSPATHIC PHYLLITE (META-TUFF); EBSI-PYRITIC SERICITE-QUARTZ PHYLLITE AND CHLORITOID-SERICITE-QUARTZ PHYLLITE
- EBG MEDIUM TO DARK GREEN CALCAREOUS CHLORITE SCHIST AND FRAGMENTAL SCHIST DERIVED LARGE-LY FROM MAFIC TO INTERMEDIATE VOLCANIC AND VOLCANICLASTIC ROCKS; LESSER AMOUNTS OF LIMESTONE AND DOLOSTONE; MINOR AMOUNTS OF QUARTZITE, GREY PHYLLITE, AND SERICITE-QUARTZ PHYLLITE; EBGc-LIMESTONE, DOLO-STONE, MARBLE; EBGt-TSHINAKIN LIMESTONE MEMBER-MASSIVE, LIGHT GREY FINELY CRYSTAL-LINE LIMESTONE AND DOLOSTONE: EBGs-DARK TO LIGHT GREY SILICEOUS AND/OR GRAPHITIC PHYLLITE, CALCAREOUS PHYLLITE, LIMESTONE, CALC-SILICATE, CHERTY QUARTZITE; MINOR AMOUNTS OF GREEN CHLORITIC PHYLLITE AND SERICITE-OUARTZ PHYLLITE; EBGq-LIGHT TO MEDIUM GREY QUARTZITE; EBGP-DARK GREY PHYLLITE, CALCAREOUS PHYLLITE AND LIME-STONE; MINOR AMOUNTS OF RUSTY WEATHERING CARBONATE-SERICITE-QUARTZ PHYLLITE (META-TUFF ?); EB6cg-POLYMICTIC CONGLOMERATE

SPAPILEM CREEK-DEADFALL CREEK SUCCESSION (SDQ)

LOWER CAMBRIAN (?) AND/OR HADRYNIAN (?)

SDO LIGHT TO DARK GREY QUARTZITE, MICACEOUS QUARTZITE, GRIT, AND PHYLLITE; LESSER AMOUNTS OF CALCAREOUS PHYLLITE, CARBONATE, AND GREEN CHIORITIC SCHIST; NORTHEASTERN EX-POSURES INCLUDE STAUROLITE-GARNET-MICA SCHIST, CALI-SILICATE SCHIST, AND AMPHIBOLITE

FIGURE 3.(continued) LEGEND TO ACCOMPANY GEOLOGIC MAP

BEDDING, TOP. KNOWN: INCLINED, OVERTURNED
BEDDING, TOP UNKNOWN: HORIZONTAL, INCLINED, VERTICAL
FACING DIRECTION OF PILLOWED BASALT:
SYNMETAMORPHIC SLATY CLEAVAGE, SCHISTOSITY, OR GNEISSOSITY: HORIZONTAL, INCLINED, VERTICAL
MINERAL LINEATION
POSTMETAMORPHIC CRENULATION CLEAVAGE:
CRENULATION LINEATION
MESOSCOPIC FOLD AXIS: SY IMETAMORPHIC, POSTMETAMORPHIC, LATE KINK
AXIAL TRACE OF SYNMETAMORPHIC FOLD: OVERTURNED ANTCLINE, OVERTURNED SYNCLINE; ESTABLISHED, INFERRED
AXIAL TRACE OF POSTMETAMORPHIC FOLD:
LATER (SYN OR POSTMETAMORPHISM) WEST TO SOUTHWESTERLY DIRECTED THRUST FAULT; TEETH ON UPPER PLATE: DEFINED, APPROXIMATE, ASSUMED
EARLY (PRE FOLDING AND METAMORPHISM) EASTERLY DIRECTED THRUST FAULT; TEETH ON UPPER PLATE: DEFINED, APPROXIMATE, ASSUMED
FAULT: DOT ON DOWNTHROWN SIDE, ARROWS INDICATE SENSE OF STRIKE SLIP MOVEMENT: DEFINED APPROXIMATE, ASSUMED
CONODONT FOSSIL LOCALITY: MISSISSIPPIAN, PENNSYLVANIAN, PERMIAN
LOCATION OF RADIOMETRICALLY DATED SAMPLE (Pb/U ON ZIRCONS AND RL/Sr WHOLE ROCK): INDICATE A DEVONIAN AGE FOR UNIT EBA AND FOR UNIT IFp
MINERAL OCCURRENCE
LIMIT OF GEOLOGICAL MAPPING OR OUTCROP
TOPOGRAPHICAL CONTOUR (200-METRE INTERVAL)

FIGURE 3.(continued) LEGEND TO ACCOMPANY GEOLOGIC MAP



siliceous, graphitic, and calcareous phyllites derived from finegrained clastic sediments. Higher in the section, along the east side of the claim group, chloritic schists of Unit "EBG" are overlain by dark grey, siliceous and graphitic phyllites and limestone of Unit "EBGp". In the extreme northeast corner of the claims, several exposures or subcrops of easterly striking, leucocratic, rusty weathering, carbonate-sericite-quartz±pyrite phyllite, dipping at shallow angles to the south, occur near the base of Unit "EBGp" and may represent a horizon of metamorphosed felsic tuff.

Structurally, the above-described rocks form a complexly folded, northeastwards-dipping sequence in the southwest limb of a northwesterly trending synformal fold. Rocks underlying the extreme northeast part of the claims dip at shallow angles to the southeast, indicating proximity to the axis of the fold. In the west central part of the CAD claim, approximately 700m NNW from the LCP, in the vicinity of the targets drilled by Noranda, there is a an outcrop beside the road of graphitic phyllite, overlain by limestone. The metamorphosed sedimentary rocks here strike and dip 38°SE. The outcrop is cut by a strong quartz vein 070° system composed of stringers and veins of coarsely crystalline white quartz with numerous limonitic patches. The dips here appear to be locally steepened, perhaps due to deformation along the zone of quartz vein emplacement. The veins strike approximately 030°Az and dip steeply SE. A subordinate vein set easterly strikes. Further along the road, to the northeast, has the overburden consists of a colluvium containing abundant coarse fragments of the graphitic phyllite. Overburden is probably only 5m in depth on average, and soils geochemical anomalies in this area undoubtedly relate to underlying bedrock mineralization.

ECONOMIC GEOLOGY

Fennell Formation and Eagle Bay Formation rocks host numerous volcanogenic massive sulphides type and other mineral occurrences, including two former producers, the Homestake mine The and the Samatosum mine. Homestake mine (located approximately 20 km south of the CAD et al claims) was discovered in 1893 and produced only small shipments of ore intermittently until 1927. In 1935 Kamloops Homestake Mines Ltd. installed a 50 ton per day flotation mill at the mine; recorded production from 1935 to 1941 totalled 6,965 tonnes of ore which yielded 11,080 kg of Cu, 171,325 kg of Pb, 246,520 kg of Zn, 12,400 g of Au, and 9,565,900 g of Ag.

In 1977, Vestor Explorations Ltd. outlined a large gossan, geochemically anomalous in Cu, on the south slope of Chu Chua Mountain. The gossan was interpreted to have been transported downslope and further work delineated a small gossan upslope, with lower, but anomalous Cu values, associated with a northerly striking body of massive magnetite. Drilling conducted by Craigmont Mines Ltd. in 1978 outlined the Chu Chua deposit, in Fennell Formation rocks, near the headwaters of Chu Chua Creek, approximately 15 km northwest of the CAD et al claims, with geological reserves of 2 million tonnes grading 2% Cu, 0.4% Zn, 0.4g/tonne Au, and 8g/tonne Ag.

In 1983, the Rea Gold deposit (also known as the Samatosum mine) was discovered on the west slope of Samatosum Mountain, approximately 15 km south-southeasterly from the CAD et al claims. The deposit has been described as consisting of two thin sulphide lenses that lie stratigraphically above an altered sequence of mafic tuffs with associated minor more felsic The sulphide lenses are stratigraphically (dacitic) layers. overlain by tuffaceous argillites or a thin band of mafic tuffs which grade stratigraphically upwards, over a few metres into a thick sequence of tuffaceous argillites. The whole sequence of metavolcanic and metasedimentary rocks lies in the lower, overturned limb of a recumbent, synformal fold, so stratigraphic relationships have been structurally inverted. The rocks are metamorphosed to lower greenschist facies. Mafic tuffs are now represented by green, chloritic schists and phyllites; felsic (dacitic?) tuffs are metamorphosed to pale tan to pale green siliceous schists and phyllites interbedded with sercitic chert and chert, and argillites are metamorphosed to siliceous and graphitic schists and phyllites.

Several massive sulphides type occurrences have been explored along Birk Creek, approximately 4 km to the northwest of CAD et al claims. The occurrences consist of the small silicified zones containing massive pyrite with minor chalcopyrite in a quartz-sericite schist host rock. Massive pods (up to 1m thick) and lenses (up to 10cm thick) of pyrite with minor chalcopyrite occur in an ankeritic quartz matrix; the unit interpreted to be a pyrite-silica exhalite. Sphalerite and is galena, also noted in the area, occur within a quartz gangue and are believed to occur in later quartz veinlets, unrelated to the stratiform pyrite±chalcopyrite lenses in the quartz-sericite schist.

The EBL prospect, located approximately 4 km northeast of the CAD et al claims, is in an area of poor exposure, but has been extensively drilled and is reported to contain a "large tonnage" of low grade copper mineralization (associated with massive and semi-massive pyrite) that occurs parallel to the planar fabrics in enclosing intermediate to felsic schists.

INTERPRETATION OF GEOLOGICAL AND GEOCHEMICAL DATA

Numerous massive sulphides deposits and prospects occur in both Eagle Bay Formation and Fennell Formation rocks on all sides of the CAD et al claims. Regional geological mapping indicates that the claims are underlain by rocks of the Eagle Bay Formation favorable for hosting similar massive sulphides deposits. However, the claims are located over an almost entirely overburden-covered area and the underlying geology is poorly known.

on a very limited amount of geological information Based acquired from a few drill holes and a few widely scattered outcrops, it appears that much of the claim group is underlain by metasedimentary rocks that are higher in the stratigraphic sequence than the horizon(s) favorable for hosting massive sulphides type mineralization. The thickness of these metasedimentary rocks is unknown, and the probably complex bedrock structure is also unknown, except in the most general Therefore, although exploration results obtained to date sense. have not identified a specific zone of massive sulphides mineralization, there is a high probability that the favorable geologic horizon(s) occur at depth at the property.

The coincident Ag-Pb-Zn soils geochemical anomaly investigated by drilling in the northeast sector of the CAD claim is probably related to late-stage quartz-sphalerite-galena mineralization similar to the late-stage veining in the Birk Creek area. Abundant quartz float is present in the overburden along the trend of this anomaly. Four of the five drill holes drilled to date at the property were sited to investigate the above geochemical anomaly, even though there was no EM conductor associated with it of a quality that would indicate the presence of underlying massive sulphides mineralization. The fifth drill hole was positioned approximately 150m west of the axis of the geochemical anomaly, presumably to test a strong EM (Genie) This hole (87-1) intersected two closely-spaced conductor. zones (55.0-59.6m and 62.6-75.9m) of waterlain mafic tuff containg about 5% disseminated pyrite. These zones could

represent distal facies equivalents of massive sulphide-bearing (submarine exhalative) horizons. Another zone of up to 48 disseminated pyrite accompanied by minor chalcopyrite and galena mineralization was reported from an intersection near the base of the same drill hole. This hole was terminated at a depth of 175m an apparently gently eastward(?) dipping meta-(574') in sedimentary sequence. Other geochemical and geophysical anomalies at the property remain undrilled and their relationship to underlying geology is unknown. Sufficient outcrop and subcrop was observed during the work carried out in September and October of 1992 to suggest that detailed geological mapping of the property should provide new geological information that might be useful in interpreting the spatial relationship of these anomalies to any favorable geologic horizons that may be present at the property.

GEOCHEMISTRY

PREVIOUS WORK

According to previous workers, soil and silt geochemical sampling was first carried out in the area of the CAD et al claims in 1971 by Ducanex Resources, over claims named the "C", "G", and "Den" claims. In 1984, Noranda Exploration Company Ltd. conducted soil geochemical sampling along grid lines over the entire property. In 1985, the same company conducted detailed follow up geochemical sampling over a coincident Pb-Zn-Ag in soils anomaly detected by the previous year's geochemical program. Apart from analyzing selected sections of drill core, apparently no rock geochemical sampling has been done at the property.

PREVIOUS DRILLING OF GEOCHEMICAL ANOMALIES

As mentioned elsewhere in this report, four of the five diamond drill holes drilled in 1985 and 1987 were sited to test the coincident Pb-Zn-Ag in soils anomaly outlined in the northeast sector of the CAD claim. According to the drill logs, these drill holes did not intersect any obvious geological feature that could have produced the geochemical anomaly.

INTERPRETATION OF GEOCHEMICAL ANOMALIES

Although it has been speculated (subsequent to the 1985 and 1987 drill programs) that the geochemical anomaly is glacially transported, presumably because the drill holes did not intersect any obvious cause of the anomaly, geological observations made at property in the autumn of 1992 do not support this the conclusion. In fact, no glacial deposits were observed in the vicinity of the drill holes and overburden depths are only about 5m, on average, with overburden made up of a disorganized colluvium of bedrock fragments, decomposed organic material, and poorly developed soil. Along the trend of the geochemical anomaly there are numerous large fragments of quartz which are a northerly striking sytem of quartz veins derived from penetrating the metasediments along joint planes and shear zones. In one of the holes drilled by Noranda, numerous quartz veinlets were noted adjacent to a zone of strong shearing; the veinlets carried pyrite, pyrrhotite, and in one vein, up to 10% sphalerite. It is the present writer's opinion that this mineralization is sufficient to explain the geochemical anomaly.

1992 ROCK GEOCHEMICAL SAMPLING

During the property evaluation conducted in September and October of 1992, a total of 5 rock samples were collected at the property and submitted for a 30 element ICP scan. Analytical work was performed by Acme Labs Ltd. of Vancouver, B.C. The rocks submitted for analysis were samples of quartz float and fragments of subcropping bedrock, all collected in the northeast sector of the CAD claim. The locations of the samples are shown on Figure 4, accompanying this report. Descriptions of the samples are included in Appendix I, and analytical results are included in Appendix II.

RESULTS OF 1992 ROCK GEOCHEMICAL SAMPLING

Rock samples 037232 AND 037233 contained slightly elevated concentrations of Pb (69 and 68 ppm respectively). Sample 037235 contained very weakly anomalous levels of Cu (89 ppm) and a high background level of Zn (177 ppm). None of these values indicate significant Cu-Pb-Zn-Ag mineralization, but they do suggest that quartz veins cutting the metasedimentary and metavolcanic rocks contain sufficient concentrations of these elements to account for the type of soils geochemical anomaly identified in the northeast sector of the CAD claim. This would be corroborated by the observation in DDH 85-1 of a narrow quartz vein containing an estimated 10% sphalerite.

CONCLUSIONS & RECOMMENDATIONS

The geochemical analyses of the five rock samples collected during September and October of 1992 show weak enrichments of Pb, Zn, and Cu in some of the quartz vein material sampled. Some of the vein material displayed spongy, structureless, limoniteare clearly the oxidation products of filled cavities that The abundance of quartz float, similar to that sulphides. sampled in 1992, in the area of the Pb-Zn-Ag in soils geochemical anomaly delineated by work done in 1984 and 1985, and the above described analytical results, suggest that the geochemical anomaly is caused by systems of quartz veins and veinlets, carrying weak galena and sphalerite mineralization. (A quartz stringer carrying approximately 10% sphalerite was reported from drill hole 85-1). The multi-element geochemical anomaly trends subparallel to the trend of quartz stringers, and it is considered unlikely that it is a glacially transported anomaly. If it were transported, the geometry of the anomaly would indicate a point source up-ice, as opposed to a linear, subcropping, stratiform zone of sulphide mineralization.

Geological observations made in 1992, coupled with the data from the 1985 and 1987 drill programs, indicate that the northeast sector of the CAD et al claim group is underlain by graphitic phyllites and other fine-grained metasediments that are relatively high in the geologic section -- perhaps several hundreds of metres higher in the section than the volcanicsediment interface that elsewhere in the Adams Plateau region hosts massive sulphides type mineralization. There is a high probability that the contact of interest is present at some unknown depth at the property. Also, it should be kept in mind that structure within the Eagle Bay Formation rocks is complex, and at least two generations of folding have been documented. As a result of this folding, the contact of interest might be close to surface in another part of the property. There is also the possibility of repetition of the section through thrust faulting. Further work at the property should consist of careful geological mapping, including mapping of subcrops, particularly along the north side of the claim group where outcrops are likely to be present along the steep slopes overlooking North Barriere Lake. This work should provide data that will be useful in determining the stratigraphy and structure at the property, which is essential to guiding further work. Although there is no known zone of massive sulphides type mineralization at the property, the claim group has good potential for a discovery because of its favorable geological setting.

STATEMENT OF EXPENDITURES

Professional Fees (M.Fox)1200.00Mileage, equipment rentals709.80Field Support (A.Harman) establish grid control,
sampling, vehicle and camp costs3892.00TOTAL\$5801.80

APPENDIX I ROCK SAMPLE DESCRIPTIONS

ROCK SAMPLE DESCRIPTIONS

- <u>037232</u> Float. Silicified, fine-grained volcanisediments in wallrock adjacent to quartz stringer. Same location as #037233
- <u>037233</u> Subcrop along road just north of BRI claim boundary. Silicified wallrock adjacent to quartz lens or boudin; abundant (5%) pyrite + pyrrhotite; trace chalcopyrite
- <u>037234</u> Station 0+00 beside road on CAD claim near "the" outcrop on the claims. Float. Massive white quartz with approximately 10% coarse-grained brown carbonate; some limonite coated vugs after leached sulphides; sericite-rich selvages along the vein contacts; quartz float is derived from numerous veins in subcropping graphitic phyllite.
- <u>037235</u> Outcrop or subcrop beside road at Station 23+76. Quartz vein; yellowish-brown to orange limonite patches and spongy masses after leached sulphides
- <u>037236</u> Outcrop beside road at Station 24+30. Massive quartzcarbonate vein similar to #037235; spongy limonitic patches; no fresh sulphides

APPENDIX II ROCK GEOCHEMICAL ANALYSES

	TICA	L LA	LBOR	ATOR	185	LTD	•	8	52 E G	eoc	Asti Hem	NGS ICA	ST. L À	Fil	rcour YSI e #	/BR 6 C 93	B.C. ERT -03	V IFI 67	6A 1 Cat	RG E		PHON	1 8 (6(04}2	53-:	3158	F	AX (6)	04)2	53-18 A/ L	16.*
SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe X	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	sb ppm	Bi ppm	V ppm	Ca %	P X	La ppm	Cr ppm	Mg %	8a ppm	Ti %	B ppm	Al %	Na %	к %	W ppm	
037232 037233 037234 037235 037236	<1 5 <1 4 1	18 47 9 89 7	69 68 20 47 36	68 155 32 177 109	<.1 .3 .1 .2 .1	3 83 10 19 34	3 42 3 7 8	207 650 350 878 4844	1.05 6.71 .83 1.78 6.93	4 18 5 5 <2	ৎ ৎ ৎ ৎ ৎ ৎ ৎ	<2 <2 <2 <2 <2 <2 <2	4 2 <2 <2 <2	8 204 144 4 48	<.2 .6 <.2 .4 <.2	<2 <2 <2 <2 <2 <2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2 14 <2 <2 2	.30 7.99 7.58 .07 .44	.004 .231 .005 .007 .123	10 3 4 <2 2	6 16 2 13 29	.23 2.39 .07 .02 .05	14 <2 5 8 3	<.01 <.01 <.01 <.01 <.01	<2 <2 <2 3 4	.32 .30 .04 .04 .08	<.01 .10 <.01 .01 .02	.07 .01 .01 .01 .01	<1 <1 1 1 <1	
RE 037236	2	6	37	109	.2	34	7	4818	6.90	<2	<5	<2	<2	48	.3	<2	<2	2	.45	.128	2	28	.05	4	<.01	<2	.07	.02	.01	1	

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB - SAMPLE TYPE: ROCK <u>Samples beginning 'RE' are duplicate samples</u>.