GEOLOGICAL ASSESSMENT REPORT

of the

OK COPPER PROPERTY

VANCOUVER MINING DIVISION, BRITISH COLUMBIA

NTS: 92K/02E

Latitude 50° 02' N, Longitude 124° 38' W

CLAIM NAME	TENURE NUMBER
OK A	258171
OK B	258172
OK C	258173
OK D	258174
OK E	258175
OK F	258176
OK G	258177

Owner

EASTFIELD RESOURCES LTD.
Suite 110 – 325 Howe St.
Vancouver, B.C.
V6C 1Z7

Operator

LUMINA COPPER CORP.
1550 – 625 Howe Street
Vancouver, B.C.
V6C 2T6

By

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February 26, 2004

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SUMMARY

The OK Copper property is located in the Vancouver Mining Division of British Columbia approximately 145 kilometres northwest of Vancouver and 25 kilometres north of Powell River. The property consists of 7 contiguous modified-grid mineral claims covering an area of 3075 hectares. Vehicle access to the OK Copper property is by Highway 101 and secondary logging roads. The property is under option to Lumina Copper Corp from Eastfield Resources Ltd., subject to an underlying agreement with the prospector R. E. (Bob) Mickle.

The OK Copper property is underlain by a multi-phase intrusive complex, of which the main lithology is quartz diorite followed by diorite. Late intrusive phases include a quartz-feldspar-prophyry and numerous dacite to diorite dikes. Widespread propylitic wall-rock alteration is modified and over printed by later potassic, and locally phyllic and argillic alteration. Two phases of quartz veining, both mineralized and un-mineralized, are well developed and form a dominant feature of the center of the property. Economic mineralization on the OK Copper property occurs as disseminated blebs of chalcopyrite in quartz veins and stockworks with pyrite. Molybdenite is found as vein selvages in quartz veins and as coatings on dry fractures. The quartz-feldspar-prophyry intrusion is un-mineralized, and appears to be associated with a late phase of barren quartz veining.

Mineralization was discovered in the Claim Lake area by R. E. (Bob) Mickle in the fall of 1965 using a combination of prospecting and soil testing with the rubianic acid method. The area was staked and subsequently optioned to Noranda Mines Ltd., who began exploration in 1966. During the ensuing 3 decades a large number of companies explored the property, including such well-known companies as Noranda Mines Ltd., ASARCO Exploration Company of Canada Ltd., Falconbridge Nickel Mines Ltd., Duval International Corporation and Western Mines Ltd. Exploration work carried out included soil and stream geochemical surveys, geological mapping, geophysical (including IP) surveys and the drilling of 86 diamond-drill holes for a total of 14,190 metres and 12 percussion holes for a total of 732 metres.

A preliminary evaluation of the property was carried out by two geologists employed by Mincord Exploration Consultants Ltd. during an 18-day period from October 11th to October 28th, 2003. Exploration work consisted of geological mapping at 1:5,000 scale, and the prospecting and rock sampling of road cuts on the property. Approximately 10 km^2 of preliminary geological mapping was accomplished and 81 rock samples were collected for analysis. In addition, most rock samples were cut with a rock saw and stained with sodium cobaltinitrite to determine their potassium content.

The Claim Lake area returned over half of the total number of anomalous copper samples in the program. The average of 11 samples collected along 275 metres of the logging road in this area is 1,881 ppm copper. The gold-silver potential of the property overall appears to be limited, and is largely confined to a phyllic-altered, fracture zone in the south-central part of the property. Based on the limited sampling carried out during this program, the Claim Lake area would appear to have the best potential for developing new reserves.

It is recommended that further work be carried out on the OK Copper property and that the work continue to focus on exploration for a porphyry-copper deposit. A 2-phase program is recommended in which the first phase should consist of a property-wide geophysical survey which should include Mag and input EM to identify controlling structures, followed by trenching and detailed geological mapping of selected areas

INTRODUCTION

Lumina Copper Corp. ("LUMINA") optioned the OK Copper property from Eastfield Resources Ltd. ("EASTFIELD") in August 2003, and proceeded to have consulting geologist Dr. N.C. Carter prepare a 43-101 report on the property. Dr. Carter concluded that the OK Property was of sufficient merit to warrant further exploration, and recommended that additional investigative work be undertaken in 2 phases with the first phase budgeted at $60,000 and consisting of data acquisition and analysis ($25,000) and a limited field program ($35,000).

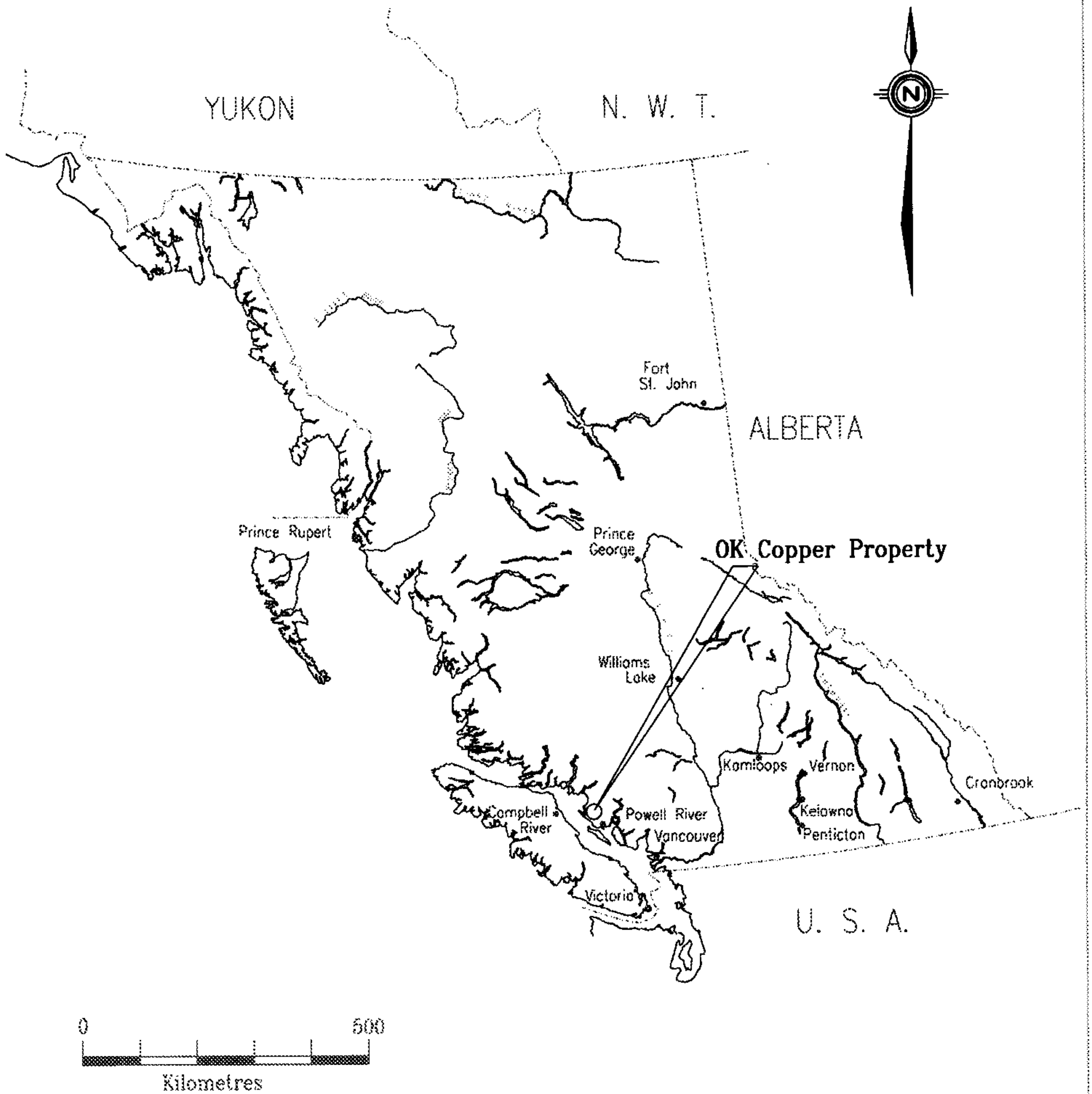
A preliminary evaluation of the property was carried out by two geologists employed by Mincord Exploration Consultants Ltd. during an 18-day period from October 11th to October 28th, 2003. Exploration work consisted of geological mapping at 1:5,000 scale, and the prospecting and rock sampling of road cuts on the property. Approximately 10 km^2 of preliminary geological mapping was accomplished and 81 rock samples were collected for analysis. In addition, most rock samples were cut with a rock saw and stained with sodium cobaltinitrite to determine their potassium content.

The scope of this report includes a description of the general setting of the property, a brief summary of the previous exploration work carried out during the period 1965 to 1998, and a description and summary of the results of the 2003 program. The report concludes with recommendations for further work. Mineral tenure information was provided by EASTFIELD and checked against the tenure records shown on the Internet website of the Mineral Titles Branch, Ministry of Energy and Mines. Reports and publications reviewed by the author are identified in the list of references provided at the end of this report.

The author is familiar with the OK Copper property, having spent 13 days on the property during the period October 11th to October 28th, 2003 while carrying out a geological evaluation of the property. During this period, the author was an employee of Mincord Exploration Consultants Ltd.

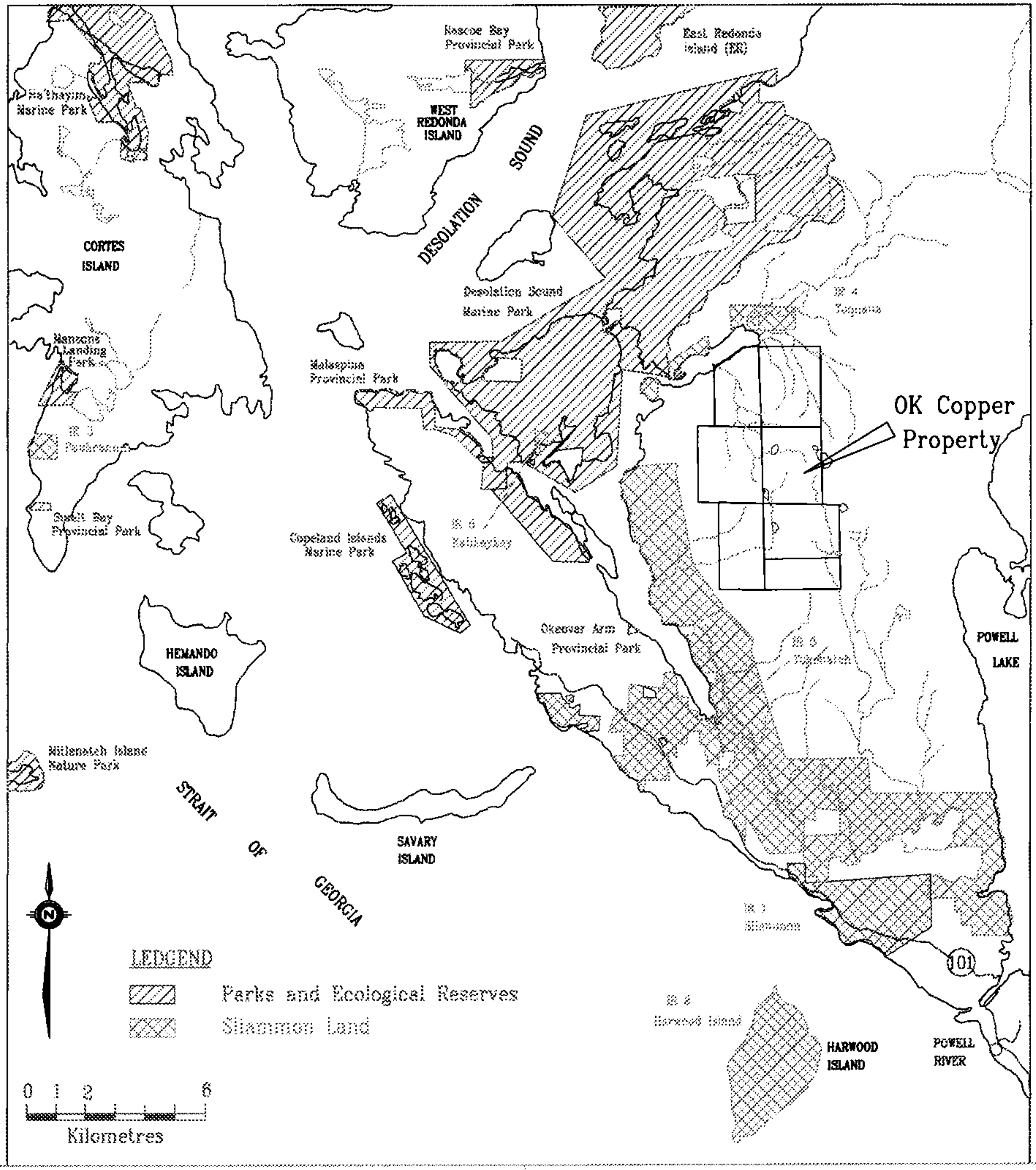
ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE and PHYSIOGRAPHY

The OK Copper property is located in the Pacific Ranges of the southern Coast Mountains of British Columbia. The property extends southward from Theodosia Inlet and covers a plateau-like area roughly midway between Powell Lake on the east and Okeover Inlet on the west. Elevations range from sea level on Theodosia Inlet to 1,100 metres in the Bunster Hills on the OK B claim. This area has been subjected to



MINCORD Exploration Consultants Ltd.	LUMINA COPPER CORP. EASTFIELD RESOURCES LTD.
OK COPPER PROPERTY	LOCATION MAP

DATE: Feb/2004 | Project: OK Copper | Scale: 1:10,000,000 | N.T.S.: B.C. | Mining Div.: Vancouver | Figure: 1



MINCORD Exploration Consultants Ltd.	LUMINA COPPER CORP. EASTFIELD RESOURCES LTD.
OK COPPER PROPERTY	DETAILED LOCATION MAP

DATE: Feb/2004 | Project: OK Copper | Scale: as shown | N.T.S.: B.C. | Mining Div.: Vancouver | Figure: 2

intensive glaciation and as a result much of the local topography is subdued and consists of low, gently rolling hills; the exception being the steep slopes on OK F and OK G which drop down into Theodosia Inlet. The area is well drained, with a number of small lakes feeding minor drainages into Okeover and Theodosia inlets.

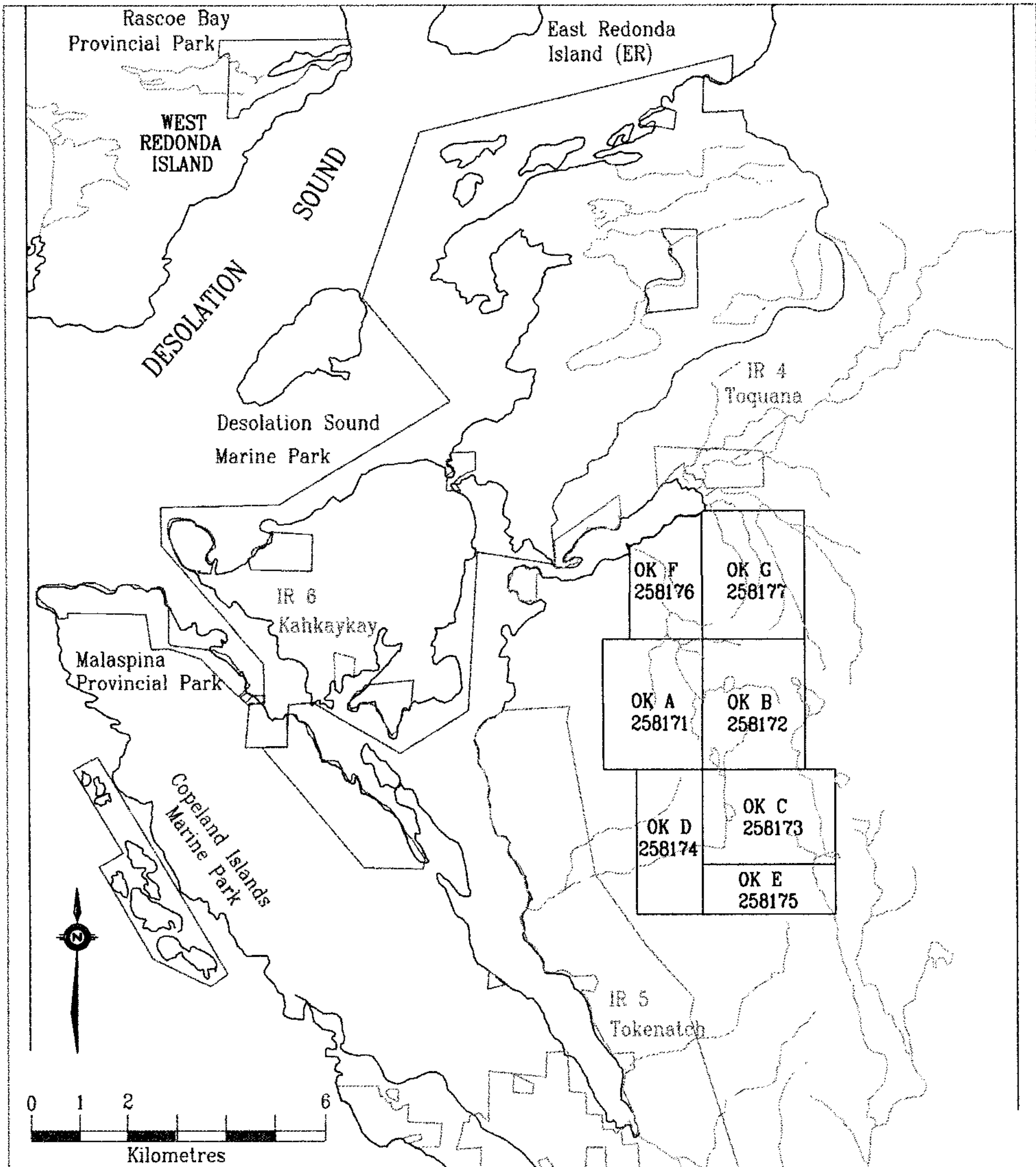
The property enjoys a moderate, maritime climate with warm summers and cool, mild winters. Annual precipitation is in excess of 100 cm with most of it falling as rain during the winter months. Snow accumulation is variable but can exceed 1 metre in heavy snowfall years. Exploration on the OK property is best carried out between early spring and late fall.

The property is easily accessed by vehicle from Powell River, a local regional centre with a population of approximately 18,000. The southern-most part of the property is 2-wheel drivable from Highway 101 via the Wilde or Southview (preferred) roads, but further access onto the property is impeded by forest industry road deactivation ditches. This limits the use of the extensive road network on the property to short-wheel base, 4-wheel drive vehicles or quads. The road quality suffers a significant deterioration in the vicinity of Little North Lake and access to roads north of this point is limited to quads at this time. The road leading up from Theodosia Inlet reportedly has a barge-landing site, although the condition of it and the lower reaches of the road are unknown to the author. Driving time to the southern edge of the property from Powell River is approximately 1 hour via the Southview Road.

PROPERTY DESCRIPTION AND LOCATION

The OK Copper property is located in the Vancouver Mining Division of southwestern British Columbia, approximately 145 kilometres northwest of Vancouver and 25 kilometres north of Powell River. The property consists of 7 contiguous, modified-grid mineral claims for a total of 123 units, or nominally 3,075 hectares. The property is located on National Topographic System map-sheet 092K02E between the latitudes of 50° 00′ and 50° 05′ North, and longitudes of 124° 37′ and 124° 41′ West.

The OK property has not been subject to a legal ground survey and the position of the individual claims may vary from the position plotted on the BC Mineral Titles Branch claim map and from that shown in Figure 3 of this report. The author has not verified the locations of claim posts on the property. The configuration of the mineral claims is shown on Figure 3, which is taken from the BC Mineral Titles Branch reference map M092K02E, the details of which are as follows:



MINCORD Exploration Consultants Ltd.	LUMINA COPPER CORP. EASTFIELD RESOURCES LTD.
OK COPPER PROPERTY	MINERAL TENURES

DATE: Feb/2004 | Project: OK Copper | Scale: as shown | N.T.S.: B.C. | Mining Div.: Vancouver | Figure: 3

Table 1 – Claim Tenure

Claim Name	Tenure No.	Units	Status	Expiry*
OK A	258171	20	In good standing	Nov. 30, 2005
OK B	258172	20	In good standing	Nov. 30, 2005
OK C	258173	20	In good standing	Nov. 30, 2005
OK D	258174	18	In good standing	Nov. 30, 2005
OK E	258175	10	In good standing	Nov. 30, 2004
OK F	258176	15	In good standing	Nov. 30, 2004
OK G	258177	20	In good standing	Nov. 30, 2004

* Pending acceptance of this report

All of the claims comprising the OK Copper property are registered in the name of Robert Edward Mickle of Likely, BC who is shown as having a 100% interest in each claim. The property is subject to a March 6, 2003 option agreement with Eastfield Resources Ltd. ("EASTFIELD") who has the right to earn a 100% interest in the OK Copper property for a combination of cash payments, treasury share issues and work commitments over a specified period of time. This agreement is subject to a 2.5% net smelter royalty interest in favour of R. E. Mickle, which may be purchased by the operator for $2 million upon commencement of commercial production. EASTFIELD has subsequently granted Lumina Copper Corp. ("LUMINA") an option to earn an 80% interest in the property in exchange for a cash payment of $10,000 and a work commitment of $35,000. In order to exercise the option, LUMINA must make annual cash payments to EASTFIELD which total $320,000 over a 6-year period, and incur cumulative exploration expenditures of $600,000 during the same period.

HISTORY – Previous Exploration

Mineralization was discovered in the Claim Lake area in 1965 by R. E. (Bob) Mickle, who used a combination of prospecting and soil testing with the rubianic acid method. The area was staked and subsequently optioned to Noranda Mines Ltd., who began exploration in 1966. During the ensuing three decades a large number of companies explored the property, including such well-known companies as Noranda Mines Ltd., ASARCO Exploration Company of Canada Ltd., Falconbridge Nickel Mines Ltd., Duval International Corporation and Western Mines Ltd. Exploration work carried out included soil and stream geochemical surveys, geological mapping, geophysical surveys (including IP) and the drilling of 86 diamond-drill holes for a total of 14,190 metres and 12 percussion holes for a total of 732 metres. The following Table 2 details some highlights of the history of the OK Copper property.

Table 2 – Exploration History

Year	Company	Exploration Work	References*
1965	R.E. Mickle and Boylan	Prospecting, soil and stream sed. sampling in Claim and Lizard Lake areas, claim staking	Mickle (undated): Personal communication
1966-67	Noranda Mines Ltd.	Geological and geochemical surveys (Cu, Mo) in southern and central parts of property; diamond-drilling (1966) of 15 holes (AQ: 2,569 m)	Cardinal (1983);Froc & Francois-Bongarcon (1989); Carter (2003)
1967	R.E. Mickle	Prospecting, geophysics (SP), "several " holes drilled with a water hydraulic packsack drill.	Mickle (undated): Personal communication
1967-68	ASARCO Exploration Co. of Canada Ltd.	Geological and geophysical (IP) surveys; diamond-drilling (1968) of 7 holes (AQ: 1,003 m).	Cardinal (1983); Froc & Francois-Bongarcon (1989); Carter (2003)
1969-70	Falconbridge Nickel Mines Ltd.	Geological, geochemical (Cu, Mo, Ag, Co, Fe, Mn), geophysical (SP, Mag, EM-16) surveys; diamond-drilling (1970) of 6 holes (AQ: 608 m).	Cardinal (1983); Froc & Francois-Bongarcon (1989); Carter (2003)
1971	Duval International Corporation	Percussion-drilling (1970) of 12 holes (725 m)	Froc & Francois-Bongarcon (1989), Carter (2003)
1972	Granite Mountain mines	Prospecting, grid/line cutting, geological, geochemical (Cu) & geophysical (IP) surveys; diamond-drilling (1972) of 22 holes (NQ: 4,277 m).	Froc & Francois-Bongarcon (1989), Carter (2003)
1972-73	A. David Ross	Un-recorded percussion drilling.	Mickle (undated): Personal communication
1`973	Sierra Empire	Diamond drilling (1973) of 4 holes (NQ: 638 m).	Cardinal (1983); Froc & Francois-Bongarcon (1989); Carter (2003)
1974	Western Mines Ltd.	Diamond drilling (1974) of 22 holes (BQ: 3,869 m).	Cardinal (1983); Froc & Francois-Bongarcon (1989); Carter (2003)
1977	Western Mines Ltd.	Geological mapping & soil sampling of NW area; diamond drilling (1977) of 3 holes (NQ: 608 m).	Cardinal (1983); Froc & Francois-Bongarcon (1989); Carter (2003)
1979-80	Aquarius Resources Ltd.	Trenching, geochemical (Cu, Mo, Ag) & geophysical (Mag.) surveys; diamond drilling (1979) of 3 holes (NQ: 205 m).	Cardinal (1983); Froc & Francois-Bongarcon (1989); Carter (2003)
1981-82	Aquarius Resources Ltd.	Claim staking, surveying, geological mapping, geochemical (Cu, Mo, Ag) & geophysical (IP) surveys, road building, trenching.	Froc & Francois-Bongarcon (1989), Carter (2003)
1985	Rhyolite Resources Inc.	Geological mapping, geochemical surveys, rock-chip sampling of breccias.	Froc & Francois-Bongarcon (1989)

Year	Company	Exploration Work	References*
1994	Canquest Resource Corporation	Geological mapping of South Breccia zone, limited rock sampling (19 rocks: ICP).	**Reynolds (1994)**
1995	Canquest Resource Corporation	Grid establishment, Geophysical (IP: 4.2 km) survey	**Walcott (1995)**
1996	Canquest Resource Corporation	Diamond drilling of 1 hole (AX: 154 m).	**Williams (1996)**
1997	Canquest Resource Corporation	Geological mapping.	**Williams (1997)**
1998	Canquest Resource Corporation	Geological mapping (1.7ha. @ 1:2500), Geophysical surveys (Mag: 2.3 km, VLF: 2.3 km, SP: 0.4 km), Geochemical surveys (soil: 49: ICP+Au, Rock chip: 116: ICP+ Au).	**Williams (1998)**

* Primary references identified in bold print.

GEOLOGICAL SETTING

Regional Geology

The OK Copper property is located in the southwestern part of the Coast Plutonic Complex, which is largely coincident with the morphogeological Coast tectonic belt through most of its length. The Coast Plutonic Complex is one of the largest concentrations of plutonic rocks in North America and it forms the western margin of continental British Columbia, extending from the US border to the Yukon Territory. The complex is a long, narrow, collage-like assemblage of largely Jurassic to Cretaceous plutons. Current research suggests that the Coast Plutonic Complex is a metamorphic and plutonic welt reflecting the Middle Jurassic to Tertiary arc plutonism and volcanism, which are the result of the long-term subuction and/or accretion of the Insular Superterrane on to the Intermontane Superterrane (Gabrielse, et al., 1991).

Plutonic rocks make up approximately 80% of the Coast Belt, with the balance consisting of granitoid gneiss, metasediments and metavolcanics. These metamorphic rocks are found mainly as roof pendants and screens, where they have been down-faulted among the plutonic rocks. Metamorphic grade of the metasediments and metavolcanic rocks ranges from subgreenschist to amphibolite-facies, while the hosting plutonic rocks commonly show little or no evidence of metamorphism. This is despite evidence that many of the plutons were emplaced prior to or during the metamorphic events. Greenwood (1991) ascribes this to a lack of volatiles and fracture systems in lower-grade events (i.e. greenschist), but notes that where fractures are present they commonly carry metamorphic minerals. In higher-grade metamorphic terranes the lack of metamorphism in plutonic rocks is explained by the fact that the mineral assemblage of most granitoid plutons is already amphibolite to granulite-facies, and hence is stable. Plutonic rocks of the Coast Plutonic Complex range in composition from granite to gabbro, with quartz diorite comprising about 40% of the plutonic rock, while diorite and tonalite make up a further 30% (Roddick 1983 as referenced by Woodsworth, 1991). Mafic minerals are mainly hornblende and biotite, although clinopyroxene is common in the more mafic rocks.

The overall structural trend in the Coast Plutonic Complex is northwesterly, and most pre-Tertiary plutons also elongate northwesterly suggesting that there was a constant structural control on their emplacement (Woodsworth, 1991). In the southern part of the Coast Belt, structures are dominated by steep, northwesterly-trending fabrics and belts of pendants, which are interpreted to occupy graben-like structures of mid to late Cretaceous age (Woodsworth, 1991). Within the OK Copper property area, two apparent sub-circular features have been noted in East Redonda Island to the north of the property and in Powell Lake to the east. It is speculated that they may represent a collapsed caldera and that this event maybe related to the mineralization found on the OK Copper property (Froc and Francois-Bongarcon, 1989).

Property Geology

The OK Copper property is underlain by dioritic rocks of the Coast Plutonic Complex, which have been intruded by multiple phases of quartz diorite. The diorites, believed to be the oldest rocks on the property, outcrop in the northern part of the property. Three principal phases of quartz diorite underlie most of the main area of interest on the property. There is a mesocratic hornblende-biotite quartz diorite in the south, a leucocratic biotite quartz diorite in the central part of the property and a quartz-feldspar-porphyry quartz diorite, which intrudes all of the above. Meyer et al., (1976), describe contacts between the older plutonic rocks (diorite) and the quartz diorite(s) as sharp. Contacts between the quartz-feldspar porphyry and the leucocratic quartz diorite and diorite are also believed to be sharp, but are poorly exposed. Late, ubiquitous mafic dykes intrude all units. The age of this intrusive complex is unknown.

Lithology *(from oldest to youngest)*

Diorite (D) – This is believed to be the oldest rock on the property. It is generally medium-grained with variable textured (subhedral to idiomorphic) plagioclase ± hornblende ± pyroxene (diorite porphyry Dp) with approximately 40% mafic content. The variety of textures suggests a number of intrusive phases. The diorite displays weak prophylitic (chlorite-epidote) alteration.

Quartz Diorite (Qd) – Quartz diorite is the dominant rock type on the property, it occurs as several different phases. In general it is medium-grained with a hypidiomorphic texture. Biotite is present is all phases, ranging from 1 to 4 mm in size and modally from 1 to 10%. Biotite is commonly altered to chlorite. Hornblende is present in a mesocratic variety (Qd1) that forms the southern part of the property. The hornblende varies up to 8 mm and can comprise up to 15% of the rock. Chlorite alteration of hornblende is common. There may be local variations in potassium feldspar content, such that the mesocratic quartz diorite may include some granodiorite, particularly to the south of the property; however all samples of quartz diorite from the property that were cut and stained generally showed 3-5% potassic feldspar with a maximum of 10% K-feldspar. The higher percentage of mafic minerals in the mesocratic variety is at the expense of quartz (10-20%) and plagioclase (50-60%). The quartz diorite commonly shows at least weak propylitic alteration in most areas but locally displays a whole range of alterations, including silicification, potassic, phyllic and argillic alteration.

The leucocratic quartz diorite (Qd2) forms most of the central part of the property. It commonly carries 1 to 5% fine-grained, chlorite-altered biotite and minor amounts of fine muscovite (which also forms alteration envelopes around quartz veins and locally reaches 5% of the rock). Plagioclase is generally subhedral, 1-4 mm in size and commonly shows minor alteration to sericite/muscovite (indicated in the field by its being scratched by a knife). Plagioclase comprises 60 to 75% of the leucocratic quartz diorite. Potassium feldspar consists of subhedral, fine grains which rarely comprise more than 5% of the rock (except in potassic alteration envelopes where it can exceed 50%). Quartz is subordinate to the plagioclase, is generally 1-2 mm in size, and commonly comprises 15 – 20% of the rock. Minor amounts of magnetite are also common.

The quartz-feldspar-porphyry (QFP) is a medium to coarse-grained variety of quartz diorite with characteristic crowded, porphyritic plagioclase. Approximately 60-80% of the plagioclase crystals display well defined, euhedral crystal boundaries visible on cut surfaces, and about 10% of the crystals exhibit minor zoning and/or reaction rims. Grain-size of plagioclase phenocrysts ranges from 2 mm to 12 mm, with the QFP in the centre part of the property being coarser (6-12 mm, average 8 mm) than the QFP exposed to the north on the Theodosia road (1-3 mm, average 2 mm). Plagioclase comprises about 70 to 85% of the rock, while quartz makes up most of the balance at 15 to 25%. Quartz has a highly variable form, which varies from rare, 2-3 mm euhedral crystals to more common 15 mm coalescing "amoeba-like" blobs. Chlorite-altered biotite, 1-3 mm in size, makes up about 1 – 3 % of the QFP. The matrix, which forms about 5-10% of the rock, is made up of a mixture of fine-grained, but still discernable, plagioclase, quartz and potassic feldspar. The k-feldspar comprises about 1-3 % of the whole rock (approximately 10% of the matrix). The quartz component varies greatly and where it locally reaches 25%, it pushes the rock composition to tonalite. The QFP is characteristically un-altered and displays only minor quartz veining and potassic alteration envelopes near contacts. It intrudes both the leucocratic quartz diorite and the diorite.

Mafic dikes (d) are ubiquitous on the property with several varieties present: aphanitic dikes (d1) have no phenocrysts; dikes (d2) with plagioclase phenocrysts ± minor hornblende; dikes (d3) with hornblende phenocrysts ± minor plagioclase; andesite (da) or dacite (dd) are mapped in a limited number of locations based on positive visual or thin-section identification; and rare diorite dikes (dp) which in contrast to the other mafic dikes are phaneritic and often porphyritic. This type is best seen in the area to the immediate southwest of the South Breccia Zone. The phaneritic diorite dikes are unaltered, again in contrast to the other mafic dikes, which commonly display moderate to strong chlorite alteration. The mafic dikes generally have a north-northeasterly to north-northwesterly trend and dip steeply. Chilled-margins have been noted. One aplite dike was encountered on the logging road, south of the big clearing in the central part of the property. It is un-mineralized, un-altered and otherwise unremarkable.

Alteration

The dominant alteration type which is pervasive throughout the property is weak to moderate propylitic alteration. It is mapped as weak to moderate depending on the intensity of the chlorite alteration of mafics; moderate if it includes epidote and/or pyrite centers in the degraded mafics; and strong if it includes albitic and/or sericite alteration of plagioclase feldspar. It is best developed in the quartz diorite and it appears to predate mineralization. Overprinting the propylitic alteration is silicification and quartz veining, potassic alteration, and localized occurrences of phyllic and argillic alteration. Weak to moderate potassic alteration, largely in the form of narrow k-feldspar alteration envelopes, forms a number of poorly developed centers on the property. It is maped according to the intensity of the potassic alteration envelopes. The potassic alteration centers do not appear to form a pattern of distribution that is discernable from the mapping to date. Potassic alteration is best developed in the quartz diorite and appears to post-date mineralization. An area of phyllic alteration is found in the vicinity of, and on trend with, the South Breccia Zone. Silicification, sericitization and the widespread introduction of quartz veining and disseminated pyrite have largely replaced and obscured the pre-existing rock at that location, making rock identifications difficult. A small-localized area of argillic alteration is found to the north where several road cuts expose moderate clay alteration of feldspars. The central part of the property hosts a large area of intense silicification, mostly in the form of quartz veining. In general, most areas of intense quartz veining are barren, but quartz-sulphide stockworks are moderately well developed in the area east of Claim Lake.

Mineralization

Economic mineralization on the OK Copper property is in the form of disseminated blebs of chalcopyrite in quartz veins and stockworks with pyrite. Weakly developed disseminated sulphide alteration envelopes also carry minor amounts of chalcopyrite adjacent to mineralized quartz veins. Chalcopyrite is also found in the matrix of a hydrothermal breccia in the South Breccia Zone, however, because of it's limited extent it is of geological interest rather than economic importance. Anomalous gold values are found associated with quartz veining in the South Breccia area, which is part of a bigger phyllic-altered fracture zone. Molybdenite is found as vein selvages in quartz veins and as coatings on dry fractures, mainly in the south central part of the property. A more detailed description of the mineralization is found in the discussion of the rock geochemical results.

Structure

Northeast to north-northeasterly trending structures have been identified by a number of previous workers on the OK property (Carter, 2003). These may be lineaments identified from photo-geological studies, but they were not recognized in the field while mapping in 2003.

EXPLORATION WORK IN 2003

Property Work Carried out

A preliminary evaluation of the property was carried out by two geologists employed by Mincord Exploration Consultants Ltd. during an 18-day period from October 11th to October 28th, 2003. The objectives of the field-work were to: (1) GPS the new logging road system to provide an accurate digital base-map for geological mapping when combined with TRIM map data, (2) to map wall-rock alteration and determine vectors of potassic alteration, and (3) to evaluate the gold potential of the property through systematic rock sampling.

During October 2003 the southern BC coast received record-setting rainfalls, with daily amounts of up to 10 cm falling in the project area during the 2 weeks of continous rain. Strong wind, fog and occasionally sleet accompanied the stormy conditions. Given the less than favourable conditions for field mapping, it was decided to focus the initial exploration effort on mapping the road system, which provided good outcrop exposure across the length of the property. The present logging road post-dates the most active period of exploration during the 1960's and 70's and the numerous road-cuts on these new roads provide opportunities to map areas that are otherwise poorly exposed. This initial work was later complimented by a limited number of traverses to less accessible areas of the property. All traverses, including mapping of the road system were done on foot, except for the area north of Little North Lake where a quad was utilized because of the distances involved. Location control for mapping and sample sites used a Garmin etrix GPS, referenced to the NAD 83 datum. Accuracy of the location of roads and sample site is approximately ± 10 metres. Out of a total of 18 days allocated to the project, 13 days were spent carrying out field work on the property with 2 days spent on reconnaissance with prospector Bob Mickle, 9 days were spent mapping, and further 2 days were spent traversing four outlying areas of the property. The remaining 5 days were spent cutting and staining rock samples, plotting field traverses and for mobilization/demobilization.

The exploration work carried out consisted of preliminary geological mapping at 1:5,000 scale of approximately 10 km^2 of the road system and its immediate vicinity, and the prospecting and rock sampling of all road-cuts and areas of known mineralization. A total of 81 rock samples were collected for analysis. All rock samples are grab samples of outcrop unless otherwise specified. In addition, many rock samples were cut with a rock saw and stained with sodium cobaltinitrite to determine their potassium content. A cost statement at the end of this report details $31,509 in expenditures incurred while carrying out this program.

Analytical Work

All samples collected from the OK Copper property in 2003 were analysed by Acme Analytical Laboratories Ltd. (ACME) of 852 East Hastings Street, Vancouver, BC. Analysis was by ICP/ES & MS, which is capable of determining the concentrations of up to 70 elements simultaneously by measuring the mass of ions, generated by an argon gas plasma heated to 10,000°K, which pass through a magnetic quadruple on their way to a detector. The ICP/ES & MS is capable of ultra low detection limits (ppb to ppm) with very wide linear ranges (up to 7 orders of magnitude). The upper limits of this analysis is 100 ppm for Ag, Au, Hg, W, Se, TeE, Tl, Ga and Sn; 2,000 ppm for: Mo, Co, Cd, Sb, Bi, Th, U and B; and 10,000 ppm for: Cu, Pb, Zn, Ni, Mn, As, V, La and Cr.

Samples were prepared by crushing and pulverizing rocks to –100 mesh. Samples were analysed by ICP-MS as described above, in which a 15-gram sample split of the sample was leached with 90 ml of 2-2-2 HCl-HNO3-H20 at 95° C for one hour and diluted to 300 ml before being analysed by ICP/ES & MS. Included with the analysis of the 81 rocks were 3 standards and 3 repeat analysis, which successfully checked the accuracy of the analytical work. Analytical certificated are attached in Appendix 1.

Results – Geological Mapping

Initial results of the exploration program were both surprising and apparent once an initial suite of rocks had been stained; the geology was different from that previously mapped. The dominant rock type on the OK Copper property is quartz diorite not granodiorite. In general, most of the rocks contain calcic feldspars, not potassium feldspar, and only traces of k-feldspar were noted (other than in potassic alteration zones). The quartz-feldspar-porphyry (QFP) was also found to be a quartz diorite. In addition, the paucity of outcrop in most areas was surprising, given the amount of detail provided on previous geology maps. The preliminary geological mapping, complete with observations of alteration and sulphide mineralization are presented in figures 4 to 7. Thin sections, confirming rock identifications are attached in Appendix 2. Time constraints and field conditions prevented mapping the boundaries of the QFP or of determining the nature of the contacts between the QFP, the leucocratic quartz diorite and the diorite. Likewise there was no time available to study quartz vein or mafic dike orientations.

Results – Geochemistry

Gold - Silver

Rock geochemistry provided information about the gold-silver potential of the property which overall appears to be limited, and is largely confined to a structurally complex fracture zone in the south-central part of the property. The average gold value collected was 6 ppb that of silver 769 ppb. The highest gold value was 84.8 ppb, and the highest silver value was 14,575 ppb. Anomalous gold and silver samples (Au > 10 ppb or Ag > 1,000 ppb) are presented in Table 3 and comprise 13.6% of the samples collected.

Table 3 – Anomalous Gold and Silver geochemistry

SAMPLES	NORTH83*	EAST83*	Au ppb	Ag ppb	Cu ppm	Claim/Area
LB-03-OK-18	5541716	383040	84.8	11,395	20,683	OK C: Fracture zone
P-03-OK-32	5541673	382654	45.8	489	179	OK C: Fracture zone
P-03-OK-23A	5542363	382378	29.4	574	2,670	OK C: Claim Lake area

SAMPLES	**NORTH83***	**EAST83***	**Au** ppb	**Ag** ppb	**Cu** ppm	**Claim/Area**
P-03-OK-01	5541658	383217	28.9	14,575	15,308	OK C: Fracture zone
LB-03-OK-22	5541709	382637	12.7	1,749	2,017	OK C: Fracture zone
P-03-OK-41	5546757	381277	9.4	1,865	2,255	OK F: Theodosia road
P-03-OK-45	5546309	380982	9.1	1,254	1,213	OK F: Theodosia road
P-03-OK-18F	5545119	381800	8.7	2,695	7,410	OK A: North Road - Float
P-03-OK-21	5542463	382346	7.6	1,489	3,494	OK C: Claim Lake area
LB-03-OK-15	5541846	383013	4.5	1,055	1,698	OK C: Fracture zone
LB-03-OK-29	5544767	381809	1	1,983	2,991	OK B: North Lake Zone

* All coordinates are UTM NAD83

Sample P-02-OK-1 is a sample of the South Breccia Zone, which trends at 155°/335°. Sample LB-03-OK-18 is of a sample of a sulphide-rich, siliceous replacement zone adjacent to a diorite intrusion (dike?). This structurally controlled zone is 1 metre wide, vertical, trends at 140°/320° and is 185 metres away and roughly on a west-northwest trend from the South Breccia Zone structure, possibly suggesting associated structures. It is a repeat of a sample (#157224) taken by Williams in 1998, which assayed 135 ppb, gold (Williams, 1998). Likewise sample LB-03-OK-15 is of siliceous replacements and quartz veining taken from the vicinity of Williams samples numbered 157230 to 157233 which returned up to 46 ppb gold (Williams, 1998). Many other samples of previously identified gold-silver anomalies in this general area of the South Breccia Zone did not repeat the anomalies, indicating the spotty nature of the gold and/or silver mineralization. It is also possible that the same material was not always sampled since most of the ribbons marking previous sites had been lost. Samples numbered LB-03-OK22 and P-03-OK-32 were taken 35 meters apart on a 10 cm wide quartz-sulphide vein approximately 560 metres west of the South Breccia Zone. This vein trends at 150°/330°. Samples P-03-OK-21 and 23A both are of quartz veining exposed in road cuts in the central area. Sample P-03-OK-18F is a sample of sulphide-rich quartz diorite that was used for road fill; its origin has not been determined. The remaining silver anomalous samples were collected from road-cuts in the northern part of the property and are of quartz diorites showing moderate chlorite and weak to moderate potassic alteration along with quartz veining. In general, the silver anomalies are associated with high copper values, gold is not associated with any another element, but the highest gold, silver and copper values are sometimes found together.

Copper

The average copper value of the 81 samples collected was 1,226 ppm with the highest value being 20,683 ppm. Anomalous copper samples (Cu > 1,000 ppm) are presented in Table 4, which comprise 30.8% of the samples collected.

Table 4 – Anomalous Copper geochemistry

SAMPLES	NORTH83*	EAST83*	Cu (ppm)	Mo (ppm)	Claim/Area
LB-03-OK-06	5541576	383045	1,775	49	OK C: Fracture Zone
LB-03-OK-08	5541572	383039	2,048	274	OK C: Fracture Zone
LB-03-OK-15	5541846	383013	1,698	5	OK C: Fracture Zone
LB-03-OK-18	5541716	383040	20,683	21	OK C: Fracture Zone
LB-03-OK-22	5541709	382637	2,017	42	OK C: Fracture Zone
LB-03-OK-29	5544767	381809	2,991	4	OK B: North Lake Zone
LB-03-OK-30	5544817	381791	2,807	22	OK B: North Lake Zone
P-03-OK-01	5541658	383217	15,308	32	OK C: Fracture Zone – South Bx
P-03-OK-13	5542694	382200	1,729	3	OK C: Claim Lake area
P-03-OK-15	5542555	382296	1,526	40	OK C: Claim Lake area
P-03-OK-16	5542535	382310	2,484	2	OK C: Claim Lake area
P-03-OK-19	5542535	382314	975	12	OK C: Claim Lake area – 10m chip
P-03-OK-20	5542492	382331	2,515	3	OK C: Claim Lake area
P-03-OK-21	5542463	382346	3,494	7	OK C: Claim Lake area
P-03-OK-22	5542431	382355	1,443	7	OK C: Claim Lake area
P-03-OK-23A	5542363	382378	2,670	4	OK C: Claim Lake area
P-03-OK-23B	5542363	382378	1,249	757	OK C: Claim Lake area
P-03-OK-24	5542366	382375	1,124	11	OK C: Claim Lake area
P-03-OK-25	5542328	382377	1,797	19	OK C: Claim Lake area
P-03-OK-26	5542291	382383	1,420	135	OK C: Claim Lake area
P-03-OK-30	5542396	382492	1,175	240	OK C: Claim Lake area
P-03-OK-34	5542541	382043	1,699	17	OK C: Claim Lake area
P-03-OK-18F	5545119	381800	7,410	6	OK A: North Road - Float
P-03-OK-41	5546757	381277	2,255	2	OK F: Theodosia road
P-03-OK-45	5546309	380982	1,213	51	OK F: Theodosia road

* All coordinates are UTM NAD83

Four areas returned anomalous copper rock geochemistry. The southern part of the OK C claim is a structurally complex area which hosts the South Breccia Zone along with numerous quartz veins, dikes, and silicification zones. Samples LB-03-OK-06, 08,15,18,22 are grab samples of sulphide-rich, quartz veins in quartz diorite. Sample P-03-OK-1 is of the hydrothermal breccia that makes up the South Breccia Zone within the larger OK C fracture zone. The breccia matrix locally contains up to 10% chalcopyrite.

The Claim Lake area returned many anomalous copper samples (13 samples > 1,000 ppm Cu), which is over half of the total number of anomalous samples collected in the program. The average copper value from 21 samples (including both anomalous and non-anomalous samples) collected in this area is 1380 ppm. The average of 11 samples (P-03-OK-15 to P-03-OK-26) collected along 275 metres of the logging road is 1,881 ppm copper. This is within the more weakly mineralized zone described above which measures approximately 530 metres north-south along the logging road. Sample P-03-OK-19 is a 10-meter random chip sample of the general outcrop area around sample P-03-OK-16. All other samples from this area are grab samples of leucocratic quartz diorite containing quartz veins with blebs of pyrite and chalcopyrite.

Farther north, samples LB-03-OK-29 and 30 are of malachite-stained quartz veins from fractured and broken, leucocratic quartz diorite sub-crop along the road near the Little North Lake. Sample P-03-OK-18F, as previously noted, is a piece of sulphide-rich diorite float from road fill, whose origin is unknown. Samples P-03-OK-41 and 45 were collected from road-cuts along the Theodosia access road and are of veined quartz diorites which display chlorite and weak to moderate potassic alteration. This veining carries disseminated blebs of pyrite and chalcopyrite.

Molybdenum

Molybdenum values were in general, fairly low with an average value of 38 ppm Mo and only 6% (5 samples) of the total analysed greater than 100 ppm Mo. The highest value was 757 ppm Mo. Anomalous molybdenum geochemistry is presented in Table 5.

Table 5 – Anomalous Molybdenum geochemistry

SAMPLES	NORTH83*	EAST83*	Mo (ppm)	Cu (ppm)	Claim/Area
P-03-OK-23B	5542363	382378	757	1,249	OK C: Claim Lake area
LB-03-OK-08	5541572	383039	274	2,048	OK C: Fracture Zone
P-03-OK-32	5541673	382654	256	179	OK C: Fracture Zone
P-03-OK-30	5542396	382492	240	1,175	OK C: Claim Lake area
P-03-OK-26	5542291	382383	135	1,420	OK C: Claim Lake area
P-03-OK-29	5542192	382384	123	559	OK C: Claim Lake area

* All coordinates are UTM NAD83

The two areas returning anomalous molybdenum mineralization are the OK C fracture zone described above under gold-silver anomalies, and the Claim Lake area described under copper anomalies. All of the above molybdenum anomalies are grab samples of quartz diorite containing mineralized quartz veins. The veins were all noted as carrying minor to ample molybdenite as vein selvages along with blebs of pyrite and chalcopyrite. Associated disseminated pyrite was also noted as forming weak to strong alteration envelopes in the hosting leucocratic quartz diorite. Rock sample locations and results are presented in figures 8 and 9.

INTERPRETATION and CONCLUSIONS

The OK Copper property is underlain by a multi-phase intrusive complex, of which the main lithology is quartz diorite followed by diorite. Late intrusive phases include a quartz-feldspar-prophyry and numerous dacite to diorite dikes. Widespread propylitic wall-rock alteration is modified and over printed by later potassic, phyllic and argillic alteration. Two phases of quartz veining, both mineralized and un-mineralized, are well developed and form a dominant feature of the centre of the property. The quartz-feldspar-prophyry is un-mineralized. It has minor veining along contacts with the leucocratic quartz diorite and is locally cut by fracture-controlled potassic alteration. Several phases of the quartz-feldspar-prophyry exist based on variations in the grain-size of porphyritic plagioclase. Intermediate or gradational phases between the hypidiomorphic leucocratic quartz diorite and the porphyritic quartz-feldspar-prophyry may also exist, but this determination will depend on detailed petrographic work. The association suggested by past workers between mineralization and the quartz-feldspar-prophyry is most likely due the same controlling structures, and not to a genetic association with the quartz-feldspar-prophyry itself. However, these multi-phase intrusive features of the OK Copper property are characteristics that are common to many porphyry copper deposits and support the continued exploration for this type of deposit.

A suggested sequence of events is: (1) the intrusion of the mesocratic hornblende-biotite quartz diorite followed by the leucocratic biotite quartz diorite into the hosting diorite; (2) the development of regional-scale prophylitic alteration; (3) development of northwesterly to northeastly trending structures; (4) quartz veining carrying pyrite, chalcopyrite and lesser molybdenite is introduced into narrow fractures and stockworks in the leucocratic quartz diorite; (5) intrusion of the later phases of quartz diorite, including the quartz-feldspar-porphyry and barren quartz veining; (6) the development of potassic alteration, contemporaneously to and post dating the late intrusions and quartz veining in number 5 above; (7) reactivation of and development of new structures (inc. fault breccias) along with hydrothermal alteration and late quartz veining remobilizing existing sulphide mineralization; (8) emplacement of mafic dike swarms.

The OK Copper property contains anomalous copper mineralization in several areas, along with anomalous molybdenum, silver and gold values in a few locations. The gold-silver potential of the property overall appears to be limited, and is largely confined to a structurally complex fracture zone in the south-central part of the property. In general, the silver anomalies are associated with high copper values, while gold is not associated with any another element, but the highest gold, silver and copper values are sometimes found together. Based on the limited sampling carried out during this program, the Claim Lake area would appear to have the best potential for developing new reserves. Granted, this impression is partly a reflection of the sample density, ease of access, time constraints and the lack of outcrop in existing ore reserve areas. The area east of Claim Lake was not previously identified as an area of high potential, and this suggests that there may be other similar or higher-grade areas that have not yet been recognized. Given the lack of outcrop in most areas, the drilling carried out in the 1960's and 70's must have been guided by IP and soil geochemistry. It was readily observed in numerous locations that the bedrock was glacially smoothed and often covered by ~ 1 metre of stony-clay or basal till with a thick organic mat on the surface. Any soil taken from this environment would have almost nothing derived from the underlying bedrock, and variations in soil geochemistry probably are due more to variations in soil composition. The widespread disseminated pyrite may have provided many false IP targets and together with misleading soil geochemistry may be responsible many of the "low-grade" drill holes in the past. Perhaps a better approach would be to focus on identifying the structures controlling mineralization through detailed geological mapping and geophysical techniques such as input EM. Basal till providence studies may prove useful. The thin overburden in many areas also suggests that trenching may be a cost-effective technique to evaluate anomalies. Existing soil geochemistry should be used to compliment outcrop information, but not as a final arbitrator to determine underlying mineralization. Much of the old information needs to be compiled before its value can be determined.

RECOMMENDATIONS

It is recommended that further work be carried out on the OK Copper property and that the work continue to focus on exploration for a porphyry-copper deposit. A 2-phase program is recommended in which the first phase should consist of a property-wide geophysical survey which should include Mag and input EM to identify controlling structures, followed by trenching and detailed geological mapping of selected areas.

COST STATEMENT

A trip to the BSGS library was made in March to secure legible property scale maps to start the 2003 fieldwork. This was followed by a property visit in June to reconnoiter access with the main body of the fieldwork delayed until after the (extreme) 2003 fire season.

***Preparatory work** (March, 2003).*		
J. W. Morton, P.Geo., 2 days @ $450	$900	$900
***Site Reconnoitre** (June, 2003)*		
J. W. Morton, P.Geo., 2 days no charge	$0	
Vehicle Expenses	140	
Travel Expenses	335	475
***Field Work** (October / November, 2003)*		
J.W. (Bill) Morton P.Geo., 1 day @ $450 (project coordination)	450	
J. Page P.Geo., 22 days @ $450	9,900	
Leif Bjornson, junior geologist 16 days @ $300	4,800	
Bob Mickle (contract)	900	
Truck rental and repairs	2,870	
ATV rental 16 days @ $50 day	800	
T.R.I.M map purchase	430	
Computer rental 18days @ $10	180	
Field equipment rental 18days @ $10	180	
GPS rental 16 days @ $5	80	
Field equipment/supplies purchased	593	
Food	1,150	
Accommodation	1,085	
Map reproduction	135	
Freight	708	
Analyses (Acme Analytical) 81 samples @ $24.50	1,985	
Chemicals (HF & Sodium Cobaltitrite) and supplies	125	26,371
***Reporting** (Dec 2003 to Feb 2004)*		
Digitizing and Data Treatment (Discovery Consultants)	$738	
J. Page P.Geo., 4.5 days @ $450	2,025	
Final drafting (Discovery Consultants)	1,000	
Petrographic Reports *(not costed)*	0	
Report & Map reproduction *(not costed)*	0	3,763
***TOTAL** (exclusive of GST):*		$31,509

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CERTIFICATE of AUTHOR

I, Jay William Page, P.Geo. Do hereby certify that:

1. I am currently employed as a geologist by:

   Mincord Exploration Consultants Ltd.
   Suite 110 – 325 Howe St.
   Vancouver, B.C.
   V6C 1Z7

2. I have graduated with a B.A degree in Physical Geography/Geomorphology (1977) and a B.Sc. in Geology (1984) from the University of British Columbia.

3. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, registration number 19596.

4. I have worked as a geologist for a total of 18 years since graduation from university.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for preparation of the technical report titled "GEOLOGICAL ASSESSMENT REPORT of the OK COPPER PROPERTY VANCOUVER MINING DIVISION, BRITISH COLUMBIA," and dated February 26, 2004 ("The Technical Report") relating to the property.

Dated this **twenty-sixth day of February, 2004**

Jay W. Page, P.Geo.

APPENDIX 1
Analytical Certificates

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Mincord Exploration Consultants Ltd. PROJECT OK COPPER File # A305324 Page 1 (a)

110 - 325 Howe St., Vancouver BC V6C 1Z7 Submitted by: Jay W. Page

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppb	Se ppm	Te ppm	Ga ppm
SI	.05	.02	.40	.8	<2	.1	<.1	4	.03	1.1	<.1	<.2	<.1	1.5	.01	.02	<.02	2	.06	<.001	<.5	.6	<.01	2.0	.003	1	.01	.359	<.01	<.1	<.1	<.02	.07	<5	<.1	<.02	<.1
LB-03-OK-1	.31	43.18	2.07	91.3	64	1.0	2.0	277	1.17	1.7	.2	.3	.4	25.4	.45	.05	.03	11	.15	.020	1.7	4.5	.27	67.4	.060	1	.51	.082	.05	.5	.9	<.02	.53	<5	<.1	.02	2.8
LB-03-OK-2	1.70	216.37	1.76	55.7	397	1.4	2.5	259	1.44	1.8	.1	.5	.3	66.8	.09	.26	.02	19	.28	.045	1.8	4.9	.46	210.9	.084	2	.80	.076	.05	.2	1.4	<.02	.41	<5	.2	.03	3.0
LB-03-OK-3	33.69	125.91	3.01	12.1	172	1.0	1.5	75	1.03	4.0	.2	1.1	.7	22.1	.01	.08	.03	6	.26	.023	2.0	3.1	.15	40.8	.051	<1	.79	.046	.07	.5	.5	.02	.18	7	.5	.07	2.0
LB-03-OK-4	21.34	104.57	3.03	22.9	85	1.5	3.4	99	1.51	2.1	.2	.7	.7	50.8	.05	.04	.03	6	.18	.040	2.1	4.4	.28	90.6	.029	<1	.57	.049	.14	.3	.4	.02	1.26	7	1.0	.05	1.9
LB-03-OK-5	5.91	533.15	1.91	21.4	371	1.0	4.8	157	1.16	1.0	.9	10.1	2.4	37.4	.02	.05	<.02	4	.05	.015	4.9	4.4	.12	115.6	.006	2	.48	.039	.13	.4	.2	.02	.37	<5	.7	<.02	1.4
LB-03-OK-6	49.30	1774.65	1.32	21.2	889	.9	3.1	127	.71	1.2	.7	13.8	2.3	22.1	.08	.05	<.02	2	.05	.012	3.3	5.3	.10	80.3	.005	1	.37	.042	.13	.1	.1	<.02	.32	<5	.6	.02	1.1
LB-03-OK-7	33.12	297.09	1.71	32.1	228	1.2	1.6	173	.88	1.0	.7	3.8	2.8	24.6	<.01	.04	<.02	4	.07	.017	5.0	4.9	.17	73.9	.020	<1	.54	.054	.13	.4	.2	.02	.06	<5	.2	<.02	1.7
LB-03-OK-8	273.54	2047.68	1.02	9.8	891	.9	3.1	35	1.44	.7	.4	10.6	1.8	49.9	<.01	.03	.02	<2	.02	.004	4.3	3.7	.04	154.9	<.001	<1	.42	.014	.19	<.1	<.1	.02	.79	<5	2.0	.02	1.0
LB-03-OK-9	5.42	322.43	1.48	23.0	220	1.1	1.9	197	.82	1.1	1.1	1.6	2.5	21.0	.03	.03	<.02	2	.09	.022	3.9	5.5	.13	86.3	.015	<1	.46	.048	.14	.4	.2	.02	.08	<5	.2	<.02	1.4
LB-03-OK-10	2.09	40.25	1.33	16.1	41	1.1	3.6	248	.73	1.9	<.1	1.4	.6	11.4	.01	.05	.03	3	.05	.016	2.7	4.0	.14	74.3	.003	<1	.45	.053	.13	<.1	.2	.02	.14	<5	.1	.02	1.5
LB-03-OK-11	3.60	189.90	4.60	218.8	221	2.1	3.8	123	1.72	3.0	.2	.8	.4	19.6	1.26	.09	.11	5	.20	.023	1.7	6.0	.11	40.7	.039	1	.46	.041	.09	.6	.3	.02	1.17	99	.5	.05	1.3
LB-03-OK-12	76.23	14.04	1.71	3.7	34	.7	.1	11	.87	1.0	<.1	1.5	.4	10.6	<.01	.06	.03	2	.01	.003	2.7	4.1	.02	69.3	.018	<1	.19	.064	.08	.3	.1	<.02	.01	5	.3	.08	1.5
LB-03-OK-13	1.43	29.29	3.37	10.7	33	.6	.8	50	.68	1.1	.1	.2	.8	11.6	.01	.05	.03	2	.05	.008	3.4	3.6	.12	37.8	.023	<1	.36	.084	.07	.2	.3	<.02	.16	5	.1	<.02	1.4
LB-03-OK-14	.99	137.61	2.02	9.3	100	.8	.6	57	.40	1.3	.1	<.2	.7	10.7	.04	.03	<.02	5	.26	.015	3.5	3.8	.13	34.0	.026	<1	.59	.065	.06	.6	.3	<.02	<.01	<5	<.1	<.02	1.8
LB-03-OK-15	5.04	1698.46	.74	4.0	1055	.8	1.8	11	2.25	1.0	1.2	4.5	.5	3.2	.07	.04	.07	<2	.04	.019	2.0	4.2	.02	51.1	.003	<1	.31	.016	.15	.3	.1	.02	2.36	8	1.9	.03	.8
LB-03-OK-16	.99	26.03	1.89	15.8	23	.7	.4	55	.43	1.1	.1	<.2	.3	5.9	.01	.03	<.02	5	.03	.005	1.1	6.1	.20	14.6	.013	<1	.32	.066	.04	.5	.2	<.02	.04	<5	<.1	<.02	1.3
LB-03-OK-17	1.97	96.52	1.24	26.5	131	.7	2.3	107	.77	1.2	1.6	.6	.3	59.6	.02	.04	<.02	9	.17	.033	2.7	3.5	.25	75.9	.051	<1	.62	.102	.07	.3	.8	<.02	.06	<5	.2	<.02	2.7
LB-03-OK-18	21.19	20682.55	5.30	415.6	11395	5.8	12.7	150	5.39	.1	.2	84.8	.6	6.5	9.62	.14	.21	4	.04	.010	2.3	3.3	.33	31.2	.027	<1	.57	.047	.08	.5	.2	<.02	3.94	11	11.3	.05	1.9
LB-03-OK-19	1.83	184.69	1.43	21.7	159	.7	1.4	173	.82	1.1	.1	1.7	1.1	16.4	.05	.06	<.02	6	.12	.014	4.6	4.8	.19	57.9	.055	<1	.51	.063	.10	.2	.4	<.02	.13	<5	.2	<.02	2.1
LB-03-OK-20	63.30	758.92	1.89	29.5	294	1.1	1.8	173	.85	1.2	1.2	3.3	2.5	54.3	.03	.04	<.02	7	.49	.017	4.8	5.5	.16	76.6	.033	<1	.43	.047	.11	.5	.4	<.02	.27	<5	.5	<.02	1.7
RE LB-03-OK-20	64.63	768.51	1.91	27.1	289	1.1	1.6	175	.87	1.2	1.2	3.5	2.5	55.6	.01	.04	<.02	8	.50	.016	5.2	5.3	.16	80.5	.032	<1	.44	.052	.11	.4	.4	<.02	.32	<5	.4	<.02	1.7
LB-03-OK-21	3.78	59.00	2.03	54.4	73	1.6	3.6	279	1.64	1.5	.3	<.2	.5	42.0	.03	.08	.03	19	.36	.040	2.8	5.1	.43	65.0	.097	<1	.83	.063	.06	.1	1.4	<.02	.71	<5	.4	.02	3.1
LB-03-OK-22	41.72	2016.95	2.18	23.7	1749	1.0	1.2	51	1.27	1.1	.1	12.7	.6	11.6	.06	.07	.07	2	.07	.016	2.0	4.4	.03	188.7	.009	<1	.39	.027	.17	.5	.1	.02	.61	5	1.0	.07	1.1
LB-03-OK-23	11.81	188.78	2.19	47.1	175	1.8	3.5	267	1.55	1.4	.2	1.4	.5	82.9	<.01	.04	.03	24	.33	.041	2.9	5.0	.46	80.1	.080	<1	1.05	.055	.08	.2	1.3	<.02	.17	<5	.4	.03	3.4
LB-03-OK-24	49.68	110.67	1.82	39.2	146	1.3	2.4	209	1.56	1.4	.2	.5	.5	34.3	<.01	.04	.04	12	.24	.037	1.7	4.1	.44	33.2	.082	<1	.91	.040	.10	.4	.7	.02	.36	<5	.8	.11	2.6
LB-03-OK-25	4.18	109.48	2.20	54.2	77	2.2	5.3	274	1.95	1.3	.1	<.2	.5	175.0	.01	.05	<.02	18	.35	.048	2.8	5.2	.49	126.2	.053	<1	1.07	.057	.10	.1	1.1	<.02	.87	6	.8	.02	3.5
LB-03-OK-26	2.21	693.56	1.55	35.3	114	3.2	2.8	165	.74	1.2	.1	1.0	.8	17.2	.28	.06	.03	10	.19	.029	5.2	5.6	.38	50.4	.008	<1	.68	.042	.13	.2	.9	<.02	.03	<5	.1	<.02	2.3
LB-03-OK-27	2.00	70.11	2.54	64.5	154	2.5	4.0	362	1.46	2.2	.4	.2	.8	33.8	.13	.13	.04	21	.37	.047	4.4	5.2	.47	31.8	.107	<1	.95	.061	.07	.1	1.2	.02	.20	15	.3	.05	4.0
LB-03-OK-28	31.12	354.29	2.03	90.0	521	2.9	7.5	447	1.82	1.8	.4	.7	1.3	31.8	.26	.07	.04	23	.59	.043	5.2	7.2	.50	31.1	.108	<1	1.09	.057	.08	.5	1.6	<.02	.80	7	.5	.02	4.0
LB-03-OK-29	4.12	2990.71	4.36	149.3	1983	18.0	19.0	725	2.96	1.9	.4	1.0	1.3	61.4	.84	.14	.09	50	.96	.075	5.5	48.7	1.95	463.6	.204	<1	2.31	.032	.06	.2	6.6	<.02	.10	8	.3	.03	7.2
LB-03-OK-30	21.90	2807.03	7.96	42.5	781	2.4	4.5	170	.89	1.6	.1	.6	.5	37.2	.24	.08	.03	10	.22	.021	2.7	5.5	.36	1298.9	.057	<1	.73	.054	.11	.5	.8	<.02	.07	<5	.3	.03	2.3
LB-03-OK-31	2.32	134.68	1.36	67.9	105	2.5	5.3	298	1.63	2.0	.4	<.2	1.0	43.3	.04	.21	.03	24	.39	.060	3.9	5.9	.51	51.7	.090	1	.98	.061	.12	.1	1.3	.02	.31	<5	.4	.02	3.8
LB-03-OK-32	1.02	123.41	2.21	73.9	118	2.7	4.0	332	1.81	2.0	.3	.4	1.1	30.8	.05	.09	.05	22	.27	.056	3.0	5.9	.62	43.8	.083	2	1.06	.055	.13	.6	1.1	.02	.30	<5	.3	.03	3.7
LB-03-OK-33	5.22	32.98	3.18	54.6	38	2.6	2.9	386	1.21	1.4	.2	<.2	.6	29.5	.05	.04	.02	16	.20	.036	4.3	7.3	.35	91.7	.044	<1	.80	.063	.11	<.1	1.1	.02	.19	<5	.2	<.02	3.7
STANDARD DS5	12.69	141.35	24.84	128.9	262	23.7	12.1	750	2.85	18.4	6.1	44.0	2.7	43.4	5.07	3.62	5.74	56	.68	.088	10.5	178.9	.65	128.6	.091	17	2.01	.030	.13	4.8	3.4	.98	.05	160	4.7	86	6.0

GROUP 1F15 - 15.00 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP/ES & MS.
UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 28 2003 **DATE REPORT MAILED:** Nov 13/03 **SIGNED BY**.......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA

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ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppb	Se ppm	Te ppm	Ga ppm
P-03-OK-1	32.40	15308.46	3.55	161.9	14575	7.0	16.3	432	6.86	<.1	.3	28.9	.4	525.3	1.08	.10	.27	24	.40	.040	1.9	8.7	.69	17.8	.049	<1	1.24	.049	.09	.8	1.2	.02	6.13	22	6.2	.21	4.0
P-03-OK-2	7.21	103.78	2.36	17.0	225	.5	.3	135	.58	.4	.2	.8	.8	39.2	<.01	.03	.03	6	.05	.019	5.2	2.7	.24	65.7	.026	1	.43	.095	.05	.2	.6	<.02	.05	<5	.3	<.02	1.9
P-03-OK-3	26.09	580.72	6.21	39.4	753	2.1	3.9	438	2.16	1.8	.3	1.8	.5	48.8	.13	.07	.11	17	.92	.050	2.2	5.4	.53	109.8	.066	<1	1.56	.042	.08	.4	1.2	<.02	1.32	17	1.3	.13	5.6
P-03-OK-4	.64	72.34	2.15	95.0	156	1.7	5.4	462	2.03	.8	.3	.3	.5	62.9	.12	.06	.02	29	.44	.053	3.5	6.8	.49	167.7	.082	<1	1.11	.075	.08	.4	2.0	.02	.71	10	.1	.03	4.8
P-03-OK-5	.67	88.03	3.57	66.1	169	1.9	3.0	508	1.84	1.2	.5	.7	.6	21.4	.17	.08	.04	27	.45	.054	3.9	5.6	.51	28.6	.098	<1	1.03	.065	.09	.1	2.0	<.02	.79	36	.3	.06	4.5
P-03-OK-6	4.88	63.61	2.22	66.3	180	1.8	3.0	532	1.85	1.4	.5	.4	.8	19.2	.07	.08	.04	30	.36	.051	3.6	6.1	.54	19.9	.113	<1	.91	.059	.07	.1	2.1	<.02	.62	9	.3	.05	4.3
P-03-OK-7	3.34	42.76	3.35	68.4	127	1.2	1.5	401	1.83	.8	.3	1.1	.5	63.2	.02	.06	.02	23	.31	.052	3.3	5.1	.43	70.0	.083	<1	1.05	.063	.12	.3	1.9	.02	.24	6	.2	.02	4.8
P-03-OK-8	.56	183.95	2.02	338.5	337	3.3	5.0	691	2.14	.8	.3	.8	.7	79.9	2.70	.06	.05	35	.49	.059	4.7	7.6	.63	55.2	.122	<1	1.11	.072	.09	.4	2.2	.02	1.05	11	<.1	.03	5.2
P-03-OK-9	.36	69.74	1.72	122.2	128	3.2	6.5	589	1.85	.7	.3	<.2	.6	47.5	.52	.06	.02	32	.57	.057	5.0	7.6	.60	39.5	.116	<1	1.13	.066	.07	.1	1.7	.02	.51	<5	.1	.02	4.9
P-03-OK-10	5.74	23.81	1.97	72.8	54	5.9	6.1	506	1.76	1.6	.2	.6	.6	83.2	.07	.15	.17	21	.65	.060	2.4	10.4	.68	137.0	.122	<1	1.29	.043	.15	.5	1.3	.03	.48	<5	.3	.17	4.4
P-03-OK-11	1.32	88.63	1.38	99.4	186	3.1	4.3	481	2.01	.6	.3	<.2	.9	29.4	.51	.06	.06	34	.32	.056	5.1	7.7	.53	29.5	.118	<1	.82	.059	.06	.1	1.9	<.02	.86	<5	.3	.03	4.2
P-03-OK-12	2.91	380.59	1.76	26.7	197	1.3	2.6	151	1.15	.8	.1	6.1	1.2	21.4	.03	.07	.02	16	.16	.029	4.4	7.9	.26	120.4	.053	<1	.59	.062	.08	.4	1.0	<.02	.03	5	.1	.03	2.9
P-03-OK-13	2.93	1728.74	1.34	44.1	387	1.5	3.1	265	1.07	.5	1.7	16.1	.5	38.3	.15	.04	.02	13	.23	.040	3.8	6.9	.35	87.5	.061	3	.69	.071	.09	.1	1.0	<.02	.04	<5	.3	.02	3.2
P-03-OK-14	11.24	908.69	1.47	32.4	547	1.2	2.1	139	1.04	1.0	.1	19.9	.6	10.7	.03	.07	.02	12	.06	.011	4.3	7.5	.21	56.3	.018	<1	.44	.072	.06	.4	.5	<.02	.12	<5	.2	<.02	2.2
P-03-OK-15	40.37	1525.51	1.46	27.0	520	.5	1.4	155	.68	.3	.1	5.3	.8	76.6	.01	.04	.02	4	.11	.012	3.7	6.1	.17	216.5	.022	1	.51	.067	.11	.2	.3	<.02	.06	<5	.3	.04	1.8
P-03-OK-16	1.68	2483.80	1.24	34.8	709	1.0	3.1	157	1.20	.3	.2	11.0	.4	26.8	.11	.07	.02	9	.08	.013	2.2	6.4	.24	115.5	.029	1	.54	.066	.09	.4	.5	<.02	.37	7	.9	.02	2.2
RE P-03-OK-16	1.71	2437.01	1.22	35.8	680	1.1	3.0	156	1.18	.5	.1	10.7	.4	26.2	.09	.07	.02	8	.08	.013	2.3	6.2	.23	105.9	.029	2	.51	.066	.09	.4	.5	<.02	.40	<5	.8	.05	2.2
P-03-OK-17	.95	85.32	.92	58.7	81	1.8	4.4	369	1.92	1.0	.3	1.1	.5	69.3	.04	.15	.04	38	.44	.054	3.8	6.6	.47	74.2	.117	1	1.02	.110	.16	.1	1.8	.03	.21	6	<.1	.02	4.4
P-03-OK-18F	6.11	7409.63	1.52	121.0	2695	9.4	23.7	468	3.92	<.1	.2	8.7	.5	586.4	.74	.04	.04	68	.82	.043	3.9	14.9	1.54	111.9	.161	<1	2.51	.100	.14	.2	7.5	.03	1.71	<5	2.7	.06	7.5
P-03-OK-19	12.22	974.85	1.53	27.2	531	.7	2.3	139	.83	.7	.6	10.1	.7	49.7	.04	.07	.03	5	.08	.011	3.6	6.7	.17	152.6	.017	1	.50	.069	.12	.1	.4	<.02	.10	5	.4	.03	1.9
P-03-OK-20	3.30	2514.69	1.60	23.5	556	.8	2.5	110	.84	.5	.1	7.2	.5	20.2	.13	.06	.02	3	.16	.009	2.7	6.6	.16	78.7	.017	<1	.38	.057	.07	.4	.3	<.02	.34	7	.9	<.02	1.5
P-03-OK-21	6.95	3494.48	1.92	22.1	1489	.6	2.9	105	.87	.3	.1	7.6	.6	7.9	.09	.05	<.02	3	.07	.011	2.4	6.0	.14	87.2	.008	<1	.43	.056	.11	.1	.3	<.02	.50	5	1.1	<.02	1.5
P-03-OK-22	6.79	1442.83	2.68	21.4	469	.8	2.5	126	.84	.7	.1	5.0	.7	20.0	.07	.15	.03	4	.13	.014	3.6	5.5	.17	98.0	.025	3	.54	.068	.12	.8	.2	<.02	.08	6	.6	.05	1.8
P-03-OK-23A	4.29	2669.54	2.00	24.5	574	1.0	2.1	101	.82	.6	.1	29.4	.4	14.9	.23	.05	<.02	2	.08	.008	3.1	5.9	.11	126.6	.024	1	.35	.071	.08	.2	.2	<.02	.37	8	1.1	<.02	1.4
P-03-OK-23B	757.46	1249.24	3.05	21.1	556	.7	2.3	114	.82	.4	.1	7.8	.5	17.6	<.01	.08	.03	2	.12	.013	3.2	5.6	.12	143.3	.030	<1	.51	.062	.12	.5	.3	<.02	.28	9	.8	.09	1.8
P-03-OK-24	10.60	1124.24	2.05	25.3	599	.6	2.2	124	.93	.3	.1	6.5	.6	21.6	.06	.04	<.02	3	.08	.014	3.1	5.5	.15	106.7	.021	1	.49	.068	.11	.1	.2	.02	.22	5	.6	<.02	1.7
P-03-OK-25	18.63	1796.78	1.48	28.3	710	1.0	2.4	159	1.00	.3	.1	13.5	.5	31.3	.09	.02	<.02	4	.11	.015	2.9	6.2	.18	106.5	.029	3	.47	.076	.09	.4	.2	<.02	.26	5	.5	.02	1.9
P-03-OK-26	135.30	1420.35	2.05	22.4	881	.8	2.6	112	1.00	.2	.2	17.9	.5	26.2	<.01	.15	<.02	4	.07	.012	3.5	4.4	.14	110.4	.016	<1	.47	.062	.12	.1	.2	<.02	.41	6	.7	.02	1.6
P-03-OK-27	18.59	584.66	1.59	25.1	962	.8	1.9	110	.97	.3	.1	13.7	.9	13.7	.02	.03	<.02	3	.07	.012	3.9	5.3	.16	89.0	.018	1	.46	.068	.12	.5	.2	<.02	.13	<5	.6	.02	1.7
P-03-OK-28	90.03	539.57	1.83	29.4	216	.8	1.6	118	.92	.6	.1	2.4	.6	35.8	<.01	.03	<.02	3	.10	.012	3.4	5.7	.17	107.8	.030	2	.49	.068	.11	.1	.2	<.02	.27	5	.4	.02	1.9
P-03-OK-29	122.80	558.71	2.30	11.1	404	.7	2.1	80	1.30	.4	.1	1.5	.6	14.1	<.01	.02	<.02	3	.06	.011	3.1	6.0	.12	87.7	.020	2	.43	.049	.15	.5	.2	.02	.52	7	.8	<.02	1.8
P-03-OK-30	240.13	1174.63	.98	15.2	502	.8	1.0	74	.47	.4	.1	7.2	.4	12.1	<.01	.05	<.02	<2	.08	.009	2.7	8.0	.11	80.3	.003	1	.34	.050	.09	.2	.1	<.02	.07	7	.4	<.02	1.0
P-03-OK-31	9.31	373.20	1.41	24.9	369	1.2	2.1	137	1.11	.4	.2	13.2	.6	31.1	.02	.06	<.02	12	.09	.009	3.9	6.9	.22	164.9	.034	1	.56	.054	.09	.6	.7	<.02	.03	8	.3	.02	2.2
P-03-OK-32	255.81	179.14	4.95	38.1	489	.7	2.8	167	2.62	5.0	.1	45.8	.4	8.7	.08	.08	.43	2	.25	.011	1.7	5.1	.02	57.3	.003	1	.33	.009	.24	.1	.1	.04	2.46	12	1.4	.58	1.0
STANDARD DS5	13.12	140.66	24.93	136.1	294	24.7	11.9	764	2.99	18.8	6.2	45.7	2.7	46.7	5.59	3.81	6.17	59	.72	.096	12.3	188.4	.64	144.9	.095	17	2.10	.035	.15	4.7	3.8	1.05	.03	173	4.7	.91	6.6

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

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ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm
P-03-OK-33	86.91	328.10	2.64	19.6	742	.7	1.3	125	.90	.4	.1	2.1	.6	16.9	<.01	.04	.03
P-03-OK-34	16.79	1699.32	1.02	46.9	800	1.5	4.4	286	1.63	.3	.3	10.8	.5	23.5	.05	.05	<.02
P-03-OK-35	6.74	57.43	1.80	64.9	84	5.0	4.7	307	1.72	.7	.2	.6	.6	90.0	.07	.09	<.02
P-03-OK-36A	59.27	36.39	1.48	2.8	61	.7	.8	19	.58	.1	.1	.4	.4	5.3	<.01	.03	<.02
P-03-OK-36B	45.76	794.91	2.27	6.8	637	.8	2.2	27	.62	<.1	.1	.4	.6	8.3	<.01	.04	.02
P-03-OK-37	37.92	201.07	2.48	16.0	364	.8	1.2	62	2.13	.2	.1	1.1	.3	45.0	<.01	.07	.02
P-03-OK-38	7.68	724.04	1.40	47.8	305	7.6	5.9	321	2.97	.4	.2	5.7	.4	69.6	.06	.06	<.02
P-03-OK-39	4.36	183.61	2.22	71.4	303	17.6	21.6	797	4.39	10.8	.2	7.8	1.0	108.9	.18	.36	.02
P-03-OK-40	19.44	174.69	1.92	43.6	223	1.9	2.7	241	1.83	.5	.2	2.2	.8	25.8	.03	.10	.02
P-03-OK-41	1.81	2255.15	2.18	59.8	1865	6.0	7.9	373	1.69	.5	.1	9.4	1.2	30.8	.20	.10	.04
P-03-OK-42	.50	441.69	1.15	24.4	203	.7	2.0	145	.86	.4	.1	5.2	.6	22.0	.06	.05	<.02
P-03-OK-43	6.99	425.00	1.55	49.7	305	6.7	10.5	348	2.20	.9	.2	4.9	.6	84.0	.07	.16	.18
P-03-OK-44	50.75	418.94	2.00	35.2	746	1.0	3.9	191	1.15	.5	.1	6.3	.2	54.6	.05	.09	.04
RE P-03-OK-44	50.11	411.49	1.88	35.5	715	1.1	4.0	187	1.12	.6	.1	6.9	.2	54.1	.01	.10	.04
P-03-OK-45	50.73	1213.12	2.24	30.3	1254	.8	4.7	127	1.05	1.4	.1	9.1	.2	73.9	.03	.66	.02
P-03-OK-46	28.48	128.33	1.38	85.8	202	3.4	5.0	397	1.91	.5	.3	<.2	1.0	68.9	.13	.05	<.02
STANDARD DS5	12.31	136.44	25.39	130.6	279	24.2	11.6	744	2.95	17.8	5.8	44.0	2.7	47.4	5.61	3.59	6.01

SAMPLE#	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppb	Se ppm	Te ppm	Ga ppm
P-03-OK-33	2	.19	.013	2.6	6.1	.14	63.5	.020	3	.46	.054	.09	.5	.3	<.02	.26	<5	.5	<.02	1.9
P-03-OK-34	18	.15	.033	3.7	5.6	.39	108.6	.038	1	.73	.063	.09	.1	1.5	.02	.56	9	1.1	<.02	3.2
P-03-OK-35	25	.46	.040	3.3	9.7	.61	69.1	.100	2	1.14	.058	.05	.4	2.0	<.02	.10	<5	.1	<.02	4.4
P-03-OK-36A	<2	.02	.006	4.4	4.6	.03	56.8	.005	2	.19	.049	.07	.2	.1	<.02	.12	<5	.4	<.02	1.0
P-03-OK-36B	<2	.04	.015	4.7	6.0	.06	70.1	.006	3	.22	.058	.07	.5	.2	<.02	.35	<5	.6	<.02	.9
P-03-OK-37	4	.06	.016	2.9	4.6	.17	85.8	.012	2	.38	.049	.08	.2	.4	<.02	.83	<5	1.0	<.02	1.6
P-03-OK-38	56	.28	.033	3.9	21.0	.93	109.3	.127	1	1.41	.067	.10	.4	4.2	.03	.14	<5	.4	<.02	5.9
P-03-OK-39	123	1.32	.082	7.0	31.4	1.80	81.8	.225	1	2.93	.223	.05	<.1	4.1	.02	.97	7	.2	.04	8.0
P-03-OK-40	21	.26	.044	2.7	5.0	.47	74.0	.077	1	.85	.049	.09	.4	1.2	<.02	.20	6	.9	.03	3.6
P-03-OK-41	27	.28	.032	4.1	13.6	.92	590.8	.058	3	1.18	.055	.09	<.1	2.9	.02	.08	333	.4	<.02	5.0
P-03-OK-42	10	.14	.012	3.8	5.9	.22	99.4	.043	3	.46	.089	.05	.4	1.1	<.02	.02	20	.2	.04	2.2
P-03-OK-43	46	.48	.055	3.9	10.7	.88	71.9	.112	2	1.33	.058	.06	.1	3.0	.02	.02	7	.2	<.02	5.2
P-03-OK-44	17	.26	.030	3.2	4.4	.33	37.5	.057	1	.70	.067	.05	.3	1.4	<.02	.12	37	.4	.06	2.8
RE P-03-OK-44	17	.25	.030	3.4	4.1	.32	37.5	.057	3	.72	.067	.05	.3	1.3	<.02	.09	35	.4	.04	2.9
P-03-OK-45	16	.19	.013	3.0	3.9	.29	103.9	.049	2	.65	.094	.05	.1	1.3	<.02	.16	12	.9	.03	2.3
P-03-OK-46	35	.44	.055	4.9	8.1	.60	50.0	.105	2	1.05	.065	.11	.4	1.9	.02	.15	6	.1	<.02	4.9
STANDARD DS5	57	.69	.091	12.1	186.7	.64	137.1	.092	17	2.07	.032	.13	4.8	3.5	1.08	.05	167	4.9	.81	6.3

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

APPENDIX 2
Petrographic Report

Vancouver Petrographics Ltd.

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Report 040075 for

Bill Morton,
Mincord Exploration Consultants Ltd.,
110 – 325 Howe Street,
Vancouver, B.C., V6C 1Z7 **January 2004**

Project: OK (Lumia Copper Corp.)

Samples: **P-14, P-16, P-39. P-42, P-43** (2 similar sections, only one described),
P-03-OK-21,
LB-18

Photographic Notes:

The scanned sections show the gross textural features of the sections; these features are seen much better on the digital image than on the printed image. Sample numbers are shown in or near the top left of the photos and photo numbers at or near the lower left. The letter in the lower right-hand corner indicates the lighting conditions: P = plane light, X = plane light in crossed nicols, R = reflected light, RP = reflected light and plane light, RX = reflected light (uncrossed nicols) and transmitted light in crossed nicols. Locations of digital photographs (by photo number) are shown on the scanned sections.

Petrographic Summary

Sample P-14 is mainly a fine to medium grained quartz diorite dominated by plagioclase and quartz with minor magnetite, biotite, and muscovite. A few patches of finer grained plagioclase-(quartz) may represent inclusions. Textures suggest that the rock was metamorphosed and recrystallized slightly to moderately. Plagioclase was altered slightly to sericite/muscovite-hematite and biotite was replaced by pseudomorphic chlorite. Pyrite and chalcopyrite form disseminated grains and clusters. A few veins are of quartz; one also contains patches of muscovite-Ti-oxide.

Sample P-16 is a medium grained quartz diorite dominated by plagioclase with lesser quartz, much less biotite, and minor muscovite, ilmenite, and magnetite. Plagioclase was altered slightly to sericite and muscovite, and biotite was replaced by pseudomorphic chlorite and much less abundant muscovite. Magnetite and ilmenite form disseminated grains and clusters of grains. Minor disseminated sulphides include pyrite and much less abundant chalcopyrite. Malachite forms interstitial patches and, in the hand sample, occurs on surface fractures. Minor veinlets are of sericite-malachite.

Sample P-39 is a hypabyssal porphyritic andesite that contains phenocrysts of plagioclase (altered slightly to strongly to sericite-epidote-clinozoisite) and hornblende (altered completely to chlorite-epidote) and patches of ilmenite (altered to leucoxene-chlorite) in a groundmass of very fine grained K-feldspar/plagioclase with lesser chlorite (after hornblende). A few ellipsoidal amygdules are of chlorite-epidote. A vein and several veinlets are of epidote; the vein is stained brown by limonite.

Sample P-42 is a porphyritic quartz diorite that contains phenocrysts of plagioclase, quartz, and minor biotite in a groundmass of much finer grained quartz and plagioclase with minor biotite. Plagioclase was altered slightly to sericite and clinozoisite, and biotite was altered completely to pseudomorphic chlorite with minor epidote and leucoxene. Interstitial patches are of chlorite, epidote, and chalcopyrite (altered partly to hematite). A slightly braided veinlet of epidote has an alteration envelope in which plagioclase was altered moderately to dusty hematite and patches of epidote.

Sample P-43 is an igneous breccia containing fragments from 1-3 cm in size of medium grained, metamorphic, hornblende quartz diorite and lesser ones of leucocratic, porphyritic quartz diorite (similar to Sample P-39) in a matrix of porphyritic, quartz-bearing biotite diorite. Several veins and veinlets are of epidote.

Sample P-03-0K-21 is a metamorphosed quartz diorite(?). It has an unusual texture, with patches of very fine grained plagioclase-muscovite-(chlorite) intergrown with patches of coarser grained quartz. Chalcopyrite and lesser pyrite form disseminated patches, mainly associated with quartz and muscovite. A few veins and replacement patches are dominated by quartz with minor to moderately abundant patches of chalcopyrite and much less pyrite. Chalcopyrite was altered slightly to digenite along borders of patches and fractures.

Sample LB-18 is a leucocratic quartz diorite that is dominated by subhedral plagioclase grains with interstitial quartz and minor K-feldspar and biotite (altered to chlorite). Part of the sample was cut and granulated along irregular seams and brecciated zones that were replaced partly by epidote and minor pyrite. Associated with these seams are veinlets and replacement patches of epidote and minor sericite.

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Sample ***LB-18*** **Leucocratic Quartz Diorite**
Recrystallized Cataclastic Seams: Epidote Replacement
Veinlets: Epidote-(Sericite)

The quartz diorite is dominated by subhedral plagioclase grains with interstitial quartz and minor K-feldspar and biotite (altered to chlorite). Part of the sample was cut and granulated along irregular seams and brecciated zones that were replaced partly by epidote and minor pyrite. Associated with these seams are veinlets and replacement patches of epidote and minor sericite.

mineral	percentage	main grain size range (mm)
plagioclase	60-65%	0.5-1.5
quartz	25-30	0.3-1
K-feldspar	2- 3	0.2-0.5
biotite	1	0.1-0.3
ilmenite	minor	0.1-0.3
sphene	trace	0.05-0.1
rutile	trace	0.03-0.05
zircon	trace	0.03-0.05
cataclastic seams		
plagioclase	7- 8	0.02-0.07
quartz	1- 2	0.03-0.07
pyrite	0.3	0.02-0.15
veinlets		
epidote	3- 4	0.02-0.05

Plagioclase forms subhedral to anhedral grains that were altered moderately to dusty hematite and slightly to sericite. A few grains contain replacement patches of muscovite up to 0.15 mm in size, some of which have a radiating texture.

Quartz forms anhedral grains interstitial to plagioclase.

K-feldspar is concentrated strongly in the undeformed part of the sample as interstitial grains intergrown coarsely with quartz.

Muscovite forms disseminated flakes and clusters of a few flakes associated with and probably secondary after plagioclase.

Biotite forms disseminated, equant to slightly elongate flakes that were replaced completely by pseudomorphic chlorite and minor Ti-oxide.

Ilmenite forms a few ragged patches up to 0.3 mm in size that were replaced strongly to completely by leucoxene. Sphene forms anhedral patches. Rutile forms subhedral grains.

Zircon forms minor, elongated prismatic grains.

The rock was cut by numerous, irregular seams up to 1 mm wide of cataclastic deformation in which the rock was granulated moderately to strongly. In some, plagioclase was replaced moderately to strongly by epidote. Pyrite forms disseminated, equant grains that were altered slightly to strongly inwards from their borders to red-brown hematite. Some of these seams merge into discrete veinlets of epidote and locally epidote-sericite.

Sample P-14 **Metamorphosed Quartz Diorite**
Alteration: Sericite-Chlorite-(Epidote)

The sample is mainly a fine to medium grained quartz diorite dominated by plagioclase and quartz with minor magnetite, biotite, and muscovite. A few patches of finer grained plagioclase-(quartz) may represent inclusions. Textures suggest that the rock was metamorphosed and recrystallized slightly to moderately. Plagioclase was altered slightly to sericite/muscovite-hematite and biotite was replaced by pseudomorphic chlorite. Pyrite and chalcopyrite form disseminated grains and clusters. A few veins are of quartz; one also contains patches of muscovite-Ti-oxide.

mineral	percentage	main grain size range (mm)	
plagioclase	60-65%	0.3-1.5	(a few grains up to 2 mm long)
	4- 5	0.05-0.2	
quartz	20-25	0.1-1.5	
magnetite	2- 3	0.05-0.15	
biotite	1- 2	0.1-0.15	
muscovite	0.3	0.1-0.3	
ilmenite	0.3	0.1-0.5	
pyrite	0.2	0.03-0.2	
chalcopyrite	0.1	0.02-0.05	(a few grains up to 0.4 mm)
apatite	trace	0.05-0.1	
veins			
1) quartz	4- 5	0.3-1	
muscovite	0.5	0.3-0.5	
Ti-oxide	0.3	0.005-0.05	
magnetite	0.1	0.05-0.1	
pyrite	minor	0.05-0.15	

Plagioclase forms subhedral to anhedral, locally prismatic grains. Some large grains show weak compositional zoning, with a broad, slightly more-calcic core and a moderate more-sodic rim. Cores of grains were altered slightly to locally moderately to sericite/muscovite and disseminated dusty hematite. Rims of most grains are fresh to very slightly altered. Some patches up to 2 mm in size consist of aggregates of equant plagioclase grains (0.05-0.2 mm).

Quartz forms anhedral grains interstitial to and intergrown with plagioclase. Some rounded quartz grains (0.05-0.1 mm) form inclusions in plagioclase grains; this texture suggests a metamorphic history.

Magnetite forms disseminated clusters up to 1 mm in size of equant grains. Many of these were loci for later deposition of pyrite along grains borders and fractures.

Biotite forms stubby single grains and clusters of a few grains. In most grains, alteration is complete to pseudomorphic, pale green chlorite and minor patches of epidote (0.02-0.03 mm). A few stubby grains up to 0.05 mm in size included in quartz escaped the alteration and are fresh, with pleochroism from pale to medium brown.

Muscovite forms scattered clusters of a few grains. Some are associated with chlorite and may be secondary after biotite, and others are intergrown with plagioclase. One large cluster 2 mm across consists of muscovite flakes up to 0.6 mm long enclosing a patch of magnetite-pyrite. This patch also contains an anhedral patch of epidote 0.4 mm long.

(continued)

One patch 1.7 mm across is dominated by an intimate intergrowth of chlorite and muscovite (0.05-0.15 mm); this may be secondary after hornblende but no original texture was preserved.

Ilmenite forms subhedral to anhedral grains that were replaced completely by Ti-oxide. Some of these are intergrown with magnetite.

Apatite forms disseminated, equant anhedral grains and a few subhedral to euhedral prismatic grains.

Pyrite forms disseminated, anhedral to subhedral gains, in part associated with chalcopyrite. It also forms irregular patches interstitial to magnetite in magnetite clusters. Chalcopyrite forms disseminated grains, many of which are included in patches of epidote.

A few veins up to 1 mm wide are dominated by quartz. Vein borders are moderately sharp. One vein contains a lens of muscovite that is intergrown with patches of Ti-oxide (after ilmenite?), magnetite, and pyrite. A few wispy veinlets of pyrite occur along cleavage planes in coarse muscovite flakes.

Sample P-16 **Biotite Quartz Diorite**
Alteration: Sericite/Muscovite-Chlorite-Pyrite
Veinlets: Sericite-Malachite

The sample is a medium grained quartz diorite dominated by plagioclase with lesser quartz, much less biotite, and minor muscovite, ilmenite, and magnetite. Plagioclase was altered slightly to sericite and muscovite, and biotite was replaced by pseudomorphic chlorite and much less abundant muscovite. Magnetite and ilmenite form disseminated grains and clusters of grains. Minor disseminated sulphides include pyrite and much less abundant chalcopyrite. Malachite forms interstitial patches and, in the hand sample, occurs on surface fractures. Minor veinlets are of sericite-malachite.

mineral	percentage	main grain size range (mm)	
plagioclase	65-70%	0.5-1.5	
quartz	15-17	0.3-1.5	
biotite	3- 4	0.2-1.5	
muscovite	0.3	0.1-0.5	
pyrite	1	0.05-0.5	
ilmenite	0.5	0.2-0.7	
magnetite	0.2	0.03-0.07	
chalcopyrite	minor	0.02-0.05	
rutile	minor	0.03-0.07	
epidote	minor	0.05-0.1	
malachite	0.1	0.03-0.08	
zircon	trace	0.05-0.1	(one grain 0.25 mm long)
veinlets			
1) sericite	0.2	0.01-0.03	
malachite	minor	0.03-0.05	

Plagioclase forms subhedral prismatic grains and lesser anhedral grains. Some show well developed growth zones, but with only minor variation from more-calcic cores to more-sodic rims. Alteration is slight to sericite/muscovite and dusty hematite, and is concentrated in the cores of grains. A few grains contain replacement patches up to 0.3 mm in size of extremely fine grained malachite.

Quartz forms anhedral grains interstitial to plagioclase. Only locally does quartz form equant inclusions in plagioclase; these are concentrate din a zone of finer grained plagioclase, whose texture suggests that it may have been recrystallized moderately, possibly under stress.

Biotite forms disseminated flakes and clusters of a few to several flakes. Alteration is complete to pseudomorphic chlorite and much less abundant muscovite. Epidote forms disseminated, equant grains. Chlorite contains acicular grains of rutile, in part concentrated along hexagonal crystallographic directions. A few equant biotite grains up to 0.05 mm in size were preserved in quartz grains; these are pleochroic from light to medium brown.

Muscovite forms disseminated flakes and clusters of a few flakes. Interstitial patches up to 0.5 mm in size are of unoriented flakes of sericite/muscovite (0.02-0.05 mm).

Magnetite forms clusters up to 0.3 mm in size of equant grains that were replaced moderately to strongly by pyrite. Some were overgrown by pyrite grains up to 0.3 mm in size.

(continued)

Ilmenite forms tabular grains that were replaced completely by Ti-oxide.

Rutile forms disseminated, equant, anhedral grains associated with biotite.

Pyrite forms anhedral grains, some of which contain inclusions of chalcopyrite.

Chalcopyrite forms disseminate patches mainly associated with muscovite.

Epidote forms anhedral grains and clusters of a few grains associated with patches of muscovite.

Zircon forms one subhedral grain 0.25 mm long and a few smaller ones, mainly associated with biotite.

Malachite forms disseminated patches up to 0.2 mm in size of elongate crystals with fan-shaped to radiating textures. These commonly are associated with patches of biotite and muscovite and elsewhere replace plagioclase.

A veinlet 0.1 mm wide contains patches of sericite and patches of malachite.

Sample P-39 **Hypabyssal Porphyritic Andesite**
Amygdules: Chlorite-Epidote
Alteration: Sericite-Chlorite-Epidote-Clinozoisite
Veins: Epidote-(Limonite)

Phenocrysts of plagioclase (altered slightly to strongly to sericite-epidote-clinozoisite) and hornblende (altered completely to chlorite-epidote) and patches of ilmenite (altered to leucoxene-chlorite) are set in a groundmass of very fine grained K-feldspar/plagioclase with lesser chlorite (after hornblende). A few ellipsoidal amygdules are of chlorite-epidote. A vein and several veinlets are of epidote; the vein is stained brown by limonite.

mineral	percentage	main grain size range (mm)	
phenocrysts			
plagioclase	17-20%	0.3-1.5	(a few from 2-3.5 mm)
hornblende	5- 7	1- 2	
ilmenite	1	0.5-1	
groundmass			
K-feldspar/plagioclase	65-70	0.02-0.05	
chlorite	4- 5	0.02-0.05	
epidote	0.1	0.01-0.05	
pyrite	0.1	0.03-0.06	(a few up to 0.3 mm across)
chalcopyrite	trace	0.01-0.03	
amygdules			
chlorite-epidote	0.3	0.05-0.07	
veins			
1) epidote	2- 3	0.02-0.05	
limonite	minor	cryptocrystalline	

Plagioclase forms subhedral to euhedral, prismatic phenocrysts. A few phenocrysts are relatively fresh; some of these show moderate concentric, oscillatory growth zoning. At one end of the section, phenocrysts were altered slightly to moderately to disseminated sericite with minor patches of epidote and dusty hematite. Towards the other end, phenocrysts were altered moderately to cryptocrystalline, semi-opaque clinozoisite/epidote with patches of coarser grained epidote. One phenocryst was replaced completely by a dense aggregate of slightly interlocking epidote grains (0.05-0.15 mm).

Hornblende forms euhedral, prismatic phenocrysts that were altered completely to patchy intergrowths of chlorite and lesser epidote. Pyrite forms a few anhedral grains included in hornblende.

Ilmenite forms anhedral patches up to 1 mm in size that were replaced strongly inwards from grain borders and outwards from fractures by leucoxene that surrounds ragged cores of ilmenite. In some grains. Ilmenite was replaced by leucoxene/sphene-chlorite. Ilmenite commonly is associated with hornblende.

The groundmass is dominated by equant grains of K-feldspar with lesser plagioclase. Chlorite forms interstitial patches up to 0.5 mm in size. Locally epidote occurs with chlorite.

Pyrite forms a few anhedral to euhedral grains. One euhedral grain is porphyroblastic and was altered slightly along its margins by hematite.

Chalcopyrite forms a few anhedral, equant grains disseminated in a patch of epidote.

(continued)

Sample P-39 (page 2)

A few ellipsoidal amygdules up to 1.5 mm in diameter are of intimate intergrowths of chlorite and epidote.

An irregular, vuggy vein from 0.2-0.6 mm wide is of epidote; it is stained orangish brown by limonite. It cuts the part of the rock in which plagioclase phenocrysts were altered strongly to epidote. A few irregular veinlets up to 0.1 mm wide are of epidote.

Sample P-42 **Porphyritic Quartz Diorite**
Alteration: Chlorite-Epidote-(Sericite)
Veinlet: Epidote

Phenocrysts of plagioclase, quartz, and minor biotite are set in a groundmass of much finer grained quartz and plagioclase with minor biotite. Plagioclase was altered slightly to sericite and clinozoisite, and biotite was altered completely to pseudomorphic chlorite with minor epidote and leucoxene. Interstitial patches are of chlorite, epidote, and chalcopyrite (altered partly to hematite). A slightly braided veinlet of epidote has an alteration envelope in which plagioclase was altered moderately to dusty hematite and patches of epidote.

mineral	percentage	main grain size range (mm)	
phenocrysts			
plagioclase	30-35%	0.7-1.5	
quartz	5- 7	0.7-1.5	(one grain 3.5 mm across)
biotite	1- 2	0.7-1.5	
groundmass			
quartz	25-30	0.1-0.2	
plagioclase	20-25	0.1-0.2	
chlorite	2- 3	0.05-0.15	
epidote	1- 2	0.05-0.1	
magnetite	1	0.1-0.3	
ilmenite	0.2	0.1-0.3	
chalcopyrite	minor	0.02-0.1	
pyrite	minor	0.02-0.1	
apatite	trace	0.05-0.1	
veinlet			
epidote	0.2	0.01-0.03	

Plagioclase forms equant to slightly prismatic, subhedral phenocrysts with ragged borders against groundmass plagioclase and quartz. Many grain show slight compositional growth zoning from more-calcic cores to more-sodic rims. Most grains are relatively fresh. Some were altered slightly in their cores to sericite and dusty hematite.

Quartz forms scattered, equant phenocrysts.

Biotite forms slender phenocrysts that were replaced completely by pseudomorphic chlorite and minor muscovite, with minor patches of epidote and 1-2% lenses of leucoxene along cleavage.

In the groundmass, quartz forms anhedral grains that range widely in size. Some finer, equant grains are intergrown with margins of plagioclase phenocrysts. Plagioclase forms equant grains intergrown with quartz.

Chlorite and epidote commonly occur together in irregular patches intergrown with groundmass quartz and plagioclase. Epidote forms irregular patches up to 0.7 mm in size.

Magnetite forms equant grains and a few clusters up to 1 mm across of grains, in part intergrown with ilmenite that was replaced slightly to moderately by leucoxene.

Chalcopyrite forms disseminated grains, commonly associated with chlorite and epidote. Many grains were altered moderately to completely to red-brown hematite.

(continued)

Sample P-42 (page 2)

Pyrite forms a few anhedral grains. Those intergrown with magnetite were replaced strongly by red-brown hematite. Those in quartz are fresh.

Apatite forms disseminated, subhedral, prismatic grains.

A partly braided veinlet up to 0.2 mm wide is of epidote and minor quartz. Adjacent to it is a patch 0.9 mm across of epidote. In an envelope about the veinlet up to 5 mm wide, plagioclase was altered moderately to strongly to dusty hematite with minor patches of epidote.

Sample P-43 **Igneous Breccia: Fragments of Metamorphic Hornblende Quartz Diorite, Leucocratic Porphyritic Quartz Diorite;**
Matrix: Porphyritic Quartz-bearing Biotite Diorite
Veins: Epidote

The sample is an igneous breccia containing fragments from 1-3 cm in size of medium grained, metamorphic, hornblende quartz diorite and lesser ones of leucocratic, porphyritic quartz diorite (similar to Sample P-39) in a matrix of porphyritic, quartz-bearing biotite diorite. Several veins and veinlets are of epidote.

Hornblende quartz diorite (A) (50-55% of section)

mineral	percentage	main grain size range (mm)
plagioclase	55-60%	0.5-1.5
tremolite/actinolite	20-25	0.7-1.5
quartz	8-10	0.3-0.7
magnetite	4- 5	0.1-0.5
biotite	3- 4	0.3-0.7
epidote	1- 2	0.1-0.2
apatite	0.1	0.07-0.15

Plagioclase forms anhedral grains that were altered moderately to K-feldspar and much less abundant epidote, sericite, and dusty hematite.

Tremolite/actinolite forms anhedral, equant grains with a pale to light green colour and weak pleochroism.

Quartz forms interstitial patches.

Magnetite forms disseminated, equant grains and clusters of a few grains.

Biotite forms disseminated flakes and clusters of flakes; alteration was complete to pseudomorphic chlorite with minor to locally very abundant patches of epidote.

Epidote forms irregular patches up to 1 mm in size. Associated with some of these are patches of chalcopyrite, in part replaced by red-brown hematite. Some epidote patches contain abundant, closely packed inclusions of magnetite (0.005-0.01 mm).

Apatite forms equant, anhedral grains associated with biotite.

Leucocratic, porphyritic quartz diorite (C) (17-20% of section)

mineral	percentage	main grain size range (mm)
phenocrysts		
plagioclase	45-50	1- 2
quartz	10-12	0.7-2
biotite	0.5	0.5-1
groundmass		
quartz	30-35	0.05-0.2
plagioclase	10-12	0.05-0.1
chlorite	2- 3	0.05-0.1

Plagioclase forms subhedral, prismatic to equant phenocrysts, many of which show moderate growth zoning from more-calcic cores to more-sodic rims. Alteration varies from nil to locally moderate to sericite and cryptocrystalline clinozoisite, mainly in cores of grains.

(continued)

Sample P-43 (page 2)

Quartz forms anhedral phenocrysts whose margins are intergrown with groundmass plagioclase and quartz.

Biotite forms an equant phenocryst with pleochroism from light to medium brown.

In the groundmass, quartz and plagioclase form equant, slightly interlocking grains. Biotite forms anhedral flakes and clusters of flakes that were altered strongly to completely to pseudomorphic chlorite and minor Ti-oxide. Epidote forms irregular patches, commonly associated with chlorite.

Breccia Matrix: Deformed Porphyritic Quartz Diorite (B) (25-30% of section)

mineral	percentage	main grain size range (mm)	
megacrysts			
plagioclase	20-25%	0.7-2	
quartz	4- 5	0.5-1	
biotite	1- 2	0.7-1.5	
groundmass			
plagioclase	20-25	0.05-0.2	
quartz	8-10	0.05-0.2	
biotite/chlorite	10-12	0.1-0.5	
epidote	7- 8	0.05-0.15	
magnetite	1- 2	0.1-0.2	
ilmenite	0.3	0.1-0.3	
sphene	0.3	0.05-0.2	(one grain 1 mm across)
chalcopyrite	trace	0.04-0.15	

Plagioclase forms anhedral to subhedral, prismatic grains from 0.5-1.5 mm in size. Alteration is moderate to dusty hematite and clinozoisite. Some grains were altered slightly to moderately to patches of K-feldspar.

Quartz forms scattered angular grains from 0.3-1 mm in size.

Biotite forms a few phenocrysts and is concentrated moderately in clusters up to 1.5 mm in size of unoriented, smaller grains. Alteration is complete to pseudomorphic chlorite with minor patches of epidote and lenses of Ti-oxide.

The groundmass is of plagioclase, quartz, biotite (altered to chlorite), and epidote.

Magnetite is concentrated strongly in one large cluster at one end of the section and forms disseminated grains elsewhere.

Ilmenite forms scattered, subhedral tabular grains, commonly associated with magnetite; it was altered completely to leucoxene.

Sphene forms anhedral, commonly ragged grains, mainly associated with patches of biotite.

Chalcopyrite forms disseminated grains that were replaced moderately to completely inwards from their margins by red-brown hematite. It commonly is enclosed in epidote.

Veins (2- 3% of section)

epidote	2- 3	0.03-0.07

A few veins up to 0.5 mm wide and several veinlets from 0.02-0.2 mm wide are of epidote.

Sample P-03-0K-21 **Metamorphosed Quartz Diorite(?)**
Alteration: Muscovite-Chalcopyrite-(Chlorite-Pyrite)
Veins and Replacement: Quartz-Chalcopyrite-Pyrite

The sample has an unusual texture, with patches of very fine grained plagioclase-muscovite-(chlorite) intergrown with patches of coarser grained quartz. Chalcopyrite and lesser pyrite form disseminated patches, mainly associated with quartz and muscovite. A few veins and replacement patches are dominated by quartz with minor to moderately abundant patches of chalcopyrite and much less pyrite. Chalcopyrite was altered slightly to digenite along borders of patches and fractures.

mineral	**percentage**	**main grain size range (mm)**	
plagioclase	30-35%	0.07-0.3	
quartz	30-35	0.5-1	
muscovite	5- 7	0.1-0.3	
chalcopyrite	1- 2	0.05-0.5	
chlorite	0.3	0.05-0.1	
pyrite	0.2	0.05-0.3	
ilmenite	0.2	0.05-0.15	
epidote	0.1	0.05-0.2	
veins, replacement			
1) quartz	12-15	0.5-1.5	
chalcopyrite	2- 3	0.05-1	
pyrite	0.3	0.05-0.3	(one grain 1.1 mm across)

Plagioclase is concentrated in irregular patches from 1-5 mm in size in which it forms interlocking, equant to elongate grains with a metamorphic texture. Some grains were altered slightly to strongly to patches of sericite and minor muscovite. Most contain dusty sericite and hematite.

Quartz forms anhedral patches up to a few mm across separating and enclosing plagioclase-rich patches.

Muscovite forms single grains and clusters (0.05-0.1 mm) intergrown with and probably in part replacing plagioclase. Alteration is strongest along the large quartz vein at one end of the section. Muscovite also forms discrete grains and clusters of a few grains (0.3-0.5 mm) of probable metamorphic origin on borders of plagioclase-rich patches and in quartz. A few porphyroblastic grains replacing plagioclase are up to 1 mm long.

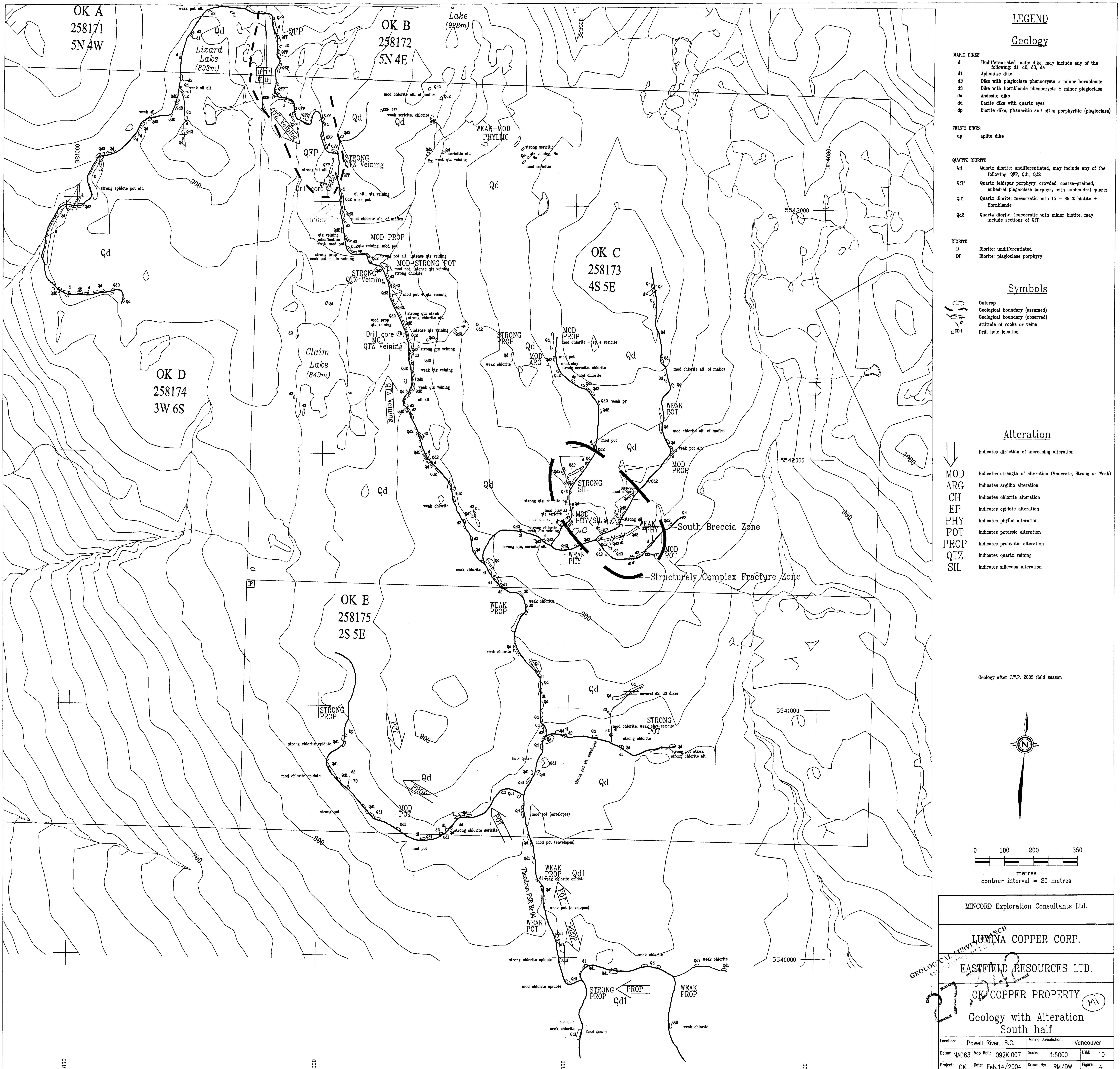
Chlorite forms interstitial patches up to 0.2 mm in size of pale green flakes.

Chalcopyrite forms disseminated patches that range widely in shape and size. Many larger patches are included in quartz-rich zones. Some are intergrown intimately, especially along some margins with chlorite. Some are intergrown with muscovite in elongate patches enclosed in quartz. A few grains were replaced moderately inwards form their margins by digenite.

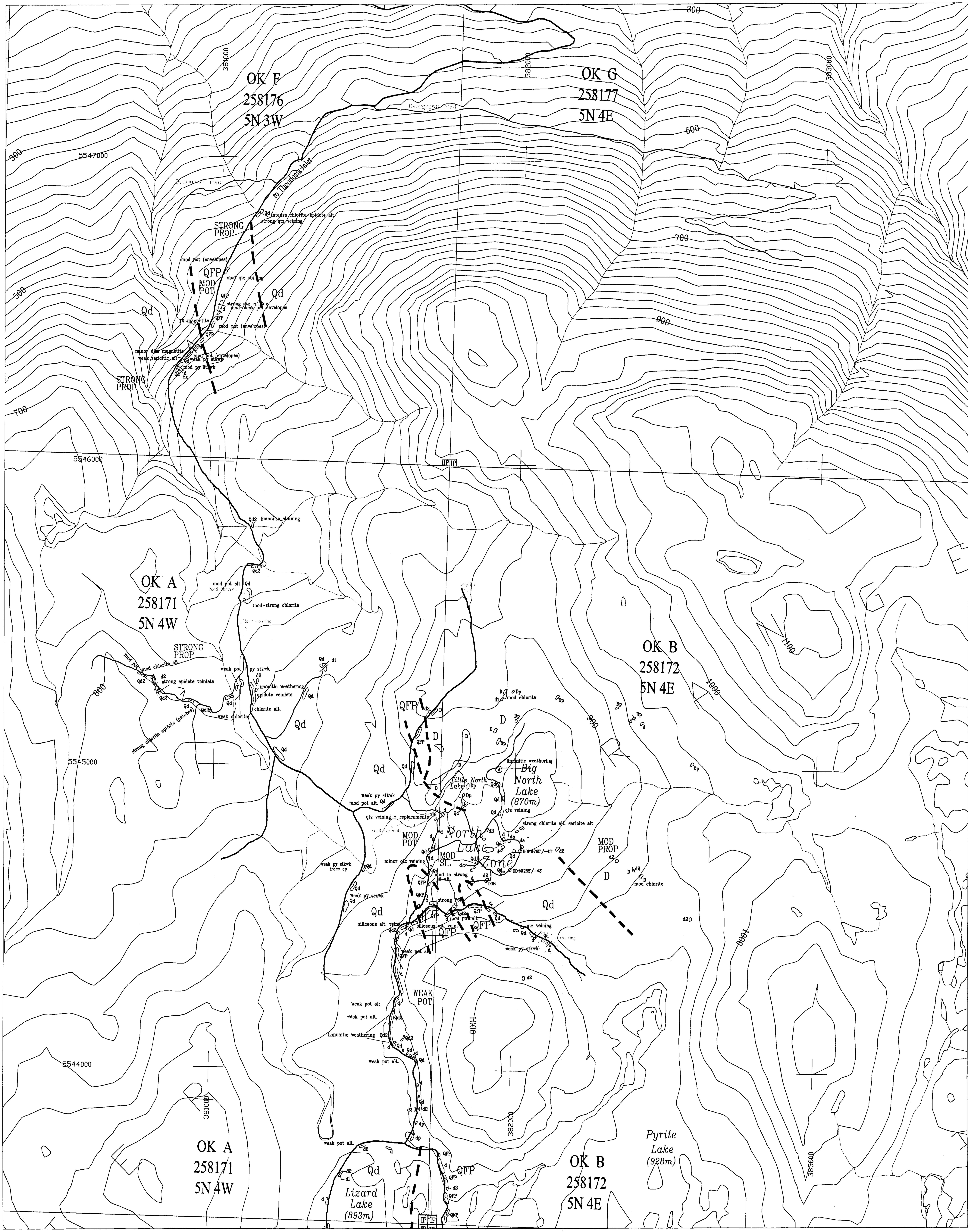
Ilmenite forms disseminated grains and clusters of several grains. Some grains are fresh and some were altered completely to leucoxene.

Epidote occurs in a few patches associated with chalcopyrite, pyrite, and muscovite.

Veins are dominated by quartz with patches of chalcopyrite and lesser pyrite.



LEGEND
Geology
MAFIC DIKES
d Undifferentiated mafic dike, may include any of the following: d1, d2, d3, da
d1 Aphanitic dike
d2 Dike with plagioclase phenocrysts ± minor hornblende
d3 Dike with hornblende phenocrysts ± minor plagioclase
da Andesite dike
dd Dacite dike with quartz eyes
dp Diorite dike, phaneritic and often porphyritic (plagioclase)
FELSIC DIKES
ap aplite dike
QUARTZ DIORITE
Qd Quartz diorite: undifferentiated, may include any of the following: QFP, Qd1, Qd2
QFP Quartz feldspar porphyry: crowded, coarse-grained, euhedral plagioclase porphyry with subhedral quartz
Qd1 Quartz diorite: mesocratic with 15 - 25 % biotite ± Hornblende
Qd2 Quartz diorite: leucocratic with minor biotite, may include sections of QFP
DIORITE
D Diorite: undifferentiated
DP Diorite: plagioclase porphyry
Symbols
Outcrop
Geological boundary (assumed)
Geological boundary (observed)
Attitude of rocks or veins
DDH Drill hole location
Alteration
Indicates direction of increasing alteration
MOD Indicates strength of alteration (Moderate, Strong or Weak)
ARG Indicates argillic alteration
CH Indicates chlorite alteration
EP Indicates epidote alteration
PHY Indicates phyllic alteration
POT Indicates potassic alteration
PROP Indicates propylitic alteration
QTZ Indicates quartz veining
SIL Indicates siliceous alteration
Geology after J.W.P. 2003 field season
0 100 200 350
metres
contour interval = 20 metres
MINCORD Exploration Consultants Ltd.
LUMINA COPPER CORP.
EASTFIELD RESOURCES LTD.
OK COPPER PROPERTY
Geology with Alteration
South half
Location: Powell River, B.C.
Mining Jurisdiction: Vancouver
Datum: NAD83
Map Ref.: 092K.007
Scale: 1:5000
UTM: 10
Project: OK
Date: Feb.14/2004
Drawn By: RM/DW
Figure: 4
GEOLOGICAL SURVEY BRANCH
27542
OK A
258171
5N 4W
OK B
258172
5N 4E
OK C
258173
4S 5E
OK D
258174
3W 6S
OK E
258175
2S 5E
Lizard Lake (893m)
Claim Lake (849m)
Lake (928m)
South Breccia Zone
Structurely Complex Fracture Zone
Theodosia FSR Br.04
STRONG QTZ Veining
MOD QTZ Veining
QTZ Veining
WEAK-MOD PHYLLIC
MOD-STRONG POT
STRONG SIL
MOD PHY/SIL
WEAK PHY
STRONG PROP
WEAK PROP
MOD PROP
WEAK POT
MOD POT
STRONG POT
Drill core
5543000
5542000
5541000
5540000
381000
382000
383000
384000



LEGEND

Geology

MAFIC DIKES

d	Undifferentiated mafic dike, may include any of the following: d1, d2, d3, da
d1	Aphanitic dike
d2	Dike with plagioclase phenocrysts ± minor hornblende
d3	Dike with hornblende phenocrysts ± minor plagioclase
da	Andesite dike
dd	Dacite dike with quartz eyes
dp	Diorite dike, phaneritic and often porphyritic (plagioclase)

FELSIC DIKES

ap	aplite dike

QUARTZ DIORITE

Qd	Quartz diorite: undifferentiated, may include any of the following: QFP, Qd1, Qd2
QFP	Quartz feldspar porphyry: crowded, coarse-grained, euhedral plagioclase porphyry with subheudral quartz
Qd1	Quartz diorite: mesocratic with 15 – 25 % biotite ± Hornblende
Qd2	Quartz diorite: leucocratic with minor biotite, may include sections of QFP

DIORITE

D	Diorite: undifferentiated
DP	Diorite: plagioclase porphyry

Symbols

Outcrop
Geological boundary (assumed)
Geological boundary (observed)
Attitude of rocks or veins
DDH Drill hole location

Alteration

⇓	Indicates direction of increasing alteration
MOD	Indicates strength of alteration (Moderate, Strong or Weak)
ARG	Indicates argillic alteration
CH	Indicates chlorite alteration
EP	Indicates epidote alteration
PHY	Indicates phyllic alteration
POT	Indicates potassic alteration
PROP	Indicates propylitic alteration
QTZ	Indicates quartz veining
SIL	Indicates siliceous alteration

Geology after J.W.P. 2003 field season

0 100 200 350
metres
contour interval = 20 metres

27312

M2

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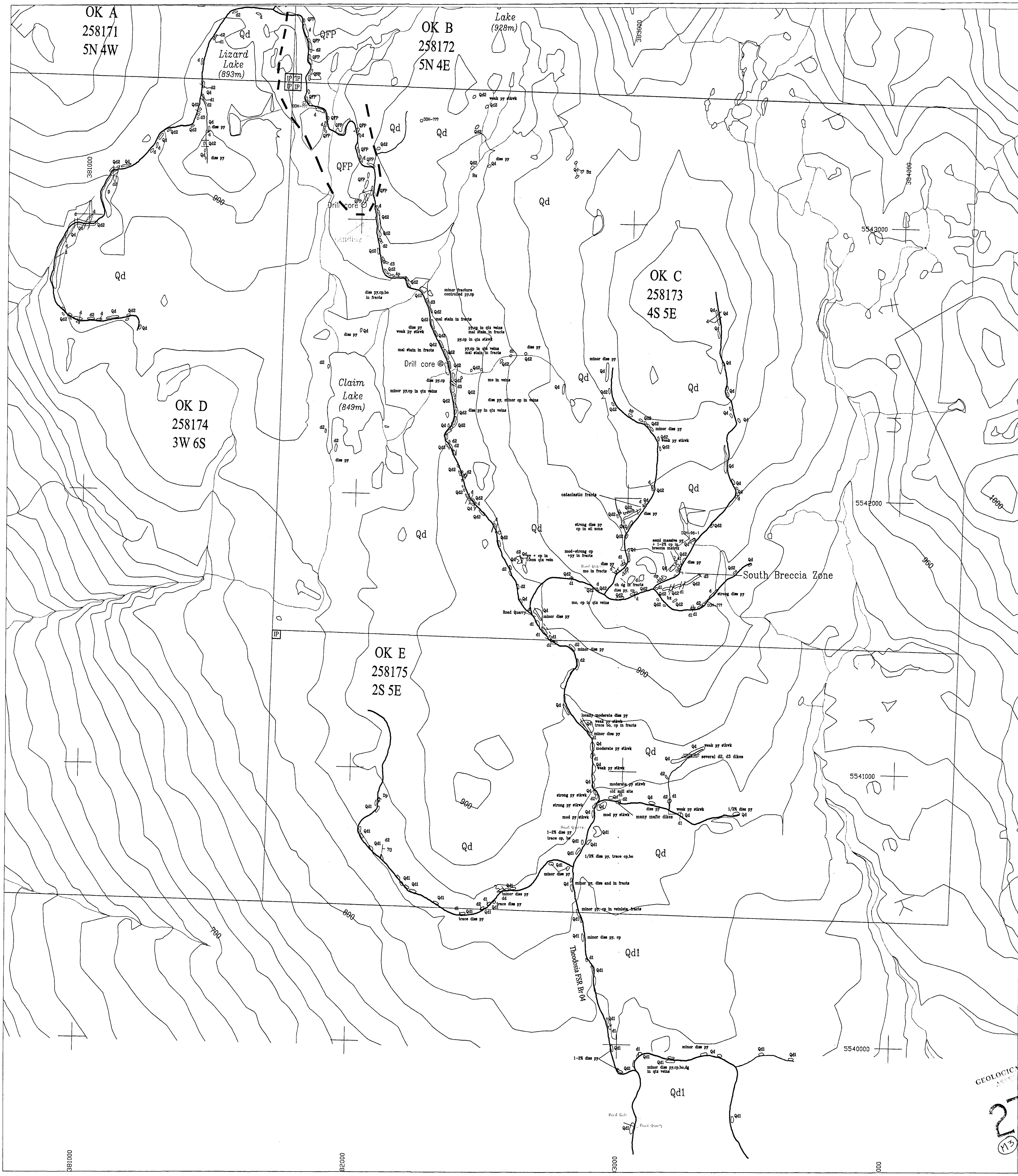
EASTFIELD RESOURCES LTD.

OK COPPER PROPERTY

Geology with Alteration
North half

Location: Powell River, B.C.		Mining Jurisdiction: Vancouver	
Datum: NAD83	Map Ref.: 092K.007	Scale: 1:5000	UTM: 10
Project: OK	Date: Feb.14/2004	Drawn By: RM/DW	Figure: 5



LEGEND

Geology

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Symbols

Outcrop
Geological boundary (assumed)
Geological boundary (observed)
Attitude of rocks or veins
DDH Drill hole location

Mineralization

py	Pyrite	bo	Bornite
cp	Chalcopyrite	dg	Digenite
mo	Molybdenite	ch	Chalcocite
diss	disseminated	qtz	Quartz
fracts	fractures	sil	Silicification
mal	Malachite		

0 100 200 350
metres
contour interval = 20 metres

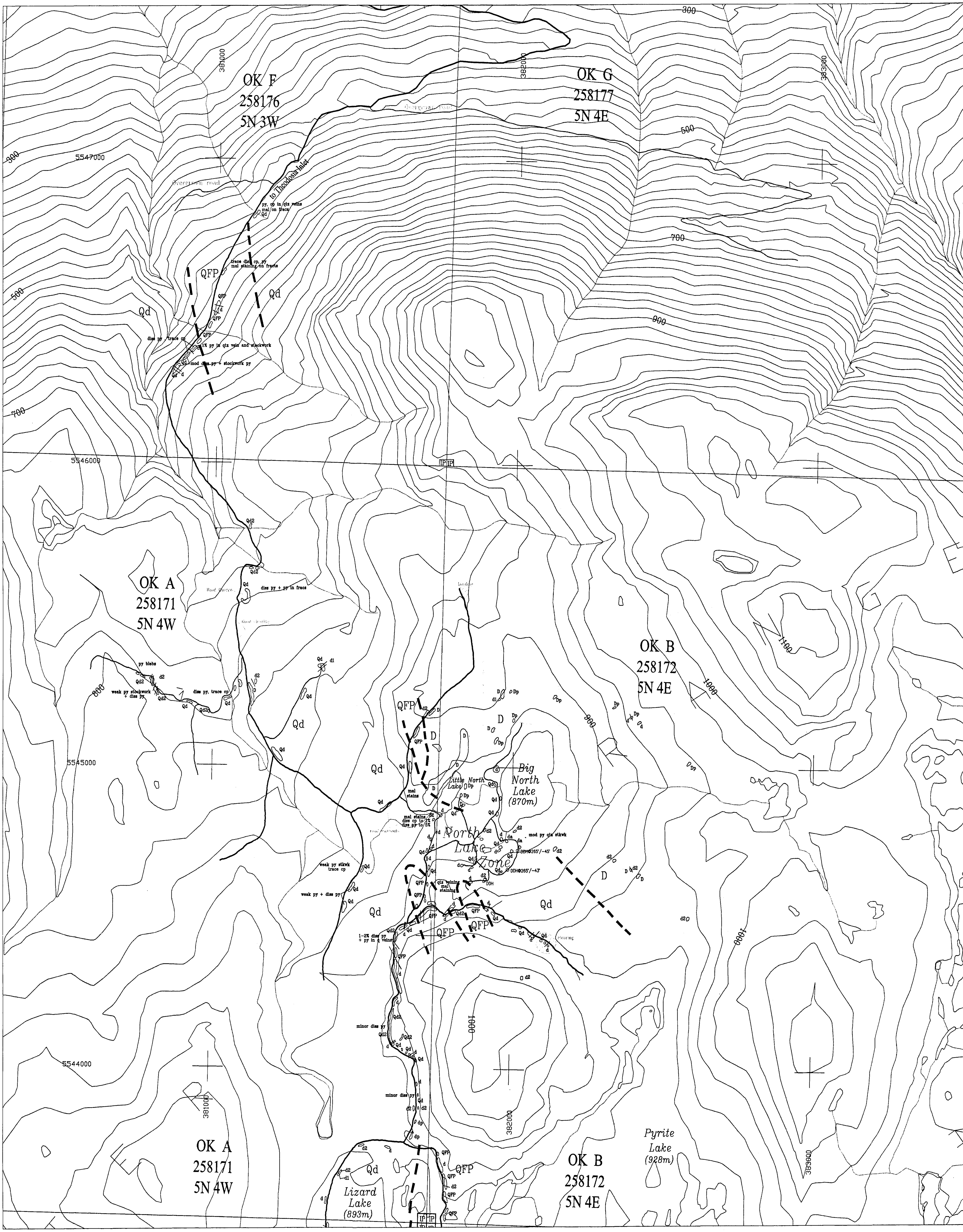
MINCORD Exploration Consultants Ltd.

LUMINA COPPER CORP.

EASTFIELD RESOURCES LTD.

OK COPPER PROPERTY
Geology with Sample Location & Sulphide mineralization South half

Location: Powell River, B.C.		Mining Jurisdiction: Vancouver	
Datum: NAD83	Map Ref.: 092K.007	Scale: 1:5000	UTM: 10
Project: OK	Date: Feb.14/2004	Drawn By: RM/DW	Figure: 6



LEGEND

Geology

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ap	aplite dike

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DIORITE

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DP	Diorite: plagioclase porphyry

Symbols

Outcrop
Geological boundary (assumed)
Geological boundary (observed)
Attitude of rocks or veins
DDH Drill hole location

Mineralization

py	Pyrite	bo	Bornite
cp	Chalcopyrite	dg	Digenite
mo	Molybdenite	ch	Chalcocite
diss	disseminated	qtz	Quartz
fracts	fractures	sil	Silicification
mal	Malachite		

Geology after J.W.P. 2003 field season

0 100 200 350
metres
contour interval = 20 metres

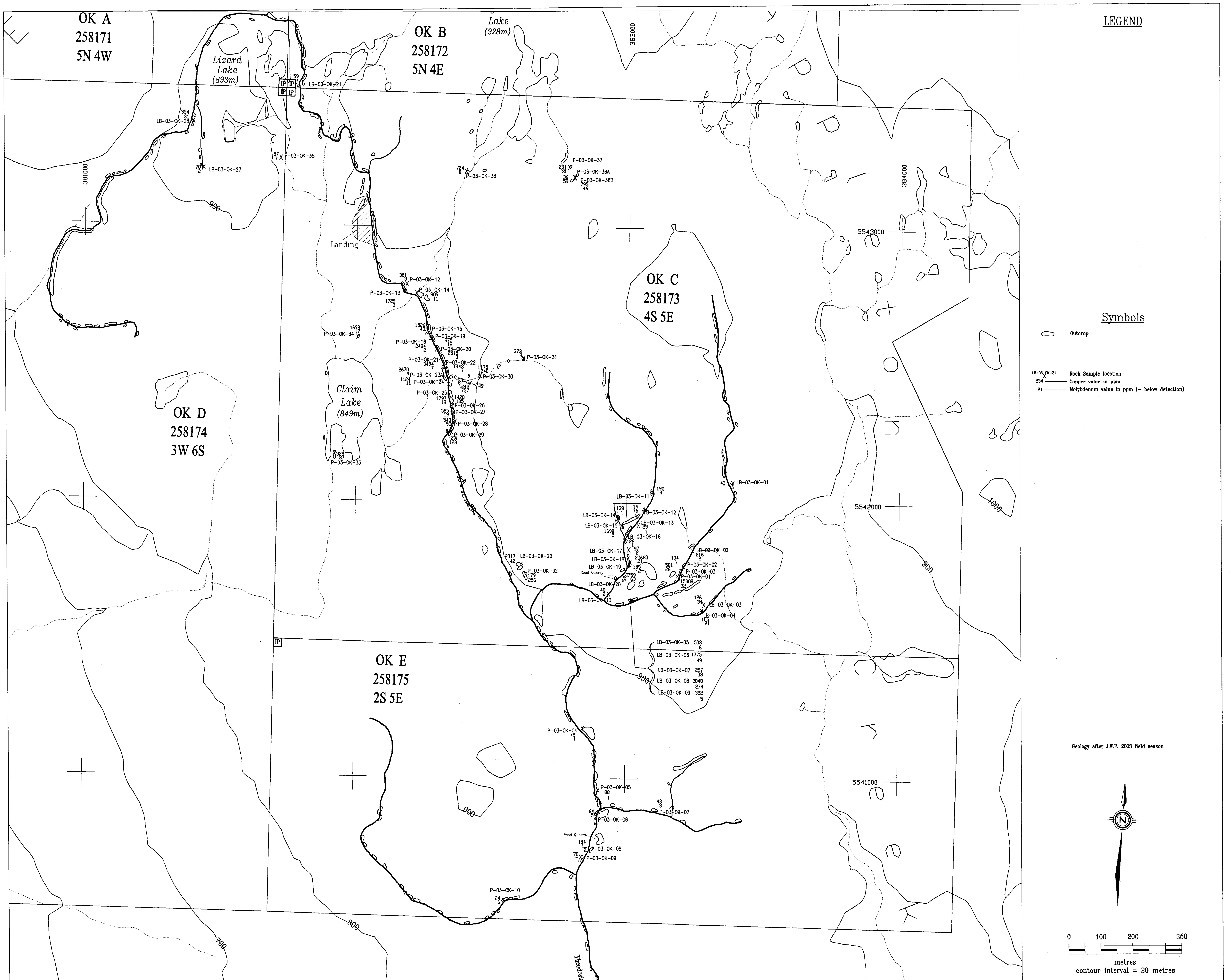
MINCORD Exploration Consultants Ltd.

LUMINA COPPER CORP.

EASTFIELD RESOURCES LTD.

OK COPPER PROPERTY
Geology with Sample Location
& Sulphide mineralization
North half

Location: Powell River, B.C.		Mining Jurisdiction: Vancouver	
Datum: NAD83	Map Ref.: 092K.007	Scale: 1:5000	UTM: 10
Project: OK	Date: Feb.14/2004	Drawn By: RM/DW	Figure: 7



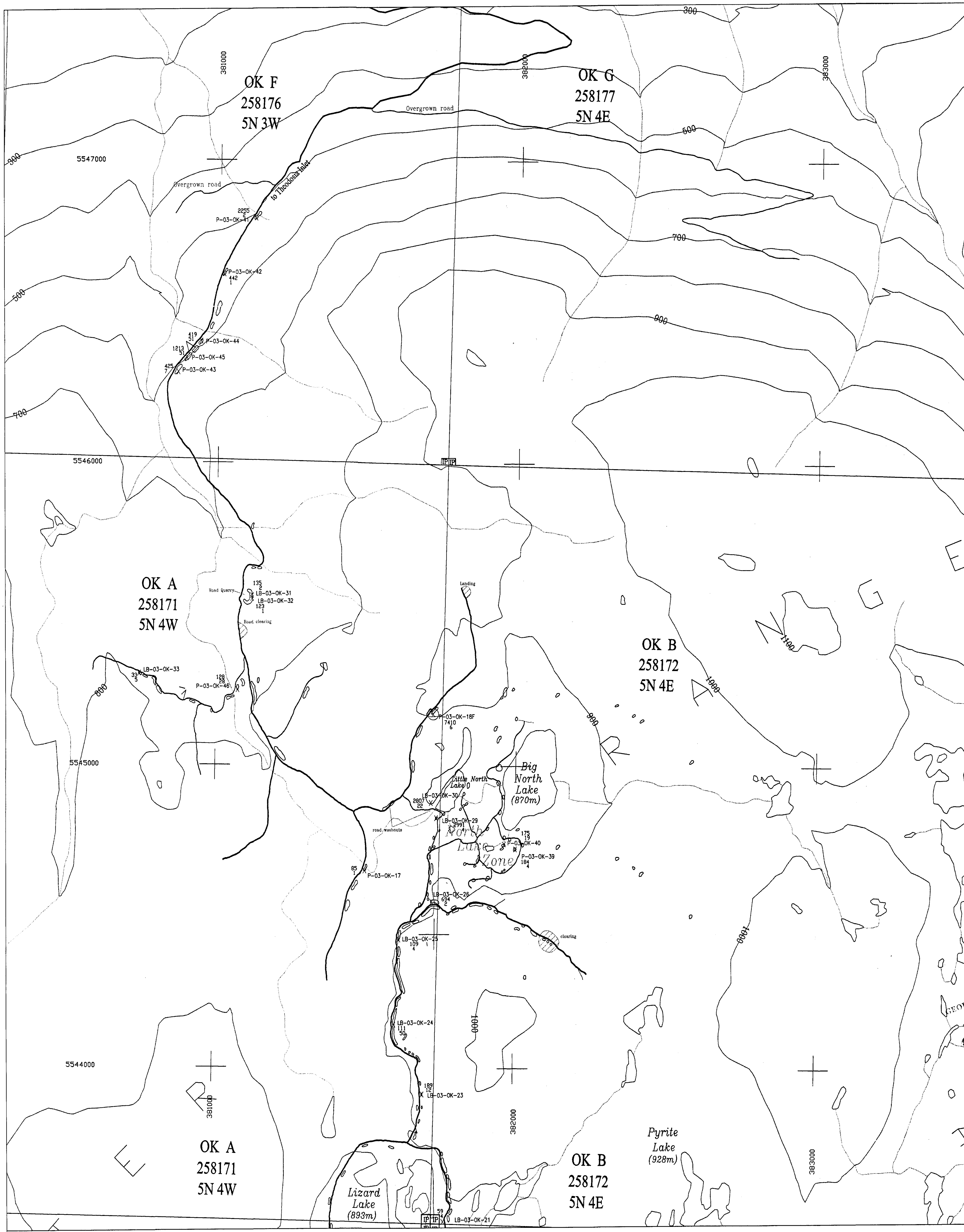
MINCORD Exploration Consultants Ltd.

LUMINA COPPER CORP.

EASTFIELD RESOURCES LTD.

OK COPPER PROPERTY
Rock Geochem - Sample Location
Sample ID & Copper-Moly Analysis
South half

Location: Powell River, B.C.			Mining Jurisdiction: Vancouver		
Datum: NAD83	Map Ref.: 092K.007	Scale: 1:5000		UTM: 10	
Project: OK	Date: Feb.14/2004	Drawn By: RM/DW		Figure: 8	



LEGEND

Symbols

Outcrop

LB-03-OK-21 — Rock Sample location
254 — Copper value in ppm
21 — Molybdenum value in ppm (– below detection)

Geology after J.V.P. 2003 field season

0 100 200 350
metres
contour interval = 20 metres

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
27,342

M6

MINCORD Exploration Consultants Ltd.

LUMINA COPPER CORP.

EASTFIELD RESOURCES LTD.

OK COPPER PROPERTY
Rock Geochem – Sample Location
Sample ID & Copper–Moly Analysis
North half

Location: Powell River, B.C.		Mining Jurisdiction: Vancouver	
Datum: NAD83	Map Ref.: 092K.007	Scale: 1:5000	UTM: 10
Project: OK	Date: Feb.14/2004	Drawn By: RM/DW	Figure: 9