

NTS: 31C/15



31C15NW2001 OP93-422 CLARENDON

010

REPORT ON AN OPAP FUNDED EXPLORATION PROGRAM FOR GOLD AND  
STRATIFORM ZINC MINERALIZATION ON THE JAMES LAKE PROPERTY,  
MINING CLAIMS SO 1191202 - 1191204,  
CLARENDON TOWNSHIP, FRONTENAC COUNTY,  
SOUTHERN ONTARIO MINING DIVISION, ONTARIO

Grant OP93-422

Prepared by:

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January 21, 1994

**SUMMARY****1. Project Area**

The project area consists of three mining claims (SO 1191202-1191204; totalling 8 units) and the east half of lot 33, concession 5 in Clarendon Township, Southern Ontario Mining Division, Ontario. The property covers an area of about 200 hectares. The centre of the project area is located at latitude 44 degrees 57' 35" N and longitude 76 degrees 54' E. The area is covered by 1:50,000 series map sheet 31C/15.

**2. Property Ownership**

The claims are 100% owned by Brian J. Christie of 5 James Street, Brooklin, Ontario.

**3. Deposit Types:** A. Gold in saddle reef style quartz veins.

B. Stratiform, carbonate-hosted zinc-lead mineralization, similar to the Balmat-Edwards deposit in New York State.

**4. Commodities:** Gold with minor copper; and zinc with accessory lead and silver.**5. Minerals:** Gold, sphalerite, galena, pyrite, pyrrhotite, and silver.**6. Host Rocks:** Metasediments, primarily calcitic and dolomitic marbles and pelitic schists.**7. Reason For Project**

This project had two purposes. The first was to determine the distribution and geometry of the auriferous quartz veins at the James Occurrence, and search for possible extensions of these veins.

The second purpose was to relocate and refine several previously outlined, coincident, zinc-lead-silver 'B' horizon soil anomalies.

**8. Work Program**

The Author spent 20 days in the field installing grid lines, trench mapping, soil sampling, and prospecting. An additional five days were spent on report writing. James Laidlaw spent four days channel sampling the trenched areas.

**9. Program Results**

Trench mapping outlined two quartz veins that appear to occur on opposite limbs of an anticlinal structure. The veins occur at the contact between a calc-silicate and marble unit. The calc-silicate unit may represent a reaction zone?

The northern vein is 0.1-3.0 metres wide, strikes at roughly

65-70 degrees and has been traced for over 135 metres. This vein has returned grab samples up to 28.52 g/t gold and channel samples up to 3737 ppb gold over 3.9 metres. The southern vein is poorly exposed and limited channel sampling has returned gold values up to 640 ppb over 0.7 metres.

On grids C and E, two gossanous felsic gneiss rock samples yielded highly anomalous zinc values up to 1764 ppm. A 1.5-2 metre wide quartz vein in dolomitic marbles was noted at the south end of line 2+00W on Grid E.

No soil anomalies were detected on grid B. Two zinc anomalies with peak values up to 952 ppm were discovered on grid C. Grid D contains a narrow but well defined zinc anomaly with peak values up to 2030 ppm. This anomaly also has two coincident lead anomalies with peak values up to 312 ppm. Grid E contains a large, broad, coincident zinc and lead anomaly with peak values up to 6390 ppm and 528 ppm respectively.

#### 10. Recommendations

Additional prospecting, trenching and diamond drilling is warranted to further investigate the auriferous quartz veins at the James Occurrence.

Further prospecting should be carried out on grids C and E, where gossanous felsic gneiss rock samples yielded highly anomalous zinc values. More work is also recommended at the south end of line 2+00W on Grid E, where a 1.5-2 metre wide quartz vein was noted in dolomitic marble.

Detailed in-fill soil sampling is recommended over two zinc anomalies on grid C to further refine the anomalies.

Trenching and/or diamond drilling is recommended for the coincident zinc-lead anomalies on grids D and E.

#### 11. Expenditures: \$9,634.32



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## I. INTRODUCTION

This report outlines the results of an OPAP funded exploration program for gold and stratiform zinc-lead mineralization in late Precambrian aged metasedimentary rocks of the Grenville Structural Province in Clarendon Township, Frontenac County, Southern Ontario Mining Division, Ontario.

The integrated program was carried out on three mining claims (eight claim units) and one half of a crown lot in Clarendon Township. The ultimate goal of the program was to advance the property to the drill stage.

**Date:** January 21, 1994.

**Name:** Brian Christie

### Individuals Who Applied for Assistance For This Project

Brian Christie  
5 James Street  
Brooklin, Ontario  
LOB 1C0

### Changes to Proposed Project

Additional kilometers were travelled because the author moved from Inverary to Brooklin, Ont., half way through the project.

Sixteen rock samples collected during the prospecting phase were analyzed using an ICP package to help locate areas with the potential to host stratiform zinc-lead mineralization. In addition, 6 rocks were analyzed for major elements to help identify the carbonate units.

Four days, instead of two days were required to install the soil grids.

### Location and Access

The James Lake project area is located in the north-central portion of Clarendon Township, Frontenac County, approximately 90 km northeast of Belleville, and 230 km northeast of Toronto, Ontario (Figure 1).

Geographically the centre of the project area is located at latitude 44 degrees 57' 35" N and longitude 76 degrees 54' E at an average elevation of 275 metres above sea level. The magnetic declination for the area is approximately 10.5 degrees west. The project area is covered by 1:50,000 series map sheet 31C/15.

The claims are located along an Ontario Hydro power transmission line, a hydro access road, passable by car, traverses the claims (Figure 2). The access road is located 4 km north of Ardoch, east of Highway 506 (Figure 3).

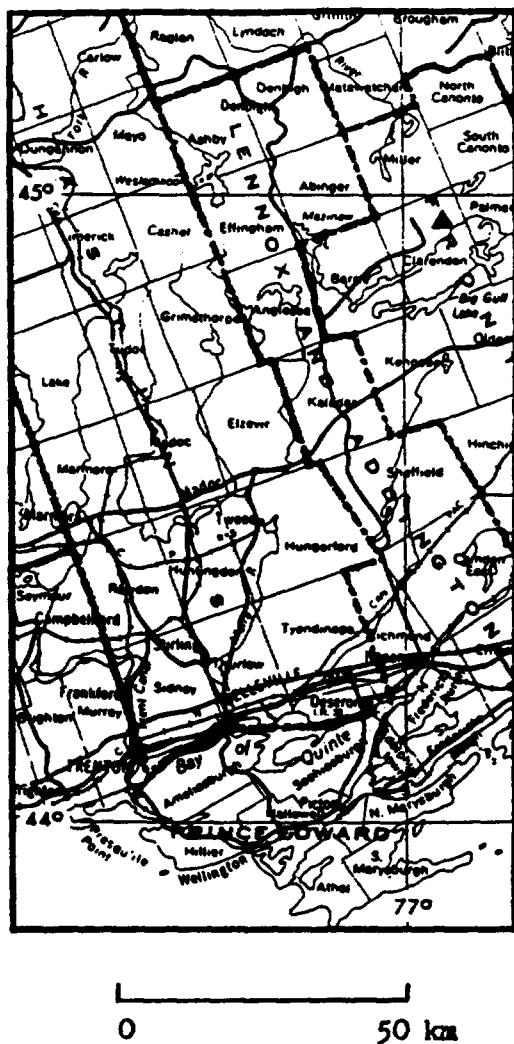


Figure 1. Map showing the location of the James Lake Property,  
Clarendon Township, Frontenac County, Ontario  
(▲ Property Location).

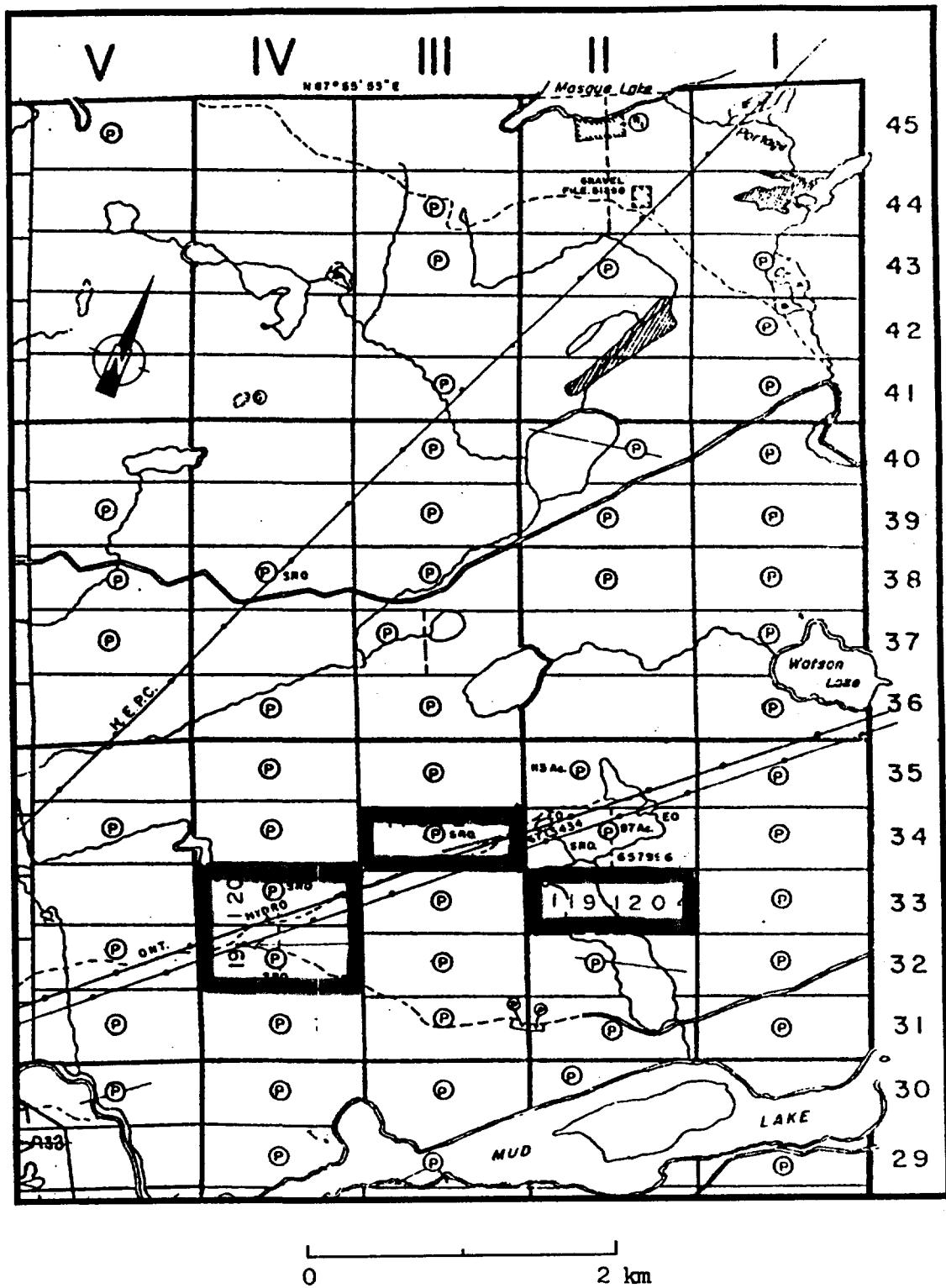


Figure 2. Claim map showing the location of the James Lake Property, Clarendon Township, Ontario (claims are outlined in red).

PHANEROZOIC  
CENOZOIC  
QUATERNARY  
PLEISTOCENE AND RECENT  
Till gravel sand organic deposits alluvium

UNCONFORMITY

PRECAMBRIAN

GRENVILLE SUPERGROUP  
FLINTON GROUP<sup>a</sup>

Fernleigh Formation

13

13a Biotite - carbonate schist

12

12a Graphite-pyrite schist  
12b Marble dolomitic marble and interlayered graphite-pyrite schist and pelitic schist  
12c Carbonate clast metaconglomerate, marble

11

Bishop Corners Formation<sup>b</sup>

11a Pelitic schists, muscovite-quartz-biotite-plagioclase-garnet-schist  
11b Calcareous quartzite, impure calcite marble  
11c Quartzite pebble conglomerate, polymictic conglomerate, magnetized conglomerate  
11d Hornblende biotite plagioclase-carbonate schist

UNCONFORMITY

METAMORPHOSED FELSIC TO INTERMEDIATE INTRUSIVE ROCKS

CROSS LAKE PLUTON<sup>c</sup>

9

9a Trondjemite gneiss, granodiorite gneiss  
9b Feldspar porphyry dikes and sills  
9c Medium-grained pink granodiorite and quartz monzonite gneiss

METAMORPHOSED MAFIC INTRUSIVE ROCKS<sup>d</sup>

8

8a Medium and coarse-grained gabbro and diorite: fine-grained, foliated, biotite-bearing gabbro-diorite phases, granodiorite and aplite phases  
8b Mafic sills and dikes

INTRUSIVE CONTACT

METASEDIMENTS CLASTIC METASEDIMENT<sup>e</sup>

7

7a Calcareous sandstone-muscovite-biotite-carbonate-plagioclase-quartz gneiss and schist  
7b Lentic sandstone, lithic mudstone  
7c Siliceous siltstone-pyrite-muscovite-quartz plagioclase gneiss and schist

CARBONATE METASEDIMENT<sup>f</sup>

6

6a Gray and white, mostly massive, dolomitic marble locally gray silty dolomitic marble  
6b Gray and white laminated marble, massive gray and white marble  
6c Marble and dolomitic marble with large lenses and layers of white quartzite, locally up to 30 percent  
6d Marble interlayered with clastic siliceous metasediments: rusty weathering muscovite-pyrite  
6e Marble interlayered with hornblende-biotite-plagioclase-carbonate gneiss  
6f Tremolite-phlogopite-diospide-scapolite-bearing marble  
6g Marble interlayered with layers of radiating aggregates of amphibole or amphibole  
6h Marble metaconglomerate-tremolite-phlogopite-bearing fragmental marble

Legend for Figure 3.

FELSIC TO MAFIC GNEISSES OF MIXED VOLCANIC AND SEDIMENTARY ORIGIN  
INTERLAYERED FELSIC AND INTERMEDIATE GNEISSES<sup>g</sup>

5

5a Biotite-quartz-feldspathic-muscovite-garnet gneiss, laminated biotite-quartz-feldspathic garnet gneiss  
5b Biotite-plagioclase-quartz-carbonate-microcline-muscovite gneiss; locally coarse-grained segregations of hornblende or biotite, local garnet porphyroblasts  
5c Hornblende-biotite-quartz-plagioclase gneiss, biotite-hornblende-quartz-plagioclase gneiss

4

4a Hornblende-plagioclase-biotite-garnet gneiss; biotite-hornblende-plagioclase-quartz schist: scapolite-diospide-hornblende-carbonate-plagioclase-garnet gneiss; coarse-grained amphibole  
4b Fine-grained amphibole with relict amygdalites

METAVOLCANICS

MAFIC TUFFS INTERLAYERED WITH CARBONATE METASEDIMENT<sup>h</sup> AND LIMY MUDDSTONES<sup>i</sup>

3

3a Biotite-carbonate-garnet schist  
3b Hornblende-carbonate-biotite-garnet schist  
3c Layers with radiating aggregates of amphibole-hornblende-anthophyllite-plagioclase-zirconia-biotite-garnet assemblage, cummingtonite-tridymite-kf cherts; olivine assemblage  
3d Amphibolites: cummingtonite-anthophyllite-plagioclase-Mg cherts assemblage: hornblende-plagioclase-carbonate assemblage

FELSIC TO INTERMEDIATE METAVOLCANICS<sup>j</sup>

2

2a Fragmental-muscovite-biotite-K-feldspar-plagioclase-quartz gneiss  
2b Hornblende-biotite-quartz-plagioclase gneiss, locally with relict fragments  
2c Biotite-plagioclase-quartz-hornblende-muscovite gneiss; local garnet porphyroblasts  
2d Garnet-muscovite-biotite schist

MAFIC TO INTERMEDIATE METAVOLCANICS<sup>k</sup>

1

1a Hornblende-plagioclase-garnet gneiss; local hornblende porphyroblasts; local relict phenocrysts of plagioclase, local diopside-hornblende-plagioclase gneiss  
1b Massive amphibole: pillowd amphibole  
1c Quartz-biotite-hornblende-plagioclase-garnet gneiss; local relict phenocrysts of plagioclase  
1d Fragmental-hornblende-plagioclase-biotite-carbonate gneiss

Bregica

NOTES

- a) This is a field legend and may be changed as a result of further laboratory investigation
- b) After Moore and Thompson, 1972
- c) Carbonate clast conglomerate of the Myer Cave Formation and quartzite pebble conglomerate of the Bishop Corners Formation are considered to be lateral equivalents (Moore and Thompson, 1972)
- d) No relative age difference is implied between these units
- e) No relative age is implied between these units
- f) In part metavolcanics, in part metasediments

LIST OF PROPERTIES AND OCCURRENCES

- 1 AJM Explorations Limited
- 2 Boeth Mine (1952)
- 3 Canadian Arrow Mines Limited (1969)
- 4 Consolidated Imperial Resources Limited
- 5 Cook Property
- 6 M.H. Fyock and Associates (1959)
- 7 Genda Silver Mines Limited (1964)
- 8 Groundstar Resources Limited
- 9 Kehoe, C.
- 10 Ram Petroleum Limited
- 11 Riddell, D.
- 12 Salco Incorporated (James Mine)
- 13 Selco Incorporated (Webber Property)
- 14 Westwind Mines Limited (1977)
- 15 Witton, N.

Note: data in brackets indicates the last year of exploration activities

METAL AND MINERAL ABBREVIATIONS

Ag	Silver
Au	Gold
act	Actinolite
asp	Asopyrite
cp	Chalcocite
Cu	Copper
diop	Dioptase
gn	Galena
gt	Garnet
ky	Kyanite
lm	Limonite
mag	Magnetite
mo	Molybdenite
mus	Muscovite
Pb	Lead
py	Pyrite
po	Pyrrophyte
stau	Staurolite

Tourmaline  
Tremolite  
Zinc

Fault, (observed, assumed). Spot indicates down throw side arrows indicate horizontal movement

Jointing (horizontal, inclined, vertical)

Drag folds with plunge

Anticline syncline with plunge

Foliation (horizontal, inclined, vertical)

Shaft, depth in feet

Test pit

Exploration trenching

Quarry

Gravel pit

Radioactivity

Pillow lava top unknown

SYMBOLS

	Small bedrock outcrop
	Area of bedrock outcrop
	Bedding, top unknown, (inclined, vertical)
	Schistosity, (horizontal, inclined, vertical)
	Foliation (horizontal, inclined, vertical)
	Shaft, depth in feet
	Test pit
	Exploration trenching
	Quarry
	Gravel pit
	Radioactivity
	Pillow lava top unknown

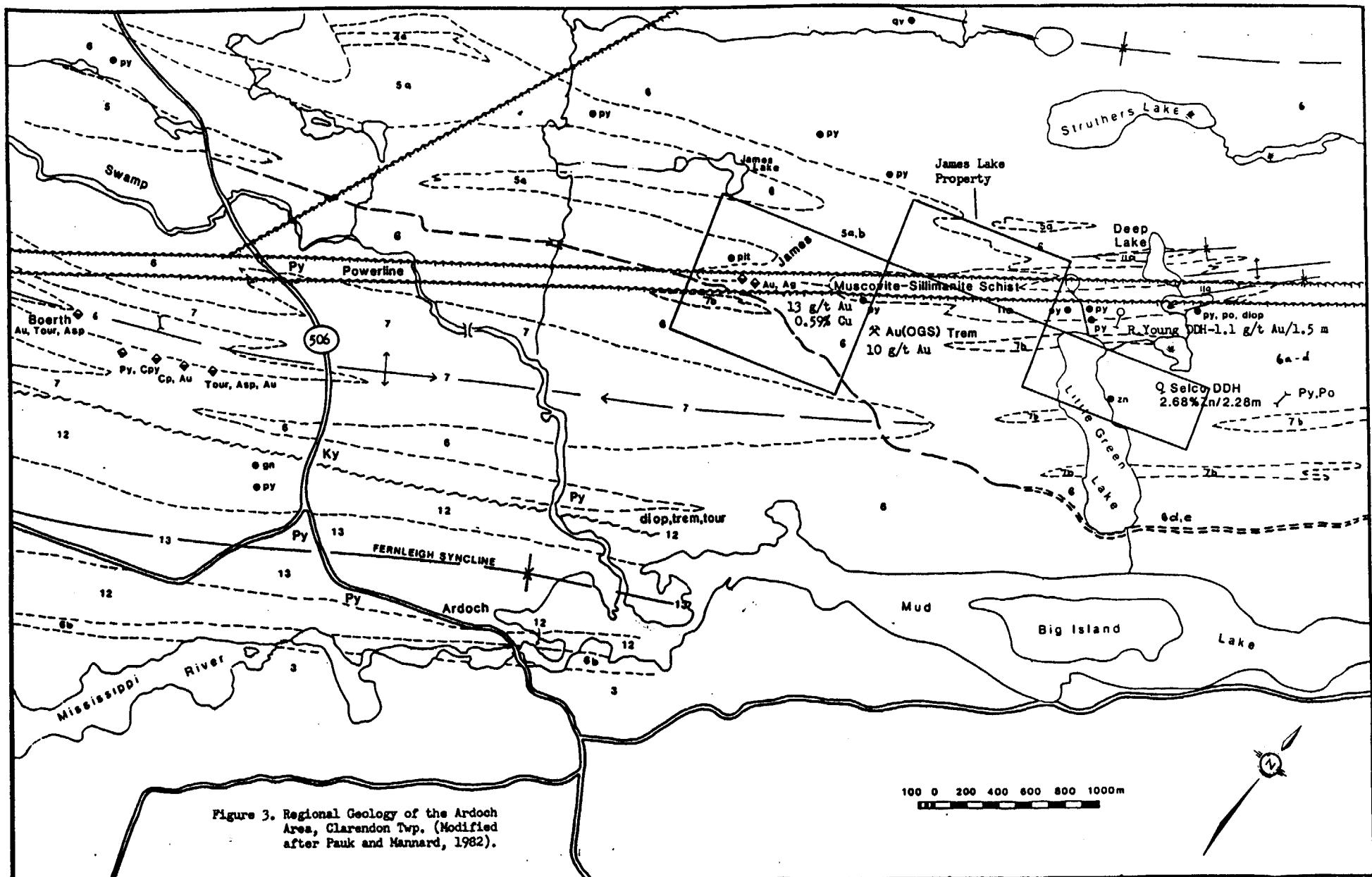


Figure 3. Regional Geology of the Ardoch Area, Clarendon Twp. (Modified after Pauk and Mannard, 1982).

### Property Status

The project area consists of three mining claims (SO 1191202-1191204; 8 claim units) and half of crown lot 33, concession 5, covering a surface area of approximately 200 hectares (Figure 2). The claims and the crown lot are located in Clarendon township (claim map M-77; Figure 2a) Southern Ontario Mining Division, Ontario.

The mineral claims are 100% owned by Brian J. Christie of 5 James Street, Brooklin, Ontario, L0B 1C0. Details regarding the mineral claims are summarized in Table 1.

### Physiography

The project area is characterized by moderate topography with up to 20-30% bedrock exposure. Maximum relief reaches 30 metres in the eastern portion of the property where a prominent northwest striking ridge occurs. The area is moderately well drained except for some of the deeper valleys.

Vegetation consists primarily of open maple forest, which locally grades into cedar bush in the lower, less well drained areas. Portions of the property have been heavily logged in the past. These clearings are now thickly re-vegetated with young poplar and/or raspberry canes. The area under the hydro lines has been defoliated, and vegetation now consists of grasses and some short maple and oak.

Overburden consists of a thin cover of sand and boulders, ice movement appears to have been towards the southwest.

### Previous Work

The following work is summarized from the assessment files at the Resident Geologists Office in Tweed, Ontario:

Pre 1949: Shaft sinking on the James occurrence by an unknown operator.

1949-51: Clarendon-Dalhousie area mapped by B.L. Smith of the Ontario Department of Mines (Smith, 1958).

1976: Lake sediment sampling program in the Clarendon area by the Geological Survey of Canada in conjunction with the Ontario Department of Mines. Anomalous levels of Zn, Cu, As, Mo, and Hg were detected in James Lake and Little Green Lake.

1978: Geological mapping and 'B' horizon soil sampling carried out on the James Lake claims by St. Joseph Explorations Ltd. (Jackson, 1979a, 1979b). Several coincident Zn-Pb soil anomalies were detected.

1980: L. Pauk and G. Mannard of the Ontario Geological Survey remapped the Ardoch area, which includes the James Lake Property (Pauk, 1987). They updated the regional work done by Smith in the early 1950's.

Table 1. James Lake Property Claim Status

Claim #	Units	Recording Date	Anniversary Date
SO 1191202	4	August 27, 1992	August 27, 1994
SO 1191203	2	August 27, 1992	August 27, 1994
SO 1191204	2	August 27, 1992	August 27, 1994

- 1980: A VLF-EM and total field magnetic survey were carried out on the James Lake claims by Selco Mining Corporation (Sinclair, 1980). Selco also drill tested a soil anomaly east of Little Green Lake (Sinclair, 1981). The 41.8 metre hole was cored in calcitic marble and contained several narrow sphalerite stringers which returned a value of 2.68% zinc over 2.28 metres.
- 1984: A 120 metre long hole was drilled on claim E0 673434, north of Little Green Lake by the property owner C. Roger Young of Havelock, Ontario. The hole was drilled to evaluate the potential of the sillimanite gneiss unit which trends east along strike from the James Lake Property. The hole also contained a 1.5 metre section grading 1.1 g/t gold.
- 1986-87: Stephen J. Black evaluated the industrial mineral potential of the sillimanite gneiss unit as part of a Canada-Ontario Mineral Development Agreement project (Black, 1987).
- 1987-89: Homestake Mineral Development Company carried out geological mapping and soil surveys (Christie, 1987), magnetic and VLF-EM surveys (Parent, 1988), and trenching. There is no record that the 6 trenches were ever mapped or sampled.

## II. GEOLOGY

### Regional Geology

The project area lies within the Hastings Basin in the western portion of the Grenville Province of the Precambrian Shield. The regional geology of the area is summarized in Figure 3.

The area is underlain by a Proterozoic age metavolcanic-metasedimentary sequence. Mafic metavolcanics occur primarily in the southern portion of the map area and consist of amphibolites and mafic schists. Felsic metavolcanics are locally intercalated with the mafic units. Clastic and carbonate metasediments underlie the remainder of the map area. The carbonate metasediments consist primarily of calcitic and dolomitic marbles.

Locally, the supracrustal sequence is intruded by mafic, and granitic sills and dikes.

Two periods of deformation have been noted. The first produced easterly trending isoclinal folds with a steeply dipping axial planar foliation. The James Lake property is located along one of these easterly trending anticlines. The second period of deformation produced more open northeast trending folds which plunge 10-30 degrees to the northeast.

The Plevna Fault lies to the west of the claims. It strikes northwest and is parallel to a regional joint set. This joint set has influenced the drainage in the area.

The metamorphic grades in the Ardoch area range from greenschist to upper amphibolite facies.

### Property Geology

The geology of the James Lake property is relatively well documented by Jackson (1979b) and Christie (1987). A geological compilation is presented in Figure 4.

The property is underlain by a NE-SW trending sequence of carbonate and clastic metasediments. The carbonates consist primarily of calcitic and dolomitic marbles with minor calc-silicate interlayers.

The clastic units consist of pelitic schist, mafic and felsic paragneiss, and sillimanite gneiss. The paragneiss units are probably volcaniclastic in origin. The sillimanite gneiss unit contains 3 zones: a high grade zone with 15-30% sillimanite; a low grade zone with 0-15% sillimanite; and a sillimanite-plagioclase zone with up to 30% plagioclase. Preliminary studies of the sillimanite gneiss unit suggest it has good industrial mineral potential (Black, 1987).

The supracrustal rocks are locally intruded by narrow mafic and felsic sills or dikes.

All of the rock units are foliated to some degree. Most of the units strike E-NE and dip steeply to the north or near vertical. Isoclinal folds have locally been noted on the claim group. The axial planes trend N40-60 degrees E and plunge 10-30 degrees NE.

Metamorphism on the property appears to have reached amphibolite facies grade.

### Property Mineralization

Two styles of mineralization have been noted on the property:

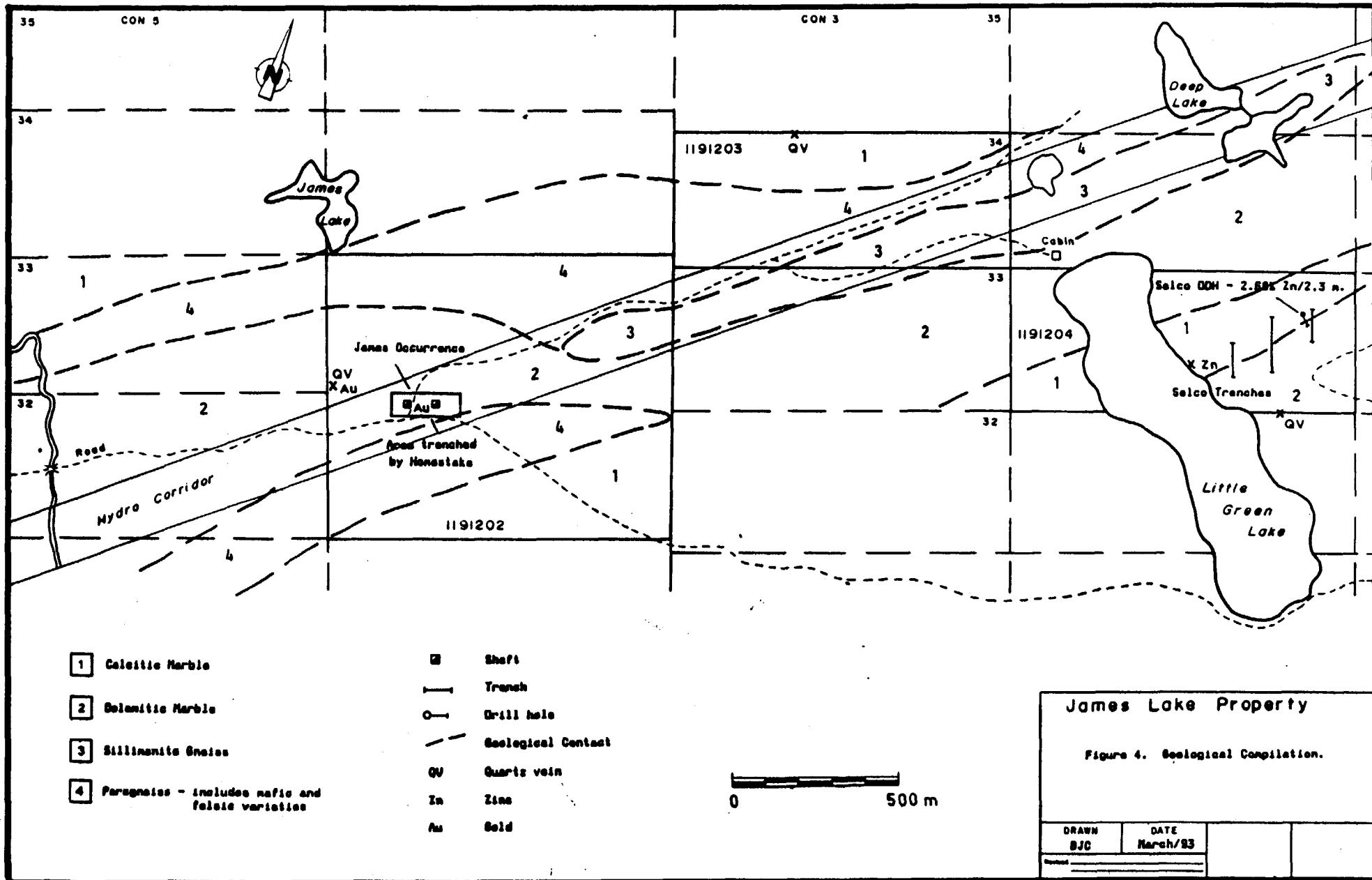
1. Gold in quartz veins.
2. Narrow stringers of sphalerite in calcitic marble.

The first style of mineralization is best exposed at the James Occurrence (Figure 4). Here, quartz veins up to 0.5-1.0 metres wide have been noted. The veins appear to be localized along a fold nose between pelitic schists and marbles. The gold occurs in the quartz veins, often associated with chalcopyrite and pyrite.

Grab samples by Ontario Geological Survey personnel returned values up to 13 grams gold per tonne and 0.59% copper (Pauk and Mannard, 1982). Samples collected by the author, in November 1992, from the eastern most shaft area returned values up to 5.0 grams gold per tonne and 1.62% copper.

In 1989, Homestake Mineral Development Company excavated six trenches on the James Occurrence, but never mapped or sampled them.

The second style of mineralization was encountered in a Selco



Mining Corporation drill hole east of Little Green Lake (claim 1191204; Figure 4). The 41.8 metre long drill hole contained a 2.28 metre intersection grading 2.68% zinc (Sinclair, 1981). The hole was targeted on a 5,200 ppm zinc anomaly with a coincident lead anomaly in 'B' horizon soils.

Three other untested, coincident zinc-lead soil anomalies are also present on the property. These were outlined by St. Joseph Explorations Ltd. in 1978 (Jackson, 1979a).

Carter (1984) notes that the zinc mineralization found on the James Lake property is similar to 11 other stratiform zinc deposits in Southeastern Ontario (Table 2). Carter also notes that the Southern Ontario occurrences are very similar to the zinc deposits in Quebec and the producing Balmat-Edwards deposit in upper New York State.

### III. OPAP EXPLORATION PROGRAM AND RESULTS

#### Work Done

This project had two purposes. The first was to determine the distribution and geometry of the auriferous quartz veins at the James Occurrence, and search for possible extensions of these veins.

The second purpose was to locate several previously outlined, coincident, zinc-lead-silver 'B' horizon soil anomalies.

Twenty days were spent installing grid lines, trench mapping, soil sampling, and prospecting during the period May 29 to October 11, 1993 (Appendix 3). In addition, James Laidlaw spent 4 days channel sampling the trench sites.

#### Detailed Trench Mapping and Sampling

Six days were spent gridding and mapping 5 trenches at the James Occurrence (Figure 5). The trenches were excavated in 1989 by Homestake Mineral Development Company, but they were apparently never mapped or sampled.

The trenches were mapped at a scale of 1 cm = 1 metre (1:100). Trench maps are presented in Appendix 4.

Jim Laidlaw of Madoc, Ont., spent 4 days saw cutting and channel sampling the trenches and shaft areas (Appendix 3) with a gas powered rock saw. Fifty-six channel and grab samples were collected and processed at Chemex Laboratories in Mississauga. Each sample was jaw crushed and at least 400 grams pulverized to -150 mesh. Thirty grams of pulverized material was then analyzed for gold using a fire assay-atomic absorption technique. Five samples with values greater than 10,000 ppb gold were re-analyzed using a one assay ton, fire assay-gravimetric technique. Sample descriptions and assay results are presented in Appendix 5.

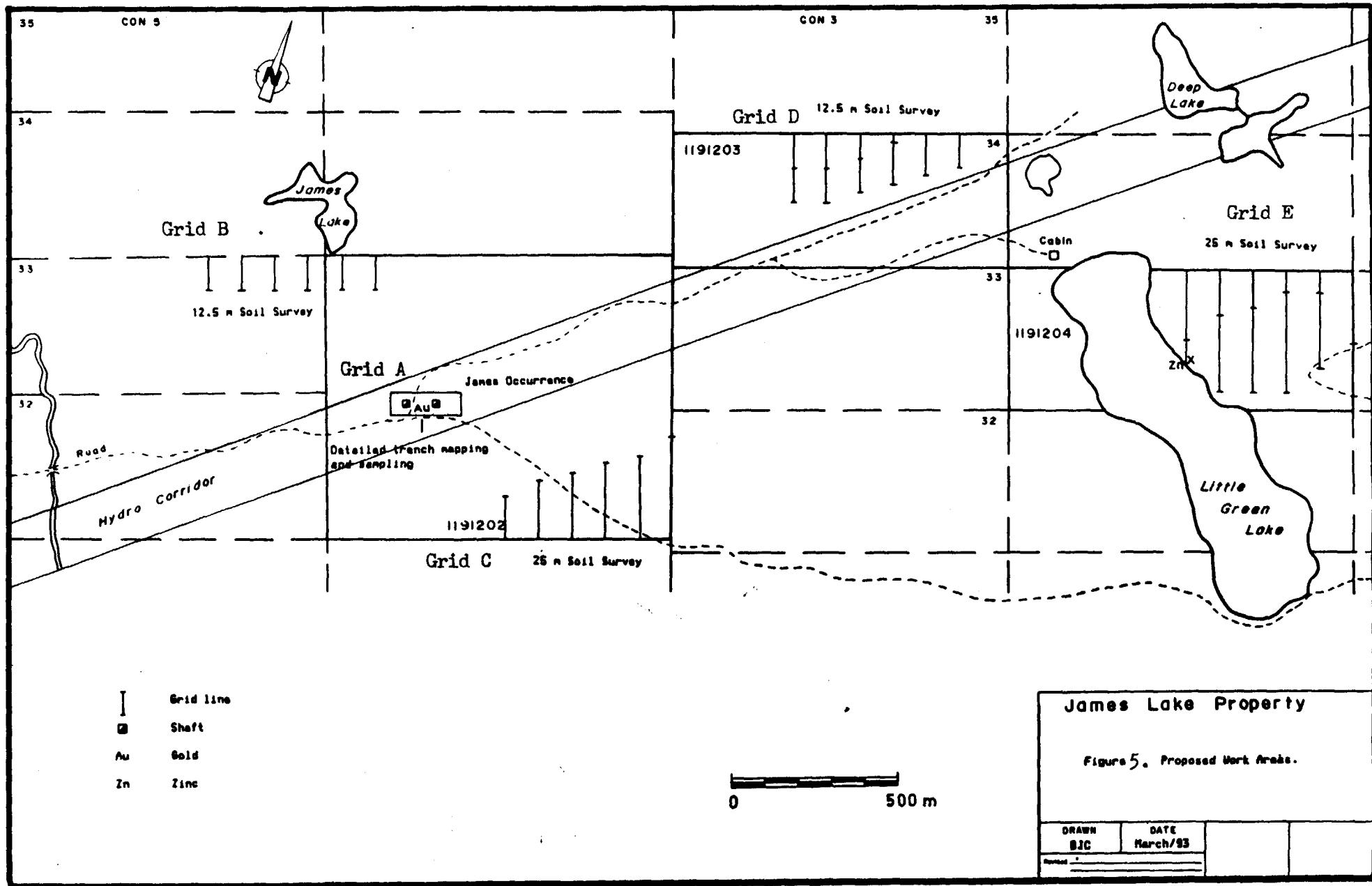


Table 2. Stratiform zinc deposits in southeastern Ontario.

<u>Deposit</u>	<u>Township</u>	<u>Lot</u>	<u>Con.</u>
Renprior	Admaston	1,2	III,IV
Thirty Island Lake	Bedford	5	III
Ardoch	Clarendon	33	II
Wilkinson	Hinchinbrooke	6	XII
Spry	Kaledar	3	VIII
Clyde River	Lanark	25	VI
Benn	Long — Lake Area	4	III
Hawley		1	VI
Mountain Grove		8	II
Smith		Olden	
Long Lake Mine	Olden	3	V,VI
Slave Lake	Sheffield	10,11	XV,XVI

Trench 1 (Figure 6) contains a milky to glassy quartz vein that ranges from 10-20 cm up to 2-3 metres in width. The vein is sandwiched between a calc-silicate (actinolite-calcite-biotite+quartz) schist to the north and a calcitic marble to the south.

The vein is locally mineralized with up to 1% fine grained to clotty, disseminated, tetrahedrite, with minor chalcopyrite and pyrite. Three grab samples and 8 channel samples were collected from the trench. The best grab sample was 2060 ppb gold (221658), and the best channel sample was 1100 ppb gold over one metre (221685). Both samples were of quartz vein material.

Trench 2 (Figures 7a,b) contains a glassy to milky white quartz vein ranging in thickness from 1-3 metres. The vein is bordered by a calc-silicate (actinolite-calcite-biotite+quartz) schist to the north and calcitic marble to the south. The calc-silicate unit is overlain by an intermediate to felsic metavolcanic fragmental unit.

The vein locally contains up to 1% fine grained to clotty, disseminated tetrahedrite and pyrite, with minor chalcopyrite. Two grab samples and 4 channel samples were collected from the trench. The best grab sample was 12.7 grams/tonne gold from a gossan zone at the edge of the quartz vein (221653), and the best channel sample was 3737 ppb gold over 3.9 metres (221654-57). The channel sample was quartz vein material.

Trench 3 (Figures 8a,b) contains two quartz veins. The northern vein is 0.5-2 metres wide and contains minor calc-silicate material. This vein is bordered to the north by a calc-silicate (actinolite-calcite-biotite+quartz) schist and a calcitic marble to the south. The calc-silicate unit is overlain by a locally gossanous, felsic to intermediate metavolcanic fragmental unit.

The second vein is 1-2 metres wide and consists of glassy to milky white quartz. This vein is 11 metres south of the northern vein. The southern vein is bordered by dolomitic marble to the north and a calc-silicate unit to the south. The calc-silicate unit is overlain by a mafic fragmental unit.

The distribution of the lithologies and veins suggest that the two veins occur on the limbs of an anticlinal structure.

The northern vein contains minor to 1% fine grained to clotty, disseminated tetrahedrite, minor pyrite and traces of chalcopyrite. The southern vein contains up to 1% medium grained pyrite. Six grab and 11 channel samples were collected from the trench. The best grab sample was 28.52 g/t gold (221667), and the best channel sample was 15.9 g/t gold over 0.9 metres (221679). Both of these samples were from the northern vein. The best value from the southern vein was 640 ppb gold over 70 cm (221683).

Trench 4 (Figures 8a,b) contains a 0.5-3 metre wide glassy to milky white quartz vein. The vein is bordered by a calc-silicate (actinolite-calcite-biotite+quartz) schist to the north and a calcitic marble to the south. The calc-silicate unit is overlain to the north by

an intermediate to felsic metavolcanic fragmental unit.

The vein locally contains up to 1-2% disseminated to clotty tetrahedrite with minor pyrite and chalcopyrite. Two grab and 17 channel samples were collected from the trench. The best grab sample was 18.48 g/t gold (221687), and the best channel sample was 3139 ppb gold over 2.25 metres (221700-701). Both samples were quartz vein material.

Trench 5 (Figures 9a,b) contained only minor quartz which occurs in small lenses. Most of the trench was excavated in a gossanous felsic gneiss unit. Three grab samples were collected with the highest value being 35 ppb gold.

Trench mapping has outlined two quartz veins that appear to occur on opposite limbs of an anticlinal structure. The veins occur at the contact between a calc-silicate and marble unit. The calc-silicate unit may represent a reaction zone?

The northern vein is 0.1-3.0 metres wide, strikes at roughly 65-70 degrees and has been traced for over 135 metres. This vein has returned grab samples up to 28.52 g/t gold and channel samples up to 3737 ppb gold over 3.9 metres. The southern vein is poorly exposed and limited channel sampling has returned gold values up to 640 ppb over 0.7 metres.

#### **Grid Layout and Prospecting**

Four days were spent installing grids B, C, D, and E. Grid lines spaced at 100 metre intervals were installed over 4 zinc-lead anomalies in 'B' horizon soils (Figure 5). For further grid details see Appendix 3.

One day was spent prospecting grids B, C, and D. An additional day was spent prospecting grid E (Appendix 3). Prospecting data is presented on Maps 1 and 2 (Appendix 6). Twenty-six rock samples were collected from the four grids and processed at Chemex Laboratories in Mississauga. Each sample was jaw crushed and at least 400 grams pulverized to -150 mesh.

In 19 samples, 30 grams of pulverized material was analyzed for gold using a fire assay-atomic absorption technique. For 17 samples, 1.0 grams of powdered material was dissolved using an aqua regia digestion and the resulting solution was then analyzed for Sb, As, Bi, Cu, Pb, Hg, Mo, Ag, and Zn using an ICP technique. For 6 samples, 1.0 grams of material was fused and then analyzed using an ICP technique for 10 major oxides, 7 trace elements, and a loss on ignition (LOI) was also calculated. Sample descriptions and analytical results are presented in Appendix 7.

Most of grid B is underlain by felsic to mafic gneiss with minor calcitic marble along the north edge of the grid. A garnetiferous horizon was locally noted. Two samples failed to yield any anomalous values.

Grid C appears to be underlain by interlayered mafic and

felsic gneiss to the north and calcitic marble to the south. Four samples were collected from the grid. A rubble crop sample of gossanous felsic gneiss with up to 1% sulfide (221727) returned a value of 1765 ppm zinc. Two other samples of gossanous felsic to intermediate gneiss (221725-26) were slightly anomalous in gold and silver, yielding values up to 50 ppb gold and 2 ppm silver.

Grid D appears to be underlain by dominantly calcareous rocks. A dolomitic marble unit containing quartz veins ranging from 0.25-1.0 metres was found on the claim line just west of line 6+50W, 0+00S. Unfortunately these veins were barren of mineralization.

Prospecting indicates that much of grid E is underlain by calcitic marble with minor dolomitic marble, both of which are cut by mafic dykes. Of the 16 samples collected, only one was anomalous in zinc (221721), yielding a value of 964 ppm. This was a float sample of gossanous felsic gneiss.

At the south end of line 2+00W a large 1.5-2 metre wide quartz vein was found in dolomitic marbles, but sampling did not yield any gold values.

Prospecting on this grid was also successful in locating three Selco trench sites (A,B, and C) and Selco drill hole Du-4 which intersected 2.68% zinc over 2.28 metres.

Of the six samples collected for whole rock analysis, results indicate that 4 are calcitic marbles (221717-18, 221720, 221723), one is a magnesium rich calcitic marble (221722) and the remaining sample is a siliceous calcitic marble.

#### Soil Sampling

Eight days were spent resampling 4 areas with anomalous zinc, lead and silver values in 'B' horizon soils (Appendix 3). Two hundred and twenty-six 'B' horizon soil samples were collected from grids B, C, D, and E (Figure 5).

The soils were generally dark brown to reddish-orange brown in colour, silty to sandy in texture, and locally contained mafic or carbonate rock fragments. The samples were usually collected from a depth of 5-30 cm.

The samples were processed at Chemex Laboratories in Mississauga, Ontario.

The soils were air dried in the field. At the lab, they were oven dried at 60 degrees celsius and then disaggregated and dry sieved to -80 mesh, the -80 mesh fraction was retained for analysis. A 1.0 gram sample was dissolved using an aqua regia digestion. The solution was then analyzed for Sb, As, Bi, Cu, Pb, Hg, Mo, Ag, and Zn using an ICP technique.

Lead and zinc values were plotted on 1:2500 maps and the data was then contoured (Maps 2-6, Appendix 8). Sample descriptions and

analytical results are presented in Appendix 9.

Forty-nine samples were collected from grid B on six 100 metre spaced lines at intervals along the lines of 12.5 metres. Contoured zinc and lead values (Maps 3 and 5) do not show any significant anomalies.

Fifty-seven samples were collected from grid C on six 100 metre spaced lines at intervals along the lines of 25 metres. Contoured zinc values (Map 3) show two weak anomalies. One occurs near the bottom of lines 0+00 and 1+00W with a peak value of 952 ppm. The other anomaly occurs half way up lines 3+00W and 4+00W with a peak value of 618 ppm.

Contoured lead values (Map 5) do not show any significant anomalies.

Fifty-eight samples were collected from grid D on six 100 metre spaced lines at intervals along the lines of 12.5 metres. Contoured zinc values (Map 4) show a broad NE-SW trending anomaly that extends from line 1+50W to 5+500W. The broad anomaly contains 4 peak anomalies with values up to 2030 ppm.

Contoured lead values (Map 6) show two smaller anomalies. One is centered at line 4+50W, 1+37.5S, with a peak value of 312 ppm. The other occurs at line 5+50W, 1+12.5S with a peak value of 156 ppm. These two lead anomalies are coincident with the zinc anomalies.

Sixty-two samples were collected from grid E on six 100 metre spaced lines at intervals along the lines of 25 metres. Contoured zinc values (Map 4) show a very broad anomaly (500 ppm contour) that extends SW from line 0+00 to 4+00W. The anomaly contains several peak anomalies with values up to 6390 ppm.

Contoured lead values (Map 6) show a broad anomaly (50 ppm contour) that extends SW from line 1+00W to 5+00W. Several spot anomalies are present within the broader anomaly and these have peak values up to 528 ppm. The lead anomalies are coincident with the zinc anomalies.

It should be noted that many samples from the various grids with high lead and zinc values also have high silver values (see Appendix 9).

#### IV. RECOMMENDATIONS

Additional prospecting, trenching and diamond drilling is warranted to further investigate the auriferous quartz veins at the James Occurrence.

Further prospecting should be carried out on grids C and E, where gossanous felsic gneiss rock samples yielded highly anomalous zinc values. More work is also recommended at the south end of line 2+00W on Grid E, where a 1.5-2 metre wide quartz vein was noted in dolomitic marble.

Detailed in-fill soil sampling is recommended over two zinc anomalies on grid C to further refine the anomalies.

Trenching and/or diamond drilling is recommended for the coincident zinc-lead anomalies on grids D and E.

Respectfully Submitted

Brian J. Christie

A handwritten signature in black ink that reads "Brian Christie". The signature is cursive and fluid, with "Brian" on top and "Christie" below it, slightly overlapping.

## References

- Black, S.J., 1987. Clarendon Sillimanite Occurrence. Ontario Geological Survey Open File Report.
- Carter, T.R., 1984. Metallogeny of the Grenville Province, Southeastern Ontario. Ontario Geological Survey, Open File Report 5515, 422 p.
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- Smith, B.L., 1958. Geology of the Clarendon-Dalhousie Area, p. 1-46 in Ontario Department of Mines Annual Report, Vol 65, Part 7.

## **Summary of Program Results**

Trench mapping outlined two quartz veins that appear to occur on opposite limbs of an anticlinal structure. The veins occur at the contact between a calc-silicate and marble unit. The calc-silicate unit may represent a reaction zone?

The northern vein is 0.1-3.0 metres wide, strikes at roughly 65-70 degrees and has been traced for over 135 metres. This vein has returned grab samples up to 28.52 g/t gold and channel samples up to 3737 ppb gold over 3.9 metres. The southern vein is poorly exposed and limited channel sampling has returned gold values up to 640 ppb over 0.7 metres.

On grids C and E, two gossanous felsic gneiss rock samples yielded highly anomalous zinc values up to 1764 ppm. A 1.5-2 metre wide quartz vein in dolomitic marbles was noted at the south end of line 2+00W on Grid E.

No soil anomalies were detected on grid B. Two zinc anomalies with peak values up to 952 ppm were discovered on grid C. Grid D contains a narrow but well defined zinc anomaly with peak values up to 2030 ppm. This anomaly also has two coincident lead anomalies with peak values up to 312 ppm. Grid E contains a large, broad, coincident zinc and lead anomaly with peak values up to 6390 ppm and 528 ppm respectively.

### Grid Data

Grid B: 6 lines totalling 600 metres.

Grid C: 6 lines totalling 1275 metres.

Grid D: 6 lines totalling 950 metres.

Grid E: 6 lines totalling 1875 metres.

Grid line lengths and locations are shown in Figure 5 and on Maps 1-6.  
Grid lines were installed using a compass and thread chain.  
The lines were flagged and blazed with stations at 25 metre intervals.  
Claim lines were used as baselines.

**APPENDIX 4 - Trench Maps**

**APPENDIX 5 – Trench Sample Descriptions and Analytical Results**

## SAMPLE SUMMARY LOC

Page 1 of 1

PROPERTY NAME: James Lake  
Property Location: Clarendon Twp. Ont  
Project No.: OPAP OP93-422

NTS Map No.: 31c/15  
Zone: Trench 1

Zone: Trench 1

Dates Taken: \_\_\_\_\_ By: \_\_\_\_\_



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Project: 0P93-422  
Comments:

Page No.: 1  
Total Pages: 1  
Certificate Date: 17-SEP-93  
Invoice No.: I9321229  
P.O. Number:  
Account: KGY

## CERTIFICATE OF ANALYSIS A9321229

SAMPLE	PREP CODE	Au ppb FA+AA												
JL-T1-221658	212	226	2060											
JL-T1-221659	212	226	105											
JL-T1-221660	212	226	520											
JL-T1-221661	212	226	85											
JL-T1-221662	212	226	395											
JL-T1-221663	212	226	860											
JL-T1-221664	212	226	80											
JL-T1-221665	212	226	375											
JL-T1-221666	212	226	275											
JL-T1-221684	212	226	475											
JL-T1-221685	212	226	1100											

CERTIFICATION:

*Adriana Alexandra*



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## CERTIFICATE

A9321229

CHRISTIE, BRIAN

Project: OP93-422

P.O. #:

Samples submitted to our lab in Mississauga, ON.  
This report was printed on 17-SEP-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
212 226	11 11	Geochem pulv, screen -150, roll 0-5 lb crush and split

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	11	Au ppb: Fuse 30 g sample	FA-AAS	5	10000

**SAMPLE SUMMARY LOG**

**PROPERTY NAME:** James Lake

**Property Location:** Clarendon Twp., Ont.

**Project No.:** OPAP OP93-422

NTS Map No.: 31C/15

Zone: Trench 2

**Dates Taken:** \_\_\_\_\_ **By:** \_\_\_\_\_



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Comments:

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Certificate Date: 20-SEP-93  
Invoice No.: 19321228  
P.O. Number:  
Account : KGY

## CERTIFICATE OF ANALYSIS

A9321228

SAMPLE	PREP CODE		Au ppb FA+AA	Au FA g/t										
JL-T2-221652	212	226	6500	-----										
JL-T2-221653	212	226	>10000	12.07										
JL-T2-221654	212	226	2750	-----										
JL-T2-221655	212	226	4670	-----										
JL-T2-221656	212	226	3530	-----										
JL-T2-221657	212	226	4000	-----										

CERTIFICATION

*Debra flexer*



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CHRISTIE, BRIAN

Project: OP93-422

P.O. #:

Samples submitted to our lab in Mississauga, ON.  
This report was printed on 20-SEP-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
212	6	Geochem pulv, screen -150, roll
226	6	0-5 lb crush and split

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983 997	6 1	Au ppb: Fuse 30 g sample Au g/t: 1 assay ton, grav.	FA-AAS FA-GRAVIMETRIC	5 0.07	10000 500.0

## SAMPLE SUMMARY LOG

Page 1 of 1

PROPERTY NAME: James Lake  
 Property Location: Clarendon Twp., Ont.  
 Project No.: OPAP OP93-422

NTS Map No.: 31C/15  
 Zone: Trench 3

Dates Taken: \_\_\_\_\_ By: \_\_\_\_\_

SAMPLE NO.	CLAIM NO.	GRID		SAMPLE CHARACTER	GEOLOGY/ALTERATION	SAMPLE DESCRIPTION	
		N	E	SAMPLE METHOD		MINERALIZATION	
T3-221667				o/c - Grab	Well fractured gtv vein with tetratedrite as fg clots and diss.	5% calc-silicate material, 2-3% tr cpy and py, minor malachite stain	
T3-221668				o/c - Grab	strongly gossanous felsic to intermediate gneiss, minor fg diss sulfide, weakly magnetic		
T3-221669				o/c - Grab	Glossy gv with minor fg diss	to clotty pyrite	
T3-221670				o/c - Grab	Glossy grey gv with minor to random diss, tr cpy?, trace to	1% mg clotty tetratedrite as minor malachite and azurite	
T3-221671				o/c - Grab	Glossy grey gv with 20-30% minor tetratedrite, tr py, cpy? trace malachite azurite.	calc-silicate material, very gossanous	
T3-221672				o/c - Grab	Very gossanous gv with	½-1% mg py	
T3-221673				channel - 30cm	Calcareous marble, 1% tetratedrite and cpy at flm contact.		
T3-221674				channel - 80cm	Glossy grey gv, recrystallized?	½-1% fg diss tetratedrite, 2% cpy, minor	
T3-221675				channel - 110cm	glassy grey recrystallized? gv, minor fg diss cpy and tetratedrite		
T3-221676				channel - 70cm	50% glassy gv, 50% Actinolite schist, locally trace sulphide		
T3-221677				Channel - 80cm	Glossy gv and 30% actinolite schist wallrock, locally trace sulfide		
T3-221678				Channel - 65cm	Glossy -grey gv, 20% actinolite schist minor to ½% diss cpy and tetratedrite (especially south part of sample)		
T3-221679				Channel - 90cm	Milky to glassy grey gv, up to 1% fg diss tetratedrite and cpy (especially at north end of sample)		
T3-221680				Channel - 130cm	Milky white gv, trace to minor cpy, and tetratedrite, well fractured		
T3-221681				channel - 65cm	30% glassy gv in marble, no apparent sulfides		
T3-221682				channel - 100cm	Glossy to milky gv, well fractured, gossanous on fractures, tr py, cpy, tetratedrite		
T3-221683				Channel - 70cm	Glossy to milky gv well fractured, wk hematite staining, minor to ½% cpy, tetratedrite and trace pyrite		



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Project: 0P93-422  
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 Certificate Date: 21-SEP-93  
 Invoice No.: I9321227  
 P.O. Number:  
 Account: KGY

## CERTIFICATE OF ANALYSIS A9321227

SAMPLE	PREP CODE	Au ppb FA+AA	Au FA g/t										
JL-T3-221667	212 226	>10000	28.52										
JL-T3-221668	212 226	150	-----										
JL-T3-221669	212 226	95	-----										
JL-T3-221670	212 226	8190	-----										
JL-T3-221671	212 226	2410	-----										
JL-T3-221672	212 226	285	-----										
JL-T3-221673	212 226	7000	-----										
JL-T3-221674	212 226	4770	-----										
JL-T3-221675	212 226	2570	-----										
JL-T3-221676	212 226	2810	-----										
JL-T3-221677	212 226	30	-----										
JL-T3-221678	212 226	2140	-----										
JL-T3-221679	212 226	>10000	15.94										
JL-T3-221680	212 226	2590	-----										
JL-T3-221681	212 226	25	-----										
JL-T3-221682	212 226	90	-----										
JL-T3-221683	212 226	640	-----										

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Project: OP93-422  
P.O. #:

Samples submitted to our lab in Mississauga, ON.  
This report was printed on 21-SEP-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
212 226	17 17	Geochem pulv, screen -150, roll 0-5 lb crush and split

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983 997	17 2	Au ppb: Fuse 30 g sample Au g/t: 1 assay ton, grav.	FA-AAS FA-GRAVIMETRIC	5 0.07	10000 500.0

## SAMPLE SUMMARY LOG

Page 1 of 1

PROPERTY NAME: James Lake  
 Property Location: Clarendon Twp., Ont.  
 Project No.: OPAP OP93-422

NTS Map No.: 31C/15  
 Zone: Trench 4

Dates Taken: \_\_\_\_\_ By: \_\_\_\_\_

SAMPLE NO.	CLAIM NO.	GRID		SAMPLE CHARACTER	GEOLOGY/ALTERATION	SAMPLE DESCRIPTION	MINERALIZATION
		N	E	SAMPLE METHOD			
T4-221686				0/c - Grab	Moderately siliceous, weakly calcitic	Felsic gneiss, tr to minor fg diss py	
T4-221687				0/c - Grab	Qtz vein with 1-2% cpy, 1-2%	tetrahedrite, minor py, malachite and azurite	
T4-221688				channel - 90cm	Actinolite - calcite - schist, locally tr	cpy + tr tetrahedrite as large blebs	
T4-221689				channel - 100cm	minor gtz veins		
					See sample 221688		
T4-221690				channel - 100cm	Milky to glassy gtz vein with trace	to minor fg diss. cpy	
T4-221691				channel - 130cm	Milky to glassy white gtz vein, minor to	locally $\frac{1}{2}$ % fg diss cpy + tetrahedrite	
T4-221692				channel - 100cm	wkly gossanous felsic aurill. up to	5% gtz veins, wallrock contains	
					1-2% fg diss sulfide po > py,	magnetic	
T4-221693				channel - 60cm	Milky to glassy white gtz vein,	well fractured, trace to minor fg	
					diss. cpy and tetrahedrite.		
T4-221694				channel - 30cm	Poor sample, deeply weathered, actinolite schist unit with trace tetrahedrite		
T4-221695				channel - 100cm	Milky to glassy gtz vein, well fractured, tr to minor fg diss. cpy, tr tetrahedrite		
T4-221696				channel - 100cm	See sample 221695		
T4-221697				channel - 100cm	See sample 221695		
T4-221698				channel - 100cm	Moderately assan zone in felsic oneiss	gossan due to 1% fg diss sulfide py > po	
T4-221699				channel - 30cm	Actinolite schist with 30-40% gtz veins	locally tr to minor fg diss cpy, tetrahedrite	
T4-221700				channel - 100cm	Well fractured, glassy to milky white	gtz vein, minor to locally $\frac{1}{2}$ % fg	
					diss cpy and tetrahedrite		
T4-221701				channel - 125cm	See sample 221701		
T4-221702				channel - 50cm	Glassy well fractured gtz vein, 1-2%	tetrahedrite as irregular veinlets,	
					$\frac{1}{2}$ % cpy, trace to minor pyrite		
T4-221703				channel - 60cm	Qtz vein (60%) tremolite schist (40%)	$\frac{1}{2}$ % diss fg cpy, trace tetrahedrite	
T4-221704				channel - 30cm	Well fractured glassy gtz vein, $\frac{1}{2}$ -1%	diss fg tetrahedrite, tr minor cpy	



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Invoice No.: 19321478  
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Account: KGY

## CERTIFICATE OF ANALYSIS

A9321478

SAMPLE	PREP CODE	Au ppb FA+AA	Au FA g/t									
JL-T4-221686	212 274	50	-----									
JL-T4-221687	212 274	>10000	18.48									
JL-T4-221688	212 274	705	-----									
JL-T4-221689	212 274	180	-----									
JL-T4-221690	212 274	480	-----									
JL-T4-221691	212 274	2440	-----									
JL-T4-221692	212 274	305	-----									
JL-T4-221693	212 274	795	-----									
JL-T4-221694	212 274	2460	-----									
JL-T4-221695	212 274	1100	-----									
JL-T4-221696	212 274	30	-----									
JL-T4-221697	212 274	540	-----									
JL-T4-221698	212 274	250	-----									
JL-T4-221699	212 274	770	-----									
JL-T4-221700	212 274	4000	-----									
JL-T4-221701	212 274	2450	-----									
JL-T4-221702	212 274	6870	-----									
JL-T4-221703	212 274	2230	-----									
JL-T4-221703A	212 274	3630	-----									

CERTIFICATE

*Holliwa Alexander*



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BROOKLIN, ON  
L0B 1C0

A9321478

Comments:

## CERTIFICATE

A9321478

CHRISTIE, BRIAN

Project: OP93-422  
P.O. #:

Samples submitted to our lab in Mississauga, ON.  
This report was printed on 28-SEP-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
212 274	19 19	Geochem pulv, screen -150, roll 0-15 lb crush and split

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983 997	19 1	Au ppb: Fuse 30 g sample Au g/t: 1 assay ton, grav.	FA-AAS FA-GRAVIMETRIC	5 0.07	10000 500.0

SAMPLE SUMMARY LOG

Page 1 of 1

**PROPERTY NAME:** James Lake

Property Location: Clarendon Twp., Ont.

**Project No.:** OPAP OP93-422

NTS Map No.: 31C/15

Zone: Trench 5

Dates Taken: \_\_\_\_\_ By: \_\_\_\_\_



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Ontario, Canada L4W 2S3  
PHONE: 416-624-2806

To: CHRISTIE, BRIAN

5 JAMES ST.  
BROOKLIN, ON  
L0B 1C0

Project : OP93-422  
Comments:

Page Number : 1  
Total Pages : 1  
Certificate Date: 23-SEP-93  
Invoice No. : I9321479  
P.O. Number :  
Account : KGY

## CERTIFICATE OF ANALYSIS

A9321479

SAMPLE	PREP CODE	Au ppb FA+AA											
JL-T5-221704	212	274	< 5										
JL-T5-221705	212	274	25										
JL-T5-221706	212	274	35										

*Brian Alexander*  
CERTIFICATION



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Comments:

## CERTIFICATE

A9321479

CHRISTIE, BRIAN

Project: OP93-422  
P.O. #:

Samples submitted to our lab in Mississauga, ON.  
This report was printed on 28-SEP-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
212 274	3 3	Geochem pulv, screen -150, roll 0-15 lb crush and split

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	3	Au ppb: Fuse 30 g sample	FA-AAS	5	10000

**APPENDIX 6 - Prospecting Maps**

Legend for Maps 1 and 2

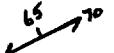
 Outcrop

 Claim Post

 Line Post

 Swamp

JL-221725 Rock Sample

 Foliation

R/C Rubble Crop

TR 1 Trench Designation

**APPENDIX 7 – Prospecting Sample Descriptions and Analytical Results**

**SAMPLE SUMMARY LOC**

Page 1 of 1

PROPERTY NAME: James Lake Property  
Property Location: Clarendon Twp., Ont.  
Project No.: 0993-422

**NTS Map No.:** 31C/15  
**Zone:** Grid B

### Parties to a contract

Dates Taken: Oct 11/93 By: E. Christie

## **SAMPLE SUMMARY LOG**

Page 1 of 1

PROPERTY NAME: James Lake Property

Property Location: Clarendon Twp., Ont.

**Project No.:** OP93-422

NTS Map No.: 31C / 15  
Zone: Grid C

Dates Taken: Oct 11/93 By: B. Christie

**SAMPLE SUMMARY LOG**

Page    of

PROPERTY NAME: James Lake Property  
Property Location: Clarendon Twp., Ont.  
Project No.: OP93 - 422

NTS Map No.: 31C/15  
Zone: Grid D

Dates Taken: Oct 11/93 By: B. Christie

## SAMPLE SUMMARY LOG

Page 1 of 1

PROPERTY NAME: James Lake Property  
 Property Location: Clarendon Twp., Ont.  
 Project No.: OP93-422

NTS Map No.: 31C/15  
 Zone: Grid E

Dates Taken: Oct 2/93 By: B. Christie

SAMPLE NO.	CLAIM NO.	GRID		SAMPLE CHARACTER	SAMPLE METHOD	GEOLOGY/ALTERATION	SAMPLE DESCRIPTION		MINERALIZATION
		N	E						
JL-221707	1191204	3+85S	2+00W	O/c - Grab		Milky to glassy quartz vein,		trace tremolite (Au only)	
JL-221708	1191204	3+85S	2+00W	O/c - Grab		Qtz vein (40%) and tremolite (60%)		(Au only)	
JL-221709	1191204	3+85S	2+00W	O/c - Grab		As in 221708 (Au only)			
JL-221710	1191204	3+85S	2+00W	O/c - Grab		Qtz lens in dolomitic		marble (Au only)	
JL-221711	1191204	3+75S	1+80W	O/c - Grab		Qtz vein (60%) and tremolite (40%)		(Au only)	
JL-221712	1191204	3+85S	1+89W	R/c - Grab		Gossanous Qtz vein, trace to		minor fg diss pyrite (Au only)	
JL-221713	1191204	1+48S	3+99W	O/c - Grab		Mg, weakly banded calcitic		marble (ICP only)	
JL-221714	1191204	2+50S	2+98W	Float - grab		Rusty felsic volcanic, very sugary		with up to 1% diss py in seams	
JL-221715	1191204	3+30S	1+65W	O/c - Grab		Fg dolomitic marble with gtz veins up to 0.5m., sample is 80% glossy to milky white qu, 20% tremolite, upto 1% weathered sulfides (Au and ICP)			
JL-221716	1191204	1+75S	1+11W	Float - Grab		Mafic metavolcanic?, moderately px and po, moderate biotite		siliceous with up to 2-3% sulfide, (Au and ICP)	
JL-221717	1191204	1+09S	2+40W	O/c - Grab		Mg banded calcitic marble with		trace pyrite (WR and ICP)	
JL-221718	1191204	1+23S	2+42W	R/c - Grab		Mg - cg calcitic marble, moderately weathered, minor to 1% pyrite (WR and ICP)			
JL-221719	1191204	1+48S	2+46W	Float - grab		Mg Calcitic marble, minor disseminated py (WR and ICP)			
JL-221720	1191204	1+40S	3+23W	O/c - grab		Mg banded calcitic marble, trace sulfide (WR and ICP)			
JL-221721	1191204	2+55S	3+33W	Float - grab		Strongly gossanous float very disseminated pyrite (Au and ICP)		siliceous, almost cherty, 1% ICP)	
JL-221722	1191204	2+64S	3+34W	O/c - grab		Fg banded dolomitic marble.		(WR and ICP)	



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Project: OP93-422  
Comments:

Page No.: 1  
Total Pgs.: 1  
Certificate Date: 01-DEC-93  
Invoice No.: 19325384  
P.O. Number:  
Account: KGY

## CERTIFICATE OF ANALYSIS A9325384

SAMPLE	PREP CODE		Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
JL 221713	205 274		< 0.2	102	2	8	< 1	< 1	32	6	52	

CERTIFICATION:

*Stant Bichler*



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L0B 1C0

A9325384

Comments:

## CERTIFICATE

A9325384

CHRISTIE, BRIAN

Project: OP93-422  
P.O. #:

Samples submitted to our lab in Mississauga, ON.  
This report was printed on 1-DEC-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	1	Geochem ring to approx 150 mesh
274	1	0-15 lb crush and split
229	1	ICP - AQ Digestion charge

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	1	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2120	1	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2123	1	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2128	1	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2131	1	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2136	1	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2140	1	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	1	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2149	1	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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To: CHRISTIE, BRIAN

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 L0B 1C0

Project : OP93-422  
 Comments:

Page Number : 1  
 Total Pages : 1  
 Certificate Date: 02-DEC-93  
 Invoice No. : I9325380  
 P.O. Number :  
 Account : KGY

## CERTIFICATE OF ANALYSIS A9325380

SAMPLE	PREP CODE	Al2O3	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SiO2	TiO2	LOI	TOTAL	Ba	Rb	Sr	Nb	Zr	Y
		%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm
JL 221717	205 274	0.45	52.40 < 0.01	0.37	0.21	0.34	0.05	0.03 < 0.01	4.98	0.01	40.70	99.56	60	< 5	810	< 10	10	< 10		
JL 221718	205 274	3.01	46.62 < 0.01	0.88	1.42	0.35	0.01	0.07	0.02	11.43	0.11	35.69	99.62	130	5	730	< 10	30	< 10	
JL 221719	205 274	5.10	32.44 < 0.01	1.91	4.04	0.37	0.02	0.09	0.10	29.45	0.23	24.22	97.98	310	15	700	< 10	40	< 10	
JL 221720	205 274	1.04	51.33 < 0.01	0.50	0.50	1.14	0.03 < 0.01	< 0.01	5.15	0.03	39.83	99.58	140	< 5	540	< 10	10	< 10		
JL 221722	205 274	0.54	30.28 < 0.01	1.00	0.17	20.96	0.07 < 0.01	0.10	2.13	0.02	45.03	100.30	10	< 5	110	< 10	< 10	< 10	< 10	
JL 221723	205 274	1.67	49.74 < 0.01	0.62	0.67	1.00	0.02	0.01 < 0.01	7.27	0.06	38.85	99.93	20	< 5	260	< 10	10	< 10		

CERTIFICATION: *Hart Bichler*



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A9325380

Comments:

## CERTIFICATE

**A9325380**

CHRISTIE, BRIAN

Project: OP93-422  
 P.O. #:

Samples submitted to our lab in Mississauga, ON.  
 This report was printed on 2-DEC-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	6	Geochem ring to approx 150 mesh
274	6	0-15 lb crush and split
200	6	Whole rock fusion

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
594	6	Al2O3 %: Whole rock	ICP-AES	0.01	99.99
588	6	CaO %: Whole rock	ICP-AES	0.01	99.99
590	6	Cr2O3 %: Whole Rock	ICP-AES	0.01	100.00
586	6	Fe2O3(total) %: Whole rock	ICP-AES	0.01	100.00
821	6	K2O %: Whole rock	ICP-AES	0.01	99.99
593	6	MgO %: Whole rock	ICP-AES	0.01	99.99
596	6	MnO %: Whole rock	ICP-AES	0.01	99.99
599	6	Na2O %: Whole rock	ICP-AES	0.01	99.99
597	6	P2O5 %: Whole rock	ICP-AES	0.01	99.99
592	6	SiO2 %: Whole rock	ICP-AES	0.01	99.99
595	6	TiO2 %: Whole rock	ICP-AES	0.01	99.99
475	6	L.O.I. %: Loss on ignition	FURNACE	0.01	99.99
540	6	Total %	CALCULATION	0.01	105.00
891	6	Ba ppm	ICP	10	10000
1067	6	Rb ppm	ICP	5	10000
898	6	Sr ppm	ICP	10	10000
973	6	Nb ppm	ICP	10	10000
978	6	Zr ppm	ICP	10	10000
974	6	Y ppm	ICP	10	10000



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Project: OP93-422  
 Comments:

Page No.: 1  
 Total Pcs.: 1  
 Certificate Date: 26-NOV-93  
 Invoice No.: 19325382  
 P.O. Number:  
 Account: KGY

## CERTIFICATE OF ANALYSIS A9325382

SAMPLE	PREP CODE	Au ppb FA+AA											
JL 221707	205	274	< 5										
JL 221708	205	274	< 5										
JL 221709	205	274	< 5										
JL 221710	205	274	< 5										
JL 221711	205	274	< 5										
JL 221712	205	274	< 5										
JL 221714	205	274	< 5										
JL 221715	205	274	5										
JL 221716	205	274	5										
JL 221721	205	274	< 5										
JL 221724	205	274	10										
JL 221725	205	274	45										
JL 221726	205	274	50										
JL 221727	205	274	35										
JL 221728	205	274	< 5										
JL 221729	205	274	< 5										
JL 221730	205	274	< 5										
JL 221731	205	274	< 5										
JL 221732	205	274	< 5										

CERTIFICATE  
*Julieann Alexander*



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Comments:

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A9325382

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Project: OP93-422  
P.O. #:

Samples submitted to our lab in Mississauga, ON.  
This report was printed on 26-NOV-93.

SAMPLE PREPARATION		
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	19	Geochem ring to approx 150 mesh
274	19	0-15 lb crush and split

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	19	Au ppb: Fuse 30 g sample	FA-AAS	5	10000



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Project: OP93-422  
 Comments:

Page N. : 1  
 Total Pages : 1  
 Certificate Date: 29-NOV-93  
 Invoice No. : I9325383  
 P.O. Number :  
 Account : KGY

## CERTIFICATE OF ANALYSIS A9325383

SAMPLE	PREP CODE	Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
JL 221714	299 229	0.4	192	< 2	8	< 1	17	42	8	112	
JL 221716	299 229	2.0	66	< 2	151	2	5	22	12	286	
JL 221717	299 229	< 0.2	12	< 2	8	< 1	1	28	8	70	
JL 221718	299 229	0.2	28	< 2	4	< 1	3	18	6	32	
JL 221719	299 229	0.4	124	< 2	24	1	25	110	10	218	
JL 221720	299 229	0.2	28	< 2	13	< 1	1	124	16	276	
JL 221721	299 229	2.8	390	< 2	34	1	10	258	26	964	
JL 221722	299 229	0.2	2	< 2	14	< 1	2	66	6	38	
JL 221723	299 229	0.2	12	< 2	6	< 1	< 1	18	6	6	
JL 221724	299 229	0.2	14	< 2	13	< 1	< 1	16	4	44	
JL 221725	299 229	2.0	8	< 2	129	1	< 1	< 2	12	58	
JL 221726	299 229	2.0	38	< 2	167	< 1	11	< 2	< 2	78	
JL 221727	299 229	1.2	34	< 2	82	1	39	< 2	6	1765	
JL 221731	299 229	0.2	4	< 2	19	1	< 1	< 2	4	40	
JL 221732	299 229	0.2	14	< 2	17	< 1	1	4	2	36	

CERTIFICATION: Brian Bickler



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A9325383

Comments:

## CERTIFICATE

A9325383

CHRISTIE, BRIAN

Project: OP93-422  
 P.O. #:

Samples submitted to our lab in Mississauga, ON.  
 This report was printed on 29-NOV-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
299	15	Pulp; prepped on other workorder
229	15	ICP - AQ Digestion charge

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	15	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2120	15	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2123	15	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2128	15	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2131	15	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2136	15	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2140	15	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	15	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2149	15	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

**APPENDIX B - Soil Maps**

**APPENDIX 9 – Soil Sample Descriptions and Analytical Results**

### Soil Notes

O/C	Outcrop
R/C	Rubble crop
C/O	Cut over
ovb	Overburden
carb	Carbonate
sed	Sedimentary
frags	Fragments
brn	Brown
dk	Dark
bio	Biotite
qv	Quartz vein(s)

Mixed Hardwood: Beech, ash, elm, maple, birch

Slope direction: always measured facing north.

: looking downwards is negative, looking upwards is positive.

Soil samples were collected with a short handled (3 ft.) garden spade.

NTS Map 31 C / 15  
 Project James Lake  
 Area, Prov. Clarendon Twp, Ont.  
 Photo No.  
 Prospect Grid B

Page No. 1  
 Date October 9, 1993  
 Weather cloudy with rain  
 Sampler B. christie  
 Sample No. Prefix 'B'

## GEOCHEMICAL SOIL SAMPLING

Sample Number	Grid Reference		Sample Depth (m)	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction Facing North	Remarks, eg: terrain, e/c's, drainage, etc.	Lab. Results		
	Line	Station											
1+50E	0+00	0.30	B	dark Brn	30		silty-sand, 20% rx frags	maple cedar and fir	-10°	mafic schist RIC			
	0+12.53	0.25	B	orange Brn	20		"	"	-2°	R/C area; sample 13 4m E of line			
0+25S	0.30	B	Red Brn	20			silty-sand minor rx frags	"	-2°	R/C area, 1m east of line			
0+37.53	0.35	B	orange Brn	20			"	"	-4°	R/C - O/C area felsic gneiss?			
0+50S	0.30	B	Red Brn	20			silty-sand 10-20% rx frags	"	-7°	R/C area?			
0+62.53	0.10	B	dark Brn	35			silty-sand, 20-30% rx frags	maple	-1°	R/C area, 2m east poor sample			
0+75S	0.25	B	Red Brn	30			silty-sand minor rx frags	"	+2°	R/C area			
0+87.53	0.35	B	Yellow Brn	25			sandy silt minor rx frags	"	+2°	R/C - O/C area			
1+00S	0.20	B	dark Brn	35			silty-sand 20% mafic frags	"	0	R/C area, 2 metres east of line			
0+50E	0+00	0.15	B	light Brn	20		sandy silt with clay	cedar and fir	-3	R/C area, poor sample			
	0+12.53	0.15	B	orange Brn	25		silty sand	"	-15	O/C - felsic gneiss poor sample			
0+25S	0.15	B	Red Brn	20			sandy silt	cedar, fir + maple	-15°	O/C felsic gneiss			
0+37.53	0.15	B	Red Brn	20			sandy silt	maple + fir	-5°	O/C area - felsic gneiss			
0+50S	0.20	B	Red Brn	20			silty sand	maple, cedar fir	0	R/C area			
0+62.53	0.25	B	dk Brn	20			silty sand with 10% rx frags	"	-7	R/C area			
0+75S	0.25	B	dark Brn	40			silty-sand, 50% rx frags	Maple and fir	-5°	O/C area, mafic gneiss poor sample			
0+87.53	0.15	B	Red Brn	30			silty sand abundant rx frags	"	-2°	O/C area, felsic gneiss poor sample			
1+00S	0.25	B	Red Brn	30			silty-sand, 20-30% large mafic frags	"	+1	O/C area - mafic gneiss			

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

NTS Map 31C / 15  
Project James Lake  
Area, Prov. Clarendon Twp. Ont  
Photo No. \_\_\_\_\_  
Prospect Grid B

Page No. 2  
Date October 9, 1993  
Weather cloudy with rain  
Sampler B Christie  
Sample No. Prefix 'B'

## **GEOCHEMICAL SOIL SAMPLING**

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

NTS Map 31C/15  
 Project James Lake  
 Area, Prov. Clarendon, Twp., Ont.  
 Photo No.  
 Prospect Grid B

Page No. 1  
 Date October 10, 1993  
 Weather Cloudy and cold  
 Sampler B. Christie  
 Sample No. Prefix 'B'

## GEOCHEMICAL SOIL SAMPLING

Sample Number	Grid Reference		Sample Depth (m)	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction Facing North	Remarks, eg: terrain, e/c's, drainage, etc.	Lab. Results
	Line	Station	(m)								
1+50w	0+00	—	N/S	—	yellow Brn	15	sandy with a clay component	cedar - young	0	No sample grassy swamp	
0+12.5s	0.30	B?	—	orange Brn	20	silty sand, 10-20% rx frags	cedar and Fir	-5	low area went to grassy swamp		R/C area on hillside poor sample
0+25s	0.10	B	—	red Brn	20	silty sand	"	-20	R/C area Felsic gneiss just north of sample		
0+37.5s	0.20	B?	—	red Brn	20	Abundant rx frags	cedar, fir	-10	R/C - R/C area felsic gneiss 1m.s. sample 2m west of station		
0+50s	0.20	B	—	orange Brn	25	silty sand, 10-20% felsic gneiss frags	birch, maple	-7	R/C - R/C area felsic gneiss poor sample		
0+62.5s	0.25	B	—	—	—	—	"	-10	R/C area - felsic gneiss poor sample		
0+75s	0.15	B?	dk	orange Brn	30	silty sand mod rx frags	"	+3	Felsic gneiss R/C sample 3m east of station		
0+87.5s	0.25	B	—	orange Brn	20	"	Maple	0	R/C area Felsic gneiss all around		
1+00s	0.25	B	—	orange Brn	20	sandy silt	"				
1+50w	0+00	0.30	B	red Brn	30%	silty sand minor rx frags-	cedar, fir and maple	-3°	R/C area?		
0+12.5s	0.30	B	yellow Brn	10%	—	sandy with some silt	"	0	deep overburden?		
0+25s	0.30	B	red Brn	25	silty sand, 10-20% rx frags	"	-1	deep overburden?			
0+37.5s	0.25	B	red Brn	20	sandy silt, 20%	"	-6	R/C area - felsic gneiss? large blocks in hole	1/3 the way up a north facing slope		
0+50s	0.20	B	light Brn	25	abundant mafic frags	"	-25	R/C area, mafic-felsic gneiss			
0+62.5s	0.25	B	red Brn	20	sandy silt 10-20% rx frags	"	-5	R/C area, mafic to felsic gneiss			
0+75s	0.25	B	red Brn	30	silty-sand mod rx frags	"	-5	R/C area, poor sample			
0+87.5s	0.25	B	red Brn	20	"	"	-7	R/C area, felsic gneiss 3m west of station			
1+00s	0.30	B	orange Brn	25	"	"	0	R/C area, felsic gneiss sample 2m west of line	3m east of line		

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

NTS Map 31C/15  
Project James Lake  
Area, Prov. Clarendon Twp., On  
Photo No.   
Prospect Grid 'B'

## **GEOCHEMICAL SOIL SAMPLING**

Page No. 2  
Date October 10, 1993  
Weather Cloudy and cold.  
Sampler B. Christie  
Sample No. Prefix 'B'

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)



# Chemex Labs Ltd.

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To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

Page No.: 1  
 Total Pages: 2  
 Certificate Date: 27-OCT-93  
 Invoice No.: 19323436  
 P.O. Number:  
 Account: KGY

Project: OP93-422  
 Comments:

## CERTIFICATE OF ANALYSIS

A9323436

SAMPLE	PREP CODE		Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
BL0+50E 0+00.0S	201	229	< 0.2		2	7	< 1	1	< 2	< 2	60	
BL0+50E 0+12.5S	201	229	< 0.2		2	31	< 1	1	< 4	< 2	80	
BL0+50E 0+25.0S	201	229	< 0.2		8	21	< 1	2	< 6	< 2	76	
BL0+50E 0+37.5S	201	229	< 0.2		16	15	< 1	< 1	< 2	< 2	62	
BL0+50E 0+50.0S	201	229	< 0.2		2	28	< 1	1	< 2	4	98	
BL0+50E 0+62.5S	201	229	< 0.2		16	19	< 1	1	< 2	4	106	
BL0+50E 0+75.0S	201	229	< 0.2		2	15	< 1	1	< 2	4	52	
BL0+50E 0+87.5S	201	229	< 0.2		2	42	< 1	1	< 2	< 2	120	
BL0+50E 1+00.0S	201	229	< 0.2		2	66	< 1	1	< 2	< 2	124	
BL0+50W 0+00.0S	201	229	< 0.2		164	47	< 1	2	10	< 2	208	
BL0+50W 0+12.5S	201	229	0.2		6	15	< 1	< 1	6	< 2	74	
BL0+50W 0+25.0S	201	229	< 0.2		28	42	< 1	2	< 2	2	178	
BL0+50W 0+37.5S	201	229	< 0.2		8	18	< 1	2	< 2	4	98	
BL0+50W 0+50.0S	201	229	< 0.2		4	30	< 1	2	< 2	< 2	154	
BL1+50E 0+00.0S	201	229	< 0.2		12	26	< 1	< 1	2	< 2	146	
BL1+50E 0+12.5S	201	229	< 0.2		14	10	< 1	< 1	< 2	< 2	70	
BL1+50E 0+25.0S	201	229	< 0.2		4	20	< 1	< 1	< 4	< 2	68	
BL1+50E 0+37.5S	201	229	< 0.2		2	24	< 1	1	< 2	< 2	66	
BL1+50E 0+50.0S	201	229	< 0.2		6	23	< 1	1	< 2	< 2	94	
BL1+50E 0+62.5S	201	229	< 0.2		6	14	< 1	1	< 2	< 2	144	
BL1+50E 0+75.0S	201	229	< 0.2		8	18	< 1	1	8	4	92	
BL1+50E 0+87.5S	201	229	< 0.2		10	30	< 1	3	6	2	64	
BL1+50E 1+00.0S	201	229	< 0.2		4	18	< 1	2	< 2	< 2	114	
BL1+50W 0+12.5S	201	229	< 0.2		18	34	< 1	< 1	< 2	< 2	58	
BL1+50W 0+25.0S	201	229	< 0.2		16	47	< 1	2	< 2	< 2	128	
BL1+50W 0+39.5S	201	229	< 0.2		8	17	< 1	< 1	8	< 2	130	
BL1+50W 0+50.0S	201	229	< 0.2		2	12	< 1	2	6	< 2	110	
BL1+50W 0+62.5S	201	229	< 0.2		2	37	< 1	1	< 2	< 2	96	
BL1+50W 0+75.0S	201	229	< 0.2		30	26	< 1	1	< 2	< 2	106	
BL1+50W 0+87.5S	201	229	< 0.2		4	25	< 1	1	6	< 2	66	
BL1+50W 1+00.0S	201	229	< 0.2		6	28	< 1	< 1	10	< 2	60	
BL2+50W 0+00.0S	201	229	< 0.2		56	13	< 1	2	16	2	150	
BL2+50W 0+12.5S	201	229	4.0		44	59	< 1	1	54	22	92	
BL2+50W 0+25.0S	201	229	0.2		14	24	< 1	2	8	< 2	100	
BL2+50W 0+37.5S	201	229	< 0.2		2	72	< 1	< 1	< 2	< 2	114	
BL2+50W 0+50.0S	201	229	< 0.2		2	58	< 1	< 1	< 2	4	56	
BL2+50W 0+62.5S	201	229	< 0.2		2	27	< 1	< 1	2	< 2	76	
BL2+50W 0+75.0S	201	229	0.2		2	17	< 1	1	2	2	74	
BL2+50W 0+87.5S	201	229	0.2		2	57	< 1	1	< 2	2	108	
BL2+50W 1+00.0S	201	229	< 0.2		2	12	< 1	< 1	< 2	< 2	58	

CERTIFICATION:

*Mark Bichler*



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5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

Project: OP93-422  
 Comments:

Page No.: 2  
 Total Pgs.: 2  
 Certificate Date: 27-OCT-93  
 Invoice No.: 19323436  
 P.O. Number:  
 Account: KGY

## CERTIFICATE OF ANALYSIS A9323436

SAMPLE	PREP CODE	Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
BL3+50W 0+00.0S	201 229	1.2	34	< 2	52	< 1	1	36	6	290	
BL3+50W 0+12.5S	201 229	0.4	110	< 2	27	< 1	8	42	6	152	
BL3+50W 0+25.0S	201 229	0.2	< 2	< 2	32	< 1	3	10	2	96	
BL3+50W 0+37.5S	201 229	2.0	120	< 2	126	< 1	4	76	12	348	
BL3+50W 0+50.0S	201 229	< 0.2	< 2	< 2	3	< 1	1	38	12	46	
BL3+50W 0+62.5S	201 229	0.2	< 2	< 2	54	< 1	2	6	4	82	
BL3+50W 0+75.0S	201 229	< 0.2	< 2	< 2	32	< 1	1	2	4	130	
BL3+50W 0+87.5S	201 229	< 0.2	< 2	< 2	36	< 1	1	6	2	208	
BL3+50W 1+00.0S	201 229	< 0.2	6	< 2	33	< 1	1	2	< 2	68	

CERTIFICATION: *Walt Bechler*



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To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

A9323436

Comments:

## CERTIFICATE

A9323436

CHRISTIE, BRIAN

Project: OP93-422  
 P.O. #:

Samples submitted to our lab in Mississauga, ON.  
 This report was printed on 27-OCT-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	49	Dry, sieve to -80 mesh
229	49	ICP - AQ Digestion charge

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	49	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2120	49	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2123	49	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2128	49	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2131	49	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2136	49	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2140	49	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	49	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2149	49	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

NTS Map 31C/15  
 Project James Lake  
 Area, Prov. Clarendon Twp.  
 Photo No. \_\_\_\_\_  
 Prospect Grid 'C'

## GEOCHEMICAL SOIL SAMPLING

Page No. 1  
 Date September 3, 1993  
 Weather Cloudy with showers  
 Sampler B. Christie  
 Sample No. Prefix 'C'

Sample Number	Grid Reference		Sample Depth	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction	Remarks, eg: terrain, o/c's, drainage, etc.	Lab. Results		
	Line	Station	(m)										
	1+00W	2+50N	0.25	B	Red Brn	15	sandy silt no frags	mixed mature Hardwood	-3	probably deep ovB			
		2+25N	0.35	B	light Brn	10	sandy silt no frags	"	+2	probably deep ovB			
		2+00N	0.30	B	orange Brn	10	sandy silt 20%	"	-10	R/C area 3m west of line			
					orange Brn		clay frags						
		1+75N	0.30	B	orange Brn	10	sandy silt, 10% small frags?	"	0	R/C area			
		1+50N	0.20	B	yellow Brn	10	sandy silt, 40% cl rx frags	"	-10	o/c area - weathered bedrock sample			
		1+25N	0.25	B	yellow Brn	10	"	"	0	o/c area? weathered bedrock?			
		1+00N	0.30	B	yellow Brn	15	silty-sand no frags	"	+12	R/C area?			
		0+75N	0.10	B?	Dark Brn	40	sandy silt with humus	"	+6	o/c area, poor sample, A+B horizons mixed, bedrock			
		0+50N	0.15	B	yellow Brn	20	sandy silt with 20% rock frags	young dense maple C/D	+2	o/c area? with 10% sulphide			
		0+25N	0.30	B	red Brn	20	sandy silt 20% weathered rx frags	"	-2	R/C area			
		0+00	0.25	B	yellow Brn	10	silt with minor clay	open cutover	+5	old skidder Rd. deep ovB?			
	HOW	3+00N	0.25	B	orange Brn	20	sandy silt, 10% small rx frags	mixed mature hardwoods	-2	possible R/C area			
		2+75N	0.35	B?	light Brn	25	silty-clay minor rx frags	"	+3	low area, 2m west of line? poor sample possibly some A horizon			
		2+50N	0.25	B	orange Brn	20	sandy silt, 20% small rx frags	"	-5°	R/C area?			
		2+25N	0.25	B	orange Brn	20	sandy silt 20% small rx frags	"	-3	R/C area			
		2+00N	0.30	B	light orange Brn	15	sandy silt minor frags	"	-1	Base of an o/c area			
		1+75N	0.40	B	"	15	sandy silt no frags	"	-5	deep ovB?			
		1+50N	0.30	B	orange Brn	20	sandy silt 30% rx frags	"	-1	o/c area - gossanoitic			
		1+25N	0.25	B	orange Brn	20	sandy silt with 10% rx frags	"	-3	R/C area?			
		1+00N	0.20	B	red Brn	20	sandy silt, 20% clay rx frags	"	+10	o/c area south side of o/c ridge			
		0+75N	0.20	B	red Brn	20	sandy silt 30% clay rx frags	"	+7	R/C area? o/c area?			

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)



NTS Map 31C/15  
 Project James Lake  
 Area, Prov. Clarendon Twp.  
 Photo No. \_\_\_\_\_  
 Prospect Grid 'C'

Page No. 1  
 Date September 4, 1993  
 Weather Cloudy with sunny periods  
 Sampler B. Christie  
 Sample No. Prefix 'C'

## GEOCHEMICAL SOIL SAMPLING

Sample Number	Grid Reference		Sample Depth	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction Facing North	Remarks, e.g: terrain, o/c's, drainage, etc.	Lab. Results		
	Line	Station	(m)										
	5t00W	0t00	0.35	B	Light Brn	10	sandy silt, 20% mafic frags	Raspberry cane c/o	0	old skidder Rd overlies a gravel bed?			
		0t25N	0.25	B	Light Brn	"	"	mixed Hardwood c/o	0	R/c? gravel bed?			
		0t50N	0.15	B	Brn	30	sandy silt	mixed Hardwood	+6	over bedrock 2m E of line			
		0t75N	0.15	B	Light Brn	20	silty sand	young maple + birch c/o. dense young maple o/c	+18	possible R/c area			
		1t00N	0.40	B	Red Brn	10	silty sand	dense young maple ash, c/o	+2	deep OVB	— possible esker		
		1t25N	0.40	B	Light Brn	10	silty sand	deep ocb - outwash?	0	marginal sample.	— possible esker.		
	4t00W	1t75N	0.10	B	Red Brn	30	sandy silt, 20% cb frags	Fir, mixed young hardwood, c/o.	+5	2m east of stream over R/c - ca marble?			
		1t50N	0.10	B	Red Brn	20	sandy silt, 10% mafic frags	Fir, hemlock mixed Hardwood	-2	over R/c			
		1t25N	0.15	B	Dark Brn	30	sandy silt, 20% below grass frags	mixed Hardwood edge of c/o.	+5	R/c Talus slope	3/4 down a +30° East slope		
		1t00N	0.25	B	Dark Brn	30	silt, with clay no frags	mixed Hardwood c/o	0	Deep OVB			
		0t75N	0.20	B	Light Brn	10	sandy silt	Raspberry cane c/o	-1	Deep OVB on skidder trail			
		0t50N	0.15	B	Light Brn	20	sandy silt, 20% cb frags	Fir, mixed Hardwood c/o.	-12	o/c area - cb unit			
		0t25N	0.10	B	Red Brn	30	sandy silt, 20% cb frags	Fir, mixed Hardwood	+7	o/c area			
		0t00	0.20	B	"	"	sandy silt, 20% cb frags	Fir, mixed Hardwood c/o	+2	R/c area	3m west of station		

(Indicate: e.g. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

NTS Map 31C/15  
 Project James Lake  
 Area, Prov. Clarendon Twp.  
 Photo No.  
 Prospect GRID 'C'

Page No. 2  
 Date September 4, 1993  
 Weather Cloudy with sunny periods  
 Sampler B. Christie  
 Sample No. Prefix 'C'

## GEOCHEMICAL SOIL SAMPLING

Sample Number	Grid Reference		Sample Depth	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction Facing North	Remarks, eg: terrain, e/c's, drainage, etc.	Lab. Results		
	Line	Station	(m)										
	3+00W	0+00	0.10	B	Red Brn	20	sandy silt, minor mafic frags	cedar, fir and Hemlock	+22	R/C area, talus slope			
		0+25N	0.15	B	Red Brn	20	sandy silt, 20% mafic frags	Fir, mixed Hardwood	+22	R/C area, talus			
		0+50N	0.15	B	Red Brn	30	silty sand, 20% mafic frags	mixed Hardwood c/o	-10	Bedrock area			
		0+75N	0.10	B	Red Brn	30	silty sand, minor mafic frags	cedar and fir	-8	R/C area			
		1+00N	0.30	B	Light Brn	10	silty sand, 20% cb frags	cedar, raspberry c/o	-2	Deep ovB			
		1+25N	0.10	B	Red Brn	10	silty sand, 10% mafic frags	mixed Hardwood c/o	0	o/c area / R/C			
		1+50N	0.30	B	Light Red Brn	10	silty sand, 10% cb frags	Fir, mixed Hardwood	-5	disturbed area - edge of Rd			
		1+75N	0.40	B	yellow Brn	10	silty sand, minor orange frags	Fir, mixed Hardwood	-11	Deep ovB, poor sample			
		2+00N	0.30	B	Red Brn	10	silty sand no frags	Fir, old c/o	0	edge of swamp Deep ovB - gravel bottom - wet			
	2+00W	0+00	0.10	B	Brn	30	silt, 25% cb frags	mixed Hardwood c/o	+12	o/c area - ca marble			
		0+25N	0.15	B	Red Brn	10	silt, minor cb & frags	mixed Hardwood c/o	0	o/c area - ca marble			
		0+50N	0.30	B	Red Brn	20	silty sand, 10% cb frags	maple c/o	0	R/C area			
		0+75N	0.25	B	Brn	20	silty sand, minor mafic frags	maple c/o	-6	R/C area			
		1+00N	0.10	B	Dark Brn	30	silt, 30% cb frags	mixed Hardwood c/o	+4	o/c area - ca marble			
		1+25N	0.20	B	Light Brn	20	silty sand 30% mafic frags	Mixed Hardwood	-2	R/C? possibly deep ovB			
		1+50N	0.30	B	Orange Brn	10	silty sand, 30% cb frags	mixed Hardwood	-12	deep ovB?			
		1+75N	0.30	B	yellow Brn	10	silty sand, minor mafic frags	Hemlock, Fir mixed Hardwood	0	deep ovB.			
		2+00N	0.15	B	Red Brn	20	silty sand, 30% mafic frags	"	-12	R/C area - rusty schist			
		2+25N	0.3	B	Red Brn	10	silty sand no frags	"	+4	deep ovB possible R/C			

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)



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Project: OP93-422  
 Comments:

Page 1 of 1  
 Total Pages 2  
 Certificate Date: 29-SEP-93  
 Invoice No. 19321477  
 P.O. Number  
 Account KGY

## CERTIFICATE OF ANALYSIS A9321477

SAMPLE	PREP CODE	Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
CL0+00W 0+00N	201 229	0.6	180	< 2	59	< 1	2	52	< 2	546	
CL0+00W 0+22N	201 229	0.2	36	< 2	28	< 1	< 1	36	< 2	754	
CL0+00W 0+50N	201 229	0.2	58	< 2	57	< 1	3	12	< 2	818	
CL0+00W 0+75N	201 229	< 0.2	164	< 2	47	< 1	2	36	< 2	740	
CL0+00W 1+00N	201 229	0.6	76	< 2	52	< 1	1	26	< 4	206	
CL0+00W 1+25N	201 229	< 0.2	52	< 2	16	< 1	2	18	< 2	124	
CL0+00W 1+50N	201 229	< 0.2	< 2	< 2	48	< 1	1	12	< 2	130	
CL0+00W 1+75N	201 229	< 0.2	4	< 2	22	< 1	< 1	12	< 2	118	
CL0+00W 2+00N	201 229	< 0.2	< 2	< 2	35	< 1	< 1	6	< 2	152	
CL0+00W 2+25N	201 229	< 0.2	4	< 2	58	< 1	< 1	16	< 2	226	
CL0+00W 2+50N	201 229	< 0.2	2	< 2	19	< 1	1	14	< 2	114	
CL0+00W 2+75N	201 229	0.2	6	< 2	43	< 1	1	6	< 2	74	
CL0+00W 3+00N	201 229	< 0.2	< 2	< 2	13	< 1	1	20	< 2	76	
CL1+00W 0+00N	201 229	< 0.2	38	< 2	28	< 1	1	8	< 2	370	
CL1+00W 0+25N	201 229	< 0.2	48	< 2	54	< 1	2	36	< 2	200	
CL1+00W 0+50N	201 229	0.2	98	< 2	27	< 1	1	24	< 2	952	
CL1+00W 0+75N	201 229	0.2	32	< 2	20	< 1	1	18	< 2	248	
CL1+00W 1+00N	201 229	< 0.2	24	< 2	22	< 1	1	22	< 2	244	
CL1+00W 1+25N	201 229	< 0.2	8	< 2	6	< 1	3	16	< 2	80	
CL1+00W 1+50N	201 229	0.2	2	< 2	8	< 1	1	20	< 2	74	
CL1+00W 1+75N	201 229	< 0.2	12	< 2	35	< 1	< 1	10	< 2	118	
CL1+00W 2+00N	201 229	0.2	50	< 2	48	< 1	1	24	< 2	78	
CL1+00W 2+25N	201 229	< 0.2	2	< 2	31	< 1	< 1	14	< 2	166	
CL1+00W 2+50N	201 229	0.2	2	< 2	54	< 1	2	14	< 2	218	
CL2+00W 0+00N	201 229	1.2	172	< 2	50	< 1	1	142	< 6	954	
CL2+00W 0+25N	201 229	0.2	178	< 2	28	< 1	1	32	< 2	448	
CL2+00W 0+50N	201 229	0.4	138	< 2	45	< 1	2	12	< 2	368	
CL2+00W 0+75N	201 229	< 0.2	2	< 2	30	< 1	2	14	< 2	282	
CL2+00W 1+00N	201 229	0.6	220	< 2	85	< 1	3	40	< 2	298	
CL2+00W 1+25N	201 229	0.2	12	< 2	8	< 1	1	26	< 2	122	
CL2+00W 1+50N	201 229	0.4	16	< 2	21	< 1	3	22	< 2	138	
CL2+00W 1+75N	201 229	0.4	10	< 2	32	< 1	< 1	8	< 2	78	
CL2+00W 2+00N	201 229	< 0.2	8	< 2	15	< 1	< 1	18	< 2	114	
CL2+00W 2+25N	201 229	< 0.2	60	< 2	15	< 1	< 1	14	< 2	150	
CL3+00W 0+00N	201 229	< 0.2	36	< 2	20	< 1	1	26	< 2	346	
CL3+00W 0+25N	201 229	< 0.2	16	< 2	64	< 1	2	20	< 2	548	
CL3+00W 0+50N	201 229	< 0.2	110	< 2	37	< 1	1	4	< 2	272	
CL3+00W 0+75N	201 229	0.4	8	< 2	18	< 1	1	48	< 4	366	
CL3+00W 1+00N	201 229	< 0.2	20	< 2	33	< 1	1	12	< 2	102	
CL3+00W 1+25N	201 229	2.6	176	< 2	96	< 1	2	42	< 4	562	

CERTIFICATION: *Jhai D Ma*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 5175 Timberlea Blvd., Mississauga,  
 Ontario, Canada L4W 2S3  
 PHONE: 416-624-2806

To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

Project: OP93-422  
 Comments:

Page N :2  
 Total P :2  
 Certificate Date: 29-SEP-93  
 Invoice No.: 19321477  
 P.O. Number:  
 Account KGY

## CERTIFICATE OF ANALYSIS A9321477

SAMPLE	PREP CODE	Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
CL3+00W 1+50N	201 229	0.4	34	< 2	31	< 1	2	24	< 2	132	
CL3+00W 1+75N	201 229	< 0.2	6	< 2	11	< 1	1	8	< 2	76	
CL3+00W 2+00N	201 229	0.2	144	< 2	22	< 1	< 1	28	< 2	614	
CL4+00W 0+00N	201 229	2.4	136	< 2	148	< 1	2	42	8	836	
CL4+00W 0+25N	201 229	< 0.2	26	< 2	23	< 1	1	30	4	190	
CL4+00W 0+50N	201 229	0.2	14	< 2	19	< 1	2	28	2	78	
CL4+00W 0+75N	201 229	0.4	36	< 2	28	< 1	3	34	2	618	
CL4+00W 1+00N	201 229	< 0.2	38	< 2	27	< 1	2	48	4	566	
CL4+00W 1+25N	201 229	< 0.2	16	< 2	21	< 1	< 1	14	2	160	
CL4+00W 1+50N	201 229	< 0.2	10	< 2	20	< 1	1	12	2	104	
CL4+00W 1+75N	201 229	0.6	84	< 2	48	< 1	1	24	4	320	
CL5+00W 0+00N	201 229	0.2	26	< 2	31	< 1	2	14	2	176	
CL5+00W 0+25N	201 229	0.4	34	< 2	32	< 1	1	16	2	318	
CL5+00W 0+50N	201 229	0.4	36	< 2	31	< 1	< 1	38	2	322	
CL5+00W 0+75N	201 229	0.4	32	< 2	30	< 1	1	24	2	398	
CL5+00W 1+00N	201 229	0.4	12	< 2	21	< 1	< 1	12	4	142	
CL5+00W 1+25N	201 229	0.2	4	< 2	31	< 1	< 1	10	< 2	56	

CERTIFICATION:



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To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

A9321477

Comments:

## CERTIFICATE

A9321477

CHRISTIE, BRIAN

Project: OP93-422  
 P.O. #:

Samples submitted to our lab in Mississauga, ON.  
 This report was printed on 29-SEP-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	57	Dry, sieve to -80 mesh
229	57	ICP - AQ Digestion charge

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	57	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2120	57	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2123	57	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2128	57	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2131	57	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2136	57	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2140	57	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	57	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2149	57	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

NTS Map 31C / 15  
 Project James Lake  
 Area, Prov. Clarendon Twp, Ont.  
 Photo No. \_\_\_\_\_  
 Prospect Grid 'D'

Page No. 1  
 Date August 28 / 93  
 Weather Sunny and warm  
 Sampler B. Christie  
 Sample No. Prefix 'D'

## GEOCHEMICAL SOIL SAMPLING

Sample Number	Grid Reference		Sample Depth (m)	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction Face North	Remarks, eg: terrain, o/c's, drainage, etc.	Lab. Results		
	Line	Station											
	6+50W	1+00S	0.15	B	orange Brn	20	silty sand with 30% bioschist frags	open mixed Hardwood	-5	Top of o/c Ridge, well drained, R/C.			
	1+12.5S	0.20	B	Red Brn	20	silty sand, 10% mafic frags	Dense Young hardwood	+4	dry R/C, deep OVB				
	1+25S	0.15	B	Light Brn	30	silty sand, 40% sea frags	Dense young hardwood mix	-20	o/c area				
	1+37.5S	0.30	B	Light Brn	20	silty sand, 25% carb frags	II	+1	o/c area to north				
	1+50S	0.15	B	Light Brn	20	II	II	-8	R/C?, deep OVB carb				
	1+62.5S	0.15	B	Red Brn	10	silty sand, 30% carb frags + q.v.	Open Hardwood mix, c/o	-25	o/c - carb rx, deeply weathered				
	1+75S	0.30	B	Red Brn	10	silty sand, 10% carb rx frags	Hardwood mix	-16	o/c area, locally some milky white q.v.				
	1+87.5S	0.30	B	Red Brn	20	silty sand, 30% carb rx frags	Open Hardwood mix	0	skidder trail, o/c area at 1+85S				
	2+00S	0.20	B	Red Brn	20	silty sand, 20% gravel	Dense Hardwood mix	-6	carb o/c? R/C? at station				
	5+50W	2+00S	0.30	B	Light Brn	10	silty sand, 10% round cb frags	young dense Hardwood mix, c/o	0	Deep OVB? well drained			
	1+87.5S	0.25	B	Red Brn	10	silty sand, 25% carb rx frags	II	+2	II				
	1+75S	0.20	B	Red Brn	10	silty sand, 30% angular mafic schist	II	0	on skidder trail, well drained R/C?				
	1+62.5S	0.15	B	Brn	30	silty sand, 10% small rx frags, compak mafic	II	-16	R/C area, QJ blocks 3m west of line				
	1+50S	0.25	B	orange Brn	20	silty sand, 30% cb + bioschist frags	II	0	R/C area				
	1+37.5S	0.15	B	orange Brn	20	silty sand, 25% rx frags (carb?)	open mixed Hardwood c/o	-11	R/C area				
	H25S	0.10	B	dark Brn	30	silt, 40% bio schist frags	II	-5	R/C area				
	1+12.5S	0.20	B	dark Brn	30	silt, 40% carb frags	II	+5	R/C area				
	1+00S	0.25	B	dark Brn	20	sand, fg, 60% mafic schist frags	II	-16	o/c area, weathered o/c in soil hole				

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

**NTS Map** 31C/15  
**Project** James Lake  
**Area, Prov.** Clarendon Twp.  
**Photo No.** \_\_\_\_\_  
**Prospect** Grid 'D'

Page No. 2  
Date August 28 / 93  
Weather sunny and warm  
Sampler B. christie  
Sample No. Prefix 'D'

## GEOCHEMICAL SOIL SAMPLING

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

NTS Map 31C /15  
 Project James Lake  
 Area, Prov. Clarendon Twp.  
 Photo No. \_\_\_\_\_  
 Prospect Grid 'D'

Page No. 1  
 Date August 29/93  
 Weather Sunny and warm  
 Sampler B. Christie  
 Sample No. Prefix 'D'

## GEOCHEMICAL SOIL SAMPLING

Sample Number	Grid Reference		Sample Depth (m)	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction	Remarks, eg: terrain, e/c's, drainage, etc.	Lab. Results			
	Line	Station												
3+50w	1+50.5	0.10	B	Red Brn	20	sandy silt, 40%	angle rusty frags	mixed Hardwood c/o	0	over o/c Rusty schist.				
	1+37.55	0.15	B	Red Brn	10	sandy silt 30%	angular rock frags	mixed Hardwood, c/o	-3	R/c area				
	1+25.5	0.25	B	Red Brn	10	sandy silt 40%	ang. mete sub frags	mixed Hardwood, c/o	-11	R/c area.				
	1+12.55	0.10	B	Red Brn	20	sandy silt, 20%	mete frags	mixed Hardwood, c/o.	-8	R/c area?				
	1+00.5	0.15	B	Brn	20	silty sand, 30%	cb + mete frags	mixed Hardwood, c/o	-8	R/c area				
	0+87.55	0.35	B	Red Brn	10	sandy silt, 20%	round felic frags	mixed Hardwood, c/o	0	Deep ovB				
	0+75.5	0.35	B	light Brn	5%	silty sand, minor	rounded felic frags	mixed Hardwood, c/o	0	Deep ovB, boulders				
	0+62.55	0.40	B	light Brn	5%	silty sand, minor	rounded felic frags	mixed Hardwood c/o.	0	deep ovB, boulders				
	0+50.5	0.15	B	Red Brn	20	silty sand, 10%	round mete frags	Raspberry + young maple c/o	+2	over R/c.				
	0+37.55	0.20	B	Red Brn	20	sandy silt, minor	angular mete frags	Raspberry and young maple c/o	-6	deep ovB				
	0+25.5	0.15	B	light Brn	10	sandy silt + clay	minor cb frags	Raspberry c/o	0	old skidder Rd.				
	2+50w	0+00	0.15	B	Red Brn	10	sandy silt, 30%	carb frags	Raspberry c/o.	+8	R/c area			
	0+12.55	0.15	B	light Brn	20	sandy silt 30%	ang. cb frags	mixed Hardwood c/o.	-8	R/c Area				
	0+25.5	0.25	B	Red Brn	20	sandy silt No	frags.	mixed Hardwood c/o.	-2	R/c Area - mete schist				
	0+57.55	0.25	B	Red Brn	10	silty, minor	mete frags	mixed Hardwood c/o.	-1	R/c area				
	0+50.5	0.20	B	Red Brn	10	sandy silt, 30%	mete cb frags	mixed Hardwood c/o.	-1	R/c area				
	0+62.55	0.20	B	Red Brn	30	sandy silt, 30%	cb frags	mixed Hardwood c/o	+3	Bedrock area				
	0+75.5	0.10	B	Red Brn	20	sandy silt, 30%	cb frags	mixed Hardwood c/o.	+5	R/c area				
	0+87.55	0.15	B	Red Brn	20	silty sandy, 20%	mete frags	mixed Hardwood c/o	0	R/c area				
	1+00.5	0.20	B	Light Brn	10	90% weathered	cb frags	mixed Hardwood c/o.	-7	old skidder Rd.				
	1+12.55	0.10	B	Red Brn	10	silty sand, 30%	weathered cb frags	mixed Hardwood c/o.	-4	Bedrock - carbonate R/c?				
	1+25.5	0.25	B	light Brn	10	sandy silt 30%	mete + cb frags	mixed Hardwood c/o	-5	on old skidder Rd.				
										close to o/c.				

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

NTS Map 31C/15  
Project James Lake  
Area, Prov. Clarendon Twp.  
Photo No. \_\_\_\_\_  
Prospect Grid 'D'

Page No. 2  
Date August 29/93  
Weather Sunny and warm  
Sampler B. Christie  
Sample No. Prefix 'D'

## **GEOCHEMICAL SOIL SAMPLING**

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 5175 Timberlea Blvd., Mississauga,  
 Ontario, Canada L4W 2S3  
 PHONE: 416-624-2806

To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

Project: 0P93-422  
 Comments:

Page No.: 1  
 Total Pages: 2  
 Certificate Date: 21-SEP-93  
 Invoice No.: 19321230  
 P.O. Number:  
 Account: KGY

## CERTIFICATE OF ANALYSIS A9321230

SAMPLE	PREP CODE	Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
DL1+50W BL00	201 229	0.2	80	< 2	21	< 1	3	70	4	388	
DL1+50W 0+12.58	201 229	0.6	66	< 2	45	< 1	3	78	8	424	
DL1+50W 0+25.08	201 229	0.4	122	< 2	51	< 1	1	30	2	442	
DL1+50W 0+37.58	201 229	0.4	< 2	< 2	49	< 1	2	26	6	128	
DL1+50W 0+50.08	201 229	0.2	34	< 2	36	< 1	1	26	< 2	216	
DL1+50W 0+62.58	201 229	< 0.2	206	< 2	72	< 1	6	22	< 2	572	
DL1+50W 0+75.08	201 229	0.2	154	< 2	47	< 1	6	8	< 2	1520	
DL1+50W 0+87.58	201 229	0.4	10	< 2	32	< 1	10	20	2	166	
DL1+50W 1+00.08	201 229	< 0.2	2	< 2	10	< 1	3	8	< 2	126	
DL2+50W BL00	201 229	0.2	< 2	< 2	24	< 1	< 1	20	< 2	148	
DL2+50W 0+12.58	201 229	0.2	< 2	< 2	21	< 1	1	12	< 2	212	
DL2+50W 0+25.08	201 229	0.2	16	< 2	26	< 1	1	34	4	340	
DL2+50W 0+37.58	201 229	0.6	56	< 2	72	< 1	1	58	2	298	
DL2+50W 0+50.08	201 229	< 0.2	202	< 2	20	< 1	6	96	18	434	
DL2+50W 0+62.58	201 229	0.4	156	< 2	28	1	3	70	6	1030	
DL2+50W 0+75.08	201 229	1.2	24	< 2	302	< 1	4	48	4	272	
DL2+50W 0+87.58	201 229	0.2	176	< 2	35	< 1	19	44	2	682	
DL2+50W 1+00.08	201 229	3.4	54	< 2	22	< 1	3	104	48	430	
DL2+50W 1+12.58	201 229	1.2	176	< 2	60	< 1	8	24	2	242	
DL2+50W 1+25.08	201 229	2.8	288	< 2	83	< 1	7	30	6	350	
DL3+50W 0+25.08	201 229	0.2	56	< 2	53	< 1	8	28	2	384	
DL3+50W 0+37.58	201 229	0.2	42	< 2	28	< 1	4	34	< 2	210	
DL3+50W 0+50.08	201 229	< 0.2	24	< 2	11	< 1	4	22	< 2	228	
DL3+50W 0+62.58	201 229	0.2	< 2	< 2	15	< 1	2	10	2	118	
DL3+50W 0+75.08	201 229	0.2	34	< 2	28	< 1	5	12	2	388	
DL3+50W 0+87.58	201 229	< 0.2	248	< 2	69	< 1	9	36	2	198	
DL3+50W 1+00.08	201 229	1.4	156	< 2	24	< 1	12	82	14	342	
DL3+50W 1+12.58	201 229	0.8	108	< 2	53	< 1	6	28	< 2	590	
DL3+50W 1+25.08	201 229	0.4	136	< 2	86	< 1	3	22	< 2	218	
DL3+50W 1+37.58	201 229	0.2	502	< 2	42	< 1	2	14	< 2	206	
DL3+50W 1+50.08	201 229	0.8	156	< 2	67	< 1	12	30	6	442	
DL4+50W 0+75.08	201 229	< 0.2	< 2	< 2	9	< 1	2	16	< 2	214	
DL4+50W 0+87.58	201 229	0.2	20	< 2	24	< 1	2	14	2	174	
DL4+50W 1+00.08	201 229	0.2	< 2	< 2	19	< 1	5	8	< 2	142	
DL4+50W 1+12.58	201 229	0.4	46	< 2	53	< 1	2	24	< 2	490	
DL4+50W 1+25.08	201 229	0.2	40	< 2	24	< 1	3	28	2	216	
DL4+50W 1+37.58	201 229	15.8	274	< 2	117	< 2	15	312	58	2030	
DL4+50W 1+50.08	201 229	0.2	176	< 2	52	< 1	8	30	2	338	
DL4+50W 1+67.58	201 229	< 0.2	28	< 2	13	< 1	3	16	2	158	
DL4+50W 1+75.08	201 229	0.2	92	< 2	38	< 1	2	12	2	134	

CERTIFICATION: *[Signature]*



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 Ontario, Canada L4W 2S3  
 PHONE: 416-624-2806

To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

Project: 0P93-422  
 Comments:

Page No.: 2  
 Total Pages: 2  
 Certificate Date: 21-SEP-93  
 Invoice No.: 19321230  
 P.O. Number:  
 Account: KGY

## CERTIFICATE OF ANALYSIS A9321230

SAMPLE	PREP CODE		Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
DL5+50W 1+00.08	201	229	< 0.2	< 2	< 2	< 1	1	< 1	< 2	4	76	
DL5+50W 1+12.58	201	229	1.0	220	2	21	2	1	156	8	880	
DL5+50W 1+25.08	201	229	0.4	204	< 2	111	16	7	20	< 2	1715	
DL5+50W 1+37.58	201	229	< 0.2	2	< 2	6	< 1	< 1	4	4	188	
DL5+50W 1+50.08	201	229	0.2	60	2	14	1	1	44	8	176	
DL5+50W 1+62.58	201	229	< 0.2	16	< 2	12	1	1	8	4	92	
DL5+50W 1+75.08	201	229	< 0.2	24	2	51	< 1	4	10	< 2	254	
DL5+50W 1+87.58	201	229	< 0.2	12	< 2	14	< 1	2	8	2	180	
DL5+50W 2.00+08	201	229	0.2	38	< 2	21	1	2	12	2	162	
DL6+50W 1.00.08	201	229	< 0.2	< 2	2	< 1	< 1	< 1	2	< 2	120	
DL6+50W 1+12.58	201	229	0.4	1170	< 2	101	< 1	55	86	6	236	
DL6+50W 1+25.08	201	229	< 0.2	< 2	2	3	< 1	< 1	< 2	2	62	
DL6+50W 1+37.58	201	229	0.4	12	< 2	9	< 1	1	12	2	156	
DL6+50W 1+50.08	201	229	0.2	< 2	< 2	4	< 1	< 1	2	< 2	142	
DL6+50W 1+62.58	201	229	0.2	< 2	< 2	9	< 1	< 1	8	< 2	96	
DL6+50W 1+75.08	201	229	0.2	14	< 2	15	< 1	2	< 2	2	136	
DL6+50W 1+87.58	201	229	0.6	170	< 2	91	< 1	12	16	4	594	
DL6+50W 2.00+08	201	229	0.6	14	< 2	16	< 1	2	6	4	366	

CERTIFICATION: *Mark Bachler*



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To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

A9321230

Comments:

## CERTIFICATE

A9321230

CHRISTIE, BRIAN

Project: OP93-422

P.O. #:

Samples submitted to our lab in Mississauga, ON.  
 This report was printed on 21-SEP-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	58	Dry, sieve to -80 mesh
229	58	ICP - AQ Digestion charge

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	58	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2120	58	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2123	58	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2128	58	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2131	58	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2136	58	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2140	58	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	58	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2149	58	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

NTS Map \_\_\_\_\_  
 Project James Lake  
 Area, Prov. Clarendon Twp  
 Photo No. \_\_\_\_\_  
 Prospect GRID 'E'

Page No. 1  
 Date Sept. 30/93  
 Weather sunny with clouds, very cold  
 Sampler B. Christie  
 Sample No. Prefix E

## GEOCHEMICAL SOIL SAMPLING

Sample Number	Grid Reference		Sample Depth (m)	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction Facing N.	Remarks, eg: terrain, e/c's, drainage, etc.	Lab. Results			
	Line	Station												
5+00W	1+50S	0.20	B	Red Brn	25	sandy silt, 20% rx frags	mature fir, cedar, birch	5°	Boulders possible ca marble frags					
	1+75S	0.25	B	Red Brn	20	silty sand 10%	mature cedar	-10	Rlc area, ca marble edge of steep W slope					
	2+00S	0.30	B	Red Brn	20	silty sand	mature cedar and fir	5°	Rlc area, Ca marble 2m west of line					
4+75W	2+00S	0.25	B	Red Brn	20	silty sand	cedar, maple fir mature	8°	olc area - cacb?					
	2+25S	0.25	B	Brn	20	silty sand minor clay	cedar and fir mature	5°	*Rlc area					
	2+50S	0.15	B	brown	30	silty sand with clay, minor Rx frags	cedar and Birch	15° composite	olc area, poor sample west Hill slope (cacb)					
4+00W	1+00S	0.20	B	dk Red Brn	25	silty sand, 20% rx frags	mature maple and fir	0	Rlc area, mafics? 1m east of line					
	1+25S	0.25	B	dk orange Brn	25	silty sand minor rx frags	mature cedar, birch	0	Base of North slope slope is mafic schist					
	1+50S	0.20	B	Red Brn	20	silty sand minor Rx frags	mature fir, birch cedar	-10	olc area, ca marble					
	1+75S	0.20	B	Red Brn	30	silty sand, 20% rx frags	"	+5	Rlc area possibly ca marble					
	2+00S	0.15	B	Red Brn	20	silty sand, 20% ca marble frags	"	-10°	olc area, ca marble 5m west of trench					
	2+25S	0.25	B	orange Brn	20	sandy silt, 30% rx frags	"	+8	Rlc area, mafic or felsic schist?					
	2+50S	0.25	B	dark Brn	15	sandy silt, 10% lg rx frags	mature cedar fir + birch	+2°	Rlc area, ca marble? 2m west of trench					
	2+75S	0.25	B	Red Brn	20	silty sand, 20% cacb frags	"	0	Rlc abundant ca marble boulders in hole					
	3+00S	0.30	B	orange Brn	20	silty sand	"	+5°	olc area?					
	3+25S	0.30	B	Brn	25	sandy silt 10% rx frags	"	+3°	Rlc, mafic schist frags in hole					
3+50S	0.10	B	Red Brn	25	sandy silt, 20% mafic frags	"	15°	Rlc area, many angular angular blocks	ampm 3+45S	at				

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

NTS Map \_\_\_\_\_  
 Project James Lake  
 Area, Prov. Clarendon Twp  
 Photo No. \_\_\_\_\_  
 Prospect Grid 'E'

Page No. 2  
 Date Sept. 30 /93  
 Weather sunny with clouds, very cold.  
 Sampler B. Christie  
 Sample No. Prefix E

## GEOCHEMICAL SOIL SAMPLING

Sample Number	Grid Reference	Sample	Soil Depth (m)	Soil Horizon	Sample Colour	% Org. Content	Sample Text. and Content	Vegetation (main type)	Slope Direction	Remarks, eg: terrain, o/c's, drainage, etc.	Lab. Results			
		Line												
3+00W	1+00S	0.30	B	orange Brn	20	silty sand	mature maple	-2	R/C area, ca marble block in hole					
	1+25S	0.25	B	red Brn	20	silty sand minor rx frags	mature maple	-5	R/C, ca marble o/c 5 metres south					
	1+50S	0.25	B	dk Brn	25	loamy	: open with Ash	-3	open area abundant R/C poor sample?					
	1+75S	0.25	B	orange Brn	25	silty sand	mature maple	+2	R/C area, cg ca marble 2 metres north					
2+00S	0.20	B	dk red Brn	25	silty sand	mature maple and fir	+1	R/C area - hole bottoms in rx						
2+25S	0.30	B	light Brn	20	silty sand	"	-2	R/C area						
2+50S	0.25	B	orange Brn	20	sandy silt, minor felic rx frags	"	-2	o/c area						
2+75S	0.20	B	red Brn	15	silty sand	cedar, fir Birch, mature	+2	R/C area, ca marble o/c 3m north						
3+00S	0.30	B	red Brn	20	silty sand	"	0	R/C area? ca marble possibly o/c west of line						
3+25S	0.15	B	red Brn	20	silty sand 10% rx frags	mature maple cedar, birch	+10	ca marble o/c area on edge of boulder slope						
3+50S	0.20	B	orange Brn	25	sandy silt minor rx frags	"	+10	R/C area on south facing terrace						
3+75S	0.35	B	Brn	40	silty sand	"	+10	R/C cal marble o/c 3m north, poor sample	Possible 'A' contamination					
2+00W	0+50S	0.35	B	red Brn	25	silty sand, 10% rx frags	fir, maple	+1	R/C area, dol. marble o/c 5m north					
	0+75S	0.20	B	red Brn	20	silty sand	"	-2	R/C? ca marble block in hole					
	1+00S	0.30	B	red Brn	20	silty sand, minor rx frags	"	-3	R/C area; hole has a rocky bottom					
	1+25S	0.30	B	dk Brn	20	silty sand	"	+2	low area with builders, 2m North of old trail					
	1+50S	0.30	B	yellow Brn	15	sandy silt minor tx rx frags	mature maple hemlock	0	- edge of low area - deep overb? sample 2m west of line					
	1+75S	0.35	B	red Brn	20	silty sand, minor frags	"	-3	deep overb? R/C area? - sample 2m south of old road					
2+00S	0.35	B	red Brn	20	sandy silt, 30% rx frags	mature maple and hemlock	-3	R/C very hummocky						
2+25S	0.25	B	red Brn	20	silty sand	mature maple	-3	R/C? very hummocky						
2+50S	0.25	B	red Brn	25	sandy silt	mature maple	-2	R/C area, sample may contain weathered bedrock?						

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)

**NTS Map** \_\_\_\_\_  
**Project** James Lake  
**Area, Prov.** Clarendon Twp., On  
**Photo No.** \_\_\_\_\_  
**Prospect** Grid E

Page No. 2  
Date Oct 1 193  
Weather Sunny, cloudy, showers.  
Sampler B. Christie  
Sample No. Prefix E

## GEOCHEMICAL SOIL SAMPLING

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wei?), heavily wooded, deep overburden, outcrop area, etc.)

NTS Map \_\_\_\_\_  
Project James Lake  
Area, Prov. Clarendon Twp., Ont.  
Photo No. \_\_\_\_\_  
Prospect Grid E

Page No. 2  
Date Oct 1 193  
Weather Sunny, cloudy, showers  
Sampler B. Christie  
Sample No. Prefix E

## GEOCHEMICAL SOIL SAMPLING

(Indicate: eg. hill-top, ridge, steep slope, valley bottom, creek bottom, swamp(wet?), heavily wooded, deep overburden, outcrop area, etc.)



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 5175 Timberlea Blvd., Mississauga,  
 Ontario, Canada L4W 2S3  
 PHONE: 416-624-2806

To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

Project: OP93-422  
 Comments: ATTN: B. CHRISTIE

Page No.: 1  
 Total Pages : 2  
 Certificate Date: 15-OCT-93  
 Invoice No.: 19322543  
 P.O. Number:  
 Account : KGY

## CERTIFICATE OF ANALYSIS A9322543

SAMPLE	PREP CODE	Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
EL0+00W 0+00S	201 229	< 0.2	602	< 2	17	< 1	3	64	14	3900	
EL0+00W 0+25S	201 229	< 0.2	184	< 2	15	< 1	1	12	6	266	
EL0+00W 0+50S	201 229	< 0.2	96	< 2	14	< 1	1	28	4	630	
EL0+00W 0+75S	201 229	0.4	22	< 2	6	< 1	1	32	2	388	
EL0+00W 1+00S	201 229	< 0.2	46	< 2	13	< 1	3	34	2	506	
EL0+00W 1+25S	201 229	< 0.2	46	< 2	13	< 1	1	26	< 2	196	
EL0+00W 1+50S	201 229	< 0.2	214	< 2	50	< 1	2	18	4	212	
EL0+00W 1+75S	201 229	0.6	< 2	< 2	27	< 1	4	172	4	184	
EL0+00W 2+00S	201 229	0.2	106	< 2	18	< 1	1	16	< 2	264	
EL0+00W 2+25S	201 229	0.4	104	< 2	24	< 1	2	36	4	238	
EL1+00W 1+00S	201 229	1.8	338	< 2	30	< 1	1	528	22	2950	
EL1+00W 1+25S	201 229	0.8	314	< 2	33	< 1	3	114	14	1775	
EL1+00W 1+50S	201 229	< 0.2	568	< 2	8	< 1	5	46	6	296	
EL1+00W 1+75S	201 229	0.2	144	< 2	42	< 1	3	26	< 2	430	
EL1+00W 2+00S	201 229	< 0.2	246	< 2	32	< 1	2	54	2	230	
EL1+00W 2+25S	201 229	< 0.2	48	< 2	19	< 1	1	16	2	126	
EL1+00W 2+50S	201 229	0.2	158	< 2	28	< 1	2	70	4	330	
EL1+00W 2+75S	201 229	0.2	10	< 2	26	< 1	1	6	2	104	
EL1+00W 3+04S	201 229	0.2	18	< 2	12	< 1	1	6	2	94	
EL2+00W 0+50S	201 229	0.2	54	< 2	82	< 1	4	20	4	230	
EL2+00W 0+75S	201 229	0.8	82	< 2	17	< 1	3	68	2	712	
EL2+00W 1+00S	201 229	2.8	470	< 2	102	< 1	1	118	10	4040	
EL2+00W 1+25S	201 229	0.4	186	< 2	18	< 1	3	142	8	1720	
EL2+00W 1+50S	201 229	0.2	278	< 2	38	< 1	2	66	14	1175	
EL2+00W 1+75S	201 229	0.2	322	< 2	25	< 1	2	238	12	1135	
EL2+00W 2+00S	201 229	< 0.2	378	< 2	62	< 1	3	30	< 2	226	
EL2+00W 2+25S	201 229	0.2	320	< 2	25	< 1	2	26	< 2	420	
EL2+00W 2+50S	201 229	0.2	238	< 2	12	< 1	4	62	2	468	
EL2+00W 2+75S	201 229	0.2	304	< 2	53	< 1	4	56	4	604	
EL2+00W 3+00S	201 229	0.4	70	< 2	16	< 1	2	48	4	360	
EL2+00W 3+25S	201 229	0.2	54	< 2	27	< 1	2	20	4	198	
EL2+00W 3+50S	201 229	< 0.2	26	< 2	18	< 1	2	20	< 2	140	
EL2+00W 3+75S	201 229	< 0.2	62	< 2	15	< 1	2	16	< 2	200	
EL3+00W 1+00S	201 229	0.2	28	< 2	12	< 1	2	24	< 2	210	
EL3+00W 1+25S	201 229	1.2	400	< 2	40	< 1	14	382	18	1480	
EL3+00W 1+50S	201 229	3.2	552	< 2	42	1	3	364	28	6390	
EL3+00W 1+75S	201 229	< 0.2	52	< 2	19	< 1	< 1	32	< 2	698	
EL3+00W 2+00S	201 229	< 0.2	144	< 2	19	< 1	6	82	6	722	
EL3+00W 2+25S	201 229	0.2	234	< 2	18	< 1	2	90	10	842	
EL3+00W 2+50S	201 229	0.2	252	< 2	13	< 1	2	94	2	1060	

CERTIFICATION:

*Jant Bischler*



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 5175 Timberlea Blvd., Mississauga,  
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 PHONE: 416-624-2806

To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

Project: OP93-422  
 Comments: ATTN: B. CHRISTIE

Page No.: 2  
 Total Pages: 2  
 Certificate Date: 15-OCT-93  
 Invoice No.: I9322543  
 P.O. Number:  
 Account: KGY

## CERTIFICATE OF ANALYSIS A9322543

SAMPLE	PREP CODE	Ag ppm	As ppm	Bi ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	
EL3+00W 2+75S	201 229	0.2	218	< 2	14	< 1	2	70	6	544	
EL3+00W 3+00S	201 229	0.4	172	< 2	20	< 1	2	92	4	664	
EL3+00W 3+25S	201 229	0.6	1085	< 2	79	< 1	2	44	8	624	
EL3+00W 3+50S	201 229	0.2	180	< 2	25	< 1	1	52	4	450	
EL3+00W 3+75S	201 229	0.6	108	< 2	33	< 1	2	38	2	326	
EL4+00W 1+00S	201 229	1.0	874	< 2	45	< 1	< 1	50	4	200	
EL4+00W 1+25S	201 229	0.2	28	< 2	21	< 1	< 1	12	2	372	
EL4+00W 1+50S	201 229	0.4	290	< 2	50	< 1	1	58	8	396	
EL4+00W 1+75S	201 229	< 0.2	50	< 2	19	< 1	4	72	4	370	
EL4+00W 2+00S	201 229	0.2	194	< 2	69	< 1	3	132	8	1615	
EL4+00W 2+25S	201 229	< 0.2	120	< 2	28	< 1	2	58	4	890	
EL4+00W 2+50S	201 229	1.6	360	< 2	23	< 1	8	84	6	1770	
EL4+00W 2+75S	201 229	0.6	792	< 2	17	< 1	3	310	18	1620	
EL4+00W 3+00S	201 229	0.4	292	< 2	48	< 1	1	86	2	630	
EL4+00W 3+25S	201 229	< 0.2	72	< 2	62	< 1	2	18	< 2	364	
EL4+00W 3+50S	201 229	< 0.2	180	< 2	32	< 1	2	122	6	1030	
EL4+75W 2+00S	201 229	0.4	118	< 2	102	< 1	1	62	2	232	
EL4+75W 2+25S	201 229	< 0.2	12	< 2	13	< 1	1	14	2	146	
EL4+75W 2+50S	201 229	< 0.2	46	< 2	18	< 1	2	26	4	204	
EL5+00W 1+50S	201 229	3.0	294	< 2	271	< 1	4	82	18	2290	
EL5+00W 1+75S	201 229	0.6	496	< 2	118	< 1	2	36	4	186	
EL5+00W 2+00S	201 229	< 0.2	28	< 2	18	< 1	1	18	< 2	324	

CERTIFICATION:

*Mark Bichler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 5175 Timberlea Blvd., Mississauga,  
 Ontario, Canada L4W 2S3  
 PHONE: 416-624-2806

To: CHRISTIE, BRIAN

5 JAMES ST.  
 BROOKLIN, ON  
 L0B 1C0

A9322543

Comments: ATTN: B. CHRISTIE

## CERTIFICATE

**A9322543**

CHRISTIE, BRIAN

Project: OP93-422  
 P.O. #:

Samples submitted to our lab in Mississauga, ON.  
 This report was printed on 15-OCT-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	62	Dry, sieve to -80 mesh
229	62	ICP - Aq Digestion charge

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	62	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2120	62	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2123	62	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2128	62	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2131	62	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2136	62	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2140	62	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	62	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2149	62	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

**APPENDIX 10 - Claim Maps**

**APPENDIX 11 - Statement of Qualifications and Resume**

## STATEMENT OF QUALIFICATIONS

With regards to my Technical Report of January 21, 1994, I, Brian J. Christie of 5 James Street, Brooklin, Ontario do certify that:

1. I hold an Honours B.Sc. degree in geology from the University of Toronto (1979),
2. I hold an M.Sc. degree in geology from Queen's University at Kingston (1986),
3. I have been practicing my profession since 1979,
4. I am a Fellow of the Geological Association of Canada,

January 21, 1994

Brian J. Christie

A handwritten signature in black ink that reads "Brian Christie". The signature is fluid and cursive, with "Brian" on top and "Christie" below it, slightly overlapping.

THE TOWNSHIP  
OF  
**CLARENDON**  
COUNTY OF  
FRONTENAC  
SOUTHERN ONTARIO  
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

## LEGEND

- or (P) C.S.
- (L) Loc.
- L.O.
- M.R.O.
- S.R.O.
- Roads
- Improved Roads
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED
- TRAILS
- PATENTED S.R.O.

## NOTES

This Map Is Not To Be Used  
FOR SURVEY PURPOSES

Lot And Concession Lines Shown Hereon Are  
Projected From The Best Information Available,  
But Their True Position Is Not Guaranteed.  
For Official Survey Purposes Consult The  
Original Survey Plans And Field Notes Of  
Records In The Ministry of Natural Resources.

400' surface rights reservation along the  
shores of all lakes and rivers.

## Flooded Lands Shown Thus:

Flooding Rights Reserved On Cross Lake  
And Fawn Lake To Elevation 110.5'.  
File: 126113.

Original Survey Line Of Frontenac Road Shown  
Thus:

Islands in Clarendon Lake shown thus  
Surface Rights Only withdrawn from staking.  
File: 160701.

## AREAS WITHDRAWN FROM STAKING

S.R. — SURFACE RIGHTS M.R.—MINING RIGHTS

Section Order No. Date Disposition File

(1) Reserved for Public Use SR 87431

(2) — M.N.R. Reservation SR 165573

(3) — — SR 140861

(4) — Reservation SR 82375

## DATE OF ISSUE

JAN 15 1991

SOUTHERN ONTARIO  
MINING DIVISION

THE INFORMATION THAT  
APPEARS ON THIS MAP  
HAS BEEN COMPILED  
FROM VARIOUS SOURCES  
AND ACCURACY IS NOT  
GUARANTEED. THOSE  
WISHING TO STAKE MIN-  
ING CLAIMS SHOULD CON-  
SULT WITH THE MINING  
RECORDER, MINISTRY OF  
NORTHERN DEVELOP-  
MENT AND MINES, FOR AD-  
DITIONAL INFORMATION  
ON THE STATUS OF THE  
LANDS SHOWN HEREON.

PLAN NO.-M.77

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

Miller Twp. (M.127)

VII

VI

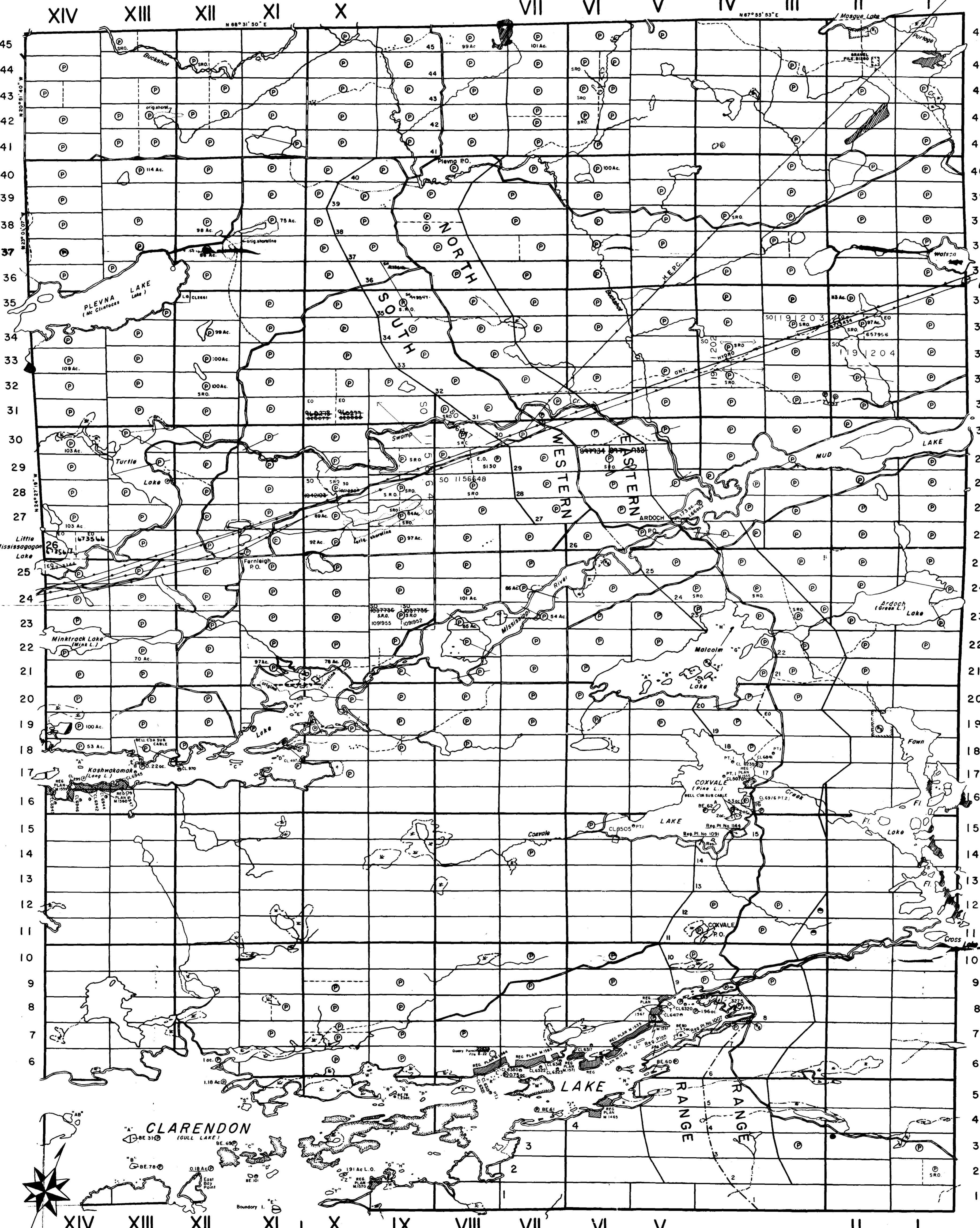
V

IV

III

II

I



Olcen Twp. (M.136)

200

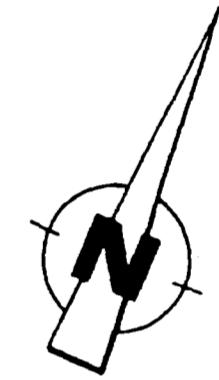
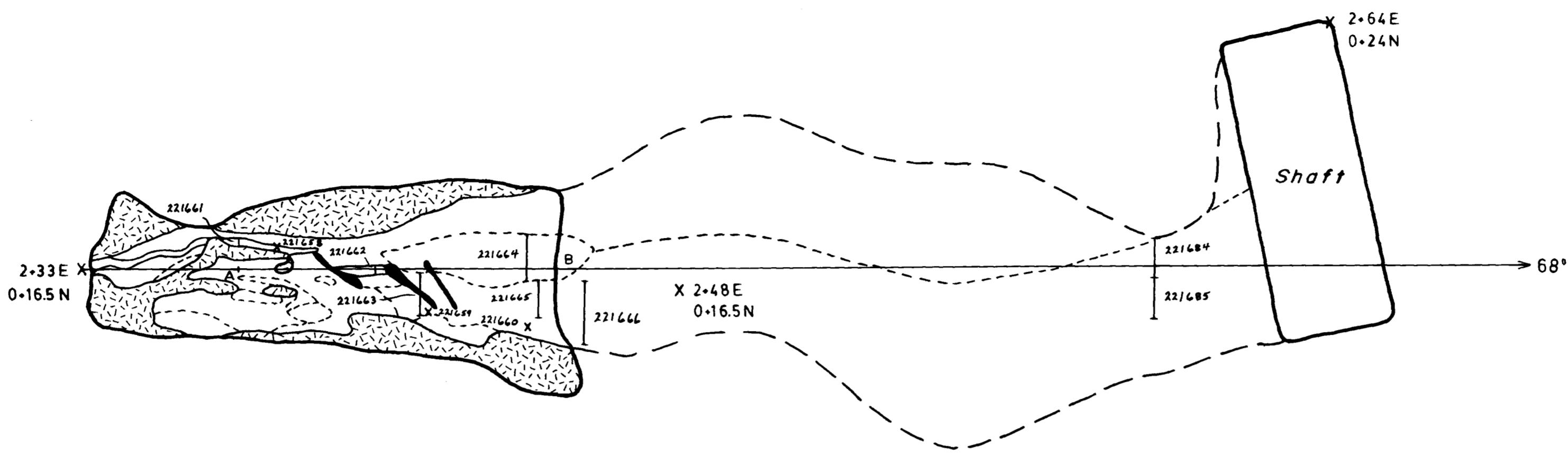


STC-TMN2001 OPPS-427 CLARENDON

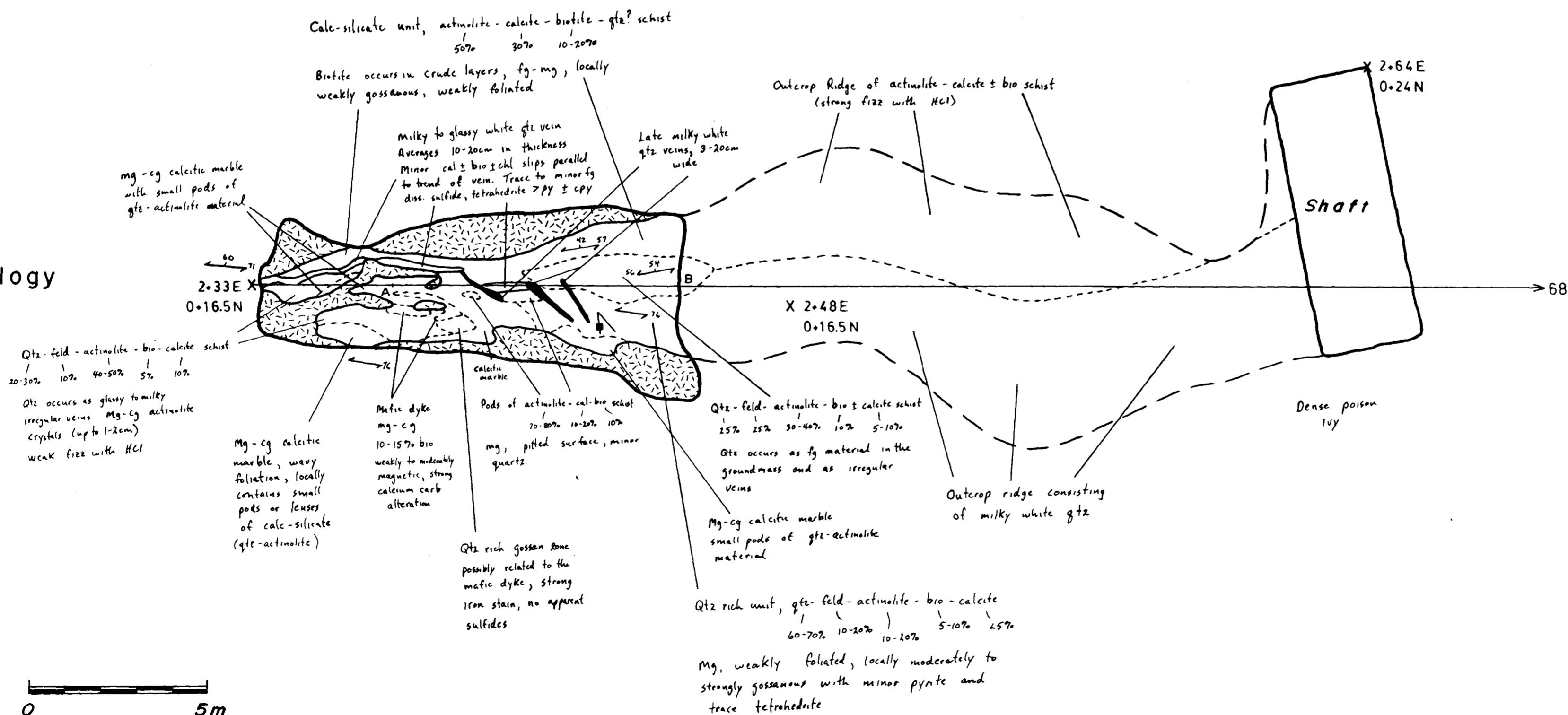
A.J.B.

Kennebec Twp. (M.109)

## Samples



## Geology



0 5m



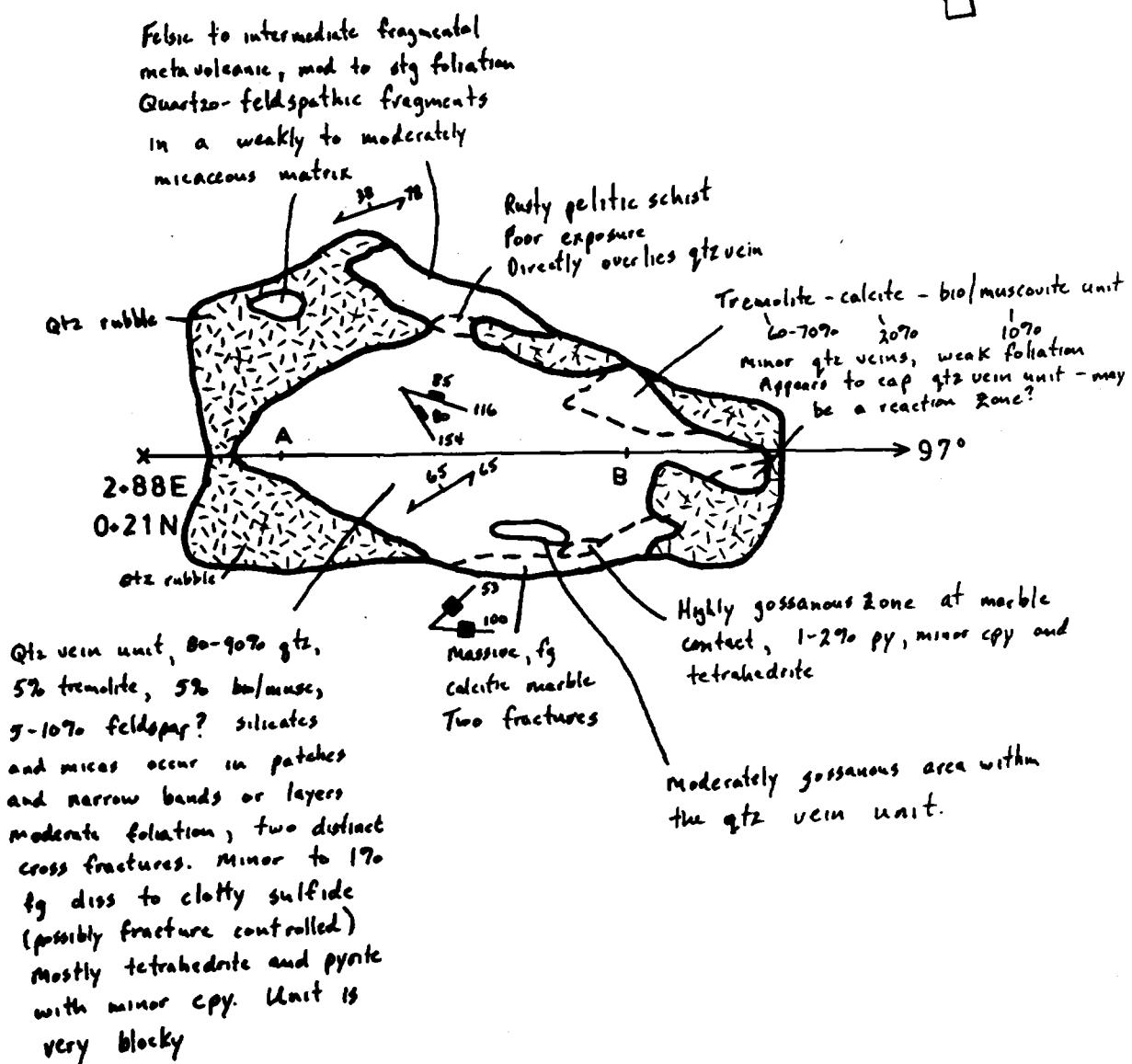
210

## James Lake Property

### Trench 1 - Geology and Samples

DRAWN	DATE	NTS	Figure
BJC	Dec. 1993	31C/15	6.

Brian Charette

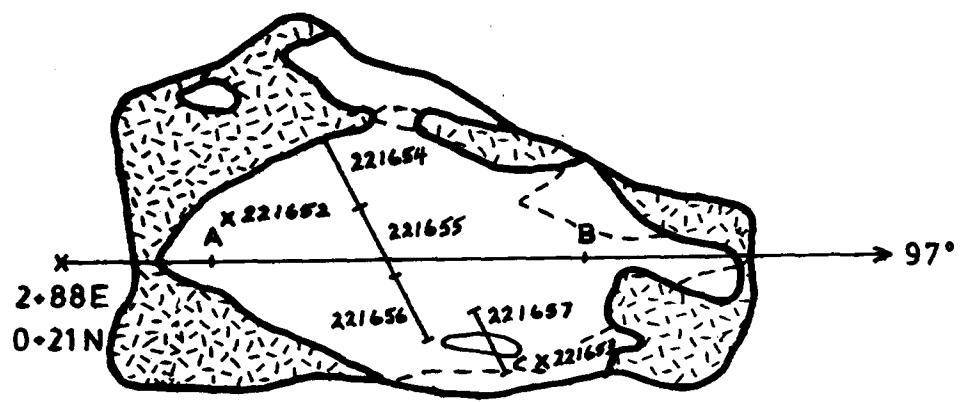


### James Lake Property

#### Trench 2 - Geology

DRAWN BJC	DATE Dec. 1993	NTS 31C / 15	Figure 7a.
Revised _____			





0 5m

James Lake Property

Trench 2 - Samples

DRAWN	DATE	NTS	Figure
BJC	Dec. 1993		
Revised		31C / 15	7b.



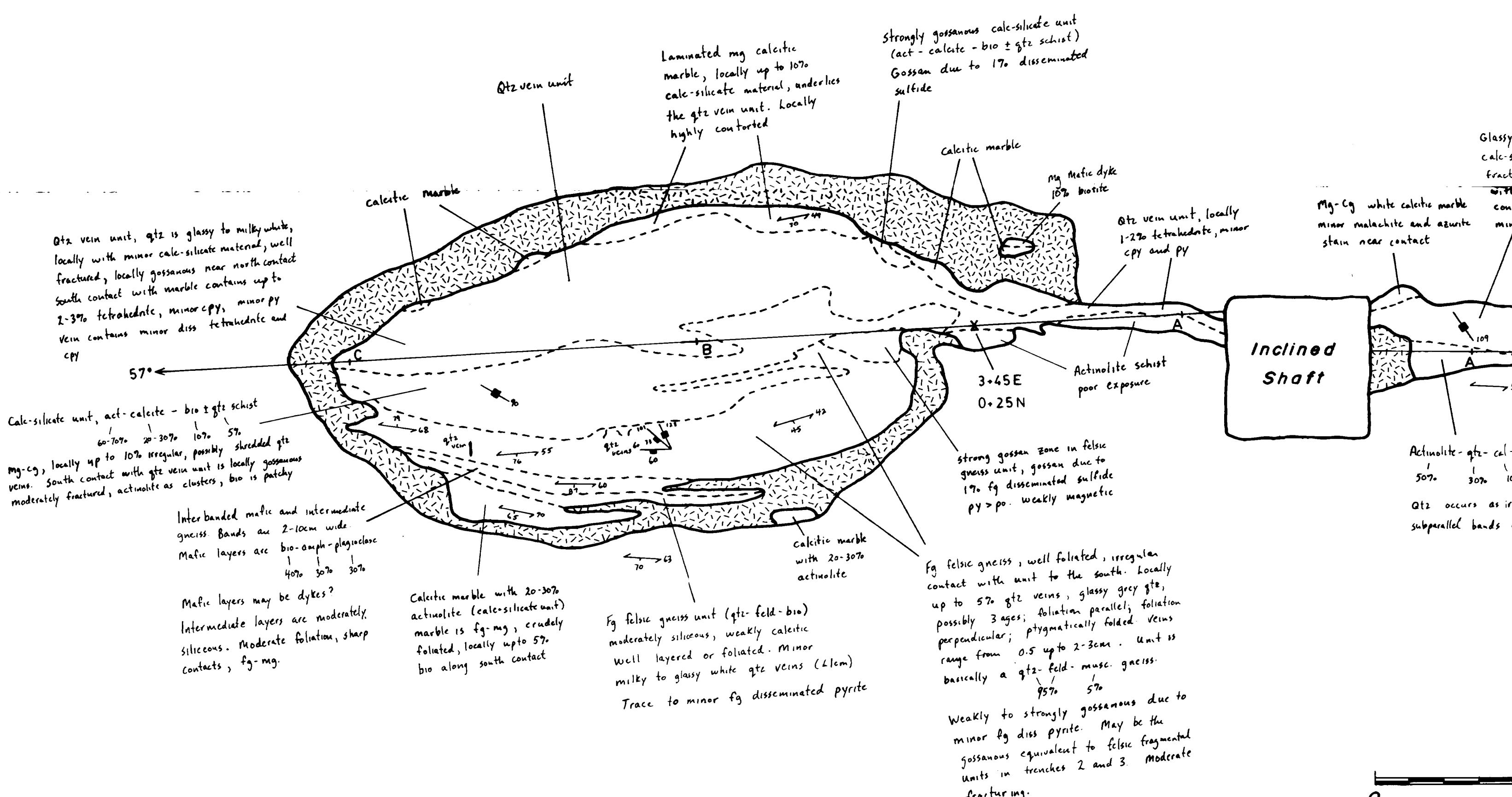
31C15NW2001 OP93-422 CLARENDON



31C15NW001 OP93-422 CLARENDON

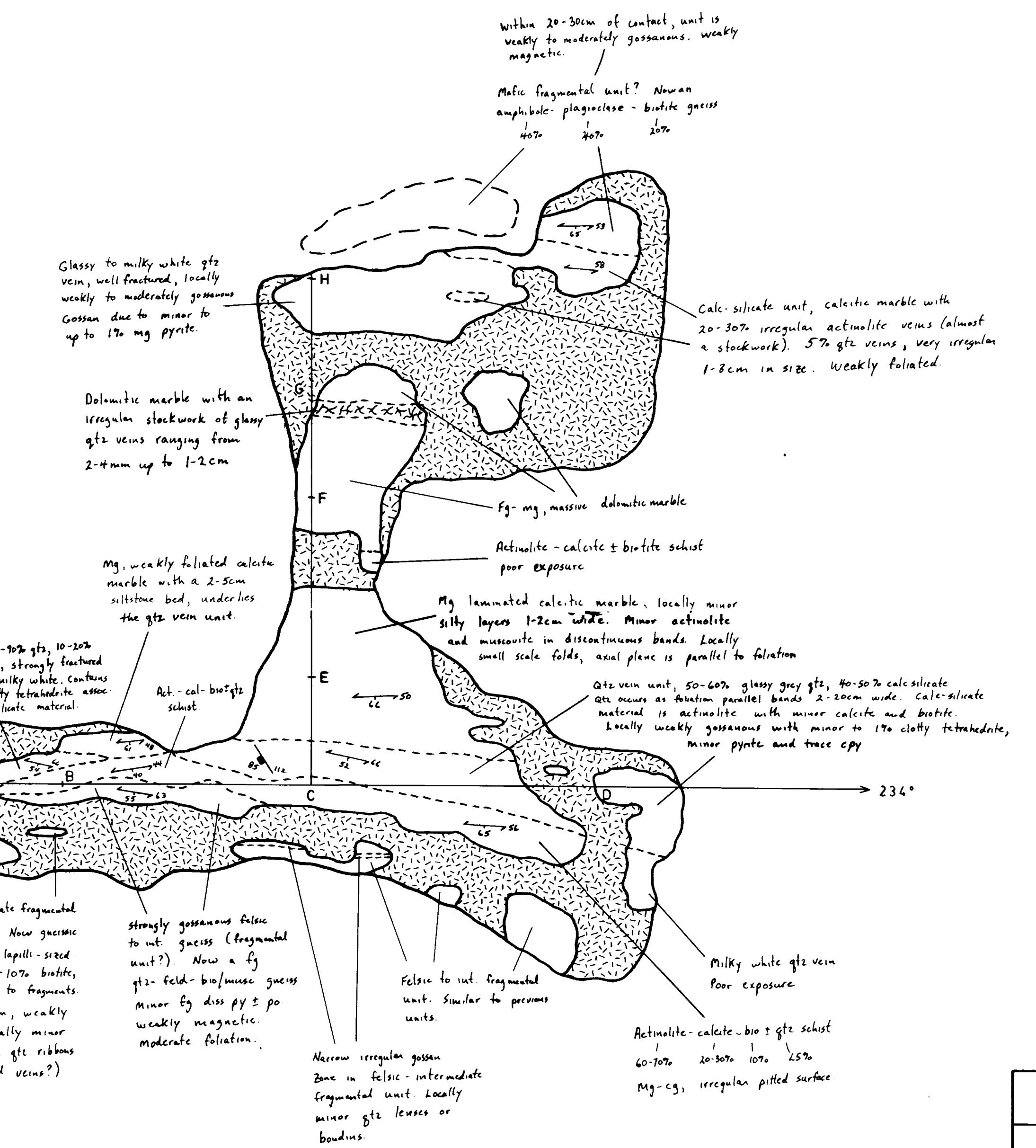
240

## Trench 4



0 9 m

Trench 4



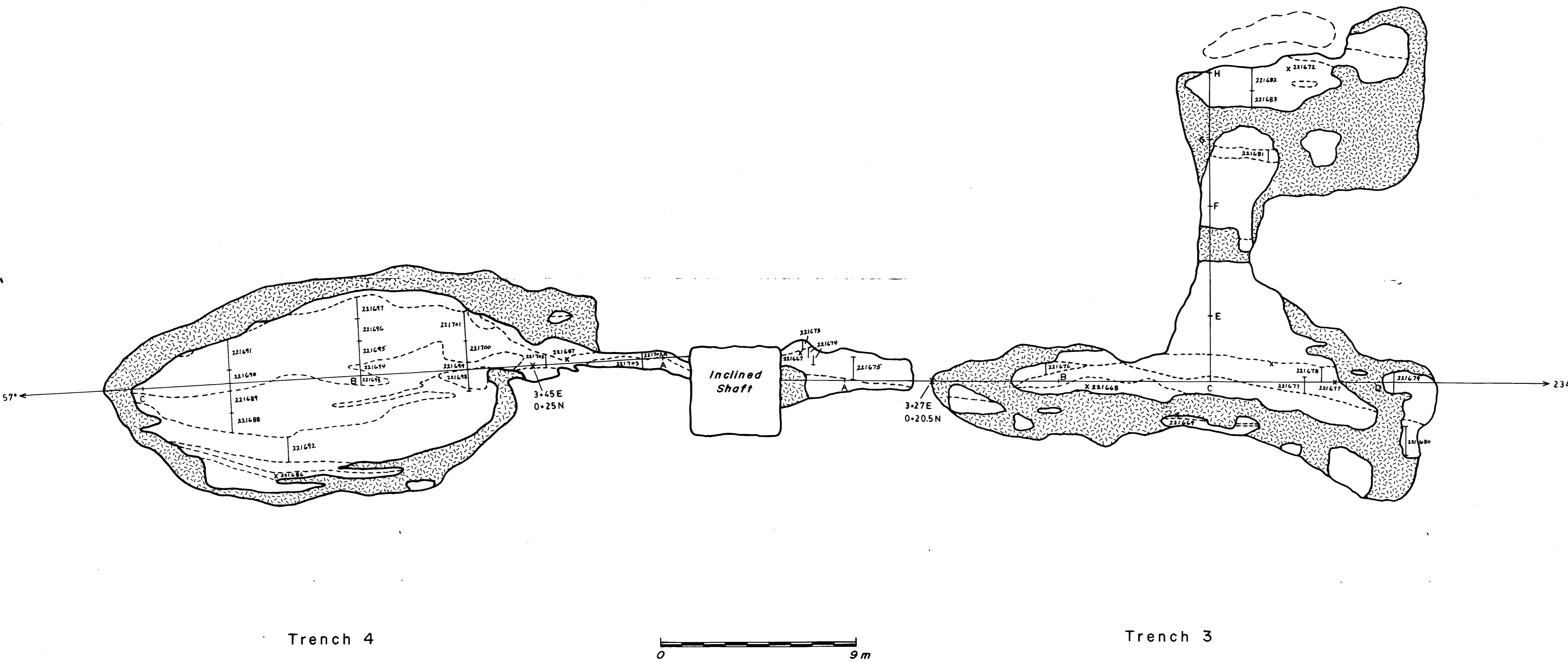
Trench 3

## James Lake Property

## Trench 3 and 4 - Geology

DRAWN BJC	DATE Jan. 1994	NTS 31C/15	Figure 8a.
Revised _____			

Brennan Cleverette



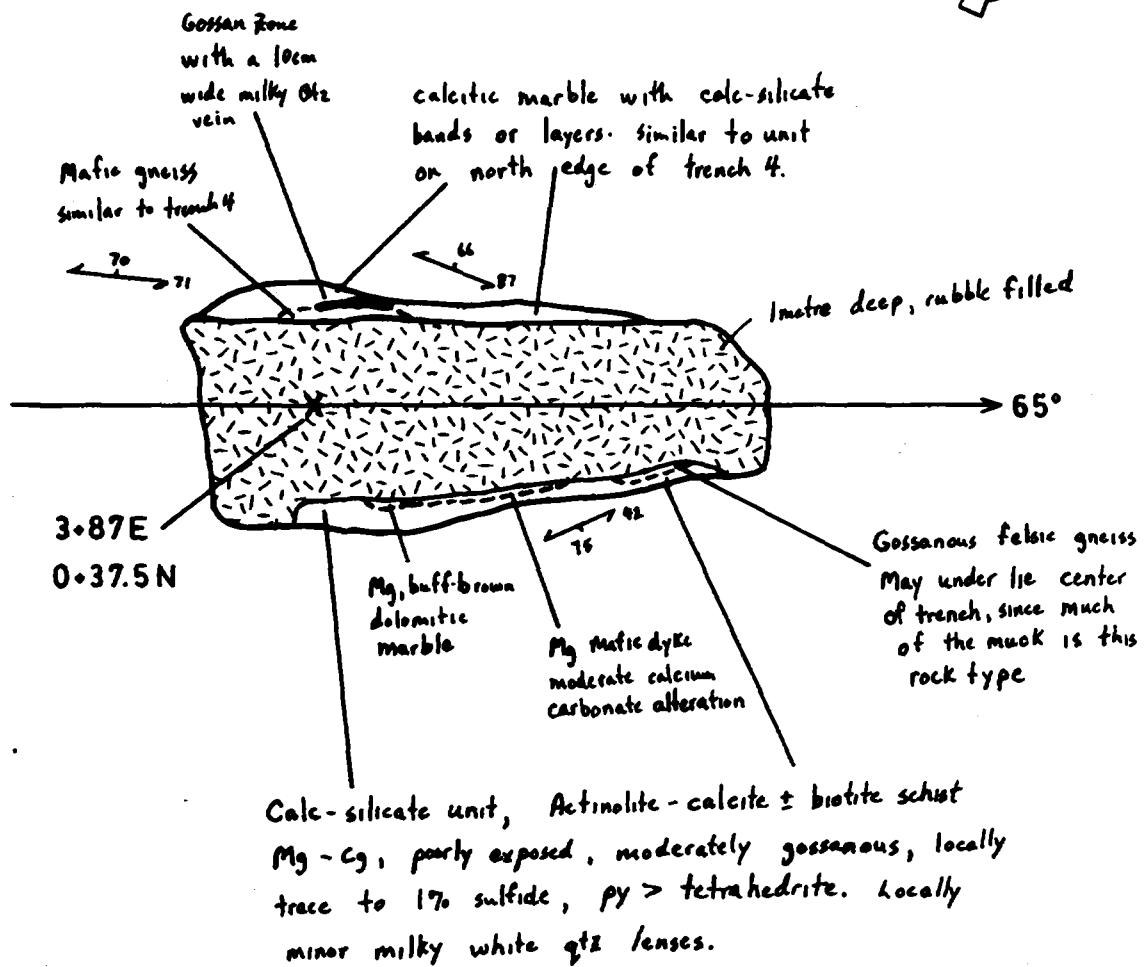
## Trench 4

## Trench 3

# James Lake Property

### Trench 3 and 4 - Samples

DRAWN BJC	DATE Jan. 1994	NTS	Figure
Revised _____		31C / 15	8b.



### James Lake Property

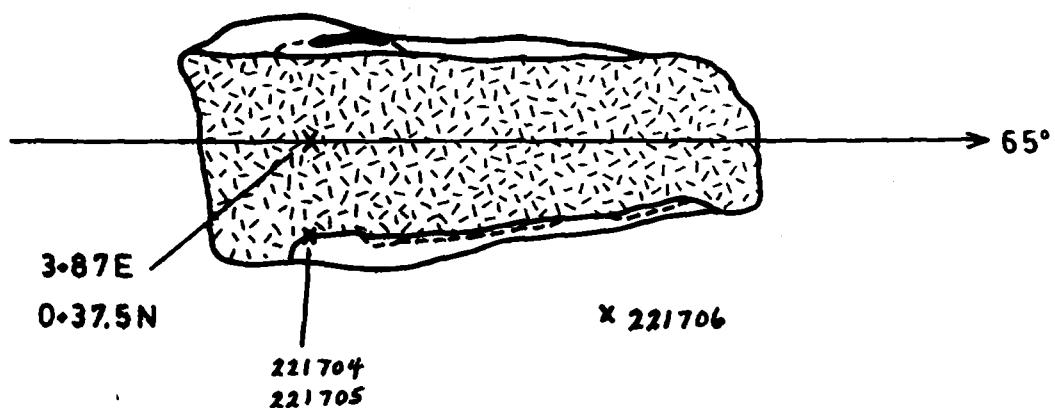
#### Trench 5 - Geology

0 5m

DRAWN BJC	DATE Dec.1993	NTS 31C/15	Figure 9a.
Revised			



31C15NW2001 OP93-422 CLARENDON



0                    5m

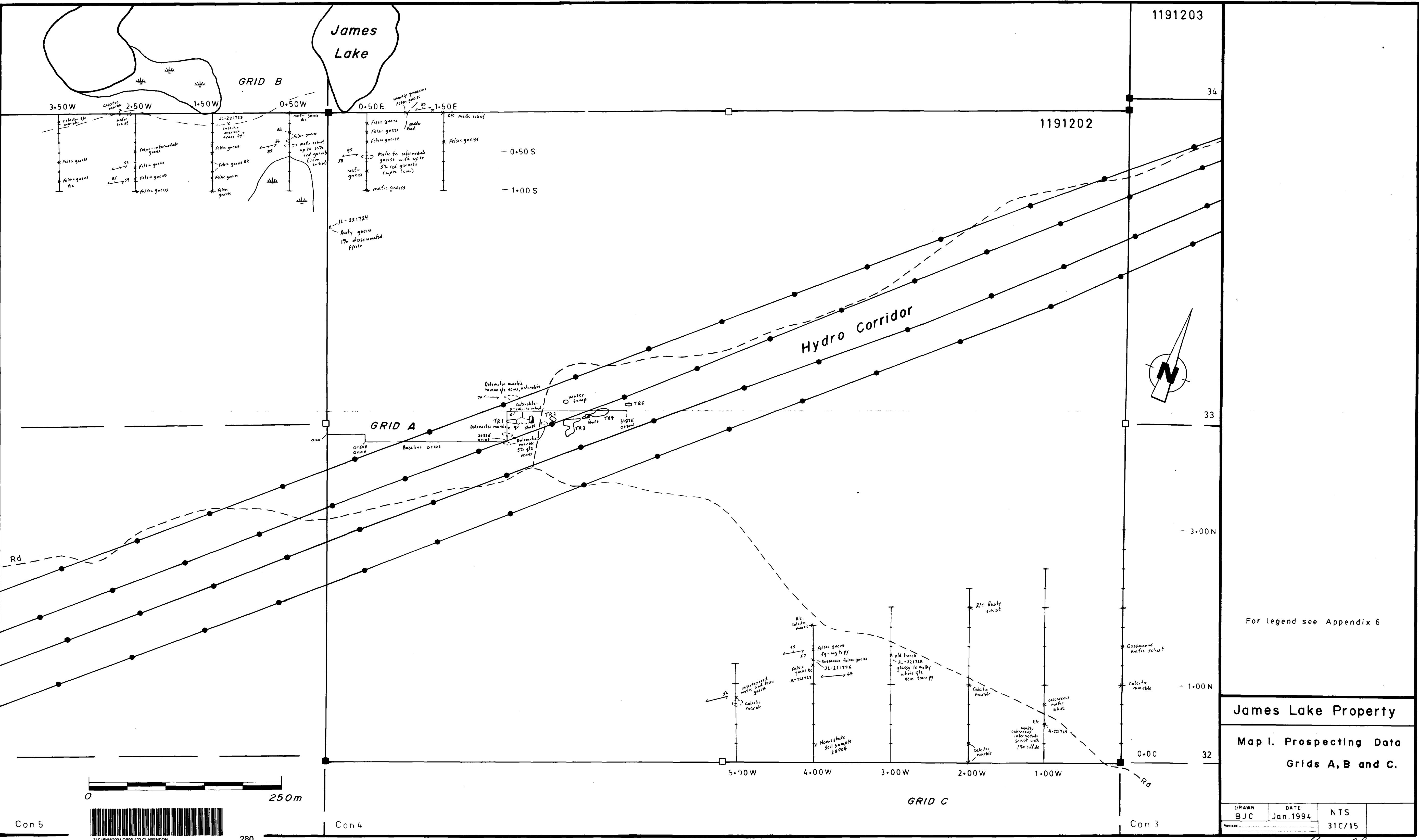


James Lake Property

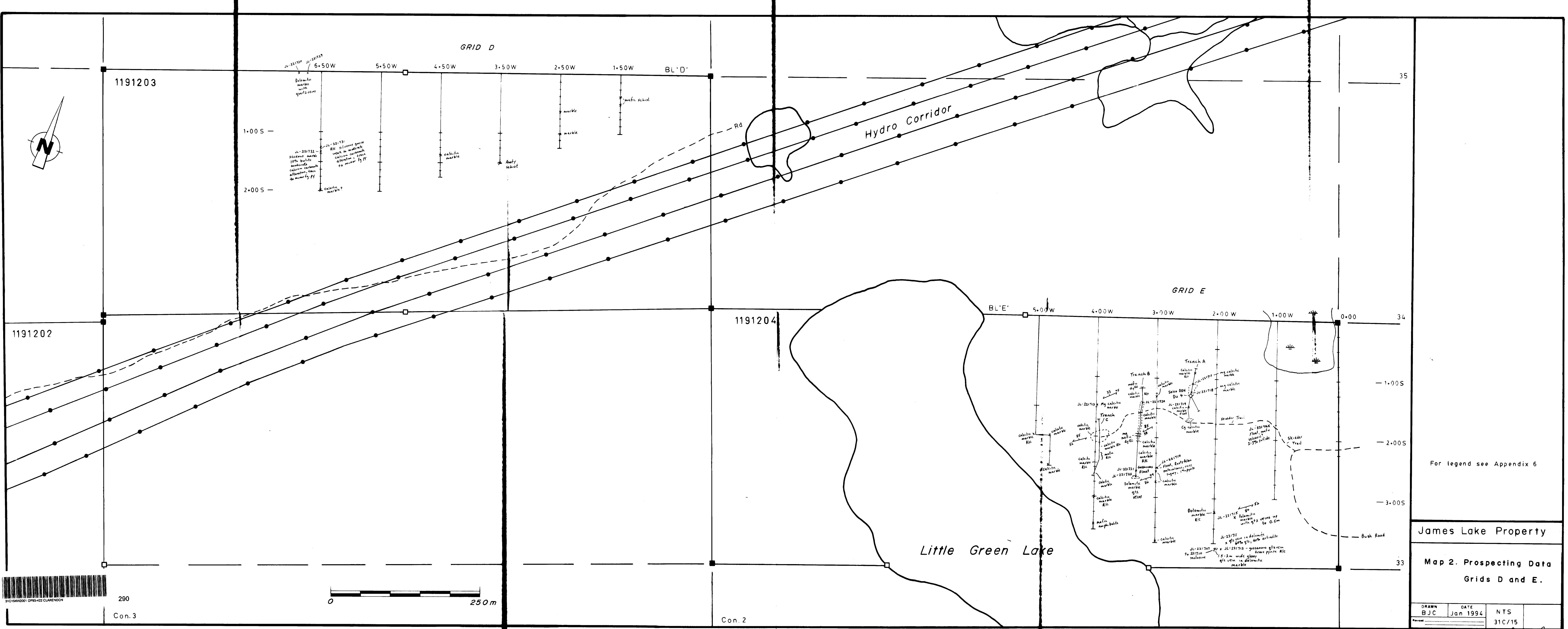
Trench 5 - Samples

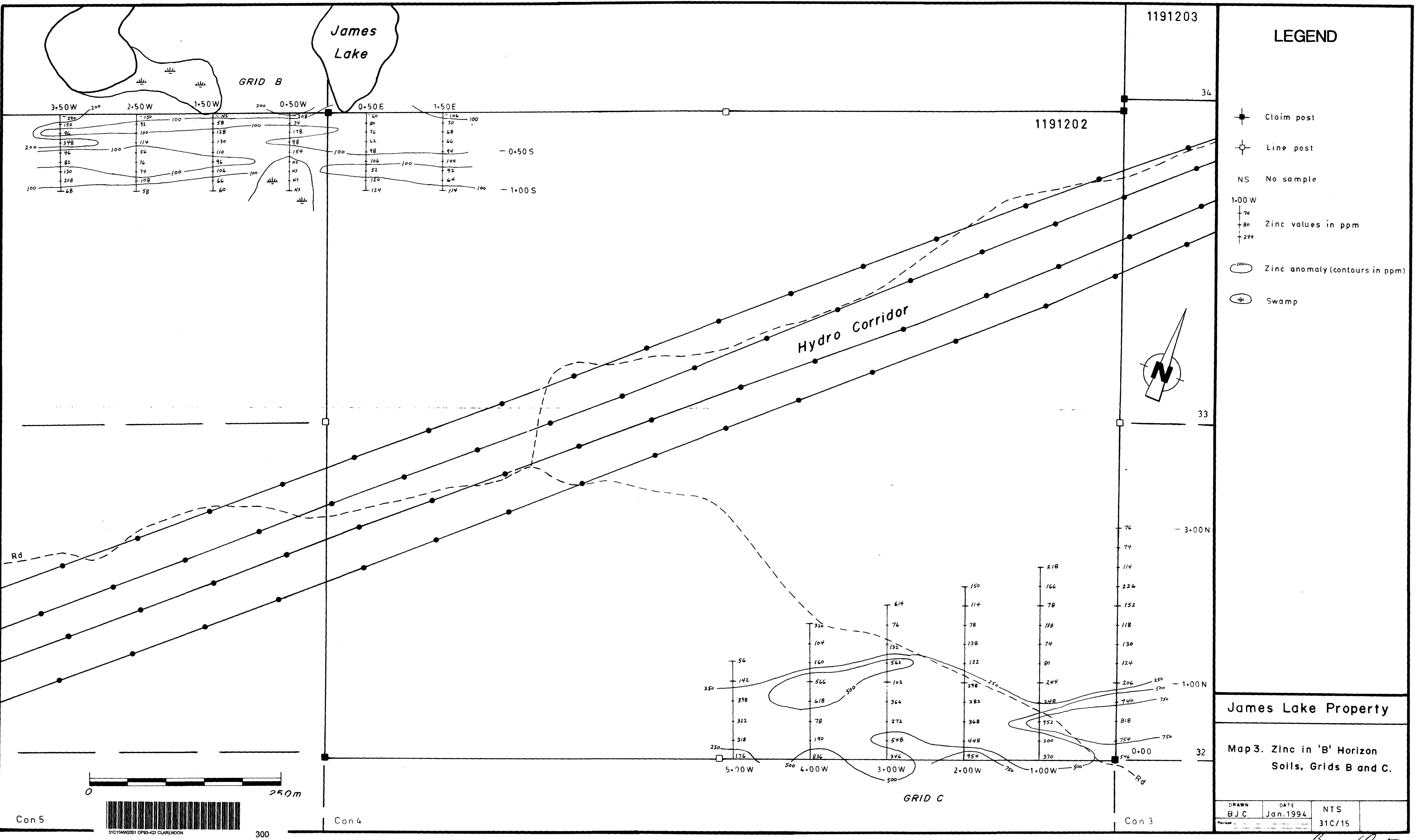
DRAWN BJC	DATE Dec. 1993	NTS 31C / 15	Figure 9b.
Moving			

Brian Christie



Brian Chester





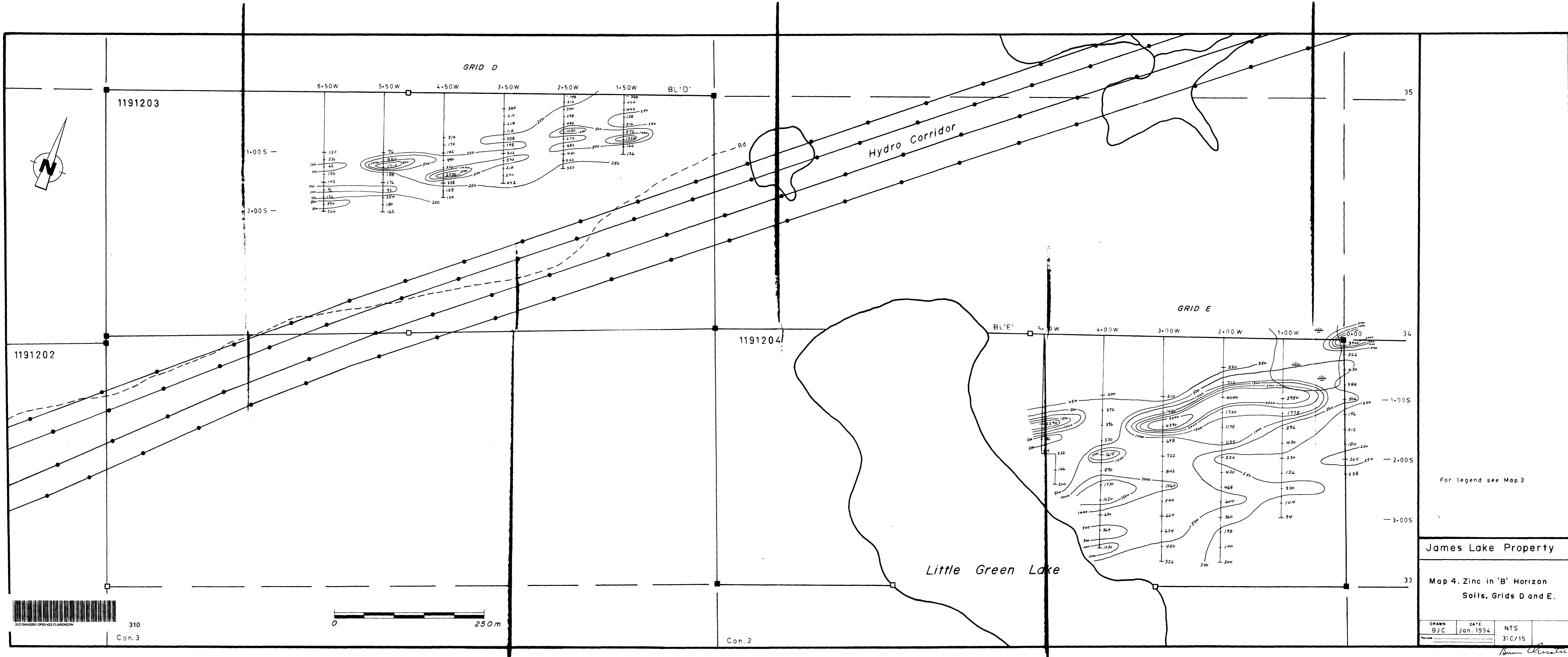
END

191203

## es Lake Property

### Map 3. Zinc in 'B' Horizon Soils, Grids B and C.

DRAWN BJC	DATE Jan. 1994	NTS 31C/15	
Revised -			



## LEGEND

- Claim post
- Line post
- NS No sample
- 1.00 W Lead values in ppm
- 50 Lead anomaly contours in ppm
- Swamp

34

1191203

1191202

33

20

- 3.00 N

14

- 1.00 N

32

14

16

18

20

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