BRITISH COLUMBIA

PROSPECTORS ASSISTANCE PROGRAM

MINISTRY OF ENERGY AND MINES

GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR:	1996/1997
REPORT #:	PAP 96-7
NAME:	ROBERT CAMPBELL

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Requirements/Regulations, section 15, 16 and 17.**
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (*see* section 16) required with this TECHNICAL REPORT.

Name Robert Campbell Reference Number 96/97 P10

LOCATION/COMMODITIES

Project Area (as listed in Part A) Coronation Lake MINFILE No. if applicable 092B-133

Location of Project Area NTS 092B/13 Lat 48°57'50" Long 123°56'26"

Description of Location and Access located 9 Km. west of Ladysmith on Vancouver Island. Access is via the Timberwest Forest Rd. from Christie Rd. west from the Island Highway. - see attached report

Main Commodities Searched For Au, Ag, Cu, Fe, Mo, Main pyrite, pyrrhotite, arsenopyrite, molybdenite and Mn bearing minerals.

Known Mineral Occurrences in Project Area V V- Cu - Mo Showing in drill hole Chem-6, located in the south-central part of the project - see attached report

WORK PERFORMED See attached report

1. Conventional Prospecting (area) 9.5 Km^2
2. Geological Mapping (hectares/scale) ~ 300 hectares; scales 1:5,000 + 1:10,000
3. Geochemical (type and no. of samples) rock - 11 samples; stream sediments - 34 samples
4. Geophysical (type and line km) VLF-EM survey - 11.43 Km; magnetic survey - 11.43 Km.
5. Physical Work (type and amount) Flagged Grid Establishment - 14.93 Km.
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify)

SIGNIFICANT RESULTS

Commodities Ag Crock with sulphides - sample 170683) - 0.02 opt Claim Name not staked

Location (show on map) Lat 48°57'19" Long 123°56'16" Elevation 560 meters

Best assay/sample type - 0.02 oz/ton Ag (outcrop sample 170683) + 4 stream sediments with anomalous Au, Ag, Cu, Zn, Fe, Mn, Mo, Ni, Co, +As - see attached report

Description of mineralization, host rocks, anomalies also see attached report

Mineralization - 5 to 10% pyrite (170683) within sheared fine-grained diorite with quartz veining along Bush Creek; cherts + dacites with 5-10% pyrite, 250 to 300 m. SE of VV Showing; quartz rich lens with 5% pyrite, 3-5% pyrrhotite, + trace chalcopyrite in gabbro sill. Anomalies - numerous stream sediment geochemical results; magnetic ESE striking anomalies; 17 VLF-EM crossovers forming 4 ESE trending anomalous zones + 5 1-line conductors.

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act.*

B. TECHNICAL REPORT (continued) - Robert Campbell

LOCATION/COMMODITIES

DESCRIPTION OF PROJECT AREA

The Coronation Lake Project area is located 9 km. west of the southern end of the town of Ladysmith, on Vancouver Island, in the northeast corner of NTS Map 092B/13. The area is forest covered by second growth cedar and fir. The southeastern quarter of the area is covered by small trees which have been cut and left lying 1 meter above the ground, making traversing difficult and slightly dangerous. Small swamps are situated in the southern and eastern parts of the project area. Coronation Lake lies in the east-central region with the north flowing branches of Bush Creek and east and south flowing Chipman Creek crossing the eastern and southwestern parts of the project area. Topographical relief varies from 400 meters in the northeast to 760 meters in the southeast and southwest corners. A power line trends north-northwest across the area of the flagged grid.

Access to the project is via Christie Road west from the Island Highway, 0.4 km. north of Ladysmith, then by the Timberwest Forestry Road south-southeast, west and west-southwest to the northeast corner of the project. Christie Road joins the forestry road 1.5 km. from the highway. The property is reached after traveling on the forestry road for 8 km., just west of the bridge over Bush Creek. Driveable forestry roads cross the northeastern, eastern, south- western and northwestern parts of the project area (see Figure 1). Various deactivated roads and trails also cross the property.

KNOWN MINERAL OCCURRENCES IN THE PROJECT AREA

The VV Cu-Mo Showing (092B-133) is located 200 meters from the southern boundary in the central part of the project. The old drill setup was found (near line 8E at 7+50S on the flagged grid) during the 1996 prospecting program, see Figure 2. In 1977 Imperial Oil staked the VV claim, covering approximately 15% of the project area, completed 2 km. of geophysical surveying (magnetics and horizontal loop-electromagnetics) and collected 14 geochemical samples (Assessment Report 6548). Coincident 400 meter long, west-northwest trending, magnetic and EM anomalies were tested by Esso Minerals in a single 93.6 meter drill hole, Chem-6, in 1979 (Report 7323). Minor graphitic argillite; a sequence of siliceous tuffs, altered to garnet skarns; altered skarn breccia, with up to 15% pyrite and pyrrhotite, minor chalcopyrite and trace molybdenite; fragmental tuff; and sheared andesites were intersected. Mineralized skarn breccia assayed 0.117% Cu and 0.007% Mo over 1.7 meters and 0.028% Cu and 0.015% Mo over 1.1 meters.

A large mafic dyke with some chalcopyrite was reported, in the Appendix 2 (Minefile No: 092B 104-Coronation Mountain) of the BC MEMPR Paper 1992-4, to occur near the northwestern boundary. The mineralization was found along a trail near line 8W at 5N, see Figure 2.

WORK PERFORMED

CONVENTIONAL PROSPECTING

The project area covering 9.5 square km. was prospected, concentrating on areas of road cuts and trails, creeks and the flagged grid. Approximately 40 km. of prospecting traverses were run on the property, between June 18 and 25, 1996 and between July 24 and 27, 1996. During the prospecting program outcrop and boulder locations were found, mineralization, veining and alteration noted, the drill setup was located, and topographical features mapped. Points of reference are lettered and flagged at various locations on the project area. The results of the prospecting are presented on Figures 1 and 2 at scales of 1:10,000 and 1:5000, respectively.

GEOLOGICAL MAPPING

Between Aug. 2 and Aug. 7, 1996 all outcrop exposures, boulders, mineralization, veining deformation and alteration were mapped. Approximately 300 hectares were covered. The data collected in the geological mapping program is compiled in Figure 1 (scale 1:10,000), showing the whole project area, and in Figure 2 (scale 1:5,000), detailing the gridded area.

GEOCHEMICAL SURVEYING AND ROCK SAMPLING

Thirty-four stream sediment/silt samples were collected at 100 to 150 meter intervals in Chipman Creek and the two tributaries of Bush Creek, between July 28 and Aug. 1, 1996. Chipman Creek flows east across the southwestern part of the project, splitting and forming a swamp in an area of low topographical relief near line 4E. The east branch of Bush Creek starts in a small swamp located on line 2E at the baseline and flows to the north, crossing the northeastern corner of the project area. The western tributary of Bush Creek flows intermittently across the north-central part of the project and was difficult to sample due to the diminishment of the flow. The geochemical sediment/silt surveying was completed to enhance anomalous Cu (R29) and Mn (R28) results produced by the BC MEMPR RGS in Chipman and Bush Creek, respectively. Anomalous Au values were also found during the RGS, 3.5 km. east (R44-208 ppb) and 1.5 km. north-northwest (R42-71 ppb) of the project. The samples were dried and sent to Acme Analytical Laboratories Ltd. in Vancouver. At the lab 30 gm. were sieved to 80 mesh, digested by aqua regia and ultrasonic ICP analysis performed for 34 elements (Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Tl, Hg, Se, Te, and Ga). Au assaying was completed using the graphite furnace and the atomic absorption method of analysis.

Between Aug. 2 and Aug. 7, 1996, while the geological mapping was being completed, 11 rock grab samples were collected of mineralization, quartz veining and alteration. At the Acme

lab all the samples were assayed for Au and Ag using the fire assay method. Three samples (170858, 170859 and 170860) were analyzed for Mn using whole rock ICP. The assay results and sample descriptions are shown in Table 1.

The analysis/assay certificates for the stream sediments/silts and rock samples are included in Appendix 1. The Au, Ag and Mn assay results are plotted on Figure 2 (scale 1:5,000). Au, Ag, Cu, Zn, Pb, Mn, and Mo analytical results for the stream sediment/silt samples are shown on Figures 1 (scale 1:10,000) and 2 (scale 1:5,000).

GEOPHYSICAL SURVEYING

Magnetometer Survey

The total field magnetic survey was completed along the 11.43 km of flagged crosslines, between July 11 and July 15, 1996. A Gem Systems GSM 8 proton precession magnetometer was used to collect approximately 475 readings at 25 meter intervals. The magnetic survey was performed to collect data which will help define contacts between rock units of varying magnetic susceptibilities and to delineate the locations of potential fault zones.

The GSM 8 magnetometer measures the total field intensity of the earth's magnetic field in gammas. The instrument has a sensitivity and repeatability of one gamma or better. A base station, for determining the magnetic diurnal variations, was established on the baseline at 4+75 E. The total field readings, corrected for diurnal variations and minus a base value of 55,000 gammas, were plotted on Figure 4 (1:5,000). The values were contoured at 100 gamma intervals.

VLF-Electromagnetic Survey

The very low frequency-electromagnetic survey was conducted using a Geonics EM-16 unit. Approximately 475 readings were collected at 25 meter stations along the 11.43 km of crosslines, between July 16 and July 23, 1996.

The VLF-EM survey uses powerful radio transmitters located in different parts of the world which were established for military communications. Relative to the frequencies generally used in geophysical exploration, the frequencies used in VLF-EM surveying are considered to be high. These powerful radio waves induce electrical currents in conductive bodies thousands of miles away. The induced currents produce secondary magnetic fields which are detected at surface through deviations of the normal VLF field. This secondary field from the conductor is added to the primary field vector, so that the resultant field is tilted up on one side of the field vector and down on the other side. The VLF receiver measures the field tilt, with the in-phase and quadrature components of the vertical magnetic field as a percentage of the horizontal primary field, i.e. the tangent of the tilt angle and elipticity. The Geonics EM-16 unit has a repeatability and sensitivity of 1 %.

Interpretation of the results is quite simple, the conductor is located at the point marked at the crossover from positive tilt (vertical in-phase) to negative tilt. The main advantage of the VLF method is that it responds well to poor conductors and has been proven to be a reliable tool in helping to map faults-shear zones, mineralization, conductive horizons and rock contacts. The major disadvantage is that because of the high frequency of the transmitted wave, a multitude of

anomalies from unwanted sources, such as swamp edges, lakeshores, creeks and changes in topographical and bedrock relief, may be delineated. So some amount of care must be taken in interpreting the results collected in areas displaying the above-mentioned topographical features.

Because of the trends of the rock units underlying the project area and the proximity to the station, the transmitting station at Seattle, Washington (NLK), frequency 24.8 kHz was used. The readings were collected with the instrument facing 0 degrees.

The VLF-EM in-phase and quadrature data collected was plotted in percent on Figure 3 at a scale of 1:5,000. These values were then profiled at a scale of 1 cm equals 20 %. The conductor axes were determined and given labels, A, B, C. etc. No priority or significance was attached to the labeling system.

PHYSICAL WORK

Grid Establishment

A 14.93 km. flagged grid was established in the western part of the project in late June and early July, 1996. The area of the grid was picked, after a program of preliminary prospecting, to cover the southwestern contacts of the Ladysmith Pluton, a fault zone, the mineralized gabbro, the VV Showing and Imperial Oil geophysical anomalies (see Figure 1). A baseline was established at angles of 105 and 285 degrees and crosslines were flagged at azimuths of 15 and 195 degrees at 200 meter intervals along the baseline. A tieline was flagged at 10S. All lines were well flagged and 25 meter stations were marked on each line.

SIGNIFICANT RESULTS

BEST ASSAY/SAMPLE TYPE

Sample No.	Sample Type	Best Assay/Analysis
170683	outcrop	0.02 oz/ton Ag, <0.001 oz/ton Au
C-01	stream sediment/silt	6 ppb Au, 60.8 ppm Cu, 65.9 ppm Zn
C-04	stream sediment/silt	6.28 % Fe
C-09	stream sediment/silt	123 ppb Ag, 2313 ppm Mn, 4.2 ppm Mo, 15.0 ppm Pb
C-31	stream sediment/silt	132 ppm Ni, 31 ppm Co, 4.6 ppm As

DESCRIPTION OF MINERALIZATION HOST ROCKS ANOMALIES

Prospecting, Geological Mapping and Rock Sampling

The location of the drill pad of Esso Minerals Chem-6 drill hole of the VV showing was located in an area of deadfall between lines 6E and 8E at 7+50S. The northwest corner post of

the VV claim was found 500 meters north of the drill pad. Detailed prospecting in the area delineated the positions of outcrop 200 meters to the southeast.

Outcrop exposure on the project area is poor to moderate, with outcroppings found in the northwest and southeast parts of the grid, along Chipman and Bush Creeks, and in road cuts in the northern half of the project area. Volcanic and sedimentary rocks of the Sicker and Buttle Lake Groups and Mount Hall gabbros are in contact with granodiorites and diorites of the southern part of the Ladysmith Pluton.

In the southeast corner of the grid, Sicker Group intermediate metavolcanic dacite flows are intercalated with cherts of the Buttle Lake Group and intruded by medium-grained Mount Hall gabbro sills. The cherts and dacites are heavily mineralized with 5 to 10 % fine-grained pyrite (samples 170858 to 170860). Au and Ag values in these samples were < 0.001 and < 0.01 oz/ton, respectively and Mn assays of up to 0.18 % were obtained. These flows and chert horizons are located along strike from the VV Showing, which lies 250 to 300 meters to the northwest. Outcrops of Sicker Group basalt and pyroxenite were mapped 50 to 100 meters to the east of the cherts and dacites. Traversing in these areas was extremely difficult due to the presence of deadfall lying 1 meter above the ground.

Buttle Lake Group sediments (greywacke, siltstone and argillite) strike east-southeast to east along the banks of Chipman Creek, west of the grid. The sediments contain no sulphides and are in contact with granodiorites to the south.

The most predominant rock exposed on the project area are granodiorite of the Ladysmith Pluton. These fine to medium-grained granodiorites grade into diorite in the northeast part of the grid and along the south end of Bush Creek. The granodiorite contains trace amounts of pyrite, zenoliths of mafic metavolcanics, and gabbro sills. The diorites in the northeast part of the grid are barren of sulphides. The diorites along the creek are mineralized with 5 to 8 % pyrite, are cut by a 1.3 meter wide, east trending shear zone and contain quartz veining. Sample 170683 of diorite with 5 % disseminated pyrite assayed 0.02 oz/ton Ag. The zenoliths of fine-grained basalt located in the northern part of the grid are slightly mineralized with up to 1 % pyrite. In the northwest corner of the grid a 20 meter wide east-southeast striking sill of fine-grained gabbro is surrounded by outcrops of granodiorite. The gabbro contains quartz rich lenses, magnetite, 5 % pyrite, 3 to 5 % pyrrhotite and trace chalcopyrite. Three samples, 170863 to 170865, were collected and assayed for Au and Ag, returning very low results. This exposure of gabbro is the showing described in Paper 1992-4 (Minefile No. 092B 104).

Geochemical Stream Sediment/Silt Survey

Four of the thirty-four stream sediment/silt samples collected, contained anomalous values. Samples C-01 (6 ppb Au, 60.8 ppm Cu, and 65.9 ppm Zn) and C-04 (6.28 % Fe) were collected in Chipman Creek, near outcrops of Buttle Lake sediments. Also, in the headwaters of Chipman Creek, in the vicinity of a large swamp, anomalous Ag (120 ppb), Ni (132 ppm), Co (31 ppm) and As (4.6 ppm) results were found in sample C-31. Near exposures of mineralized diorite along the south end of Bush Creek, sample C-09, exhibited 4.2 ppm Mo, 15 ppm Pb, 123 ppb Ag and 2313 ppm Mn. All the samples, C-01 to C-06 and C-27 to C-32, collected in Chipman Creek contained elevated Cu values, 46.0 to 60.8 ppm. The MEMPR RGS sample R29 (43.0 ppm Cu)

was also collected in Chipman Creek, in the vicinity of the locations of samples C-28 to C-32, along strike west-northwest of the VV Showing. Geochemical samples C- 12, C-11, C-10 and C-09, with anomalous Mn (1457 to 2313 ppm) were collected from Bush Creek, 0.75 to 1 km. south of RGS sample R28 (1400 ppm). The best Au analysis, of 6 ppb, was dramatically lower than the Au analyses reported in RGS samples R44 (208 ppb) and R42 (71 ppb) collected 3.5 and 1.5 km. east and north-northeast of the project area.

Total Field Magnetic Survey

The data collected by the total field magnetic survey enhances the results presented on the MMPR Aeromagnetic Map 9270G, defining the locations of narrow, usually less than 50 meters wide, magnetic highs and lows striking east-southeast across the flagged grid. The magnetic values north of the baseline are high, greater than 56,000 gammas, while those in the south are less than 56,000 gammas. Highs over 57,000 gammas form two zones striking east-southeast across the northern part of the grid. The northern high overlies the mineralized gabbro sill. The southern high is wider, continuing to the east across the baseline, ending 300 meters west, along strike of the mineralized diorite located along Bush Creek. This high could define the position of the western extension of this mineralized diorite. North and south of this high in the north grid, the local magnetic relief is high and the magnetic values are low, respectively, indicating that granodiorites with zenoliths of basalt and zones of diorite underlie the north and granodiorite underlies the south.

The magnetic values and relief are lower over the grid, south of the baseline, suggesting that most of this area is underlain by homogeneous rocks of lower susceptibility, probably granodiorite and sediments. Three east-southeast trending zones of highs could be caused by gabbro sills. Isolated small highs could define the positions of zenoliths of Sicker Group basalt. The Chem-6 drill hole cuts across one of these small highs. The magnetic contour is broken and offset in the eastern of the south grid, forming a linear zone striking north-northeast from the south part of line 4E to the baseline at 9E. This linear zone could be the result of an underlying fault zone, lying 100 meters west of the VV Showing.

Small, isolated magnetic lows lie south of magnetic highs in the survey area. These lows are probably caused by the normally polarized highs lying to the north, as a result of the dipolar nature of magnetism.

VLF-Electromagnetic Survey

Seventeen crossovers, forming 4 east-southeast striking conductive anomalies, were delineated by the data collected in the VLF-electromagnetic survey. The anomalies could be caused by topography (change in relief or conductive overburden) or by underlying bedrock features, such as contacts and shears which could be mineralized. Descriptions and possible causes for each anomaly are discussed below.

Anomaly A is 1.2 km. in length, comprised of 2 conductors which are cutoff at line 2E. The eastern conductor lies in a narrow weak magnetic low and could represent a shear in grano-

granodiorite. The western conductor is located in a wide high and could be caused by a shear in diorite.

Anomaly B, also comprised of 2 conductors, lies along the edges of two narrow magnetic highs, cutoff and offset to the north at line 6E. Near line 8E, the conductor is positioned near the horizontal loop anomaly tested in drill hole Chem-6. The strike of the conductor appears to continue east of line 10E, but deadfall conditions made traversing extremely difficult. To the west the conductor is offset 200 meters to the north. Anomaly B appears to represent sulphide mineralization in a zenolith of Sicker Group volcanics.

Anomaly C is situated in a magnetic low lying between 2 highs. The eastern end of the conductor overlies a swamp and could be caused by conductive overburden. The west end of the conductor could define a small part of the southern contact of the Ladysmith Pluton.

Anomaly D is a 300 meter long conductor, lying along a magnetic low, 25 meters north of a creek valley. It appears to be caused by conductive overburden or a change in topographical relief.

The positions of five one-line conductors were also delineated. Results of the magnetic survey, mapping and prospecting programs indicate that these conductors are possibly caused by narrow, short shears in rocks of the Ladysmith Pluton.

TABLE 1 - SAMPLE DESCRIPTIONS

Sample	Type	Sample Descriptions	Assay/Analysis Values
170682	Grab	0.45 meter wide quartz vein in diorite with 1 % pyrite.	< 0.001 oz/ton Au < 0.01 oz/ton Ag
170683	Grab	Diorite with 5 % disseminated sulphides.	< 0.001 oz/ton Au 0.02 oz/ton Ag
170684	Grab	Silicified shear mineralized with 5 to 8 % pyrite 1.3 meters wide cutting diorite.	< 0.001 oz/ton Au < 0.01 oz/ton Ag
170858	Grab	Gossened siliceous chert with up to 5 % pyrite.	< 0.001 oz/ton Au < 0.01 oz/ton Ag 0.07 % Mn
170859	Grab	Chert, gossened zone, siliceous, 5 % pyrite.	< 0.001 oz/ton Au < 0.01 oz/ton Ag 0.08 % Mn
170860	Grab	Fine-grained dacite flow, siliceous, slightly iron-stained with up to 10 % pyrite.	< 0.001 oz/ton Au < 0.01 oz/ton Ag 0.18 % Mn
170861	Grab	Fine-grained basalt zenolith within granodiorite trace to 1 % fine-grained pyrite.	< 0.001 oz/ton Au 0.01 oz/ton Ag
170862	Grab	Granodiotite, fine to medium-grained, unaltered trace pyrite.	< 0.001 oz/ton Au < 0.01 oz/ton Ag
170863	Grab	Fine-grained gabbro sill within gabbro, slightly magnetic, up to 10 % pyrite and pyrrhotite.	< 0.001 oz/ton Au 0.01 oz/ton Ag
170864	Grab	Very fine-grained gabbro sill at contact with the granodiotite with cherty gray quartz zone, slightly magnetic, 3 to 5 % pyyrrhotite, up to 1 % pyrite, trace chalcopyrite.	< 0.001 oz/ton Au < 0.01 oz/ton Ag
170865	Grab	Fine-grained gabbro sill, same as 170863 and 170864, magnetic containing a 2 cm. bleb of pyrrhotite.	< 0.001 oz/ton Au 0.01 oz/ton Ag

APPENDIX 1

ANALYSES/ASSAY CERTIFICATES

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

ASSAY CERTIFICATE

Robert Campbell PROJECT CORNATION LAKE File # 96-6130 Page 1

413 Victoria Road, Nanaimo BC V9R 4R2

SAMPLE#	Ag** oz/t	Au** oz/t
170682	<.01	<.001
170683	.02	<.001
170684	<.01	<.001
170858	<.01	<.001
170859	<.01	<.001
170860	<.01	<.001
170861	.01	<.001
170862	<.01	<.001
RE 170862	<.01	<.001
170863	.01	<.001
170864	<.01	<.001
170865	.01	<.001
STANDARD R-1/AU-1	2.95	.099

AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: P1 ROCK P2 SILT
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 20 1996 **DATE REPORT MAILED:** Dec 6/96 SIGNED BY. D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Data FA

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

WHOLE ROCK ICP ANALYSIS

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413 Victoria Road, Nanaimo BC V9R 4R2

SAMPLE#	Mn %
170858	.07
170859	.08
170860	.18

MN BY LIBO2 FUSION, ANALYSIS BY WHOLE ROCK ICP.
- SAMPLE TYPE: P1 ROCK P2 SILT

DATE RECEIVED: NOV 20 1996 DATE REPORT MAILED: Dec 6 96 SIGNED BY. D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Data FA

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

GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE

Robert Campbell PROJECT CORNATION LAKE File # 96-6130 Page 2

413 Victoria Road, Nanaimo BC V9R 4R2

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
C-01	1.1	60.8	4.1	65.9	74	66	23	602	5.19	.9	<5	2	32	.19	<.2	.2	144	.64	.090	8	91	1.35	319	.19	<2	2.66	.04	.11	<2	<.2	148	.7	<.2	7.7	6
C-02	1.2	53.9	2.7	51.4	58	67	20	469	4.32	1.5	<5	1	22	.09	<.2	.1	116	.47	.070	7	97	1.28	228	.14	4	2.04	.03	.07	<2	<.2	77	.4	<.2	6.9	2
C-03	1.7	59.2	3.4	49.3	46	55	18	535	4.10	1.4	<5	2	22	.10	<.2	<.1	118	.48	.063	7	72	1.00	300	.15	2	2.11	.03	.07	<2	<.2	63	.3	<.2	7.5	5
C-04	1.0	54.7	3.6	64.0	61	125	34	724	6.26	1.8	<5	2	25	.13	<.2	.1	140	.48	.086	7	164	2.22	218	.16	3	2.65	.03	.09	<2	<.2	82	.4	<.2	8.6	3
C-05	.9	51.2	3.6	57.7	34	103	27	634	5.81	2.0	<5	2	25	.09	<.2	<.1	141	.53	.078	7	156	1.86	166	.16	<2	2.32	.03	.08	<2	<.2	73	<.3	<.2	7.7	3
C-06	.9	53.3	3.3	62.8	72	109	30	663	5.52	2.6	<5	2	27	.10	<.2	<.1	128	.57	.086	7	152	2.02	183	.17	5	2.45	.03	.09	<2	<.2	69	<.3	<.2	7.9	1
C-07	2.9	40.8	10.8	47.0	93	26	16	878	3.80	2.1	<5	1	29	.16	<.2	.1	120	.57	.067	7	39	.74	199	.14	<2	2.20	.03	.06	<2	<.2	118	.7	<.2	7.6	1
C-08	3.1	32.0	11.6	50.5	86	29	14	608	2.25	.9	<5	1	26	.17	<.2	.1	76	.49	.061	7	36	.80	193	.12	<2	1.98	.02	.05	<2	<.2	94	.5	<.2	7.5	1
C-09	4.2	45.1	15.0	63.7	123	35	33	2313	3.40	1.1	6	1	50	.35	.2	.1	101	.84	.092	10	39	.80	376	.13	5	2.29	.03	.07	<2	<.2	214	1.1	<.2	7.6	2
C-10	3.7	35.7	10.9	54.2	98	25	26	1538	3.17	1.3	<5	1	45	.29	.2	.1	93	.81	.078	9	37	.68	279	.13	6	2.14	.02	.05	<2	<.2	181	.9	<.2	7.2	3
C-11	3.2	31.9	9.6	39.2	64	20	23	1457	2.89	1.6	<5	1	31	.25	<.2	.1	87	.56	.064	7	30	.51	183	.10	3	1.74	.02	.03	<2	<.2	124	.7	<.2	6.9	3
C-12	3.1	28.8	9.7	46.8	82	22	26	1628	3.04	.9	<5	2	38	.25	.2	<.1	89	.66	.074	10	33	.56	221	.12	2	1.98	.02	.05	<2	<.2	154	.6	<.2	6.6	<1
C-13	1.5	32.2	5.4	36.8	61	19	11	467	3.13	1.4	<5	2	18	.08	.5	<.1	105	.41	.059	7	30	.45	98	.13	2	2.14	.02	.04	<2	<.2	107	.4	<.2	6.0	1
C-14	1.5	29.6	7.3	38.3	46	17	15	937	3.16	1.3	<5	1	29	.13	<.2	<.1	92	.59	.066	7	26	.43	145	.12	<2	1.77	.02	.03	<2	<.2	114	.4	<.2	5.3	1
C-15	.7	31.0	14.0	40.6	32	16	11	611	4.00	2.1	<5	2	27	.09	<.2	.1	133	.65	.065	7	33	.49	118	.14	2	1.57	.03	.05	<2	<.2	79	<.3	<.2	4.6	2
C-16	1.3	18.3	6.5	31.3	53	14	9	320	2.22	1.0	<5	1	32	.11	.2	.1	76	.56	.051	8	25	.47	115	.12	2	1.58	.02	.03	<2	<.2	115	.4	<.2	5.6	2
C-17	1.6	21.4	7.5	35.9	37	20	8	208	1.61	.9	<5	1	28	.10	<.2	<.1	61	.52	.055	8	32	.56	133	.12	<2	1.83	.02	.03	<2	<.2	99	.5	<.2	6.2	<1
C-18	2.2	19.4	3.4	34.0	79	19	15	453	1.98	.6	<5	<1	25	.10	<.2	.1	68	.45	.062	10	30	.51	117	.09	<2	1.92	.02	.03	<2	<.2	107	1.0	<.2	5.1	<1
RE C-18	2.4	20.8	3.7	38.1	100	24	18	512	2.17	.5	<5	<1	28	.10	.2	.1	73	.50	.071	11	32	.55	114	.11	5	2.11	.02	.02	<2	<.2	93	1.3	.2	6.1	2
C-19	1.8	17.4	5.0	28.7	34	17	11	415	2.11	.6	<5	1	20	.09	<.2	<.1	68	.40	.050	9	28	.48	88	.10	<2	1.59	.02	.03	<2	<.2	111	.5	<.2	4.6	1
C-20	2.4	28.0	2.9	34.1	82	27	10	225	1.55	<.5	<5	1	39	.20	<.2	<.1	61	.69	.065	16	37	.54	154	.11	4	2.22	.04	.03	<2	<.2	165	1.3	<.2	5.7	1
C-21	2.0	22.4	9.6	38.6	56	20	18	1481	2.92	1.7	<5	1	32	.13	<.2	<.1	84	.53	.057	7	29	.56	154	.10	2	1.68	.02	.03	<2	<.2	113	.4	<.2	4.8	3
C-22	2.0	22.2	7.8	34.6	50	20	14	634	2.20	1.4	<5	1	24	.12	<.2	<.1	67	.44	.053	7	27	.49	123	.10	3	1.55	.02	.03	<2	<.2	117	.4	<.2	4.6	1
C-23	2.9	20.6	2.2	33.8	52	19	12	261	1.81	1.0	<5	1	14	.08	<.2	<.1	63	.30	.051	10	34	.54	93	.10	2	2.12	.01	.02	<2	<.2	100	.7	<.2	5.1	2
C-24	.6	11.0	1.9	15.2	<30	11	4	120	.76	.5	7	<1	18	.06	<.2	<.1	36	.31	.039	10	17	.22	81	.08	4	1.69	.02	.02	<2	<.2	99	.5	<.2	4.1	1
C-25	1.1	24.1	7.2	35.0	45	16	10	465	3.20	1.7	<5	1	32	.11	<.2	<.1	105	.65	.060	8	29	.49	135	.12	2	1.67	.02	.03	<2	<.2	102	.4	<.2	4.6	1
C-26	1.3	56.0	3.3	54.1	69	79	21	556	4.10	3.3	<5	2	26	.11	.2	.1	105	.53	.064	7	95	1.44	224	.15	7	2.24	.03	.07	<2	<.2	82	.6	.2	5.8	3
C-27	.7	38.2	2.5	37.1	41	36	10	236	2.90	1.4	<5	3	21	.06	<.2	<.1	91	.53	.077	7	56	.77	185	.14	<2	1.78	.03	.05	<2	<.2	67	.3	<.2	5.2	2
C-28	.9	48.5	2.8	46.8	50	62	17	463	4.24	2.4	<5	2	24	.10	<.2	<.1	118	.57	.080	7	85	1.08	198	.15	2	1.95	.03	.06	<2	<.2	63	.5	<.2	4.9	2
C-29	.9	51.6	3.3	53.8	64	81	22	599	4.10	3.2	<5	2	28	.12	<.2	<.1	105	.61	.085	8	107	1.38	206	.15	<2	2.22	.03	.07	<2	<.2	83	.7	<.2	5.4	1
C-30	1.0	53.3	2.8	54.9	49	73	20	563	4.29	3.1	<5	2	26	.10	<.2	<.1	111	.56	.080	7	97	1.33	218	.14	2	2.19	.03	.08	<2	<.2	77	.5	<.2	4.9	1
C-31	1.1	55.9	2.2	68.8	120	132	31	757	5.07	4.6	<5	1	29	.11	<.2	<.1	114	.58	.088	9	168	2.12	168	.15	4	2.93	.03	.07	<2	<.2	98	1.0	<.2	6.0	2
C-32	.9	46.7	2.3	53.6	44	80	21	506	4.15	2.7	5	2	24	.08	<.2	<.1	100	.50	.071	6	119	1.51	173	.15	2	2.05	.03	.07	<2	<.2	69	.4	<.2	4.4	3
C-33	.8	46.0	2.4	53.5	42	82	19	419	3.92	2.7	<5	1	23	.07	<.2	.1	96	.48	.069	6	114	1.49	170	.15	<2	2.08	.03	.06	<2	<.2	62	.4	<.2	4.9	2
C-34	1.3	30.2	7.3	41.2	97	18	19	1331	3.18	1.9	<5	1	30	.21	<.2	<.1	97	.59	.073	10	26	.38	162	.10	2	1.97	.02	.03	<2	<.2	138	.8	<.2	4.1	1
STANDARD	25.5	131.1	103.7	302.1	2012	35	19	1112	4.51	79.3	18	21	54	2.14	10.5	27.3	77	.77	.123	16	55	1.32	262	.13	26	2.37	.04	.66	18	2.6	470	.5	2.5	7.1	50

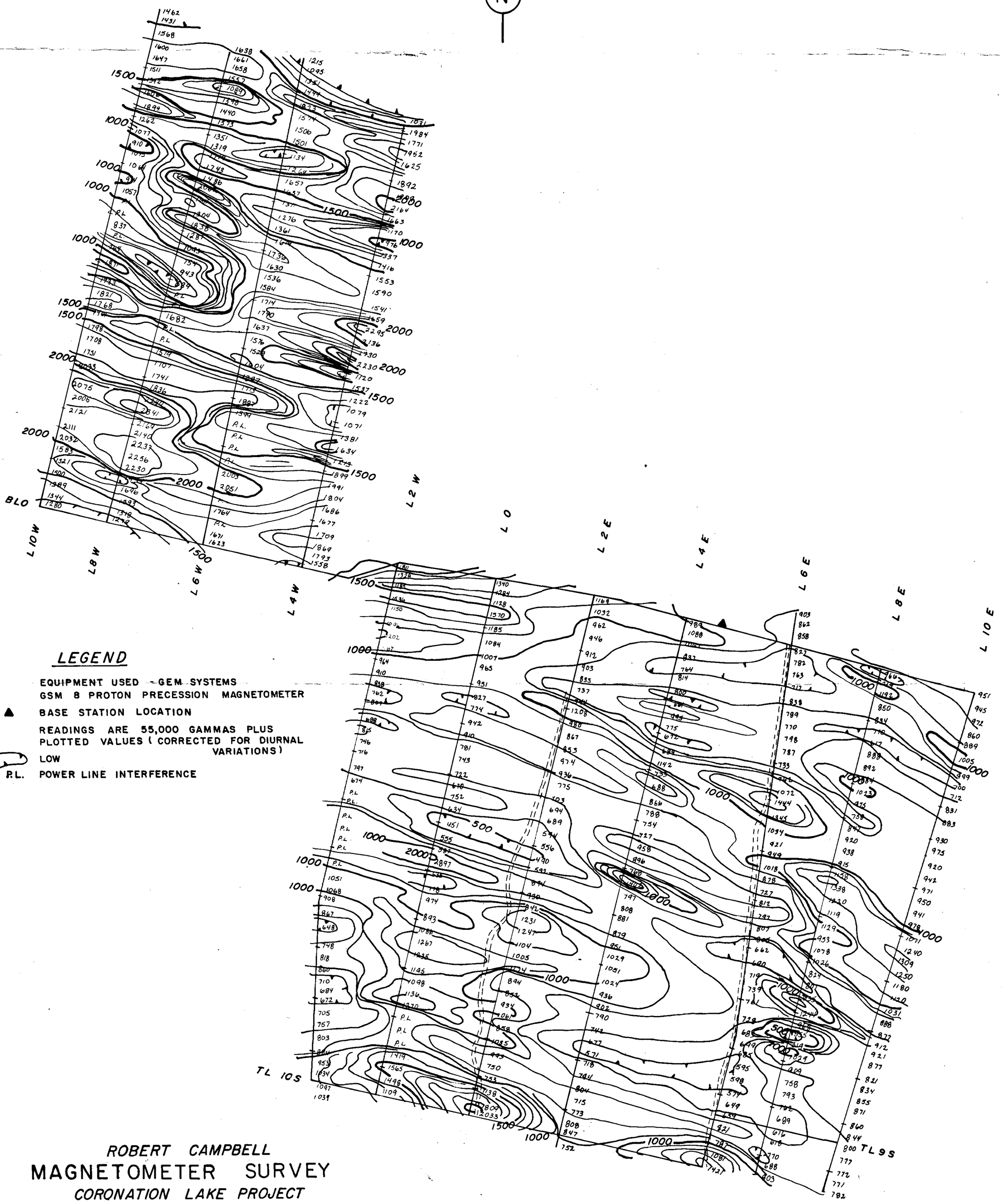
Standard is STANDARD D2/HG-500/AU-S.

ICP - 15 GRAM SAMPLE IS DIGESTED WITH 90 ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 300 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL. SOLUTION ANALYSED DIRECTLY BY ICP. MO CU PB ZN AG AS AU CD SB BI TL HG SE TE AND GA ARE EXTRACTED WITH MIBK-ALIQUAT 336 AND ANALYSED BY ICP. ELEVATED DETECTION LIMITS FOR SAMPLES CONTAIN CU,PB,ZN,AS>1500 PPM,Fe>20%.

- SAMPLE TYPE: P1 ROCK P2 SILT AU+ - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 20 1996 DATE REPORT MAILED: Dec 6/96 SIGNED BY. ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Data FA



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MAGNETOMETER SURVEY

CORONATION LAKE PROJECT

NTS 92 / 8 / 13 Scale: 1: 5,000 FIGURE 4

m 200 100 0 100 200 m

Scale: 1: 5,000

96-07 (1)

N

L10W L8W L6W L4W L2W L0 L2E L4E L6E L8E L10E BLO

TL 10 S

TL 9 S

A B C D

LEGEND

x——x IN PHASE READING %

QUADRATURE READING %

PROFILE SCALE 1cm = 20%

EQUIPMENT USED - GEONICS EM-16 UNIT

(A) CONDUCTOR AXIS WITH

O.S. OFF SCALE READING

\+ | - line

STATION USED - SEATLE, WASH.

NLK - FREQUENCY 24.8 kHz

READINGS COLLECTED FACING 0°

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VLF - ELECTROMAGNETIC SURVEY

CORONATION LAKE PROJECT

NTS: 92/B/13 Scale 1: 5,000 FIGURE: 3

m 200 150 100 50 0 100 200 m

SCALE: 1: 5,000

96-07 (2)

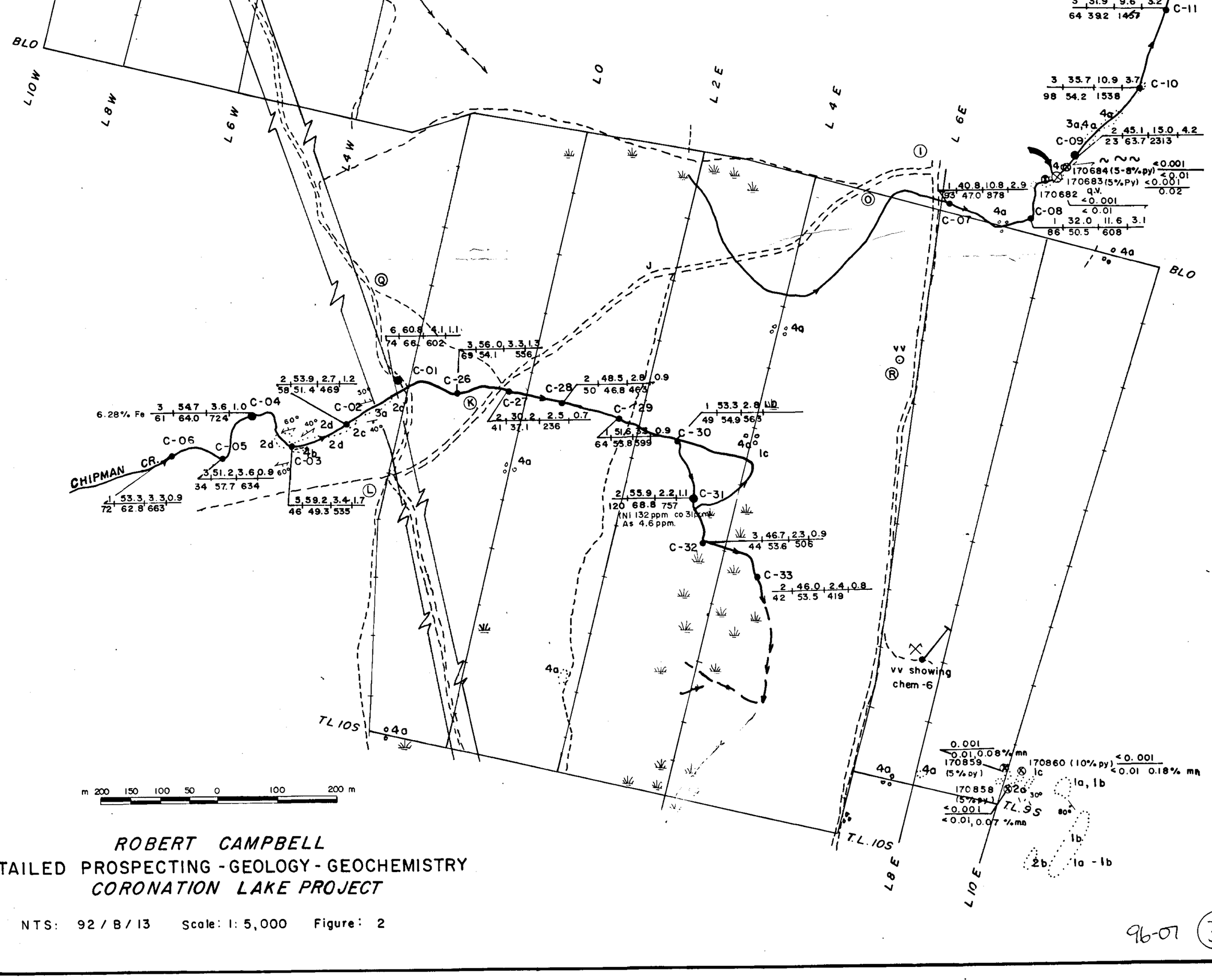
SYMBOLS

- OUTCROP
- BOULDERS
- CONTACT
- LINEATION, BEDDING WITH DIP
- FRACTURE WITH DIP
- ROCK SAMPLE LOCATION
- ASSAY RESULTS (Au oz/t / Ag oz/t)
- C-10 STREAM SED. SAMPLE LOCATION, WITH NO.
- GEOCHEM RESULTS (Au (ppb), Cu (ppm), Ph (ppm), Mo (ppm) / Ag (ppb), Zn (ppm), Mn (ppm))
- ESSO DRILL HOLE
- DRIVABLE ROAD
- TRAIL
- HYDRO LINE
- vv LEGAL CORNER POST
- FLAGGED GRID LINES
- py PYRITE
- cpy CHALCOPYRITE
- po PYRRHOTITE
- mt MAGNITE
- t TRACE
- qv QUARTZ VEIN

- (R) POINT OF REFERENCE
- CREEK
- INTERMITTANT CREEK
- SWAMP
- FLAGGED GRID LINES
- ANOMALOUS SEDIMENT SAMPLE LOCATION
- ANOMALOUS ROCK SAMPLE LOCATION
- SHOWING

LEGEND

4	ISLAND PLUTONIC SUITE
4a	GRANODIORITE
4b	GRANODIORITE WITH ZENOLITHS
4c	DIORITE
3	MOUNT HALL GABBRO
3a	GABBRO - MEDIUM. GRAINED
3b	MAFIC SILL - FINE GRAINED
2	BUTTLE LAKE GROUP
2a	CHERT
2b	HORNSFEL
2c	GREYWACKE
2d	SILTSTONE
2e	ARGILLITE
1	SICKER GROUP
1a	MAFIC FLOWS (basalt)
1b	PYROXENITE
1c	INTERMEDIATE FLOW (DACITE)



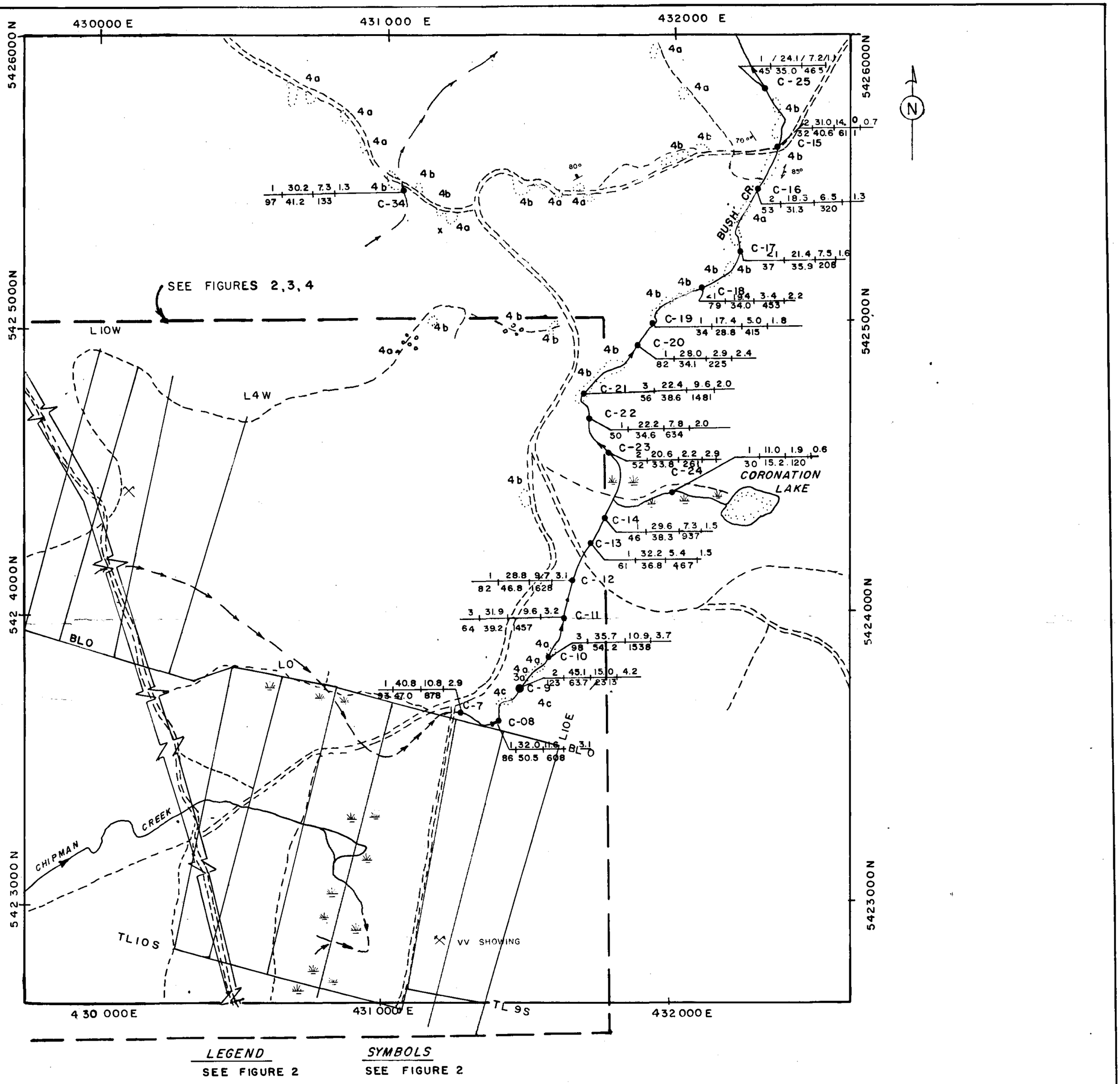
ROBERT CAMPBELL

DETAILED PROSPECTING - GEOLOGY - GEOCHEMISTRY

CORONATION LAKE PROJECT

NTS: 92 / B / 13 Scale: 1: 5,000 Figure: 2

96-07 (3)



Prospecting, Geological, Geochemical Compilation Map

CORONATION LAKE PROJECT

NTS 92 B/13

ROBERT A. CAMPBELL

SCALE 1:10,000

FIGURE 1 96-07 (4)