

LOG NO: 0120

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ACTION:

FILE NO:

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT  
ON THE  
CASTLE CLAIM GROUP  
LIARD MINING DIVISION

104G/16E

57° 48' 30" N

130° 12' 00" W

MINERALOGICAL BRANCH  
ASSESSMENT REPORT

BY  
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OF

TECK EXPLORATIONS LIMITED

FOR KAPPA RESOURCE CORPORATION

FILMED

OCTOBER, 1987

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## INTRODUCTION

This report summarizes the results of the 1987 field work on the Castle Claim Group, Liard Mining Division, B.C. The work was done by TECK EXPLORATIONS on behalf of the TECK CORPORATION - KAPPA RESOURCE CORPORATION joint venture.

### Location and Access

The Castle property is located on the south-west slope of Tsazia Mountain on the Klastline Plateau, northwestern British Columbia. The village of Iskut on the Stewart-Cassiar Highway is 15 km to the east and Dease Lake is about 70 km to the north. Access to the claims is by helicopter from a permanent base at Dease Lake. Excellent radiotelephone communications are available utilizing NorthwesTel's VHF repeater at Mt. Meehaus.

### Physiography

Elevations range from about 1300 m to 2130 m with the camp being situated at 1690 m. The property is entirely above tree-line in rugged, mountainous terrain and alpine meadow-tundra.

The main topographic features of the area are Tuktsayda Mtn. and Mount Edziza located about 5 and 25 km respectively southeast and southwest of the main area of interest. Edziza Peak, in Edziza Park, has been a recently active volcano rising to 2,788 m above sea-level. Smaller coeval black olivine basalt volcanic vents, necks, and flows form distinctive edifices such as Castle Rock on and near the claims.

The area of interest is usually snow-covered between late September and early June. Remnants of glaciers and patches of snow persist the year round on some sheltered, north facing slopes.

**CASTLE CLAIM  
GROUP**

P A C I F I C

**BRITISH COLUMBIA**

Scale 1:7,500,000



**TECK EXPLORATIONS LIMITED**

**LOCATION MAP**

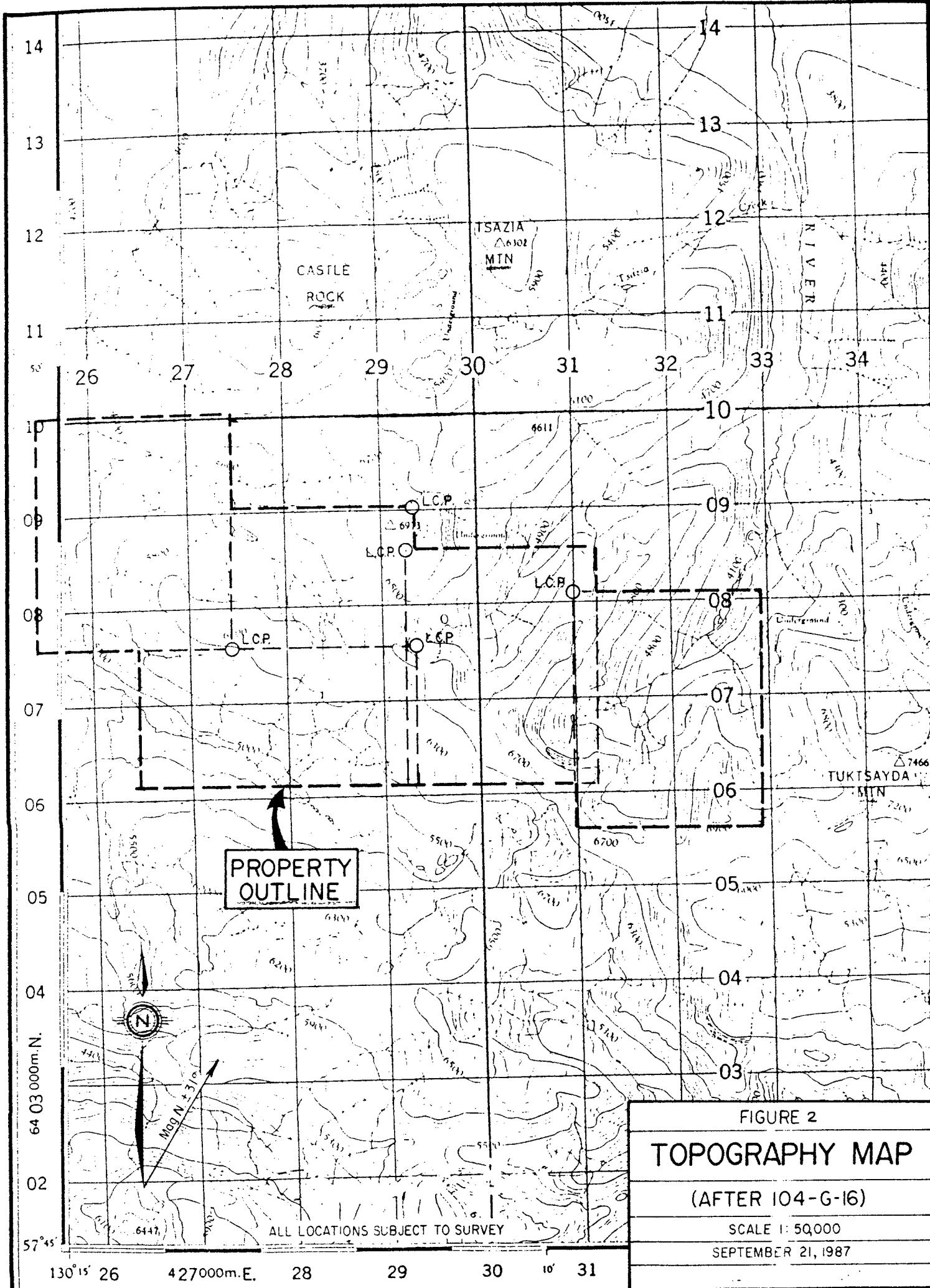
### History

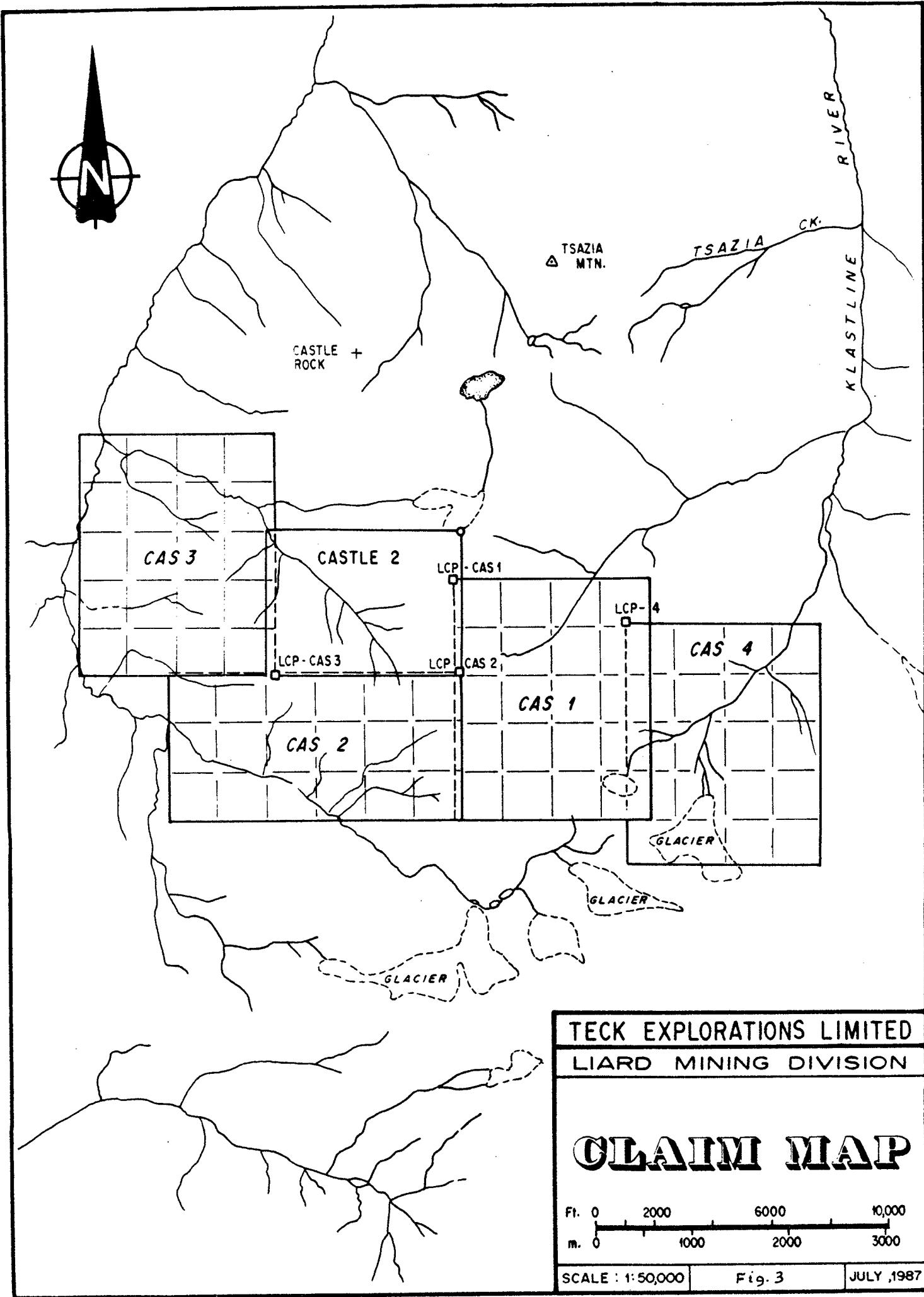
Sumitomo Metal Mining Canada staked the "JO" group of claims in 1970, and performed a geochemical soil sampling survey for copper in 1971. Later Sumitomo drilled five diamond drill holes totalling about 550 metres and allowed the claims to lapse. The drill core, logs and assays are not available but apparently no gold analysis was completed.

The Castle #1 and Castle #2 claims totalling 27 units were staked by TECK EXPLORATIONS in 1980 as part of a regional program. Limited soil sampling and mapping done in 1980 and 1981 indicated that a substantial area of pyritized volcanics was associated with geochemical anomalies in gold, silver and copper. Assessment was applied on the Castle #2 Claim which contained the anomalies and the Castle #1 was later allowed to lapse. Assessment work in 1985 consisting of hand-trenching and chip sampling, magnetometer, self-potential and VLF-EM surveying yielded positive results. KAPPA RESOURCE CORPORATION entered into a joint venture agreement with TECK CORPORATION in 1987 and funded the work described in this report.

### Work Done

Additional claims (CAS 1 - 4) were staked in June and a tent camp was erected in mid-July. A picket grid at 25m intervals was established on lines 50m apart for a total of approximately 14.5 km of line. Soil sampling was completed on the grid and a few silt samples were taken for a total of 545 geochemical samples. Self-potential and magnetometer surveys were carried out over the entire grid and about 10.5 km of IP survey was completed over the main area of interest. A small amount of hand trenching was done and 99 surface rock samples were assayed. A geological map was prepared.





Claims

The Castle Claim Group comprising five claims totalling 90 metric claim units is shown on figure 3. Claim data is tabulated below:

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Record Date</u>	<u>Recorded Owner</u>
CASTLE #2	1232(3)	3S x 4W = 12	March 26, 1980	Teck Corporation
CAS 1	4110(7)	5S x 4E = 20	July 6, 1987	Teck Corporation
CAS 2	4111(7)	3S x 6W = 18	July 6, 1987	Teck Corporation
CAS 3	4112(7)	5N x 4W = 20	July 6, 1987	Teck Corporation
CAS 4	4113(7)	5S x 4E = <u>20</u>	July 6, 1987	Teck Corporation
		TOTAL 90 units		
			=====	

GEOLOGY

Regional Geology

The regional geology of the area taken from G.S.C. Map: 11- 1971 is shown of figure 4. Most of the area is underlain by purple and greenish andesitic flows and pyroclastics of Upper Triassic age. Older black shales and other fine grained sediments are in fault contact with the volcanic units on the southern portion of the claims. Quaternary black olivine basalt tephra outcrops in several places on and near to the claims. A northwest striking, southwest dipping linear gossan up to about 200 m wide which transects most of the claim group is readily visible from the air. This shear (?) zone is mineralized throughout with pyrite and contains chalcopyrite and values in gold and silver on the northwest portion of the property where most of the exploration work has been concentrated.

Property Geology (figure 5.)

Actual outcrops in the grided area are sparse and have suffered such intense fracturing and alteration as to render lithologic identification in hand specimen very difficult. An outcrop map fig. 5, prepared by T. Dey is enclosed.

131°00'

45°

30°

15°

130°00'

58°00'

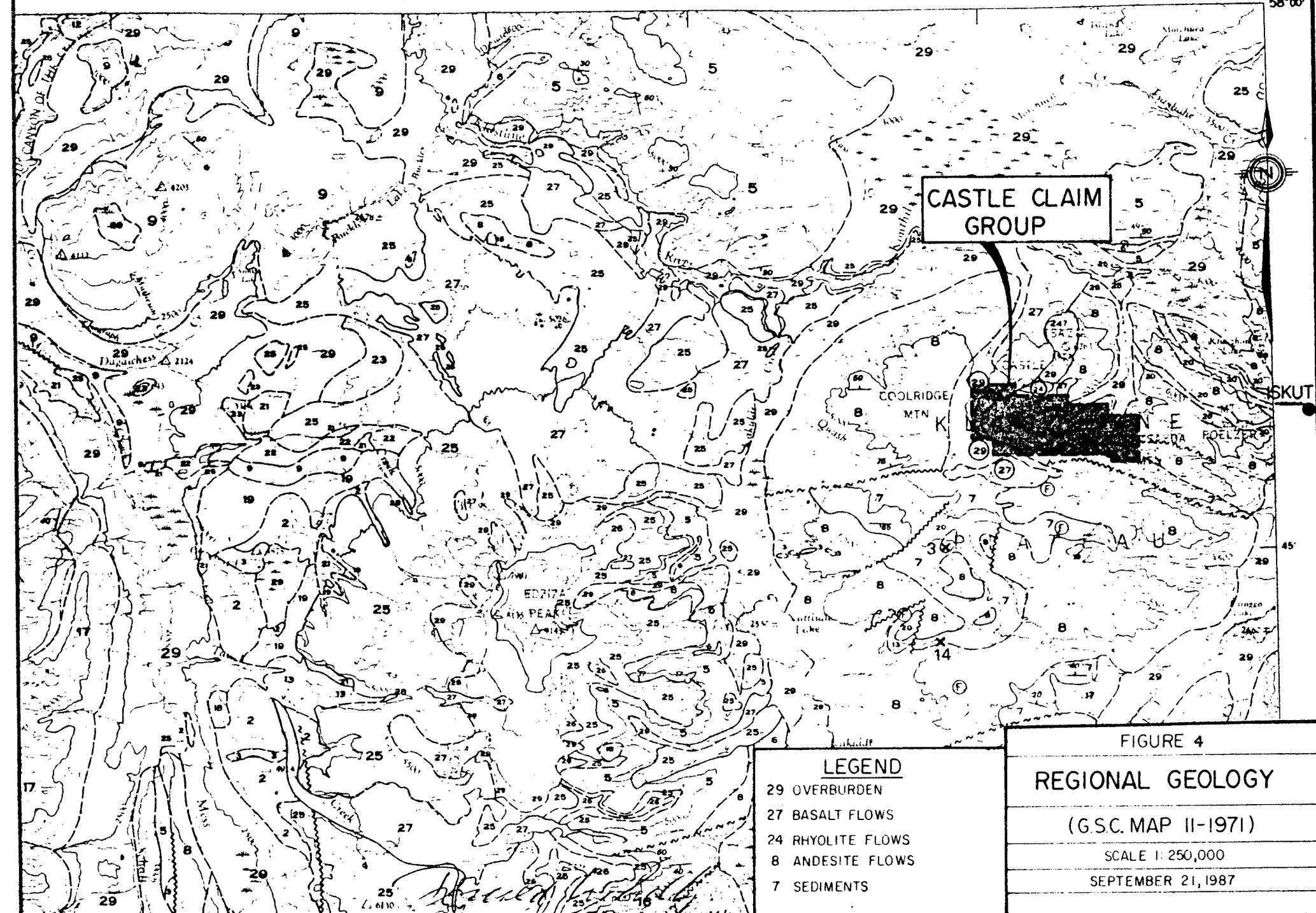


FIGURE 4

REGIONAL GEOLOGY

(G.S.C. MAP II-1971)

SCALE 1: 250,000

SEPTEMBER 21, 1987

### Lithology

Most of the rocks underlying the grid are fine to coarse grained tuffaceous, epiclastic volcanics from purplish to greenish in color. Some porphyritic volcanics were also noted, some of which may be intrusive in origin.

The lithologies were divided by color, grain size and intensity of alteration into seven separate units the first five of which are predominantly pyroclastic in nature:

1. Medium grained, grey-green volcanics, weakly altered.
2. Coarse grained green volcanics, some porphyritic phases, weakly altered.
3. Medium to coarse grained volcanics with pyrite, moderately altered.
4. Highly altered green volcanics with pyrite and sericite.
5. Purple pyroclastics, unaltered.
6. Light brown volcanic dyke, unaltered.
7. Felsite intrusive.

The felsite intrusive is a tan to orange, fine grained to very weakly porphyritic, feldspar rich, massive body which cuts the volcanic stratigraphy in a northeasterly direction. Except for traces of quartz veining and chalcopyrite and bornite, the felsite is unmineralized and may post-date the main mineralizing event as do a few small brownish volcanic dykes.

### Structure

The lithologies strike northwest-southeast (parallel to the base line) and dip 70 to 85 degrees southwest. Much of the quartz-sericite veining and alteration appears to be parallel to the stratigraphy except in the vicinity of fault zones. A fault zone apparently without significant displacement follows the main creek in a NNW direction. This fault and all lithologies and mineralization have been displaced by NNE faults with apparent dextral displacements up to about 50 m.

### Alteration

Phyllitic and propylitic alteration and attendant mineralization is structurally controlled along: 1) a major northwest trending zone which can be traced for several km. and is parallel to the volcaniclastic stratigraphy. 2) faults which cross-cut the main zone. Propylitic, or moderately altered volcanics are highly fractured and limonitic with pyrite, chlorite, and lesser epidote. Disseminated magnetite found at several locations may be related to the propylitic alteration. Phyllitic alteration is represented by assemblages of pyrite-sericite-quartz along relatively narrow structures within the propylitic zone and as a weaker but pervasive alteration product of the host volcanics. The narrow pyrite-sericite-quartz structures (shears?) are very slightly resistant to weathering and are easily recognized in outcrops. They host the gold mineralization.

### Mineralization

Pyrite is ubiquitous in a zone (see fig. 5) which has been mapped over an area at least 1.3 km long and up to 200 m wide. The zone continues to the southeast for another one to two km. but terminates at or before the felsite intrusion to the northwest. Pyrite also occurs in and near several cross-cutting fault zones. Generally, the maximum volume of pyrite would be about 5% as disseminations but semi-massive pyrite up to about 15% by volume is found along narrow structures particularly as float near 22 + 00 West, 1 + 25 South.

Malachite, chalcopyrite and traces of bornite are found with pyrite in several locations disseminated in altered volcanics. Although none of the occurrences appear to be of economic grade it was noted that copper occurs adjacent to gold bearing structures in less intensely altered but highly fractured rock.

Visible gold in quartz veinlets within sericitic structures was found near 17 + 00 W, 1 + 00 S and off of the grid at about 1 + 00 W, 1 + 45 N. Both occurrences were not traceable because of overburden. The first is a quite

spectacular occurrence which assayed 0.931 oz Au/T and 4.05 oz Ag/T over 1.0 m with visible gold deliberately omitted from the sample. A selected grab sample of the 5 cm qtz vein in which the native gold occurs assayed 4.03 oz Au/T and 12.66 oz Ag/T (visible gold omitted from the sample). The vein occurs within a sericite-pyrite alteration zone at least 5m wide containing gold values in the 0.01 to 0.02 oz Au/T range. Barite veining was noted nearby.

A second occurrence of native gold is located on the ridge top southwest of the end of the grid and initially assayed 1.156 oz Au/T over 0.4m. Another sample at the same location assayed 0.139 oz Au/T over 0.6m. Visible gold was noted on a 5mm wide quartz veinlet within a pyrite-sericite zone in purple pyroclastics. About 100m. away on strike a sample of float assayed 0.169 oz Au/T.

Several other sericite-pyrite structures were sampled as were most outcrops containing significant quantities of pyrite. All assays are plotted on figure 6 and significant assays are tabulated below:

Au oz/T	Ag oz/T	Cu %	Sample Width M	Notes
4.030	12.66	.01	Grab	V.G. omitted
0.931	4.05	.01	1.0 M	V.G. omitted
0.109	0.74	.01	2.0 M	same area
0.024	0.71	.01	1.0 M	same area
0.011	0.09	.03	1.5 M	same area
0.029	0.22	.02	0.6 M	Mo, Py
0.309	0.71	.01	0.3 M	doubtful outcrops
0.022	0.07	.01	2.0 M	
0.254	0.05	.01	0.9 M	
0.023	0.01	.03	1.8 M	repeat of above
0.062	0.04	.04	2.5 M	
1.156	0.10	.08	0.4 M	
0.139	0.17	.11	0.6 M	repeat of above
0.169	0.48	.27	(F)	same vein as above?
0.062	0.15	.29	(F)	

Au oz/T	Ag oz/T	Cu %	Sample Width M	Notes
0.046	0.12	.17	Grab	
0.062	0.31	.08	0.8 M	
0.047	0.31	.01	(F)	
0.058	1.73		(F)	Pyrite
0.232	1.81		(F)	Pyrite
0.033	0.20	.01	0.6 M	
0.042	0.16	.02	0.5 M	
0.056	0.17	.02	0.7 M	
0.029	0.02	.02	1.0 M	
0.042	0.52	.01	1.3 M	
0.061	0.52	.02	0.8 M	
0.042	0.25	.01	1.4 M	
0.035	0.20	.02	0.4 M )	
0.296	1.59	.70	0.3 M )	0.146/1.3 M
0.144	0.52	.21	0.6 M )	
0.055	0.67	.02	1.2 M	

Note: (F) = float

Small barite veins occur sporadically in the area of interest. They appear to be barren of gold mineralization perhaps being associated with a later mineralizing event. Molybdenite and galena in trace amounts were noted.

#### GEOCHEMISTRY

Soil samples were taken at depths of a few cm. in "B" or "C" horizon material in the poorly developed mountain soils. Many of the samples consisted of talus fines. Overburden is generally not thick but movement down slope has undoubtedly caused transport of anomalies downwards and has also covered mineralized bedrock with barren material. The soil was assayed by ICP techniques at Acme Analytical Labs in Vancouver. Gold analyses were performed by atomic absorption.

### Results (Fig. 7,8)

Analyses for Au, Ag and Cu were combined with the 1980 surveys and are plotted on figures 7 and 8. In general gold values greater than 100 PPB, copper greater than 200 PPM and silver greater than 1 PPM are considered anomalous.

Coincidental anomalies in Au, Ag and Cu extend 1.4 km. from line 9 + 50 W to line 23 + 50 W in a zone up to 400 m wide. Peak values are: Au - 1400 PPB, Ag - 13.0 PPM (omitting an erratic high value of 38 PPM), Cu - 5593 PPM. The better values occur near bedrock in creek gullies. A broad anomaly north of the baseline from 15 + 00 W to 22 + 00 W probably represents material which has been transported down-slope from the south. West of line 23 + 00 W all anomalies appear to terminate but this may simply be an effect of deeper overburden since there are a few sporadic highs down slope from projection of the zone.

## GEOPHYSICS

### Self Potential Survey (Fig. 9)

An S-P survey using porous ceramic pots and a "FLUKE" multimeter was completed with readings at 12.5 M intervals. The corrected results in negative millivolts are plotted on figure 9 which shows three small but distinct anomalies all of which occur adjacent to geochemical anomalies. The positive values on line 19W were checked and have no explanation.

### Magnetometer Survey (Fig. 10)

The corrected results of a magnetometer survey utilizing a GEOMETRICS total field proton magnetometer are plotted on Figure 10. The results reflect the fine disseminations of magnetite which were noted in some of the volcanics and have been used to interpret post mineral faulting in the central portion of the grid.

12.5 metre station readings

Regular tie-ins to a base station constituted  
corrected diurnal variation

Induced Polarization Survey (Fig. 11,12)      Dipole-dipole array

A frequency domain I.P. survey utilizing a dipole spacing of 25 M was conducted by PACIFIC GEOPHYSICAL LIMITED. Remnants of snow interfered with the continuity of the survey at three locations. Results are plotted on figure 11, which is a diagrammatic representation of the anomalies and also on figure 12 which is a contour map of the Fraser Filtered values of percent frequency effect.

A very strong I.P. effect (PFE greater than 10) occurs in a large elongate zone about 1100 M long which corresponds well with the geochemical data except in some instances the geochemical highs are down slope from the I.P. anomaly. This result is consistent with observations of solifluction (soil creep) on the hillsides resulting in the shifting of geochemical anomalies down slope from their source rocks. The visible gold occurrence at 17 + 00 W, 1 + 00 S is within a narrow portion of the I.P. anomaly which is displaced to the south by dextral faulting not far from the occurrence.

To the west the main portion of the I.P. anomaly rapidly dies out but it is probable that the I.P. effect has been masked by deeper overburden and that the mineralized zone does in fact continue for perhaps 200 metres until the felsite contact is reached. It is thought that the felsite contact may be marked by a small creek along line 25 + 50 W.

A very strong I.P. effect (PFE greater than 16) at 1 + 25 S on lines 21 + 50 W to 22 + 50 W occurs in an area of little outcrop. It is likely that the source rock contains a thin band of semi-massive pyrite within the larger pyrite zone. Copper, gold, and silver geochemical anomalies coincide with this strong I.P. anomaly.

DISCUSSION AND CONCLUSIONS

Potentially economic gold and silver values occur in quartz veinlets within shear (?) zones of sericite - pyrite - quartz alteration. Copper

mineralization is often located adjacent to these structures but is not usually within them. Disseminated pyrite, associated with propylitic alteration, yields a pronounced I.P. anomaly and forms a distinctive envelope enclosing the area of interest. The I.P. results can therefore be used to map the surface projection of the zone particularly where outcrops are sparse and the geochemical anomalies have been transported down-slope by erosion and solifluction. Figure 13 is a compilation of the salient geological, geochemical and geophysical features described above and shows the translation of geochemical results down slope from the assumed source areas.

The most significant gold occurrence found to date is near 17 + 00 W, 1 + 00 S where an assay value (omitting any obvious visible gold) of 0.931 oz Au/T, 4.05 oz Ag/T was obtained over a width of 1.0 M. Poor exposures prohibited further sampling along strike. The prospect is within a narrow portion of the I.P. anomaly on the flanks of both a magnetic and a self potential high (see figure 13). An area of structural complication and apparently post-mineral dextral faulting is projected to the east. Several other similar, parallel sericite-pyrite-quartz shear zones within the envelope of pyritization yielded interesting but sub-economic assays.

Narrow, high grade structures are interesting in themselves but for mining purposes a large tonnage, open pittable, lower grade zone should be the target. Such a zone could occur where the generally parallel sericite-pyrite-quartz mineralized structures are intersected by pre-ore structures in other directions. This structural geometry occurs between 15+00 W and 18+50 W south of the baseline where cross-cutting faults and the only exposed northwest-southeast trending sericite-pyrite shear zone are located. Another target area is line 21+50 W to 22+50 W, 1+75 S where a strong I.P. response suggests a narrow but high concentration of sulfides. Geochemical anomalies, pyritic float and sericite-pyrite-quartz altered bedrock are also present nearby. At 13+00 W to 14+00 W, 1+25 S an I.P. anomaly is located up slope from a geochemical high in an area of projected faulting.

RECOMMENDATIONS

The area surrounding the main zone of interest has not been examined and does require preliminary prospecting and reconnaissance geochemical sampling. On the main zone some hand trenching should be carried out where required and feasible but diamond drilling should be the main thrust of the next program. The initial program of NQ drilling should test:

- 1) the area between 15 W and 18 + 50 W south of the baseline.
- 2) between 21 + 50 W and 22 + 50 W, 1 + 75 S.
- 3) near 13 W to 14 W, 1 + 25 S.

Respectfully submitted,



October 28, 1987

P. G. Folk, P.Eng

CERTIFICATE OF QUALIFICATIONS

Peter G. Folk, P.Eng.

I hereby certify that:

1. I graduated from the University of British Columbia in 1971 with a B.A.Sc. degree in geological engineering.
2. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
3. I have worked since graduation as an exploration geologist and mine geologist in Canada and the United States.
4. The work described herein was carried out under my direct supervision.



P. G. Folk, P.Eng.

**APPENDIX I**

**CERTIFICATE OF QUALIFICATIONS**

**APPENDIX II**

**ITEMIZED COST STATEMENT**

ITEMIZED COST STATEMENT

P. Folk, P.Eng. Project Manager.

June 30, July 1, July 16 - July 21, July 27 - 30,

Aug 29, 30, Sept. 2 - 3

16 days @ \$230/D = \$ 3,680

J. Bacon, Prospector

June 30, 31 2 days @ \$132/D = \$ 264

J. Simpson, Claim Staker

June 30, 31 2 days @ \$200/D = \$ 400

D. Nikirk, Party Chief

July 16 - Sept. 6 53 days @ \$132/D = \$ 6,996

R. Nikirk, Helper

July 21 - Sept. 6 48 days @ \$93/D = \$ 4,464

T. Dey, Geologist

July 16 - Aug. 13 29 days @ \$132/D = \$ 3,828

I.P. Survey, PACIFIC GEOPHYSICS LIMITED

10.55 km of I.P. survey, Aug. 13 - 30 \$13,054

FRONTIER HELICOPTER, BELL 206 JET RANGER

Day	Hours
June 30	1.7
July 17	3.3
July 20	0.7
July 28	0.6
July 29	0.6
Aug. 2	0.5
Aug. 3	3.0
Aug. 10	0.5
Aug. 13	0.7
Aug. 14	2.0
Aug. 15	0.5
Aug. 23	0.5
Aug. 26	0.9
Aug. 29	1.5
Sept. 2	5.7
Sept. 3	1.7
Sept. 4	<u>0.9</u>

25.3 @ 615/hr. including fuel = \$15,560

Assays and geochemical analyses	7,887
Travel and freight	3,300
Camp costs, groceries, fuel	7,691
Equipment rental	214
Drafting and maps	2,633
Radiophone	<u>924</u>
	\$70,895

APPENDIX III  
ASSAY TECHNIQUES AND RESULTS

**ACME ANALYTICAL LABORATORIES LTD.**

**Assaying & Trace Analysis**

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone : 253-3158

**GEOCHEMICAL LABORATORY METHODOLOGY - 1985**

**Sample Preparation**

1. Soil samples are dried at 60°C and sieved to -80 mesh.
2. Rock samples are pulverized to -100 mesh.

**Geochemical Analysis (AA and ICP)**

0.5 gram samples are digested in hot dilute aqua regia in a boiling water bath and diluted to 10 ml with demineralized water. Extracted metals are determined by :

**A. Atomic Absorption (AA)**

Ag\*, Bi\*, Cd\*, Co, Cu, Fe, Ga, In, Mn, Mo, Ni, Pb, Sb\*, Tl, V, Zn  
(\* denotes with background correction.)

**B. Inductively Coupled Argon Plasma (ICP)**

Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cu, Cr, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

**Geochemical Analysis for Au\***

10.0 gram samples that have been ignited overnite at 600°C are digested with 30 mls hot dilute aqua regia, and 75 mls of clear solution obtained is extracted with 5 mls Methyl Isobutyl Ketone.

Au is determined in the MIBK extract by Atomic Absorption using background correction (Detection Limit = 1 ppb).

**Geochemical Analysis for Au\*\*, Pd, Pt, Rh**

10.0 - 30.0 gram samples are subjected to Fire Assay preconcentration techniques to produce silver beads.

The silver beads are dissolved and Au, Pd, Pt, and Rh are determined in the solution by graphite furnace Atomic Absorption. Detections - Au=1 ppb; Pd, Pt, Rh=5 ppb

**Geochemical Analysis for As**

0.5 gram samples are digested with hot dilute aqua regia and diluted to 10 ml. As is determined in the solution by Graphite Furnace Atomic Absorption (AA) or by Inductively Coupled Argon Plasma (ICP).

**Geochemical Analysis for Barium**

0.25 gram samples are digested with hot NaOH and EDTA solution, and diluted to 20 ml.

Ba is determined in the solution by ICP.

**Geochemical Analysis for Tungsten**

0.25 gram samples are digested with hot NaOH and EDTA solution, and diluted to 20 ml. W in the solution determined by ICP with a detection of 1 ppm.

**Geochemical Analysis for Selenium**

0.5 gram samples are digested with hot dilute aqua regia and dilute to 10 ml with H<sub>2</sub>O<sub>2</sub>. Se is determined with NaBH<sub>3</sub> with Flameless AA. Detection 0.1 ppm.

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: JUL 31 1987

DATE REPORT MAILED:

*Aug 10/87.*

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: P1 TO P10-SOIL P11-ROCK AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

TECK EXPLORATIONS PROJECT-1354 File # 87-2886 Page 1

SAMPLE#	CU PPM	AG PPM	AU* PPB
L28+00W 0+00S	38	.1	1
STD C/AU-S	60	7.6	48
L28+00W 0+25S	35	.3	2
L28+00W 0+50S	49	.2	36
L28+00W 0+75S	54	.5	6
L28+00W 1+00S	66	.3	8
L28+00W 1+25S	40	.2	1
L28+00W 1+50S	135	.7	780
L28+00W 1+75S	66	.5	9
L28+00W 2+00S	44	.3	7
L28+00W 2+25S	37	.4	1
L28+00W 2+50S	24	.1	2
L27+50W 1+75N	117	.6	13
L27+50W 1+50N	79	.4	16
L27+50W 1+25N	150	.4	33
L27+50W 1+00N	64	.3	8
L27+50W 0+75N	60	.4	7
L27+50W 0+50N	160	1.2	12
L27+50W 0+25N	70	.4	9
L27+50W 0+00N	58	.2	3
L27+50W 0+25S	46	.4	1
L27+50W 0+50S	73	.4	7
L27+50W 0+75S	30	.4	1
L27+50W 1+00S	30	.3	1
L27+50W 1+25S	93	.5	23
L27+50W 1+50S	181	.3	71
L27+50W 1+75S	137	.3	34
L27+50W 2+00S	49	.6	4
L27+50W 2+25S	49	.5	2
L27+50W 2+50S	58	.6	2
L26+50W 2+50N	76	.2	6
L26+50W 2+25N	76	.2	8
L26+50W 2+00N	85	.2	10
L26+50W 1+75N	94	.5	13
L26+50W 1+50N	121	.5	8
L26+50W 1+25N	45	.5	1
L26+50W 1+00N	71	.4	7

SAMPLE#	CU PPM	AG PPM	AU* PPB
L26+50W 0+75N	154	.4	34
L26+50W 0+50N	69	.4	3
L26+50W 0+25N	96	.1	14
L26+50W 0+25S	44	.3	5
L26+50W 0+50S	55	.3	2
L26+50W 0+75S	51	.4	1
L26+50W 1+00S	60	.5	6
L26+50W 1+25S	65	.2	12
L26+50W 1+50S	95	.2	14
L26+50W 1+75S	70	.4	3
L26+50W 2+00S	226	.5	26
L26+50W 2+25S	69	.4	18
L26+50W 2+50S	48	.3	1
L25+50W 2+50N	59	.6	5
L25+50W 2+25N	383	.9	215
L25+50W 2+00N	138	.2	36
L25+50W 1+75N	68	.1	6
L25+50W 1+50N	79	.5	4
L25+50W 1+25N	80	.2	14
L25+50W 1+00N	44	.3	8
L25+50W 0+75N	53	.2	3
L25+50W 0+50N	53	.3	12
L25+50W 0+25N	37	.1	4
L25+50W 0+25S	203	.4	72
L25+50W 0+50S	263	.8	44
L25+50W 0+75S	140	.7	34
L25+50W 1+75S	76	.2	2
L25+50W 2+00S	73	.5	1
L25+50W 2+25S	87	.2	3
L25+50W 2+50S	74	.2	2
L24+50W 2+50N	26	.2	5
L24+50W 2+25N	24	.2	3
L24+50W 2+00N	65	.4	4
L24+50W 1+75N	43	.3	1
L24+50W 1+50N	47	.3	12
L24+50W 1+25N	414	.7	250
STD C/AU-S	61	7.5	48

## TECK EXPLORATIONS PROJECT-1354 FILE # 87-2886

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SAMPLE#	CU PPM	AG PPM	AU* PPB
L24+50W 1+00N	113	.1	2
L24+50W 0+75N	169	.2	51
L24+50W 0+50N	185	.4	34
L24+50W 0+25S	72	.2	8
L24+50W 0+50S	145	.5	15
L24+50W 0+75S	132	.1	34
L24+50W 1+00S	183	.2	32
L24+50W 1+25S	163	.3	40
L24+50W 1+50S	86	.1	5
L24+50W 1+75S	58	.1	2
L24+50W 2+00S	54	.1	1
L24+50W 2+25S	93	.1	5
L24+50W 2+50S	97	.1	6
L23+50W 2+50N	75	.3	5
L23+50W 2+25N	36	.1	2
L23+50W 2+00N	24	.1	14
L23+50W 1+75N	33	.1	18
L23+50W 1+50N	48	.1	1
L23+50W 1+25N	278	.7	105
L23+50W 1+00N	97	.3	16
L23+50W 0+75N	168	.4	61
L23+50W 0+50N	296	.9	185
L23+50W 0+25N	222	1.1	43
L23+50W 0+25S	178	.3	48
L23+50W 0+50S	122	.3	22
L23+50W 0+75S	400	1.0	183
L23+50W 1+00S	272	.5	91
L23+50W 1+25S	248	.3	37
L23+50W 1+50S	162	.3	69
L23+50W 1+75S	91	.2	13
L23+50W 2+00S	64	.1	1
L23+50W 2+25S	96	.1	3
L23+50W 2+50S	64	.1	1
L21+00W 2+50S	184	.6	47
L21+00W 2+75S	142	.3	43
L21+00W 3+00S	65	.2	2
STD C/AU-S	62	7.4	49

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: JULY 27 1987

DATE REPORT MAILED:

*Aug 10/87..*

### GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH JML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: SOILS -80 MESH AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toye*, DEAN TOYE, CERTIFIED B.C. ASSAYER

TECK EXPLORATION PROJECT-1354 File # 87-2734

SAMPLE#	CU PPM	AG PPM	AU* PPB
L22+50W 2+50N	37	.1	4
L22+50W 2+25N	46	.1	6
L22+50W 2+00N	41	.1	2
L22+50W 1+75N	36	.1	7
L22+50W 1+50N	564	.8	340
L22+50W 1+25N	306	.4	108
L22+50W 1+00N	171	.1	113
L22+50W 0+75S	1160	.3	270
L22+50W 1+00S	511	.2	121
L22+50W 1+25S	234	.2	113
L22+50W 1+50S	314	.8	67
L22+50W 1+75S	161	1.1	53
L22+50W 2+00S	59	.1	5
L22+50W 2+25S	115	.1	4
L22+50W 2+50S	106	.1	1
L21+50W 2+50N	20	.2	3
L21+50W 2+25N	32	.4	1
L21+50W 2+00N	56	.4	2
STD C/AU-S	58	7.2	47
L21+50W 1+75N	35	.1	4
L21+50W 1+50N	534	1.1	310
L21+50W 0+25S	403	.8	450
L21+50W 0+50S	175	.3	36
L21+50W 0+75S	579	.7	350
L21+50W 1+00S	233	.2	84
L21+50W 1+25S	5593	2.8	1170
L21+50W 1+50S	95	.1	18
L21+50W 2+25S	77	.1	9
L21+50W 2+50S	100	.4	12

## TECK EXPLORATION PROJECT-1354 FILE # 87-2886

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SAMPLE#	CU PPM	AG PPM	AU* PPB
L21+00W 3+25S	58	.4	4
L21+00W 3+50S	64	.5	2
L20+50W 2+50N	65	.7	1
L20+50W 2+25N	57	.3	4
L20+50W 2+00N	60	.4	3
L20+50W 1+75N	62	.3	7
L20+50W 1+50N	94	.3	16
L20+50W 1+25N	323	1.4	290
L20+50W 1+00N	358	1.3	187
L20+50W 0+75N	512	1.7	164
L20+50W 0+50N	335	1.2	230
L20+50W 0+25N	343	1.0	310
L20+50W 0+25S	294	.8	250
L20+50W 0+50S	130	.8	61
L20+50W 0+75S	173	.9	47
L20+50W 1+00S	242	1.3	260
L20+50W 1+25S	61	.6	11
L20+50W 1+50S	310	.8	172
L20+50W 1+75S	243	1.6	126
L20+50W 2+00S	264	1.5	104
L20+50W 2+25S	554	1.7	165
L20+50W 2+50S	115	.7	10
L20+50W 2+75S	235	.7	81
L20+50W 3+00S	127	.7	38
L20+50W 3+25S	68	.1	6
L20+50W 3+50S	69	.5	5
L20+00W 2+50S	53	.6	1
L20+00W 2+75S	63	.5	1
L20+00W 3+00S	52	.5	5
L20+00W 3+25S	72	.4	1
L20+00W 3+50S	96	.5	7
L19+50W 2+50N	96	.6	1
L19+50W 2+25N	88	.5	5
L19+50W 2+00N	161	.8	9
L19+50W 1+75N	88	.3	8
L19+50W 1+50N	92	.3	1
STD C/AU-S	62	7.6	49

## TECK EXPLORATIONS PROJECT 1354 FILE # 87-2886

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SAMPLE#	CU PPM	AG PPM	AU* PPB
L19+50W 1+25N	94	.3	2
L19+50W 1+00N	766	1.7	360
L19+50W 0+75N	323	.8	121
L19+50W 0+50N	189	.7	49
L19+50W 0+25N	336	.8	122
L19+50W 0+25S	333	.8	41
L19+50W 0+50S	412	.9	195
L19+50W 0+75S	235	.8	27
L19+50W 1+00S	384	.5	265
L19+50W 1+25S	71	.5	3
L19+50W 1+50S	81	.7	25
L19+50W 2+00S	150	1.1	495
L19+50W 2+25S	45	.4	195
L19+50W 2+50S	43	.4	1
L19+50W 2+75S	50	.5	1
L19+50W 3+00S	83	.4	1
L19+50W 3+25S	78	.4	4
L19+50W 3+50S	65	.2	3
L19+00W 2+50S	49	.4	1
L19+00W 2+75S	41	.4	2
L19+00W 3+00S	50	.3	2
L19+00W 3+25S	75	.5	1
L19+00W 3+50S	58	.4	1
L18+50W 2+50N	64	.3	2
L18+50W 2+25N	69	.4	4
L18+50W 2+00N	50	.2	1
L18+50W 1+75N	58	.3	1
L18+50W 1+50N	95	.5	2
L18+50W 1+25N	90	.4	2
L18+50W 1+00N	66	.5	4
L18+50W 0+75N	525	1.3	445
L18+50W 0+50N	402	.6	225
L18+50W 0+25N	827	1.2	450
L18+50W 0+25S	353	.8	185
L18+50W 0+50S	1001	1.4	335
L18+50W 0+75S	179	.6	3
STD C/AU-S	64	7.1	50

## TECK EXPLORATION PROJECT-1354 FILE # 87-2886

Page 6

SAMPLE#	CU PPM	AG PPM	AU* PPB
L18+50W 1+00S	964	.7	480
L18+50W 1+25S	213	.1	45
L18+50W 1+50S	109	.1	44
L18+50W 1+75S	88	.2	25
L18+50W 2+00S	94	.1	75
L18+50W 2+25S	48	.1	15
L18+50W 2+50S	59	.1	5
L18+50W 2+75S	82	.1	27
L18+50W 3+00S	91	.1	5
L18+50W 3+25S	78	.1	6
L18+50W 3+50S	118	.1	52
L18+00W 2+50S	74	.1	30
L18+00W 2+75S	65	.1	10
L18+00W 3+00S	68	.1	20
L18+00W 3+25S	77	.1	10
L18+00W 3+50S	91	.1	6
L17+50W 2+50N	188	.3	53
L17+50W 2+25N	53	.2	2
L17+50W 2+00N	55	.2	4
L17+50W 1+75N	77	.1	6
L17+50W 1+50N	46	.1	5
L17+50W 1+25N	67	.1	3
L17+50W 1+00N	51	.5	5
L17+50W 0+75N	86	.3	18
L17+50W 0+50N	640	.9	240
L17+50W 0+25N	800	1.9	250
L17+50W 0+25S	272	.8	53
L17+50W 0+50S	267	.7	72
L17+50W 0+75S	522	1.3	230
L17+50W 1+00S	266	.5	61
L17+50W 1+25S	810	.7	200
L17+50W 1+50S	330	.4	78
L17+50W 2+25S	82	.2	15
L17+50W 2+50S	283	.4	123
L16+50W 2+50N	67	.1	1
L16+50W 2+25N	51	.2	2
STD C/AU-S	61	7.6	53

## TECK EXPLORATIONS PROJECT-1354 FILE # 87-2886

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SAMPLE#	CU PPM	AG PPM	AU* PPB
L16+50W 2+00N	43	.1	1
L16+50W 1+75N	50	.1	2
L16+50W 1+50N	63	.4	6
L16+50W 1+25N	193	.9	23
L16+50W 1+00N	111	.3	8
L16+50W 0+75N	126	.2	8
L16+50W 0+50N	402	1.0	235
L16+50W 0+25N	275	1.0	215
L16+50W 0+25S	112	.2	23
L16+50W 0+75S	497	.9	245
L16+50W 1+00S	504	.7	85
L16+50W 2+00S	155	.3	32
L16+50W 2+25S	200	.6	30
L16+50W 2+50S	272	.9	62
L15+50W 2+50N	48	.1	5
L15+50W 2+25N	39	.1	2
L15+50W 2+00N	52	.1	3
L15+50W 1+75N	63	.2	1
L15+50W 1+50N	66	.3	3
L15+50W 1+25N	196	.1	85
L15+50W 1+00N	90	.2	5
L15+50W 0+75N	52	.1	10
L15+50W 0+50N	139	.3	13
L15+50W 0+25N	269	.6	80
L15+50W 0+50S	724	.5	106
L15+50W 0+75S	4313	1.2	1050
L15+50W 1+00S	768	.7	215
L15+50W 1+25S	1760	.7	345
L15+50W 1+50S	1044	.4	195
L15+50W 1+75S	224	.9	33
L15+50W 2+00S	234	2.4	68
L15+50W 2+25S	133	.4	10
L15+50W 2+50S	79	.2	1
L14+50W 2+50N	87	.1	1
L14+50W 2+25N	66	.1	1
L14+50W 2+00N	14	.1	1
STD C	62	7.6	50

SAMPLE#	CU PPM	AG PPM	AU* PPB
L14+50W 1+75N	328	.3	15
L14+50W 1+50N	100	.6	7
L14+50W 1+25N	61	.2	3
L14+50W 1+00N	81	.4	5
L14+50W 0+75N	88	.6	5
L14+50W 0+50N	46	.4	4
L14+50W 0+25N	84	.5	11
L14+50W 0+25S	866	.8	280
L14+50W 0+50S	451	.7	220
L14+50W 0+75S	497	.9	144
L14+50W 1+00S	533	.6	125
L14+50W 1+75S	98	.2	12
L14+50W 2+00S	98	.5	6
L14+50W 2+25S	89	.1	2
L14+50W 2+50S	42	.3	1
L13+50W 2+50N	66	.1	1
L13+50W 2+25N	55	.3	2
L13+50W 2+00N	126	.3	7
L13+50W 1+75N	86	.4	9
L13+50W 1+50N	49	.4	4
L13+50W 1+25N	52	.1	3
L13+50W 1+00N	67	.3	4
L13+50W 0+75N	58	.3	6
L13+50W 0+50N	88	.4	11
L13+50W 0+25N	80	.7	31
L13+50W 0+25S	1317	1.0	178
L13+50W 0+50S	715	2.8	550
L13+50W 1+50S	45	.5	7
L13+50W 1+75S	50	.4	5
L13+50W 2+00S	82	.4	2
L13+50W 2+25S	61	.3	1
L13+50W 2+50S	90	.2	4
L12+50W 2+50N	84	.3	2
L12+50W 2+25N	90	.5	9
L12+50W 2+00N	91	.3	7
L12+50W 1+75N	110	.3	8
STD C/AU-S	60	7.3	52

SAMPLE#	CU PPM	AG PPM	AU* PPB
L12+50W 1+50N	84	.5	8
L12+50W 1+25N	180	.4	7
L12+50W 1+00N	110	.3	12
L12+50W 0+75N	193	.7	129
L12+50W 0+50N	167	2.9	71
L12+50W 0+25S	259	.7	68
L12+50W 0+50S	638	2.3	415
L12+50W 0+75S	1450	1.8	535
L12+50W 0+90S	110	.8	31
L12+50W 1+55S	119	.3	4
L12+50W 1+75S	119	.4	1
L12+50W 2+00S	80	.4	5
L12+50W 2+25S	76	.5	14
L12+50W 2+50S	86	.1	160
L11+50W 2+50N	97	.4	5
L11+50W 2+25N	133	.8	10
L11+50W 2+00N	81	.5	1
L11+50W 1+75N	96	.4	1
L11+50W 1+50N	56	.4	2
L11+50W 1+25N	58	.5	1
L11+50W 1+00N	75	.4	1
L11+50W 0+75N	55	.4	21
L11+50W 0+50N	105	.6	180
L11+50W 0+25N	166	1.3	665
L11+50W 0+25S	401	3.0	695
L11+50W 0+50S	424	1.6	495
L11+50W 0+75S	294	1.6	290
L11+50W 1+75S	99	.4	34
L11+50W 2+00S	82	.4	12
L11+50W 2+25S	61	.7	1
L11+50W 2+50S	64	.4	1
L10+50W 2+50N	119	.4	1
L10+50W 2+25N	62	.3	3
L10+50W 2+00N	119	.3	2
L10+50W 1+75N	75	.4	2
L10+50W 1+50N	66	.4	1
STD C/AU-S	60	7.3	47

## TECK EXPLORATIONS PROJECT-1354 FILE # 87-2886

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SAMPLE#	CU PPM	AG PPM	AU* PPB
L10+50W 1+25N	49	.3	5
L10+50W 1+00N	72	.2	17
L10+50W 0+75N	58	.5	7
L10+50W 0+50N	83	.4	750
L10+50W 0+25N	1256	1.3	430
L10+50W 0+25S	367	2.8	211
L10+50W 0+55S	1229	1.8	240
L10+50W 0+75S	71	.5	93
L10+50W 1+00S	93	.7	110
L10+50W 1+40S	249	1.1	105
L10+50W 2+50S	138	.4	6
STD C/AU-S	61	7.4	50

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 26 1987  
DATE REPORT MAILED: Sept. 3/87

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: P1-3 SOIL P4-ROCK AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

TECK EXPLORATION PROJECT-1354 File # 87-3651 Page 1

SAMPLE#	CU PPM	AG PPM	AU* PPB
L9+50W 2+50N	93	.1	6
L9+50W 2+25N	94	.1	11
L9+50W 2+00N	76	.1	5
L9+50W 1+75N	76	.1	3
L9+50W 1+50N	58	.2	7
L9+50W 1+25N	64	.2	3
L9+50W 1+00N	70	.2	7
L9+50W 0+75N	84	.3	49
L9+50W 0+50N	356	.3	34
L9+50W 0+25N	133	.4	94
L9+50W 0+25S	174	3.2	645
L9+50W 0+50S	896	1.0	104
L9+50W 1+25S	137	.2	305
L9+50W 1+50S	384	.9	151
L9+50W 1+75S	245	.6	46
L9+50W 2+25S	108	.1	4
L9+50W 2+50S	90	.1	2
L9W 2+50N	90	.3	7
L9W 2+25N	75	.1	6
L9W 2+00N	99	.3	5
L9W 1+75N	53	.1	4
L9W 1+50N	62	.1	5
L9W 1+25N	72	.1	43
L9W 1+25S	129	.3	29
L9W 1+50S	106	.3	17
L9W 1+75S	112	.4	6
L9W 2+00S	161	.1	13
L9W 2+25S	125	.1	11
L9W 2+50S	80	.2	3
L8+50W 2+50N	82	.1	7
L8+50W 2+25N	75	.1	4
L8+50W 2+00N	94	.2	14
L8+50W 1+75N	70	.1	5
L8+50W 1+50N	85	.1	10
L8+50W 1+00N	450	.7	67
L8+50W 0+25N	91	.2	28
STD C/AU-S	61	7.0	49

SAMPLE#	CU PPM	AG PPM	AU* PPB
L8+50W 0+25S	112	.9	68
L8+50W 1+00S	161	.6	41
L8+50W 1+25S	102	.5	12
L8+50W 1+50S	83	.3	11
L8+50W 1+75S	122	.3	14
L8+50W 2+00S	153	.2	11
L8+50W 2+25S	166	.3	6
L8+50W 2+50S	112	.3	9
L8+00W 2+50N	78	.1	25
L8+00W 2+25N	58	.2	5
L8+00W 2+00N	60	.1	9
L8+00W 1+25N	344	.6	132
L8+00W 0+25S	95	.3	20
L8+00W 0+50S	101	.3	24
L8+00W 1+00S	269	.7	73
L8+00W 1+25S	141	.3	14
L8+00W 1+50S	149	.1	7
L8+00W 1+75S	194	.1	5
L8+00W 2+00S	45	.1	17
L8+00W 2+25S	118	.3	5
L7+50W 2+50N	74	.1	6
L7+50W 2+25N	64	.2	7
L7+50W 2+00N	72	.3	225
L7+50W 1+75N	86	.2	24
L7+50W 0+75N	121	.4	111
L7+50W 0+50N	112	.6	41
L7+50W 0+25N	214	.9	102
L7+00W 2+50N	81	.3	12
L7+00W 2+25N	89	.3	12
L6+50W 2+50N	90	.3	28
L6+50W 2+25N	110	.2	15
L6+50W 2+00N	98	.4	23
L6+50W 1+00N	131	.7	31
L6+50W 0+75N	91	.6	25
L6+50W 0+50N	60	.3	5
L6+50W 0+25N	118	.3	14
STD C/AU-S	61	7.1	50

SAMPLE#	CU PPM	AG PPM	AU* PPB
L6+00W 2+50N	86	.2	11
L6+00W 2+25N	108	.5	49
L5+50W 2+50N	77	.3	109
L5+50W 0+50N	101	.2	12
L5+50W 0+25N	1181	.2	63
L4+50W 2+50N	118	.7	50
L4+50W 2+25N	121	.9	46
L4+50W 2+00N	198	4.4	1040
L4+50W 1+75N	186	.9	310
L4+50W 1+50N	159	.5	46
L4+50W 1+25N	111	.3	33
L4+50W 1+00N	100	.2	68
L4+50W 0+75N	86	.2	40
L4+50W 0+50N	292	.5	62
L4+50W 0+25N	287	.3	13
STD C/AU-S	61	7.0	47

## TECK EXPLORATIONS LTD. PROJECT-1354 FILE # 87-4007

Page 3

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU 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	AU\$ PPB
L22+50W 0+75N	4	316	14	143	.6	59	23	1654	8.13	13	5	ND	7	79	2	2	2	82	.66	.152	27	70	1.11	595	.61	2	3.31	.22	.15	1	48
L22+50W 0+50N	5	318	28	143	.8	51	22	1031	7.97	19	5	ND	8	177	2	2	2	81	1.29	.145	29	66	1.13	542	.63	7	3.50	.48	.27	1	85
L22+50W 0+25N	11	327	44	348	.9	31	28	3937	13.95	106	5	ND	6	48	3	2	2	49	.54	.182	29	39	.75	629	.23	2	1.76	.08	.10	1	55
L22+50W 0+50S	15	583	29	136	1.9	54	26	3604	13.87	25	5	ND	7	38	2	2	2	67	.43	.175	26	55	1.05	831	.34	2	2.09	.05	.10	1	1045
L22+00W 0+25S	13	765	19	106	.4	36	25	2667	11.64	17	5	ND	6	36	1	2	4	58	.32	.147	30	45	.94	895	.26	2	2.29	.06	.10	1	95
L22+00W 0+25S A	7	358	6	102	.7	29	20	2025	8.66	19	5	ND	4	36	1	2	2	63	.30	.129	24	41	.75	994	.22	2	2.58	.02	.09	1	79
L22+00W 0+75S	6	570	7	97	.8	56	21	1482	8.26	8	5	ND	7	45	3	2	2	83	.48	.084	36	74	1.06	890	.58	4	4.20	.05	.10	1	78
L22+00W 0+75S A	15	360	16	75	.7	42	18	1206	7.80	27	5	ND	4	22	2	2	6	54	.20	.099	16	37	1.05	558	.14	5	1.52	.02	.09	1	390
L22+00W 1+25S	4	64	32	90	.2	39	23	1263	8.16	5	5	ND	7	41	2	2	2	97	.33	.104	37	67	.49	257	.66	2	5.92	.07	.05	1	9
L22+00W 1+25S A	23	1254	16	111	1.8	47	26	3893	12.88	35	5	ND	6	46	1	2	2	58	.47	.152	31	49	.90	540	.32	2	2.28	.11	.12	1	590
L22+00W 1+75S	3	219	23	113	.9	66	20	1395	8.28	13	5	ND	4	50	1	2	2	76	.82	.107	36	72	1.18	541	.46	4	3.27	.04	.07	1	51
L22+00W 2+25S	4	156	13	125	.2	68	22	1530	8.34	11	5	ND	5	62	1	2	2	82	.82	.116	27	67	1.33	310	.44	3	2.99	.13	.11	1	14
L21+50W 1+75S	3	214	17	133	.6	61	20	1143	8.78	9	5	ND	6	80	2	2	2	92	.73	.142	30	79	1.20	292	.63	2	4.00	.19	.13	1	59
L21+50W 2+00S	4	313	16	128	.8	78	24	1262	8.93	17	5	ND	7	69	1	2	2	85	.66	.107	23	77	1.69	299	.57	2	3.19	.18	.12	2	195
L21+00W 0+75N	7	663	24	105	.8	32	25	1834	10.37	24	5	ND	5	39	2	2	2	58	.50	.137	18	35	.91	497	.18	2	1.95	.03	.13	1	265
L21+00W 0+25N	8	442	24	130	.5	48	26	2783	10.31	18	5	ND	6	55	1	3	3	91	.41	.143	33	68	.95	780	.50	3	4.25	.11	.11	1	116
L21+00W 1+75S	3	105	28	135	.5	64	21	1045	8.51	8	5	ND	7	88	2	2	2	98	.71	.142	34	84	1.28	263	.74	3	4.59	.19	.12	1	41
L21+00W 2+25S	4	184	25	102	.5	39	20	1649	7.65	8	5	ND	5	73	1	2	2	90	1.09	.122	32	65	.61	292	.54	2	4.45	.05	.04	1	91
L20+00W 0+75N	7	495	35	240	2.0	35	24	2877	10.20	31	5	ND	4	34	2	2	7	47	.30	.154	22	35	.81	536	.19	2	1.63	.06	.10	1	275
L20+00W 0+25N	5	287	18	109	.5	65	20	1308	8.74	12	5	ND	6	51	1	2	3	85	.45	.131	31	68	1.28	496	.55	3	3.82	.12	.11	1	103
L20+00W 0+25S	5	133	18	102	.5	53	20	1115	7.85	8	5	ND	7	37	1	2	2	83	.43	.099	32	65	1.13	541	.54	4	4.32	.05	.08	1	30
L20+00W 0+75S	5	151	19	122	.4	67	24	1387	8.57	10	5	ND	7	45	2	2	2	92	.60	.109	34	65	1.45	449	.60	2	4.15	.08	.08	1	36
L20+00W 1+25S	3	75	8	111	.4	69	20	1149	7.03	8	5	ND	6	34	1	2	2	76	.44	.092	25	61	1.37	296	.51	3	3.27	.06	.07	1	9
L20+00W 1+75S	6	200	19	114	.8	41	25	2478	11.22	21	5	ND	5	39	1	2	5	74	.37	.154	28	47	1.03	319	.27	3	2.39	.07	.10	1	42
L20+00W 2+25S	4	438	22	116	.8	59	21	1387	8.57	18	5	ND	7	32	1	2	2	90	.38	.113	36	68	1.21	225	.54	2	4.44	.04	.07	1	118
L19+00W 0+25N	12	816	6	61	1.2	22	21	2024	10.36	28	5	ND	5	26	1	2	2	45	.43	.126	24	30	.68	540	.11	2	1.63	.01	.09	1	445
L19+00W 0+25S	4	250	20	88	.5	55	22	1564	7.86	13	5	ND	5	40	2	2	2	83	.37	.108	23	62	1.04	868	.44	4	3.86	.03	.07	1	62
L19+00W 0+75S	20	515	19	66	2.0	24	15	1434	20.84	54	5	ND	6	23	1	2	3	48	.09	.414	8	25	.57	143	.16	2	.87	.02	.10	1	405
L19+00W 0+75S A	10	563	16	82	1.1	32	15	1178	8.10	20	5	ND	5	34	1	3	3	65	.24	.110	18	41	.68	559	.26	6	2.13	.03	.17	1	220
L19+00W 1+25S	5	84	34	102	.3	55	21	1364	8.88	4	5	ND	9	43	2	2	2	105	.38	.154	39	76	1.05	207	.77	2	5.89	.10	.08	1	5
L19+00W 1+75S	5	78	25	131	.2	66	24	1440	8.98	14	5	ND	8	77	1	2	2	97	.76	.135	34	80	1.39	254	.64	3	4.56	.18	.12	1	3
L19+00W 2+25S	4	65	22	117	.3	43	21	1618	7.78	5	5	ND	7	32	1	2	2	99	.31	.124	38	68	.73	175	.62	4	5.61	.05	.05	1	2
L18+00W 0+25N	8	414	25	106	1.0	34	19	1564	8.38	13	5	ND	5	55	1	2	2	79	.73	.121	34	52	.62	707	.43	3	3.98	.05	.07	1	136
L18+00W 0+25S	5	197	18	89	1.0	44	20	1494	7.60	6	5	ND	7	40	1	2	2	87	.44	.115	32	62	.85	621	.49	4	4.29	.04	.05	1	49
L18+00W 0+75S	4	647	17	114	.5	55	20	1258	7.66	11	6	ND	7	31	2	4	2	85	.39	.095	29	66	1.09	516	.54	2	4.27	.04	.07	1	76
L18+00W 1+25S	5	181	23	113	.7	53	23	1690	8.27	11	5	ND	7	42	3	2	2	94	.43	.136	33	66	1.06	351	.58	3	4.74	.09	.08	1	32
STD C/AU-S	18	60	40	132	7.2	68	28	1062	4.13	28	22	7	40	52	18	17	19	60	.47	.086	39	68	.85	183	.08	37	1.78	.06	.13	12	47

## TECK EXPLORATIONS LTD. PROJECT-1354 FILE # 87-4007

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SAMPLE#	NO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU 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	AUS PPB
L18+00W 1+75S	4	119	15	120	.3	49	22	1530	8.28	10	5	ND	9	98	2	2	2	91	.80	.162	33	56	1.07	307	.60	9	4.16	.27	.17	1	32
L18+00W 2+25S	4	82	11	119	.1	51	19	1187	7.65	12	5	ND	9	70	1	2	2	98	.56	.153	36	56	1.06	294	.60	3	4.78	.16	.12	1	10
STD C/AU-S	20	61	39	129	7.1	68	29	1059	4.09	40	23	7	45	51	18	17	21	59	.48	.088	39	58	.87	182	.07	36	1.79	.06	.12	14	48
L17+50W 1+75S	3	118	15	145	.1	50	22	1089	6.99	7	5	ND	8	154	1	2	2	88	1.18	.148	29	58	1.12	353	.61	3	4.15	.49	.26	1	28
L17+50W 2+00S	2	96	8	133	.1	55	19	1183	7.35	6	5	ND	8	59	1	2	2	92	.58	.137	32	61	1.18	403	.52	11	4.00	.12	.11	1	12
L17+00W 0+25N	6	285	10	134	.3	74	26	1672	9.22	11	5	ND	8	37	2	2	7	93	.37	.150	27	60	1.63	213	.60	4	3.51	.10	.10	1	61
L17+00W 0+25S	6	306	8	145	.6	60	24	1466	8.41	17	5	ND	7	81	1	2	2	89	.57	.163	25	58	1.28	318	.51	3	3.49	.25	.17	1	57
L17+00W 1+25S	2	207	18	147	.2	43	18	1149	6.21	11	5	ND	7	54	1	3	2	81	.52	.128	32	50	.85	442	.42	5	3.57	.11	.11	1	31
L17+00W 1+75S	3	145	10	139	.1	42	17	1018	5.96	10	5	ND	5	85	1	2	2	77	.75	.113	26	46	1.01	350	.36	2	2.91	.22	.15	1	21
L17+00W 2+25S	3	191	14	119	.7	34	14	1064	5.69	23	5	ND	6	21	1	2	2	69	.25	.083	25	39	.83	301	.21	4	2.53	.02	.06	1	79
L16+50W 0+50S	6	404	17	152	.7	51	21	1136	7.17	13	5	ND	7	112	2	2	2	78	.95	.144	27	53	1.12	655	.51	9	3.37	.34	.20	1	66
L16+00W 0+25N	8	298	12	106	.4	56	24	1906	9.33	13	5	ND	6	43	2	5	2	90	.43	.136	33	54	1.27	318	.55	2	4.03	.11	.10	1	137
L16+00W 0+25S	5	262	10	125	.1	75	23	1712	8.14	7	5	ND	7	70	1	2	2	80	.65	.165	28	58	1.49	455	.56	6	3.59	.22	.17	1	80
L16+00W 0+75S	7	311	31	176	1.0	54	25	1827	8.63	19	5	ND	8	99	3	2	3	86	.72	.165	32	57	1.23	756	.53	2	3.60	.31	.21	2	85
L16+00W 1+25S	5	272	22	160	.1	57	22	856	7.20	14	5	ND	5	148	1	3	2	81	1.21	.144	24	56	1.24	455	.56	2	3.56	.48	.25	1	29
L16+00W 1+50S	4	146	22	159	.5	56	23	974	6.69	6	5	ND	6	166	1	2	2	78	1.32	.130	21	54	1.29	313	.53	7	3.38	.56	.29	1	22
L16+00W 2+25S	2	79	15	113	.1	52	17	935	5.85	8	5	ND	5	57	1	2	2	76	.52	.098	21	48	1.19	228	.38	4	2.73	.14	.10	1	17

## TECK EXPLORATIONS PROJECT-1354 FILE # 87-2886

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SAMPLE#	CU PPM	AG PPM	AU* PPB
24901	77	2.5	495
24902	99	.7	103
24903	84	.3	110
24904	55	.3	81
24905	109	.2	58
24906	793	10.6	2440
24907	65	6.9	1550
24908	114	1.0	66
24909	182	22.9	2980
24910	187	6.0	1350
24911	256	5.3	1940
24912	160	7.6	1390
24913	87	25.4	5030
STD C/AU-R	59	7.3	510

\* HIGHS  
RE ASSAYED  
SEE NEXT  
PAGE

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS, VANCOUVER B.C.  
PH: (604) 253-3158 COMPUTER LINE: 251-1011

DATE RECEIVED AUGUST 16 1987

DATE REPORTS MAILED

*Aug 20/87*

## ASSAY CERTIFICATE

SAMPLE TYPE : PULP  
AU\*\* BY FIRE ASSAY

ASSAYER *D. Toye* DEAN TOYE , CERTIFIED B.C. ASSAYER

TECK EXPLORATION PROJECT 1354 FILE# 87-2886 R PAGE#

SAMPLE	Au** oz/t
24906	.062
24907	.033
24909	.055
24910	.056
24911	.042
24912	.029
24913	.109

SAMPLE#	CU PPM	AG PPM	AU* PPB
24931	65	.1	45
24936	59	.8	195
24937	341	.5	225
24938	185	.5	315
24939	582	.4	87
30565	382	1.8	540
30566	287	.3	150
30567	62	1.1	93
30569	1338	.5	4
30570	23	.1	9
30580	30	.2	26
30581	164	.8	315
30582	361	1.1	685
30583	99	2.6	540
30584	212	1.3	91
30585	177	1.8	265
30586	177	.6	72
30587	162	.7	165
STD C/AU-R	61	7.2	510

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158

DATE RECEIVED: SEPT 9 1987

DATA LINE 251-1011 DATE REPORT MAILED:

*Sept 22/87*

ASSAY CERTIFICATE

- SAMPLE TYPE: Rock Chips

ASSAYER: *D. Toye*, DEAN TOYE, CERTIFIED B.C. ASSAYER

TECK EXPLORATIONS LTD. PROJECT-1354 File # 87-4007A

SAMPLE#	CU %	AG OZ/T	AU* OZ/T
CASTLE 1A	.11	.17	.139
CASTLE 2A	.27	.48	.169
CASTLE 3A	.03	.01	.023
CASTLE 4A	.02	.01	.019
CASTLE 5A	.03	.02	.009
CASTLE 6A	.03	.09	.011
CASTLE 7A	.07	.05	.007
CASTLE 8A	.01	.71	.024
CASTLE 9A	.01	4.05	.931
CASTLE 10A	.01	.07	.022
CASTLE 11A	.01	.03	.014
CASTLE 12A	.01	12.66	4.030

*Plotter*

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 20 1987

DATE REPORT MAILED: Aug. 26/87..

## ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK

ASSAYER: *D. Toy*. DEAN TOYE, CERTIFIED B.C. ASSAYER

TECK EXPLORATIONS File # 87-3460 Page 1

SAMPLE#	CU %	AG OZ/T	AU OZ/T
---------	---------	------------	------------

24914	.03	.06	.001
24915	.01	.01	.001
24916	.01	.08	.032
24917	.01	.01	.001
24918	.01	.01	.001

24919	.01	.01	.001
24920	.01	.06	.001
24921	.01	.05	.001
24922	.01	.02	.001
24923	.01	.03	.001

24924	.01	.02	.001
24925	.08	.10	<u>.156</u>
24926	.01	.01	.001
24927	.08	.05	.002
24928	.01	.01	.001

24929	.01	.03	.003
24930	.04	.04	.062
24932	.01	.02	.001
24933	.02	.03	.001
24934	.01	.02	.001

24935	.01	.06	.004
24940	.01	.04	.006
24941	.01	.03	.002
24942	.01	.05	<u>.254</u>
24943	.01	.03	.020

24944	.01	.06	.006
24945	.01	.06	.006
24946	.04	.04	.001
24947	.07	.05	.009
24948	.01	.02	.005

24949	.03	.06	.001
24950	.01	.02	.002
30551	.01	.01	.001
30552	.02	.04	.002
30553	.04	.01	.002

30554	.01	.02	.002
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SAMPLE#	CU %	AG OZ/T	AU OZ/T
30555	.01	.04	.010
30556	.01	.02	.004
30557	.01	.01	.006
30558	.03	.02	.002
30559	.02	.01	.025
30560	.01	.01	.006
30561	.01	.01	.005
30562	.02	.01	.004
30563	.03	.08	.008
30564	.01	.04	.006
30568	.01	.01	.002
30571	.01	.01	.001
30572	.04	.01	.001
30573	.04	.04	.003
30574	.03	.09	.008
30575	.02	.07	.005
30576	.07	.01	.002
30577	.12	.01	.002
30578	.09	.01	.004
30579	.01	.01	.002

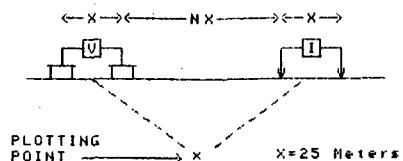
Fraser's technique for filtering induced polarization and resistivity data operates on a pyramid shaped set of readings which include one  $n=1$  value, two  $n=2$  values, three  $n=3$  values, four  $n=4$  values, etc. The average of the two  $n=2$  readings is added to the average of the three  $n=3$  readings, and the average of the four  $n=4$  readings, etc. as well as to the single  $n=1$  value. The sum of these numbers is then divided by the number of "n" levels used in order to arrive at the final filtered value, which is normally plotted in plan form.

TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO -2350W



### SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE  
PROBABLE  
POSSIBLE

FREQUENCY (HERTZ)  
4.0; 8.25

DWG. NO. - I.P. - 5892-1

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/88  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

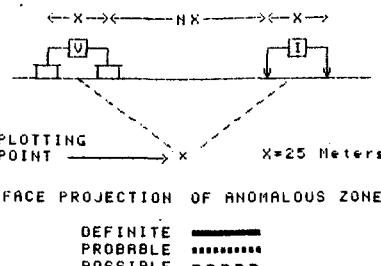
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.P., B.C.

LINE NO. -23004



FREQUENCY (HERTZ)  
4.0/0.25

DWG NO - I.P - 5892-2

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1 5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/88  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

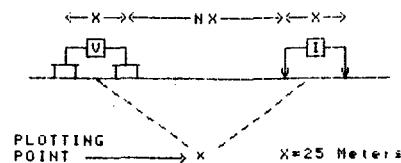
INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO -22504



## SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE      
PROBABLE      
POSSIBLE    

FREQUENCY (HERTZ)  
4.010.25

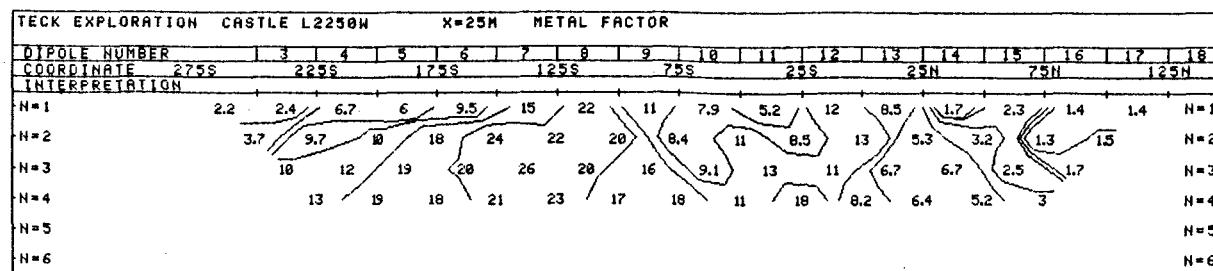
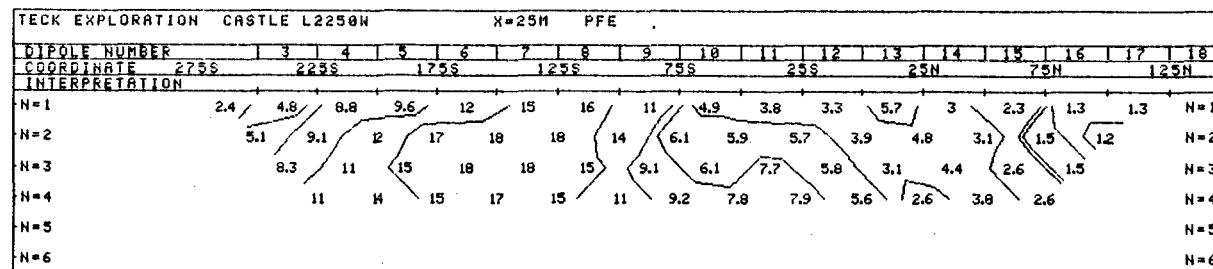
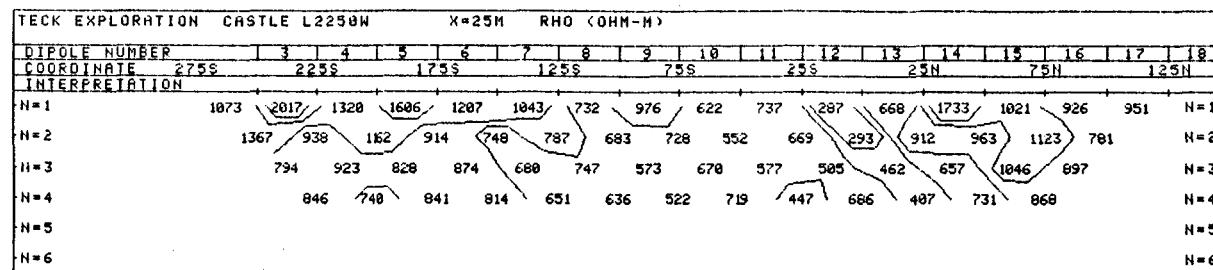
DWG. NO. - I.P. - 5892-3

DATE SURVEYED: AUG/88  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

NOTE- CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1,-1.  
-2,-3,-5,-7.5,-10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

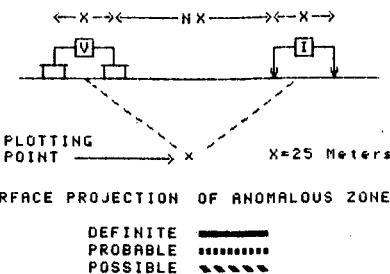


## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.O.; B.C.

LINE NO . -2200W



FREQUENCY (HERTZ) DWG NO.-I.P.-5892-4  
4.0/0.25

DATE SURVEYED: AUG/88  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

TECK EXPLORATIONS CASTLE L2200W X=25M RHO (OHMM-M)

FECK EXPLORATIONS CASTLE L2200W X=25M PF

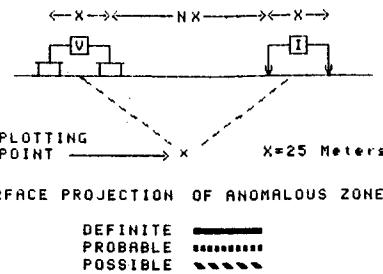
TECK EXPLORATIONS CASTLE L2200H X-25M METAL FACTORY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO. -2158W



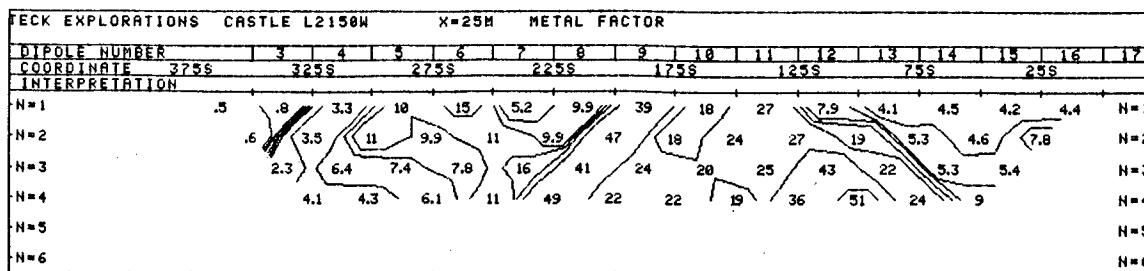
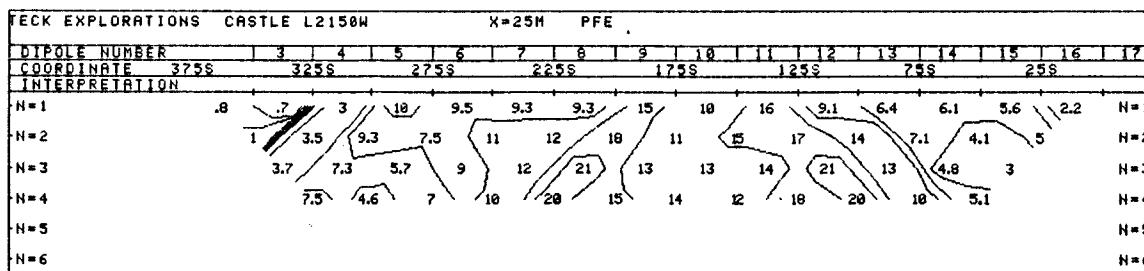
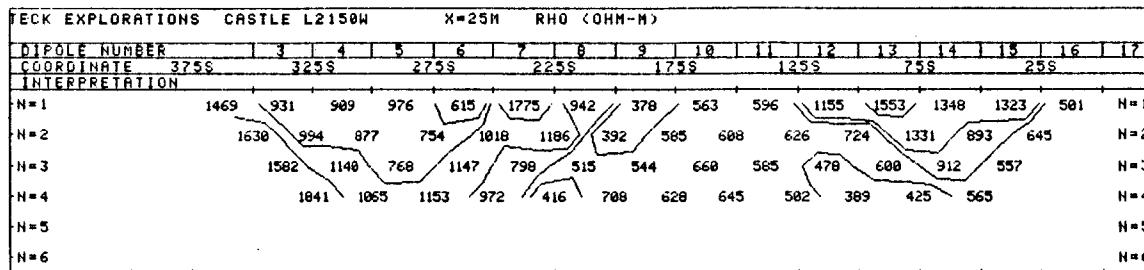
FREQUENCY (HERTZ) Dwg. No.-I.P -5892-5  
4.0;0.25

DATE SURVEYED: AUG/88  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

NOTE- CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

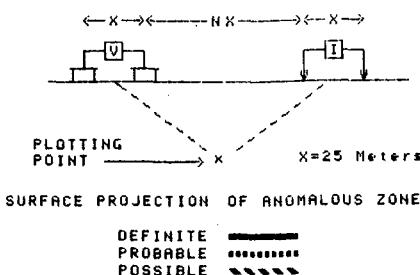


TECK EXPLORATIONS

**CASTLE PROPERTY**

LIARD M.D.; B.C.

LINE NO . -2108W



FREQUENCY (HERTZ) DWG. NO. - P. -5892-6  
 4.0, 0.25

NOTE - CONTOURS DATE SURVEYED AUG /88  
 AT LOGARITHMIC APPROVED \_\_\_\_\_  
 INTERVALS. 1.1 - 5 DATE \_\_\_\_\_  
 -2, -3, -5, -7.5, -10  
 PLUS EACH 0.25  
 FROM 0.5 TO 2.0

PACIFIC GEOPHYSICAL LTD.  
INDUCED POLARIZATION AND RESISTIVITY SURVEY

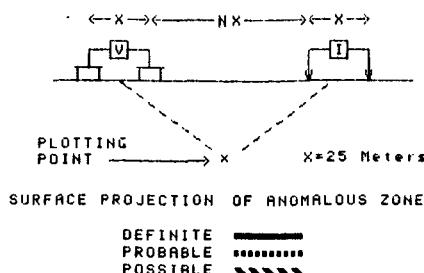
FECK EXPLORATIONS CASTLE L2100H X=25M RHO (OHM-M)  
 DIPOLE NUMBER 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18  
 COORDINATE 375S 325S 275S 225S 175S 125S 75S 25S  
 INTERPRETATION  
 N=1 1323 1206 1225 1103 697 1742 1052 903 364 463 720 2709 1275 1457 1431 1034 N=1  
 N=2 1418 826 1205 1188 1106 1195 819 468 465 284 1634 1782 565 1034 1216 N=2  
 N=3 1204 575 1324 1607 852 765 595 653 274 705 1181 1050 442 1163 N=3  
 N=4 1459 181 1653 1186 560 583 759 339 673 520 736 846 524 N=4  
 N=5  
 N=6

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D.; B.C

LINE NO. - 2050W



FREQUENCY (HERTZ) Dwg. No. - I P - 5892-7  
4.010.25

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

# PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

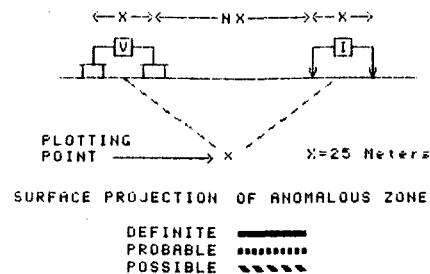
TECK EXPLORATIONS CASTLE L2050W X=25M RHO (OHM-M)  
 DIPOLE NUMBER 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21  
 COORDINATE 375S 325S 275S 225S 175S 125S 75S 25S 25N 25N 75N  
 INTERPRETATION  
 N=1 1265 1581 1594 1363 1003 1095 1791 813 468 586 626 1187 1501 1856 877 1131 N=1  
 N=2 1108 1759 1397 916 1109 985 1272 591 624 677 630 1167 1116 1093 792 644 N=2  
 N=3 1598 1520 1019 1074 1142 830 742 788 686 778 636 1059 774 952 518 778 N=3  
 N=4 1368 1139 1160 1037 1149 459 957 851 705 723 588 801 754 613 686 875 N=4  
 N=5  
 N=6

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO. - 2000W



FREQUENCY (HERTZ)  
4.010.25

DWG. NO. - I.P. - 5892-8

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

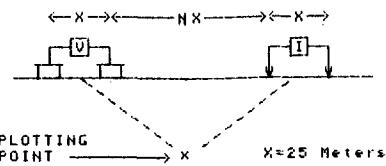
TECK EXPLORATIONS CASTLE L2000W X=25M RHO (OHM-M)

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M D., B.C.

LINE NO . -1950W



SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE            PROBABLE            POSSIBLE**

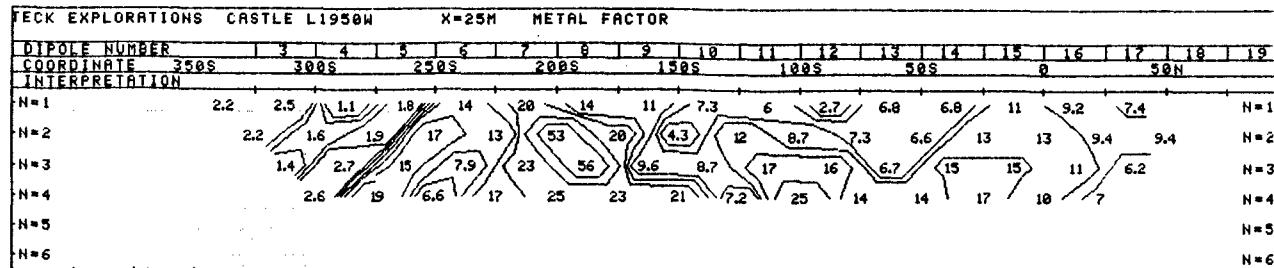
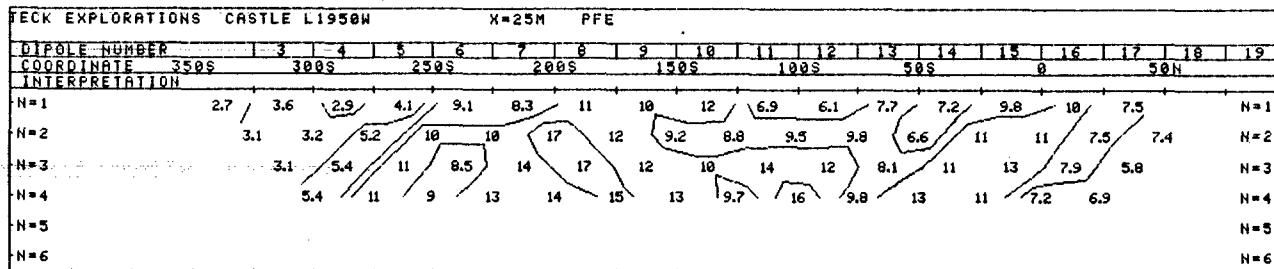
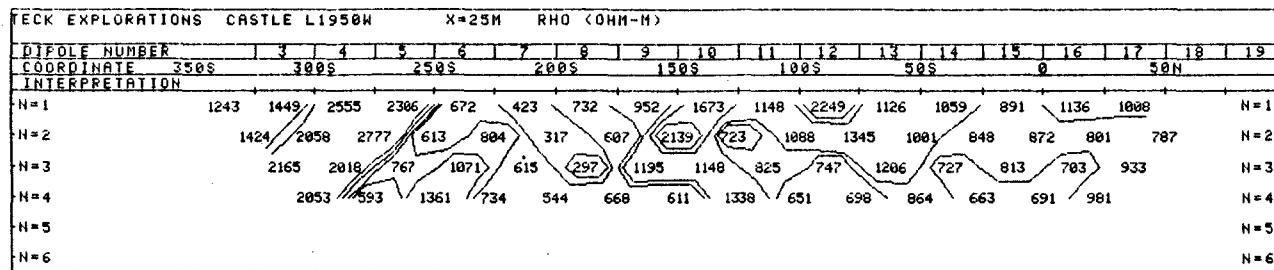
FREQUENCY (HERTZ)  
4.0; 8.25

DWG. NO. - I.P. - 5892-9

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

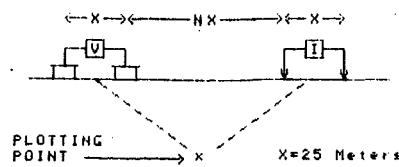


# TECK EXPLORATIONS

CASTLE PROPERTY

LIAISON LIBRARY

LINE NO. - 1980W



SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE** \_\_\_\_\_  
**PROBABLE**   
**POSSIBLE** 

FREQUENCY (HERTZ)  
4.0±0.25

DWG. NO. - I.P. - 5892-10

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

FECK EXPLORATIONS CASTLE L1900W X=25M METAL FACTOR

DIPOLE NUMBER 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

COORDINATE 350S 300S 250S 200S 150S 100S 50S 0 50N 100N

INTERPRETATION

N=1 1.3 1.5 6 9 1.1 19 13 10 6 4.4 2.2 3.9 2.9 6.3 5.5 6.6 N=1

N=2 1.8 1.7 14 1.3 9.4 22 27 3.1 12 6.3 5 4.8 9.2 18 7.8 12 N=2

N=3 1.8 2.7 1.9 7.9 9.9 38 13 10 12 9.8 5.2 13 13 11 6.8 14 N=3

N=4 2.8 3.4 7.8 8.3 17 19 25 9.5 11 8.8 12 18 15 8.2 7.6 11 N=4

N=5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10 2.11 2.12 2.13 2.14 2.15 2.16 2.17 2.18 2.19 2.20 2.21 N=5

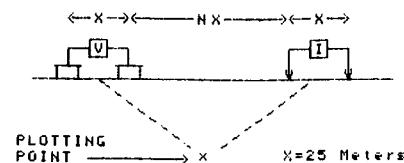
N=6 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10 2.11 2.12 2.13 2.14 2.15 2.16 2.17 2.18 2.19 2.20 2.21 N=6

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D.; B.C.

LINE NO . -1850W



## SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE** —————  
**PROBABLE** ··········  
**POSSIBLE** ▾▴▴▴▴▴

FREQUENCY (HERTZ)  
4.0;0.25

DNG NO. - I.P. - 5892-11

NOTE- CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1,-1.5  
-2,-3,-5,-7.5,-10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

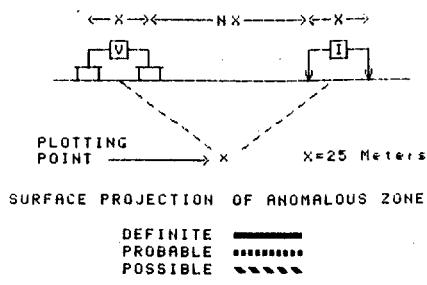
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M D., B.C.

LINE NO. - 1800k



FREQUENCY (HERTZ)  
4.0; 0.25

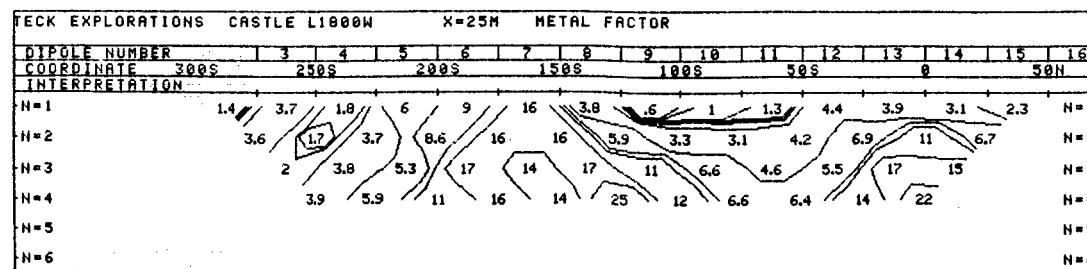
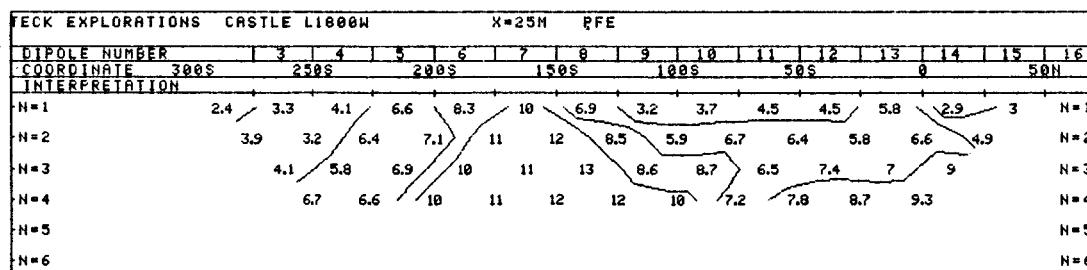
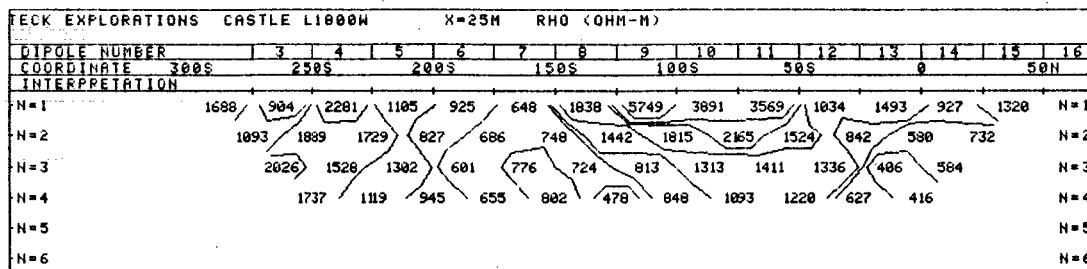
DWG. NO. - I.P. - 5892-12

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1,  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

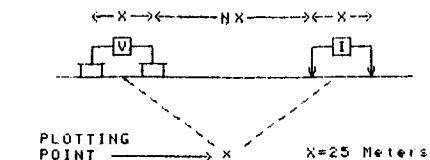


## TECK EXPLORATIONS

**CASTLE PROPERTY**

LIARD M.D., B.C.

LINE NO. - 1750W



SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE**   
**PROBABLE**   
**POSSIBLE** 

FREQUENCY (HERTZ)  
4.8;0.25

DWG. NO. - I.P. - 5892-13

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

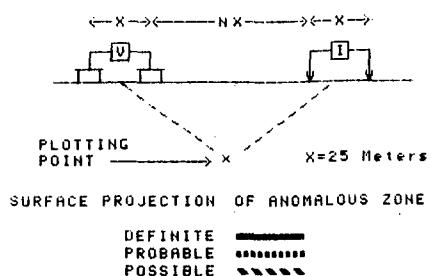
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO . - 1650W



FREQUENCY (HERTZ) DWG. NO.-I.P.-5892-14  
 4.000 25

NOTE - CONTOURS DATE SURVEYED: AUG/87  
 AT LOGARITHMIC APPROVED \_\_\_\_\_  
 INTERVALS. 1.-1.5  
 -2.-3.-5.-7.5.-10 DATE \_\_\_\_\_  
 PLUS EACH 0.25  
 FROM 0.5 TO 2.0

PACIFIC GEOPHYSICAL LTD.

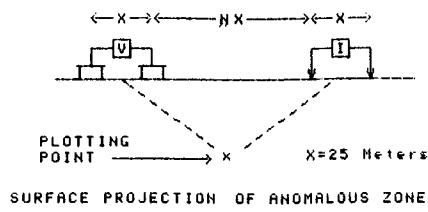
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

**CASTLE PROPERTY**

LIARD M.D.; B.C.

LINE NO . -1600W



SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE**   
**PROBABLE**   
**POSSIBLE**

FREQUENCY (HERTZ)  
4.8; 0.25

PWG NO. - I P. - 5892-15

DATE SURVEYED: AUG/87

APPROVED

DAT

PACIFIC GEOPHYSICAL LTD.

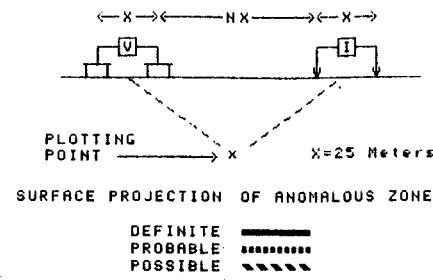
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

**CASTLE PROPERTY**

LIARD M. D.; B.C.

LINE NO. - 1550W



FREQUENCY (HERTZ) DWG. NO.-I.P.-5892-16  
4.0; 0.25

NOTE- CONTOURS DATE SURVEYED: AUG/87  
AT LOGARITHMIC APPROVED \_\_\_\_\_  
INTERVALS. 1, -1.5 DATE \_\_\_\_\_  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

PACIFIC GEOPHYSICAL LTD.

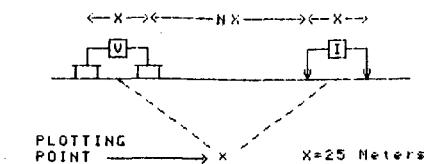
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO - 15001



## SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE** \_\_\_\_\_  
**PROBABLE** .....  
**POSSIBLE** >>>

FREQUENCY (HERTZ)  
4.0;0.25

DWG NO. - I.P. - 5892-17

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

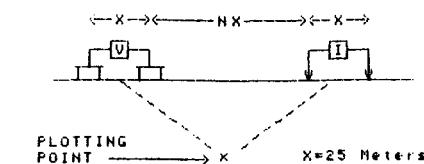
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M O I B.C.

LINE NO. - 1450N



SURFACE PROJECTION OF ANOMALOUS ZONE

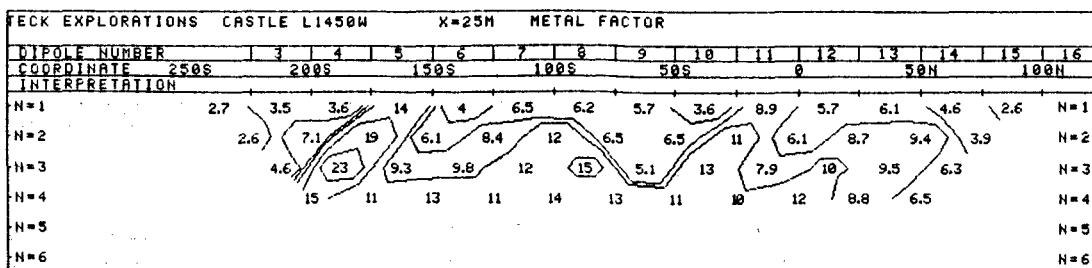
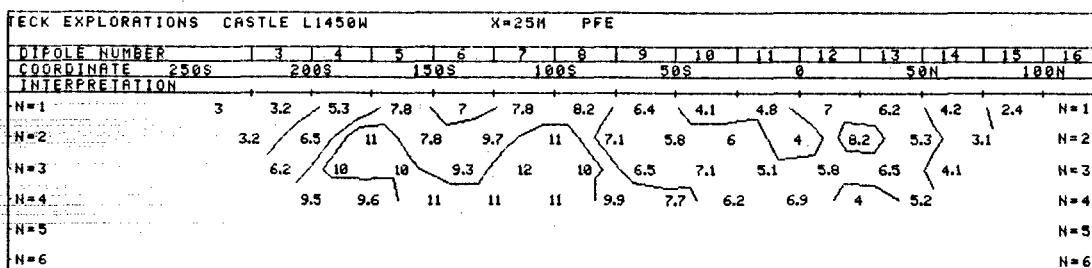
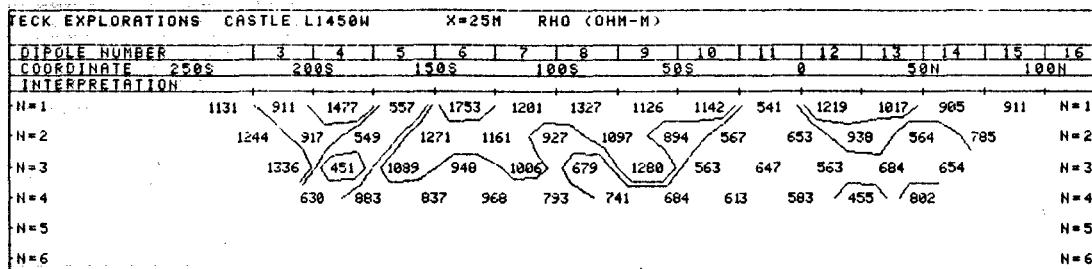
**DEFINITE**   
**PROBABLE**   
**POSSIBLE**

FREQUENCY (HERTZ) DWG. NO.-I P.-5892-18  
4.00025

NOTE - CONTOURS DATE SURVEYED: AUG/87  
AT LOGARITHMIC APPROVED \_\_\_\_\_  
INTERVALS .1, -.1.5 DATE \_\_\_\_\_  
-2, -3, -5, -7.5, -10 \_\_\_\_\_  
PLUS EACH 0.25 \_\_\_\_\_  
FROM 0.5 TO 2.0 \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

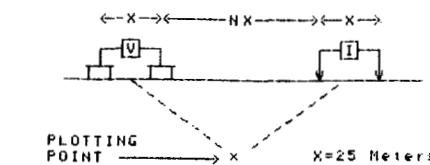


TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO. - 1400W



### SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE  
PROBABLE  
POSSIBLE

FREQUENCY (HERTZ)  
4.0; 8.25

DWG. NO.-I.P -5892-19

NOTE- CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE

PACIFIC GEOPHYSICAL LTD.

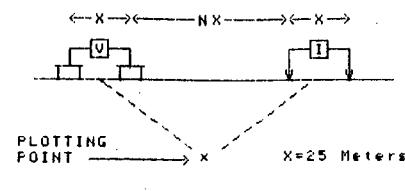
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D.; B.C.

LINE NO. - 13504



SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE**   
**PROBABLE**   
**POSSIBLE**

FREQUENCY (HERTZ)  
4.010.25

PNG. NO. - I P. - 5892-20

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE

PACIFIC GEOPHYSICAL LTD.

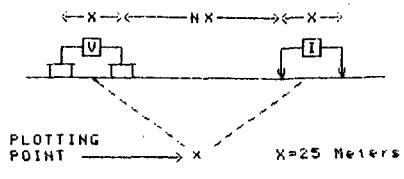
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO. - 1300W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE              
PROBABLE            
POSSIBLE

FREQUENCY (HERTZ)  
4.0;0.25

DWG NO. - I.P - 5892-21

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

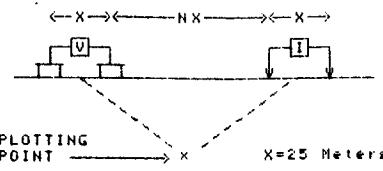
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

**CASTLE PROPERTY**

LIARD M.D., B.C.

LINE NO. - 1250W



## SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE**   
**PROBABLE**   
**POSSIBLE** 

FREQUENCY (HERTZ)  
4.0;0.25

DWG. NO. - I.P. - 5892-22

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

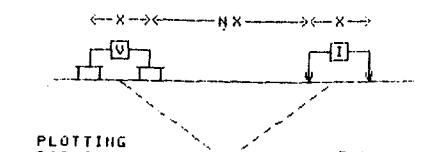
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO . - 1200W



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE  
PROBABLE  
POSSIBLE

FREQUENCY (HERTZ)  
4.0;0.25

DWG. NO. - I.P. - 5892-23

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5,  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

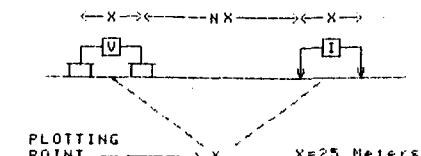
TECK EXPLORATIONS		CASTLE L1200H		X=25M RHO (OHM-M)												
DIPOLAR NUMBER		6	7	8	9	10	11	12	13	14	15	16	17			
COORDINATE	200S	150S	100S	50S	0	50N	100N									
INTERPRETATION																
N=1		3534	1498	670	500	340	388	562	440	568	829	1050	986	N=		
N=2		2665	1200	842	709	356	267	722	573	423	642	792	971	N=		
N=3		2256	1223	1115	1188	489	246	448	660	562	456	829	848	N=		
N=4		2667	1235	1278	1500	665	264	357	481	601	595	610	920	N=		
N=5														N=		
N=6														N=		

## TECK EXPLORATIONS

CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO. - 1150W



### SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE      
PROBABLE      
POSSIBLE

FREQUENCY (HERTZ)  
4.0;0.25

DWG NO.-I.P -5892-24

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

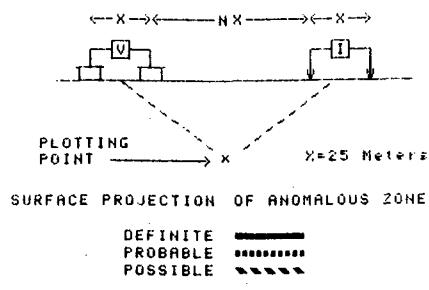
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

**CASTLE PROPERTY**

LIARD M D ; B.C.

LINE NO . - 1100W



FREQUENCY (HERTZ)  
4.0; 0.25

DWG. NO. - I.P. - 5892-25

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

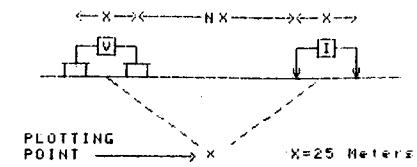
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

## TECK EXPLORATIONS

## CASTLE PROPERTY

LIARD M. D., B.C.

LINE NO . -1050W



SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE**   
**PROBABLE**   
**POSSIBLE**

FREQUENCY (HERTZ)  
4.0;0.25

PNG. NO. - I. P. - 5892-26

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

PACIFIC GEOPHYSICAL LTD.

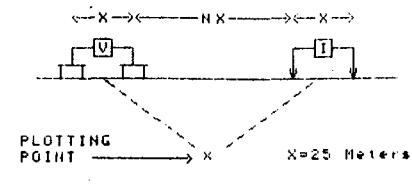
## INDUCED POLARIZATION AND RESISTIVITY SURVEY

TECK EXPLORATIONS

## CASTLE PROPERTY

LIARD M.D., B.C.

LINE NO . -1000N



## SURFACE PROJECTION OF ANOMALOUS ZONE

**DEFINITE**   
**PROBABLE**   
**POSSIBLE** 

FREQUENCY (HERTZ) DWG. NO.-I.P.-5892-27  
4.0; 0.25

NOTE - CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PLUS EACH 0.25  
FROM 0.5 TO 2.0

DATE SURVEYED: AUG/87  
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_

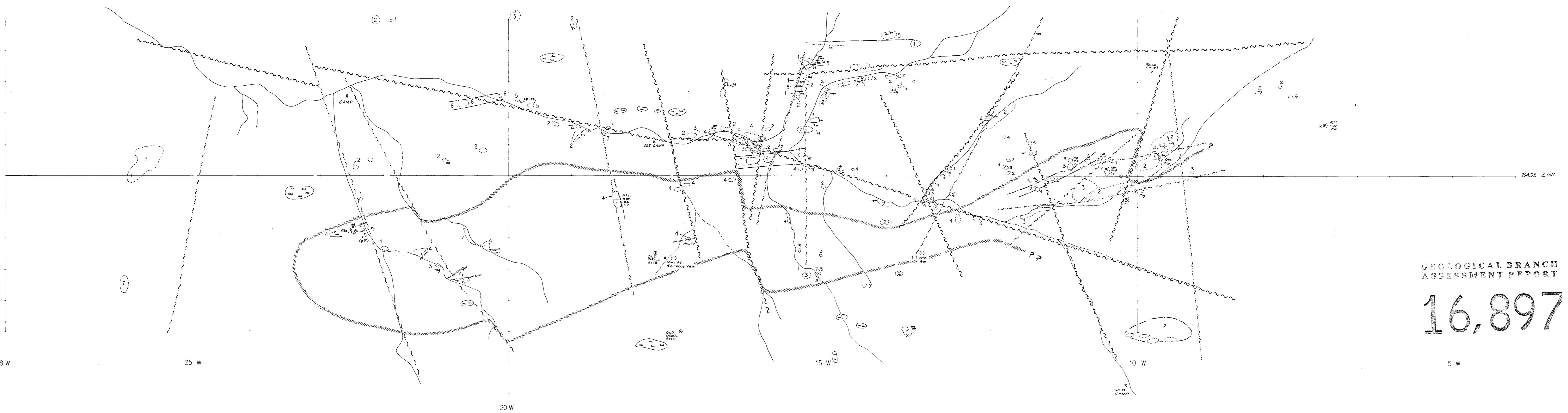
PACIFIC GEOPHYSICAL LTD.

## INDUCED POLARIZATION AND RESISTIVITY SURVEY

TECK EXPLORATIONS CASTLE L1000W X=25M RHO (<math>\Omega\text{-MM}^2</math>)

DIPOLE NUMBER	3	4	5	6	7	8	9	10
COORDINATE	125S	75S	25S	25N	25N	75N		
INTERPRETATION								

N=1                  254    2663    605    650    382    899    1216    861    N=1  
 N=2                  585    1324    721    360    473    910    676    N=2  
 N=3                  775    1485    358    407    589    801    N=3  
 N=4                  959    712    372    497    572    N=4  
 N=5                  N=5  
 N=6                  N=6



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LEGEND

1	MEDIUM GRAINED, GREY-GREEN VOLCANICS
2	COARSE GRAINED GREEN VOLCANICS (PORPHYRY)
3	MED. ALTERED (PROPYLITIC) MED. TO COARSE GRAINED VOLC. PYRITIC
4	HIGHLY ALTERED (PHYLIC) GREEN VOLCANICS. SERICITE, PYRITE.
5	PURPLE PYROCLASTICS
6	LIGHT BROWN VOLCANIC DYKE
7	FELSITE

~~~~~ ZONE OF CONSISTENT PY ALTERATION (INTERPRETED)  
VEINS (SER, QTZ, BAR, PY)  
LITHOLOGIC CONTACT

— POSSIBLE FAULT

~~~ PROBABLE FAULT

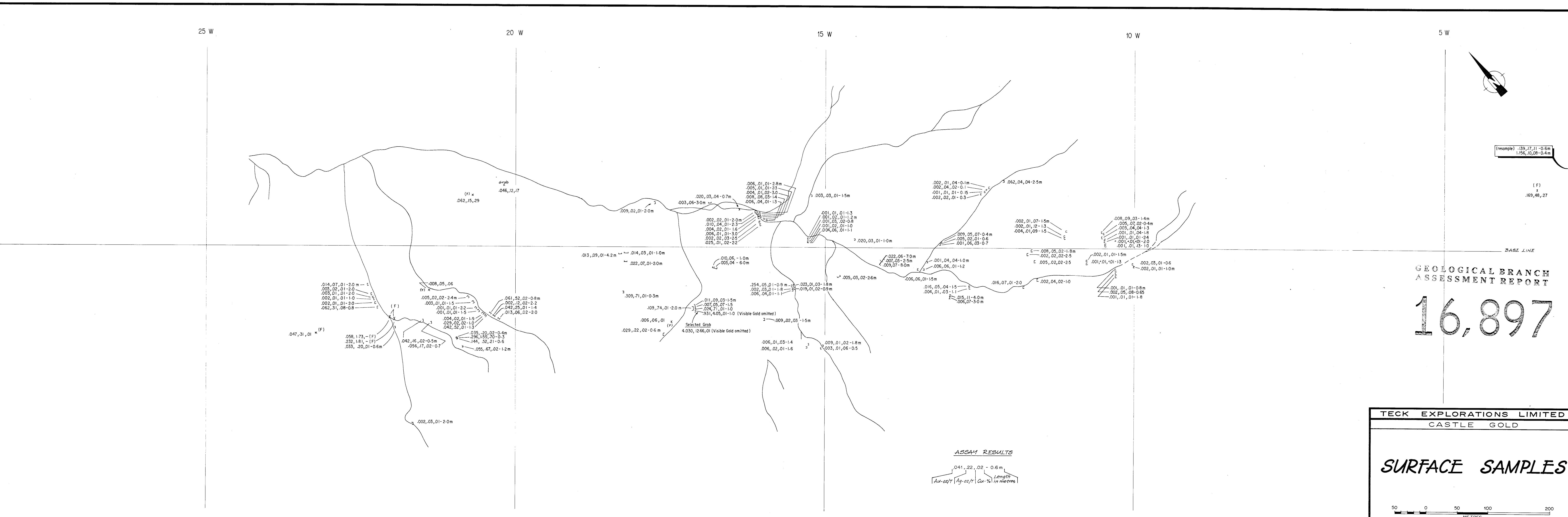
×(F) FLOAT

TECK EXPLORATIONS LIMITED  
CASTLE GOLD

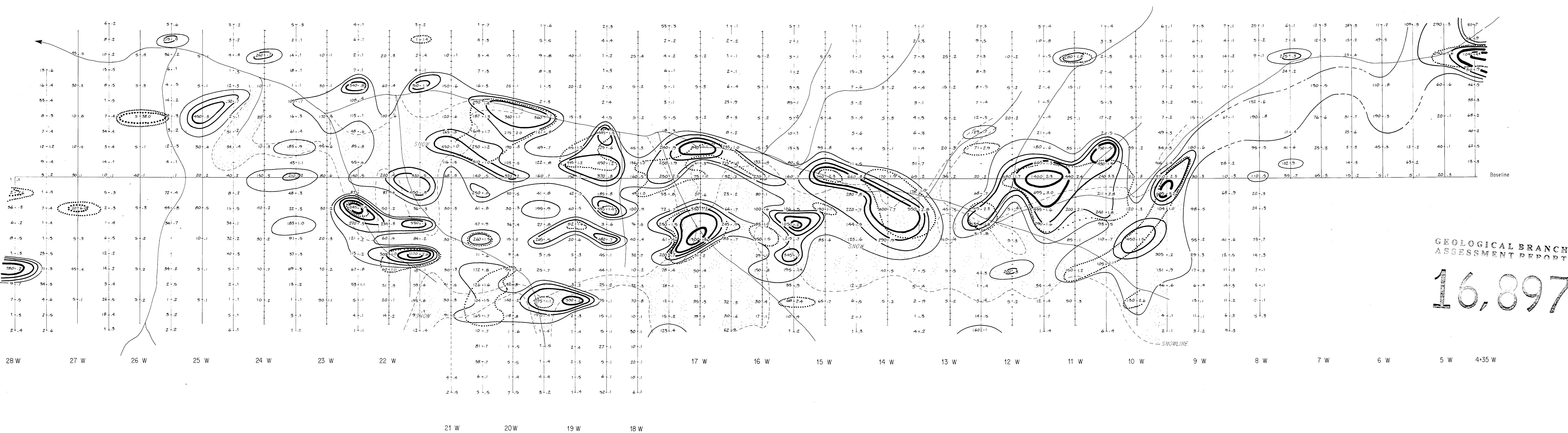
GEOLOGY

50 0 50 100 200 METRES

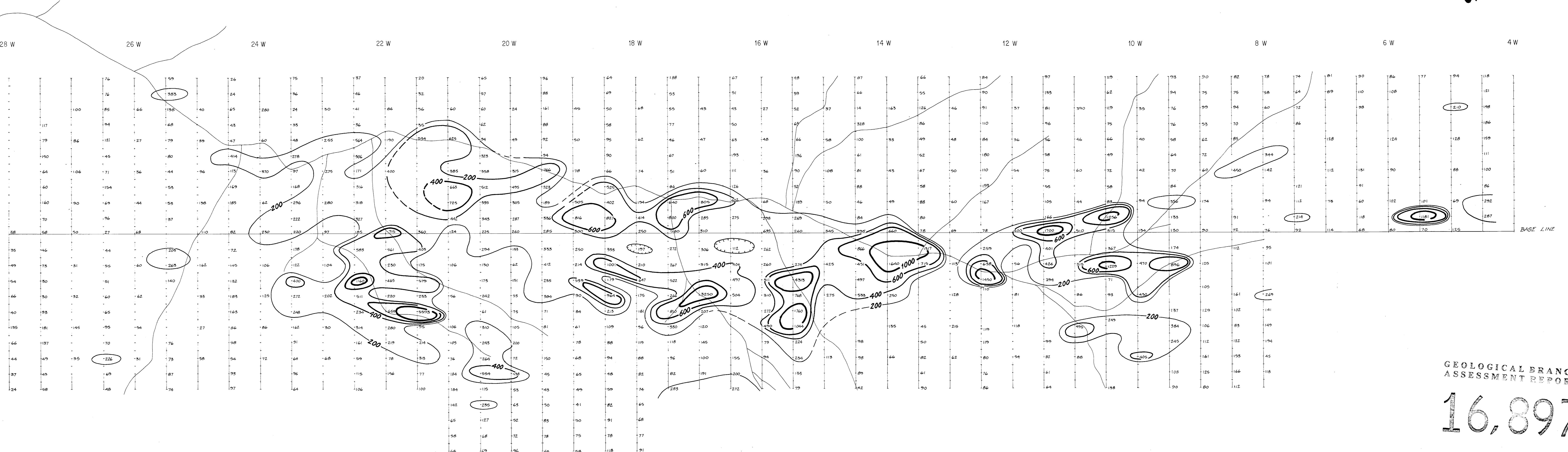
COMPILED: T DEY DRAWN: # DATE: SCALE: 1:2500 NTS: FIG. 5



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|                           |        |       |                    |
|---------------------------|--------|-------|--------------------|
| TECK EXPLORATIONS LIMITED |        |       |                    |
| CASTLE GOLD               |        |       |                    |
| <b>SOIL GEOCHEMISTRY</b>  |        |       |                    |
| Au (ppb) - Ag (ppm)       |        |       |                    |
|                           |        |       |                    |
| COMPILED:                 | DRAWN: | DATE: | SCALE: 1:2500 NTS: |

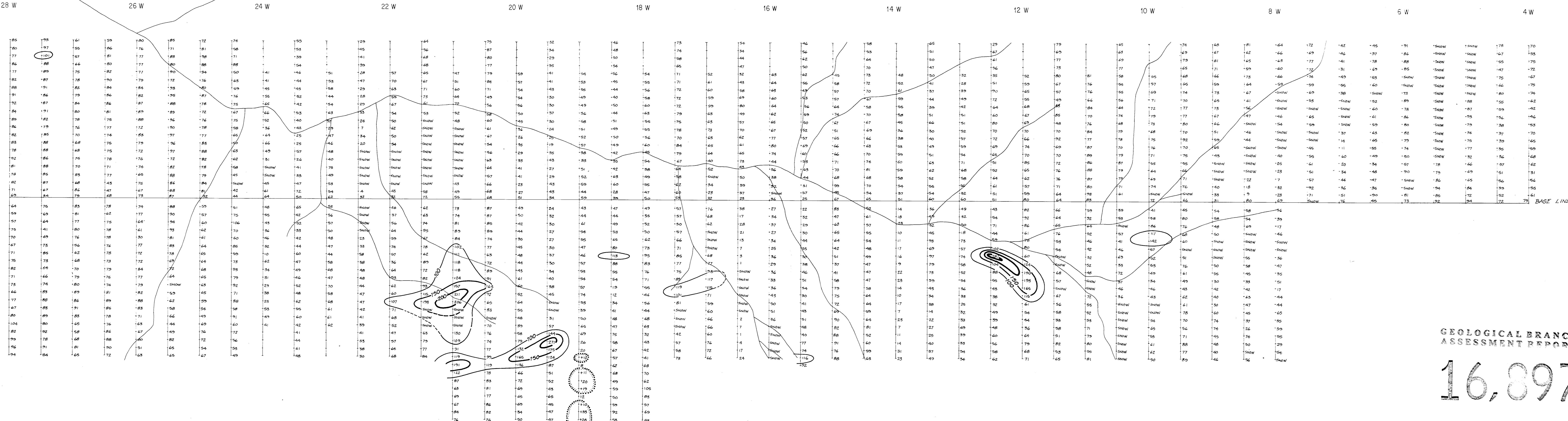


### LEGEND

200 Cu (ppm)  
272

CONTOURS  
Cu - ppm  
— 200 —  
— 400 —  
— 600 —  
→ >1000 —

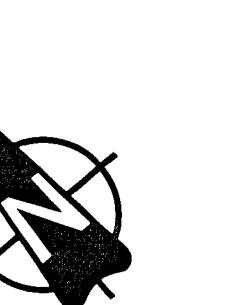
|  |               |
|--|---------------|
| TECK EXPLORATIONS LIMITED              |               |
| CASTLE PROJECT                         |               |
| <u>SOIL GEOCHEMISTRY</u><br>(Cu - ppm) |               |
|  |               |
| COMPILED:                              | DRAWN: #      |
| DATE:                                  | SCALE: 1:2500 |
| NTS:                                   | FIG. 8        |



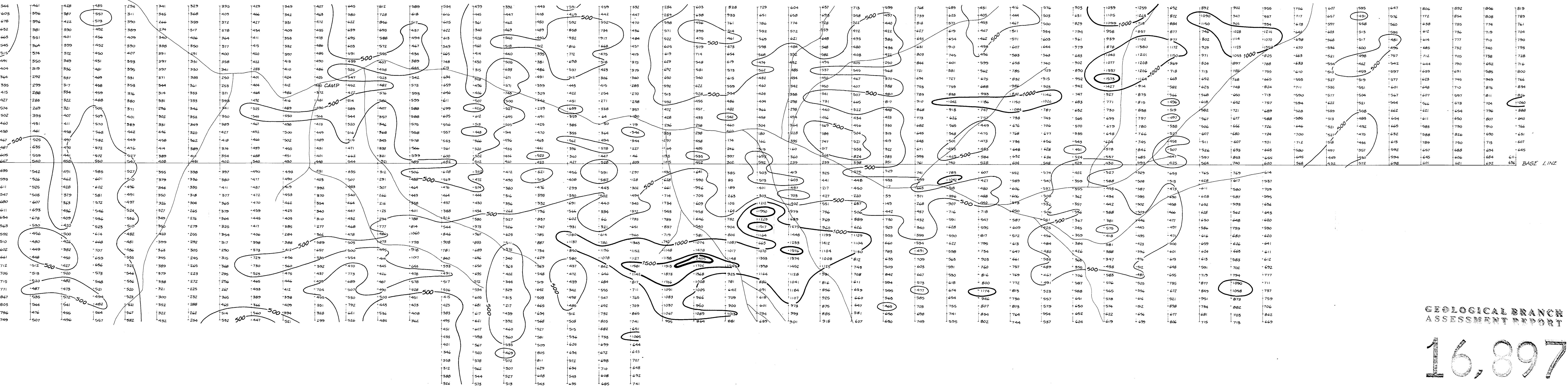
#### LEGEND

| CONTOURS   | POSTINGS         |
|--|------------------|
| — 100 —  | 12               |
| — 150 —  | 27               |
| — 200 —  | 25 (MILLI VOLTS) |
| — 250 —  | 40               |
| **** POSITIVE VALUES   | 37               |
|  | 49               |
| ALL VALUES ARE NEGATIVE  |                  |
| * USEFUL MEASUREMENTS NOT OBTAINED IN AREAS COVERED BY OLD SNOW. |                  |
| * POSITIVE VALUES DOUBLE CHECKED                                 |                  |
| OPERATORS:   |                  |
| D. NIKIRK<br>R. NIKIRK<br>T. DEY                                 |                  |

|                           |        |        |
|---------------------------|--------|--------|
| TECK EXPLORATIONS LIMITED |        |        |
| CASTLE GOLD               |        |        |
| SELF - POTENTIAL SURVEY   |        |        |
|                           |        |        |
| COMPILED:                 | DRAWN: | DATE:  |
| SCALE: 1:2500             | NTS:   | FIG. 9 |



28 W      26 W      24 W      20 W      18 W      16 W      14 W      12 W      10 W      8 W      6 W      4 W



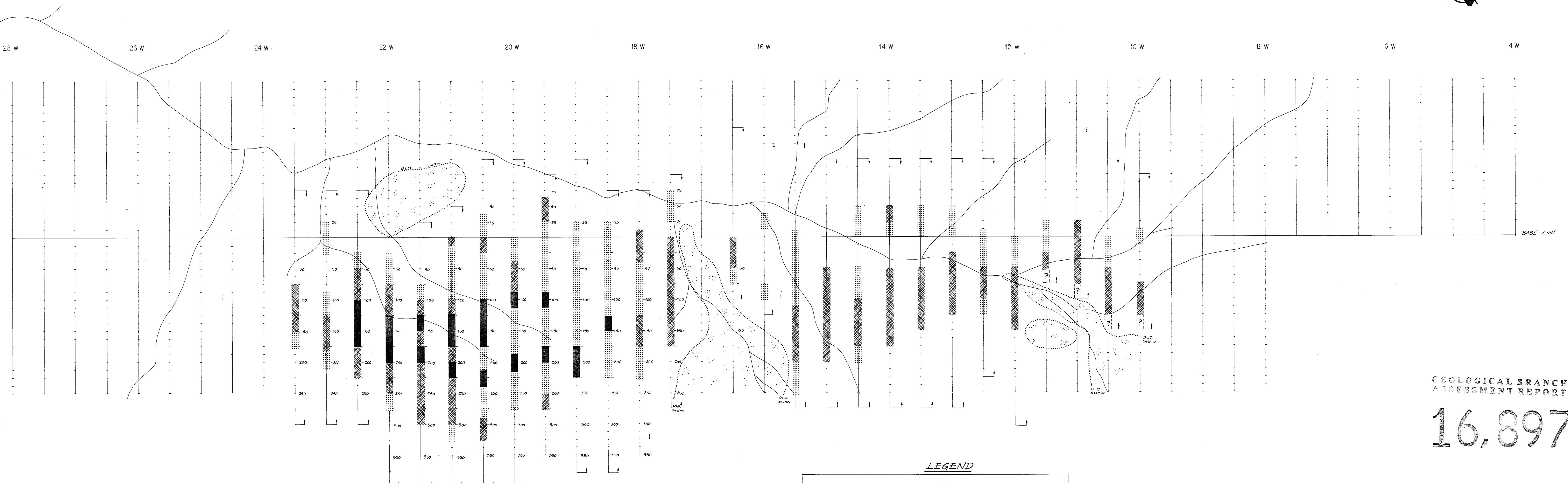
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LEGEND

| CONTOURS | POSTINGS  |
|----------|---|
| — 500 —  | 611<br>659  |
| — 1000 — | 640 (GAMMAB)  |
| — 1500 — | 647   |
| — 2000 — | 581   |
| (GAMMAB) | 607   |
|          | DATUM: 57,500 GAMMAS  |
|          | INSTRUMENT: D. NIKIRK   |
|          | OPERATOR:   |
|          | E.G.G. GEOMETRICS PORTABLE PROTON MAGNETOMETER, MODEL G816 / B26A SERIAL NO. 6663 |
|          | ( TOTAL FIELD )   |

|                           |        |       |               |              |
|---------------------------|--------|-------|---------------|--------------|
| TECK EXPLORATIONS LIMITED |        |       |               |              |
| CASTLE GOLD               |        |       |               |              |
| MAGNETOMETER SURVEY       |        |       |               |              |
| 50                        | 0      | 50    | 100           | 200          |
| METRES                    |        |       |               |              |
| COMPILED:                 | DRAWN: | DATE: | SCALE: 1:2500 | NTS: FIG. 10 |



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LEGEND

| ANOMALOUS ZONES                           |                   | EXPLANATION:<br>USEFUL DATA NOT OBTAINED<br>IN AREAS COVERED BY<br>OLD SNOW<br><br>LINE 17 W NOT SURVEYED DUE<br>TO LOCATIONS OF OLD SNOW. |
|---|-------------------|--|
| DEFINITE                                  | PROBABLE          |  |
|   | POSSIBLE          |  |
|   | SURVEY BOUNDARIES |  |
| OPERATORS:                                |                   |  |
| MIKE CORMIER<br>DOUG NIKIRK<br>RAY NIKIRK |                   |  |
| CONDUCTED BY:                             |                   |  |
| PACIFIC GEOPHYSICAL LTD.<br>AUG. 1987     |                   |  |

|                           |          |            |
|---------------------------|----------|------------|
| TECK EXPLORATIONS LIMITED |          |            |
| CASTLE GOLD               |          |            |
| I.P. SURVEY               |          |            |
| 50                        | 0        | 50 100 200 |
| METRES                    |          |            |
| COMPILED:                 | DRAWN: # | DATE:      |
| SCALE: 1:2500             | NTS:     | FIG. 11    |

