ARIS SUMMARY SHEET

District Geologist, Smithers   Off Confidential: 89.02.05

ASSESSMENT REPORT 17009   MINING DIVISION: Liard

PROPERTY: Kutcho Creek
LOCATION: LAT 58 10 00 LONG 128 22 00
UTM 09 6447230 537262
NTS 104I01W
CLAIM(S): Josh 3-4,Pipe,Pink Two
OPERATOR(S): Esso Res. Can.
AUTHOR(S): Thiersch, P.;Holbeck, P.
REPORT YEAR: 1987, 46 Pages
COMMODITIES
SEARCHED FOR: Copper,Zinc,Silver
GEOLOGICAL
SUMMARY: The area investigated is underlain by felsic to mafic pyroclastic rocks of the Triassic aged Kutcho Formation. The Kutcho volcanogenic massive sulphide deposits are located 3 kilometres north of the study area. The largest of these deposits contains open pit mineable reserves of 17 000 000 tonnes grading 1.6 per cent copper, 2.3 per cent zinc and 29.2 grams per tonne silver. Kutcho Formation rocks have undergone greenschist facies metamorphism and have been folded into large scale, tight, inclined folds plunging shallowly to the west. Intense sericite-carbonate alteration is typical of mineralized areas.

WORK
DONE: Geochemical,Geophysical
EMGR 13.5 km;GENI
Map(s) - 4; Scale(s) - 1:2500
GRAV 5.0 km
Map(s) - 4; Scale(s) - 1:2500
ROCK 10 sample(s) ;ME
SOIL 191 sample(s) ;CU,PB,ZN,AS,AG
Map(s) - 1; Scale(s) - 1:12 000

RELATED
REPORTS: 15592
MINFILE: 104I 075

2/89

1987 GEOCHEMICAL AND GEOPHYSICAL REPORT

ON THE

KUTCHO MINERAL CLAIMS

Liard Mining Division

NTS: 104I/1

Lat: 58° 12'N Long: 128° 22'W

Owned by:

Esso Resources Canada Limited
1600 - 409 Granville Street
Vancouver, B.C. V6C 1T2

Operated by:

Esso Resources Canada Limited

Report By:

Peter Thiersch
Peter Holbek

December 10, 1987

Distribution:
Ministry - 2 copies
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Field - 1 copy

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SUMMARY

The 1987 exploration program was designed to further evaluate five geophysical conductors identified in the 1985 airborne survey. EM-GENIE surveying totalling 13.5 line kms was performed to define the conductors on the ground. In addition, 5 line kms of Bouguer gravity surveying was conducted, and 191 soil geochemical samples collected, in an attempt to classify the conductors as massive sulphides or graphitic argillites, and hence guide drilling.

Moderate to strong EM conductors were defined near surface at all target areas. They vary from 200m to 1500m in strike length, 5-10m in width, and all dip moderately to the north. Gravity responses generally reflected subtle changes in lithological density and did not identify any massive sulphide bodies near surface. Soil geochemistry results outlined weak anomolies of zinc, copper and silver over each surveyed conductor.

Recommendations include: drill testing of Target C; extension of soil geochemistry surveys along strike from Target C using deep sampling methods; and continued evaluation of other airborne conductors using EM-GENIE, gravity and geochemistry.

1.0 INTRODUCTION

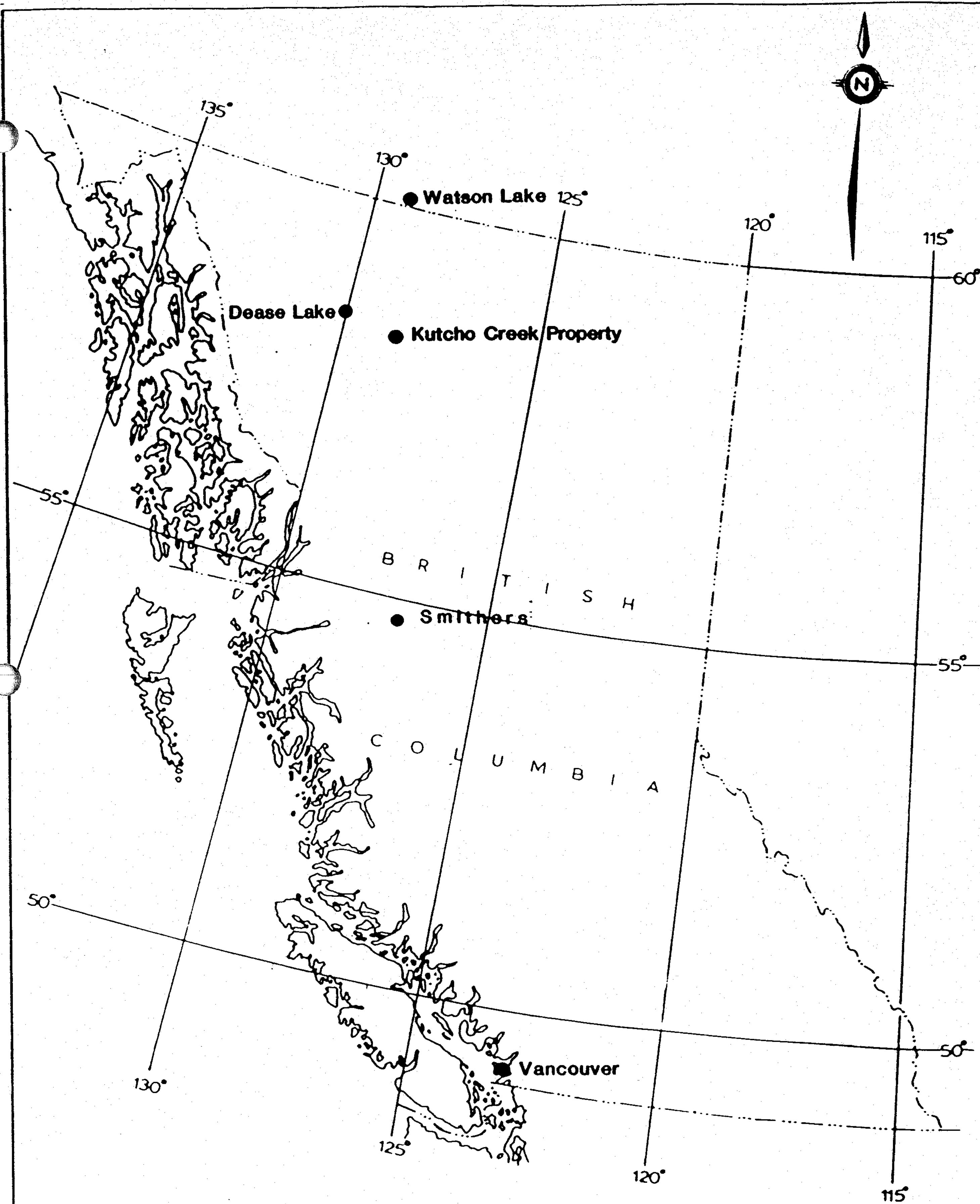
1.1 Location and Access

The Kutcho Creek property is located within the Liard Mining Divison, NTS 104I/1, approximately 100 km east of Dease Lake, in northwest British Columbia (Figure 1.1). Geodetic coordinates are 58° 12′ N and 128° 22′ W.

Access to the property is by fixed-wing aircraft from Smithers, Dease Lake or Watson Lake to the 1100m gravel airstrip located beside Kutcho Creek. The property is connected to the airstrip by an 8 km long road, however, the large size of the property requires helicopter access to the southern claim area.

1.2 Climate and Physiography

Located within the Cassiar Mountains, on the divide between Arctic and Pacific watersheds, the area is moderately rugged with elevations ranging from 1400m to 2200m. Most of the area is alpine, with treeline at approximately 1500m. Snow cover can persist for nine months of the year. Structural fabric and two periods of glaciation have produced an intersecting pattern of east-west and north-south ridges. Major valleys are often filled with a deep layer of till.



ESSO MINERALS CANADA

LOCATION MAP FOR KUTCHO CREEK

Fig. 1.1

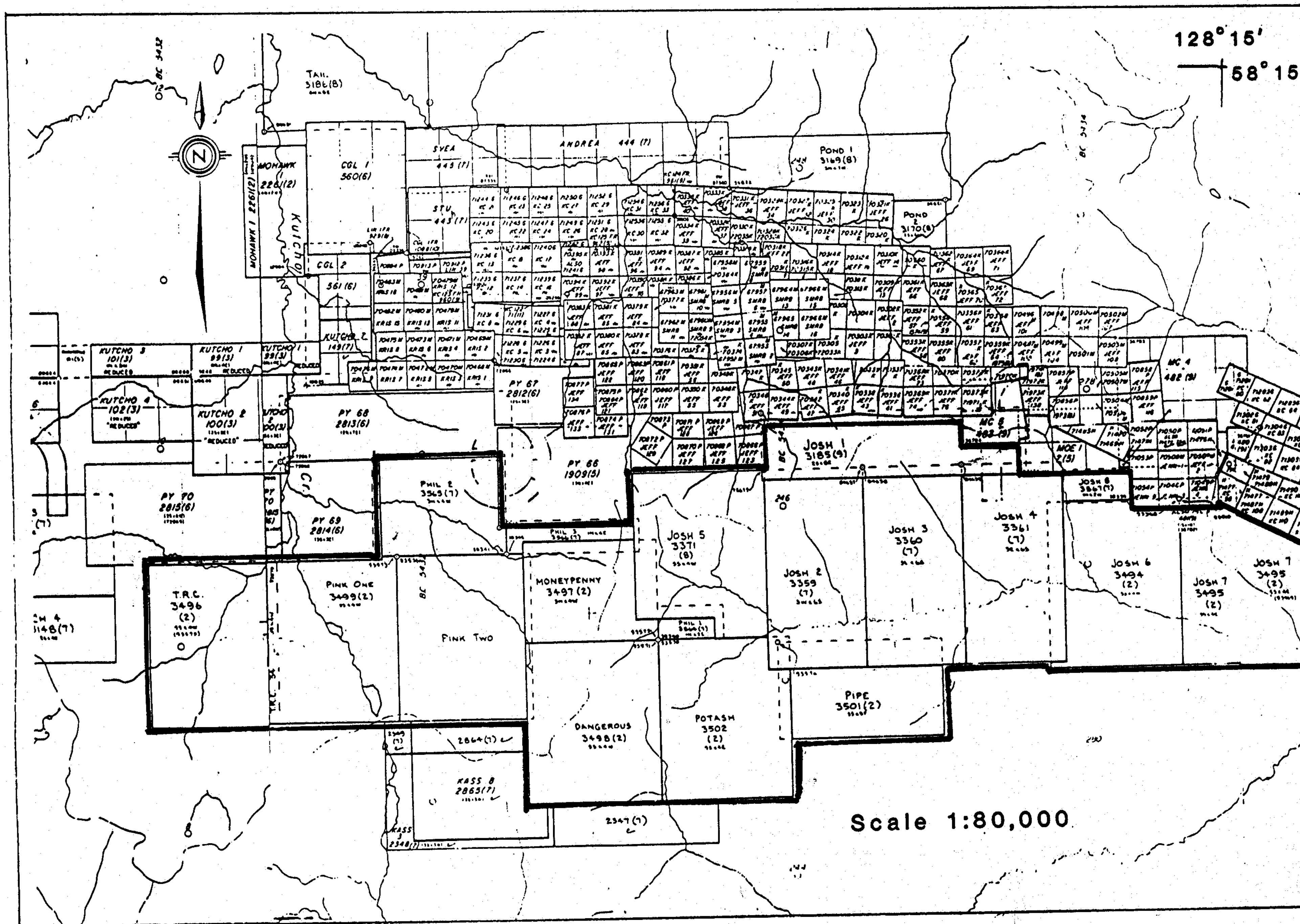


Figure 1.2 Claim Map

TABLE 1 - CLAIM STATUS

CLAIM NAME	UNITS	DATE LOCATED	EXPIRY DATE	RECORD NUMBER
JOSH 1	16	Aug. 25/84	Sept. 7/89	3185
JOSH 2	18	June 21/85	July 17/89	3359
JOSH 3	18	June 21/85	July 17/89	3360
JOSH 4	18	June 21/85	July 17/89	3361
JOSH 5	20	July 21/85	Aug. 19/88	3371
JOSH 6	20	Jan. 24/86	Feb. 7/88	3494
JOSH 7	20	Jan. 24/86	Feb. 7/89	3495
JOSH 8	2	June 27/86	July 7/93	3567
PHIL 1	2	June 27/86	July 7/88	3564
PHIL 2	12	June 27/86	July 7/88	3565
PHIL 3	4	June 27/86	July 7/88	3566
DANGEROUS	20	Jan. 24/86	Feb. 7/88	3498
MONEY PENNY	12	Jan. 24/86	Feb. 7/88	3497
PIPE	15	Jan. 25/86	Feb. 7/88	3501
PINK ONE	20	Jan. 26/86	Feb. 7/88	3499
PINK TWO	20	Jan. 25/86	Feb. 7/89	3500
POTASH	20	Jan. 24/86	Feb. 7/88	3502
TRC	20	Jan. 26/86	Feb. 7/88	3496

1.3 Property and History

Claims are shown in Figure 1.2 and a summary of claim status is given in Table 1. The property lies to the south of, and contiguous with, claims covering the Kutcho Creek polymetallic volcanogenic massive sulphide deposits. Various portions of the property have been held and worked by different companies in the past. The most significant exploration was carried out by Imperial Oil Ltd. (Esso Minerals Canada) who, in 1975, drilled three short holes to test airborne EM conductors. Recent work has included a Questor airborne MKVII INPUT EM and Magnetic survey flown in November 1985 and ground follow-up in 1986 consisting of relogging and lithogeochemical sampling of drill core from the 1975 program, and ground geophysics, geology and geochemistry surveys over two EM conductors identified in the 1985 airborne survey.

1.4 Work Done

Work conducted in 1986 determined that favourable stratigraphy underlies the southern property area, and that a number of EM conductors coincide with graphitic argillites within this stratigraphy. However, relogging of core in 1986 identified evidence of hydrothermal alteration and suggested an association between these argillites and a distal exhalative horizon.

The 1987 exploration program evaluated five EM conductors identified in the 1985 airborne survey and, using gravity and orientation geochemistry surveys, attempted to distinguish between massive sulphide and argillaceous conductors. Ground work included a total of 13.5 line kms of EM-GENIE surveying, 5 line kms of Bouguer Gravity surveying, and collection of 191 soil geochemical samples and 10 lithogeochemical samples. This work was conducted by a four-man crew over nine days between August 2 and 10. Table 1 provides a breakdown of the work performed at each target and lists the corresponding claim.

TABLE 2 - WORK PERFORMED AT EACH TARGET

TARGET	EM-GENIE (km)	GRAVITY (km)	GEOCHEM (km)	CLAIM
C	6.8	2.4	2.0	Pink Two
I (KI)	1.6	0.8	0.8	Josh 4
I (KIG)	1.6	0.8	0.8	Josh 4
G (KGH)	2.0	1.0	1.0	Josh 3/Pipe
F	1.5			Pipe
TOTAL	13.5	5.0	4.6	

2.0 GEOLOGY

2.1 Regional Geology

The Kutcho property lies within the King Salmon Allochthon, a narrow belt of Triassic island arc volcanics and Jurassic sediments sandwiched between two northerly dipping thrust faults. Penetrative foliation and axial planes of the major folds are parallel to these bounding faults. The belt of volcanics is thickest in the area where it hosts volcanogenic massive sulphide deposits; due in part to primary deposition, but also to stratigraphic repetition by folding and thrusting. Major folds are delineated by the Sinwa Limestone and the contact between Kutcho Formation volcanics and Inklin Formation argillites.

Volcanogenic mineralization of the Kutcho deposits occurs at the contact between footwall lapilli tuffs and hanging wall quartz and quartz-feldspar crystal tuffs. The main sulphide bearing horizon is marked by extensive hydrothermal alteration and the presence of thinly bedded ash tuffs, the latter indicating a temporary hiatus in volcanic activity. This sulphide horizon is geochemically, and often visually, recognizable over a strike length of 8 km.

The coarsest grained pyroclastic rocks of the Kutcho Formation occur in the vicinity of the known sulphide deposits and become noticeably finer grained towards the south and east. The major center of volcanism is postulated to be northeast of the Kutcho sulphide lens, although subordinate centers may exist elsewhere on the property.

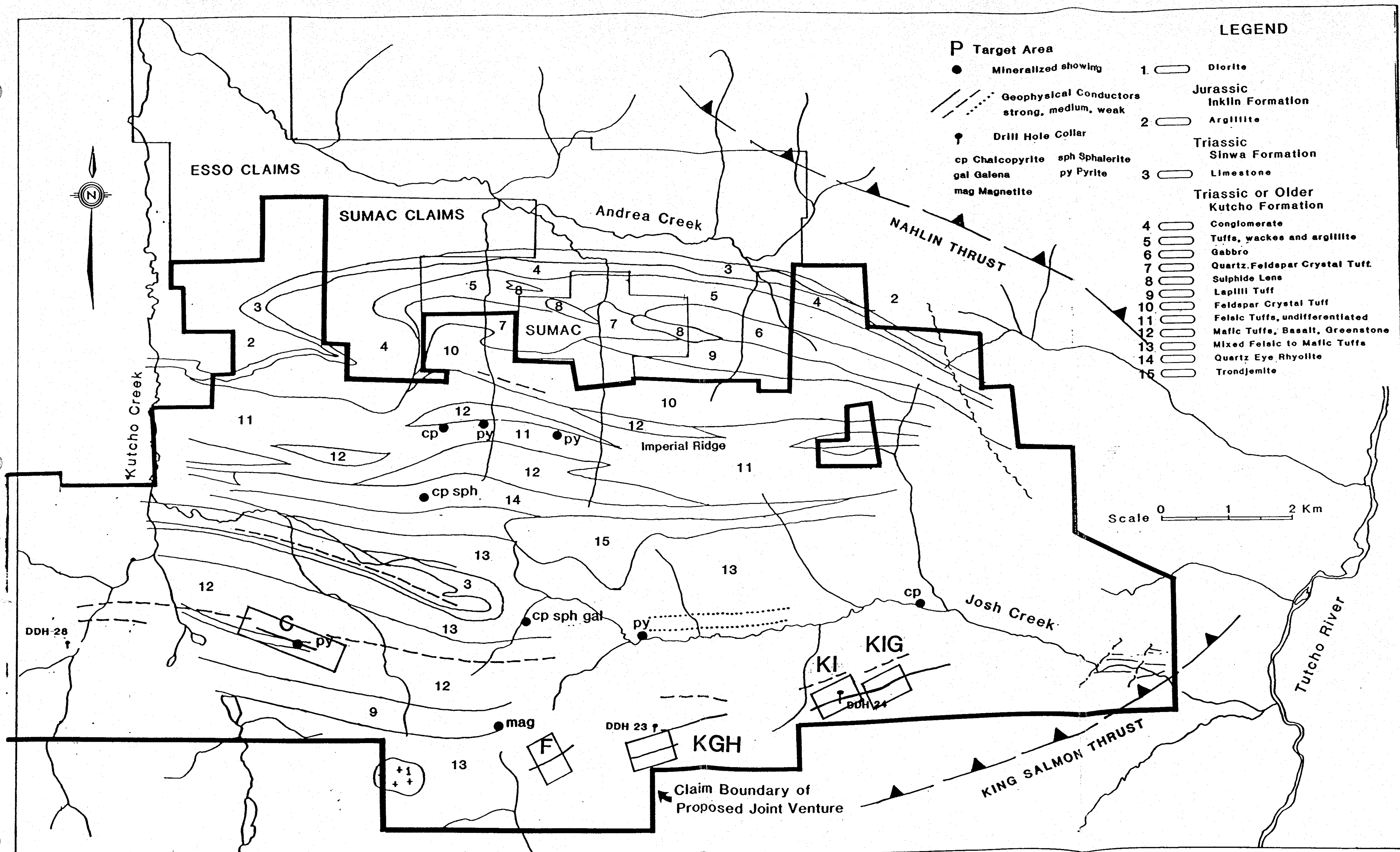


FIGURE 2.1 GENERALIZED GEOLOGY AND TARGET GRID LOCATIONS.

2.2 Property Geology

A generalized property geology map is shown in Figure 2.1. Geology of the target C area was described by Holbek and Thiersch (1986) and their map (Figure 2.2) is included here to assist geochemical and geophysical evaluation. The conductive zone is underlain by a narrow band (5-30m) of sericite schist (ash tuffs), silica exhalite and massive to semi-massive pyrite showing some similarities to rocks at the main Kutcho horizon. Both the hanging wall and footwall rocks are chlorite-epidote schists that were probably basalts. Pyritic float is scattered throughout the grid area but is concentrated at the eastern end. Due to scarcity of outcrop no additional detailed mapping was conducted in 1987.

3.0 GEOCHEMISTRY

3.1 Methods

A total of 191 soil samples were collected at 25m intervals on grid lines established over each conductor except at target F. Samples were taken from the B horizon where possible, at depths between 10-15cm. Some sample lines were located in moderately swampy areas, particularly on the KI and KIG targets. Samples were placed in kraft paper bags and air dried before shipment.

Analyses were performed by Bondar-Clegg Ltd. of Vancouver using Atomic Absorption methods for Cu, Pb, Zn, As, and Ag. Gold was analyzed by Fire Assay.

Ten lithogeochemical samples were also collected from sub-crops of pyritic ash tuff and silica exhalite. Samples, consisting of 1-2 kg of rock chips, were analyzed by Bondar-Clegg for 16 elements using DCP and gold by Fire Assay.

Geochemical data and details of analytical techniques are located in Appendix I. Grid plots of soil geochemical data are shown in Figures 3.1 to 3.8. These plots are labelled to correspond with the geophysical survey grids.

3.2 Discussion of Results

3.2.1 Soil Geochemistry

Geochemical responses were generally weak, due in part to thick overburden cover in the surveyed areas. Nevertheless, low contrast anomalies were recognized at each target. Overall, Zn, Cu and Ag gave the best definition of anomalous areas and were generally coincident. Au and As values were spotty and poorly correlated. Highest overall values were 435ppm Cu, 270ppm Zn, 17ppm Pb, 52ppm As, 1.7ppm Ag and 25ppb Au. No rigorous statistical analyses were undertaken because of distances between sample grids (up to 6 km) and local differences in sampled media. Threshold values appear to be in the order of 30ppm Cu, 70ppm Zn, 8ppm Pb, 10ppm As, 0.3ppm Ag and 5ppb Au.

In 1986, an orientation soil geochemistry survey was conducted over target C to test the effects of deep soil sampling (.3 - .5 m) in overburden covered areas (1986 in-house Kutcho Report). The values obtained show a similar response to the 1987 survey (.1 - .2 m sample depth) but both the average values and the contrast between background and anomalous values were roughly doubled. Although the deep soil sampling technique is more time-consuming, the benefits of increased geochemical response outweigh any decrease in productivity.

Target C

Eighty-five samples were collected on five 400m long lines with 100m separation. Four small (25x100m) zinc anomalies were defined by eight anomalous values of +100 ppm (Figs. 3.1, 3.2). They are coincident with geophysical conductors and sub-crops of pyritic ash tuff or silica exhalite. A broader zone of slightly elevated silver values (+0.3ppm) 100m wide by 400m long encloses the area of sub-crop and two of the zinc anomalies. Best sample was L100W-225N with 270ppm Zn, 78ppm Cu, 26ppm As and .3ppm Ag.

Target I (KI, KIG)

Thirty-four samples were collected from the KI grid on two 400m lines separated by 300m (Figs. 3.3, 3.4). Anomalous values of Zn (>100 ppm) and Ag (>1.0 ppm) occur over 2-3 stations (50-75m) on both lines, and appear to follow the regional structural trend. Best sample was L100E-075N which returned 158ppm Cu, 56ppm Zn, 1.4ppm Ag and 15ppb Au.

On the KIG grid thirty-four samples were collected on two 400m lines with 200m separation (Figs. 3.5, 3.6). Cu, Zn and Ag values were similarly elevated over 3-4 stations on one line, offset from the geophysical conductor by 50m. Best results were from sample L200E-125N with 120ppm Zn, 56ppm Cu and 1.3ppm Ag.

Target G (KGH)

Fourty-two samples were collected on the KGH grid on 500m lines separated by 200m (Figs. 3.7, 3.8). Elevated values of Cu and Zn (+100ppm) occur over four stations on one line, coincident with the geophysical conductor. Best sample was L000E-225N with 435ppm Cu, 86ppm Zn, 19ppm As and .4ppm Ag.

3.2.2 Lithogeochemistry

Outcrop exposure over the surveyed areas is generally very poor, except in the vicinity of target C. In this area, six rock chip samples were collected from sub-crops of thinly bedded pyritic ash tuff and silica exhalite. Two samples returned anomalous zinc values of 2700ppm and 3000ppm. These levels of enrichment are high enough to indicate hydrothermal activity and suggest proximity to an exhalative center. Other element concentrations were similar to values obtained in soil samples. Highest gold and silver values were 20ppb and 0.7ppm respectively.

4.0 GEOPHYSICS

4.1 EM Methods and Equipment

Airborne EM conductors were evaluated on the ground using a Scintrex SE-88 GENIE electromagnetic system. Test lines where run using an VLF EM-16 to locate the conductor prior to establishing grid lines perpendicular to the conductor axis. A total of 13.5 line kms of GENIE surveying was completed over five targets.

GENIE is an acronym for Geometry Normalized In-phase Electro-magnetometer. This is a moving source frequency domain system, comprised of a transmitter and receiver that, unlike conventional horizontal loop EM systems, does not require a linking reference cable. Instead, the transmitter simultaneously outputs a selectable signal frequency and reference frequency which can be varied for the desired depth sensitivity. The separation of the two units is maintained constant, with station readings usually taken at intervals equal to one quarter of the separation. In this survey depth sensitivity was 25m.

Measurements can be made for the following combinations of signal and reference frequencies: 3037.5/112.5 Hz, 1012.5/112.5 Hz, 337.5/112.5 Hz, 3037.5/337.5 Hz, and 1012.5/337.5 Hz. The receiver detects the vertical magnetic field components at the selected frequencies and computes the amplitute ratio defined by the following equation:

$$\frac{Aws}{NAwr} \times 100\% = R$$

Where: R = GENIE reading in percent

Aws = Amplitude of vertical magnetic field at the signal frequency

Awr = Amplitude of vertical magnetic field at the reference frequency

N = Normalizing factor which corrects for differences in transmitter moments between signal and reference frequencies

Thus, the GENIE reading is a measure of the difference in amplitudes of the vertical magnetic field components detected at the signal frequency and normalized reference frequency. The response in an area of no conductors or of conductive overburden is zero. Over a conductor the response is identical in shape to that obtained using conventional horizontal loop EM systems.

4.2 Gravity Methods and Equipment

Bouguer gravity surveys were performed over EM conductors in an attempt to discriminate between massive sulphide and argillaceous conductors. Five line kms of surveying was completed over five targets.

Any geological condition that results in a horizontal variation in density, such as the presence of massive sulphides or a change in lithological density or porosity, will cause a gravity anomaly. The gravimeter is an extremely sensitive weighing device that records the relative variation in gravity, using an astatic system to measure minute changes in the length of a weighted spring. The unit of measurement is the milligal; one gal being equal to 1cm/sec/sec. Bouguer gravity is the result of corrections for various factors including: instrument drift; height of instrument; latitude and tidal effects; and changes in elevation between survey stations. The LaCoste-Romberg Model G gravimeter, with an accuracy of +/- 0.02 mgals, was used in this survey.

Station elevations were measured using a GDD Model C hydrostatic elevation meter. This instrument consists of a transducer and a fluid filled plastic tube 29m long that is stretched between survey stations. The instrument calculates the elevation difference based on relative fluid pressure and is accurate to +/- 0.005m.

4.3 Discussion of Results

Profile plots of EM data are presented in Figures 4.1 to 4.4 (map pocket). The GENIE surveying was successfull in delineating target conductors except at the F target, where extreme electromagnetic noise, due to thunder storm activity, rendered data inconclusive. The conductor was located however, using the VLF-EM 16 unit, and geological examination determined the conductors to be graphitic argillites.

Profile plots of gravity data can be found in Figures 4.5 to 4.8 (map pocket).

Target C

The GENIE survey defined a weak to moderately strong EM conductor 1.5 km in length within 10-15m of surface. The conductor varies between 5 and 15m thick, dips moderately to the north, and is complemented by two shorter sub-parallel conductors in the western grid area. The main conductor is probably continuous although it appears weaker in the central area due to thickening overburden or possibly fault displacement. The strongest response was obtained in the western grid area, where overburden is thinnest, coincident with sub-crops of pyritic ash tuff and silica exhalite.

Gravity responses were broad and shallow, indicating a diffuse zone of increased density. This may reflect near surface disseminated sulphides, such as pyritic alteration associated with hydrothermal activity or thin laminations of sulphides within the ash tuff/exhalitive horizon. This data does not discount the possibility of massive sulphide potential at depth however, and these surficial responses may mask deeper responses.

Target I (KI, KIG)

A strong conductor in excess of 400m long and 5-10m thick was defined on grid KIG. The conductor dips moderately to the north and is open but weakens to the east. This target gave a very strong single line response indicating that it virtually outcrops on line 200E. No outcrop was observed.

The gradient defined by gravity surveying is due to a general increase in lithological density to the north; no massive sulphides were indicated. On grid KI a moderate conductor was defined approximately 400m long within 10m of surface. It is 5-10m wide and dips to the north. Gravity response was negligible.

Target H (KGH)

A strong conductor 500m long was detected, within 10m of surface on grid KGH. It is 5-10m wide, dips moderately to the north and is open to the east.

Gravity responses showed an increase in density to the north, possibly indicating a transition from sedimentary to volcanic or felsic to mafic lithology.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The 1987 exploration program was designed to further evaluate five geophysical conductors identified in the 1985 airborne survey. EM-GENIE surveying totalling 13.5 line kms was performed to define the conductors on the ground. In addition, 5 line kms of Bouguer gravity surveying was conducted, and 191 soil geochemical samples collected, in an attempt to classify the conductors as massive sulphides or graphitic argillites, and hence guide drilling.

Moderate to strong EM conductors were defined near surface at all target areas. They vary from 200m to 1500m in strike length, 5-10m in width, and all dip moderately to the north. Gravity responses generally reflected subtle changes in lithological density and did not identify any massive sulphide bodies near surface. Soil geochemistry results outlined weak anomolies of zinc, copper and silver over each surveyed conductor.

Target C, located in the western property area, gave the most encouraging results. A moderate conductor 1.5km long was defined, coincident with low grade zinc, copper and silver soil anomalies and sub-crops of pyritic ash tuff and silica exhalite. Anomalous lithogeochemical zinc values from these rocks indicate an exhalitive origin. Gravity responses were positive but weak, signifying a near surface zone of disseminated sulphides over the conductor. This response does not, however, discount the potential for massive sulphides at depth. The similarities in lithology and geochemistry between target C and the main Kutcho horizon make this an attractive drill target.

Targets H and I, in the southeastern property area, gave moderate to strong EM responses, but poor gravity responses, indicating that the conductors are likely graphitic argillites. This corresponds to information gained by relogging core from DDHE-23 and 24 in 1986. However, weak enrichments of zinc and copper geochemistry and alteration characteristics of these argillites indicate some hydrothermal activity and an association with a distal exhalitive horizon. This horizon should be explored along strike and at depth.

Extensive overburden cover on the Kutcho Property may mask soil geochemical responses and requires special sampling procedures. Orientation surveys have demonstrated the value of deep soil sampling (.3 - .5 m) as an effective means of increasing anomalous values and contrasts, which encourages the continued use of soil geochemistry as an exploration tool.

Due to the lack of outcrop and poor gravity response over most EM conductors, drilling may be best guided by geochemistry, particularly copper, zinc and silver. Gravity surveying has determined that shallow drilling will not encounter massive sulphides near surface (< 75m) so deeper drilling is required to adequately test the favourable horizon.

Recommendations include: Phase I drill testing of Target C with two holes of 150 m each; Phase II drilling of a further 500 m in two holes, if warranted; extension of the existing Target C soil geochemistry grid 1 km along strike in both directions, using deep auger sampling methods; and continuing evaluation of remaining airborne conductors using EM-GENIE, gravity and geochemistry. This exploration program would take about three weeks to complete at a cost of approximately $120,000.

APPENDIX I

STATEMENT OF COSTS

STATEMENT OF COSTS

LABOUR - August 2-10, 1987

Z. Doborzynski - @ $325 for 9 days	2925	
P. Holbek - @ $245 for 2 days	490	
P. Thiersch - @ $140 for 9 days	1260	
S. Lowe - @ $180 for 5 days	1080	
B. Carmichael - @ $140 for 5 days	700	
Van Alphen contract - 2 men @ $150 for 5 days	1500	
		$ 7955

FOOD AND ACCOMMODATION

4 men - @ $50 for 9 days	1800	
		$ 1800

EQUIPMENT RENTAL

EM GENIE	960	
Gravimeter	1625	
Software	260	
Scintrex	1125	
		$ 3970

GEOCHEMICAL ANALYSIS

191 soil samples - 5 elements + FA gold @ $14.50	2770	
10 rock samples - 16 element DCP + FA gold @ $22.50	225	
		$ 2995

TRANSPORTATION

Fixed-wing charter Central Mountain Air Smithers - Kutcho	1190	
Helicopter charter Northern Mountain 2 x Sturdee - Kutcho	4280	
Helicopter charter Trans North 4.5 hrs @ $560 incl. fuel	2520	
Freight	235	
		$ 8225

Report Preparation	1500	$ 1500
TOTAL		$26,445

APPENDIX II

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Peter Thiersch, of 5839 Falcon Road, West Vancouver B.C., hereby certify that:

I graduated from the University of British Columbia in 1986 with a B.Sc. degree in Geological Sciences;

I have practiced my profession in B.C. for the past two years as an employee of Esso Minerals Canada;

The work described herein was conducted under my supervision.

I have no financial interest in the Property described herein.

Peter Thiersch
Geologist B.Sc.

DATED THIS 3rd DAY OF February, 1988 AT VANCOUVER, B.C.

STATEMENT OF QUALIFICATIONS

I, Peter Holbek, of 1276 West 21st Street, North Vancouver, B.C. V7P 2C9, to hereby certify that:

1. I am a Geologist in the employment of Esso Minerals Canada, a Division of Esso Resources Canada Limited of 1600 - 409 Granville Street, Vancouver, B.C. V6C 1T2.

2. I am graduate of the University of British Columbia B.Sc. (Honors) 1980.

3. I have been employed as an exploration geologist for seven (7) years.

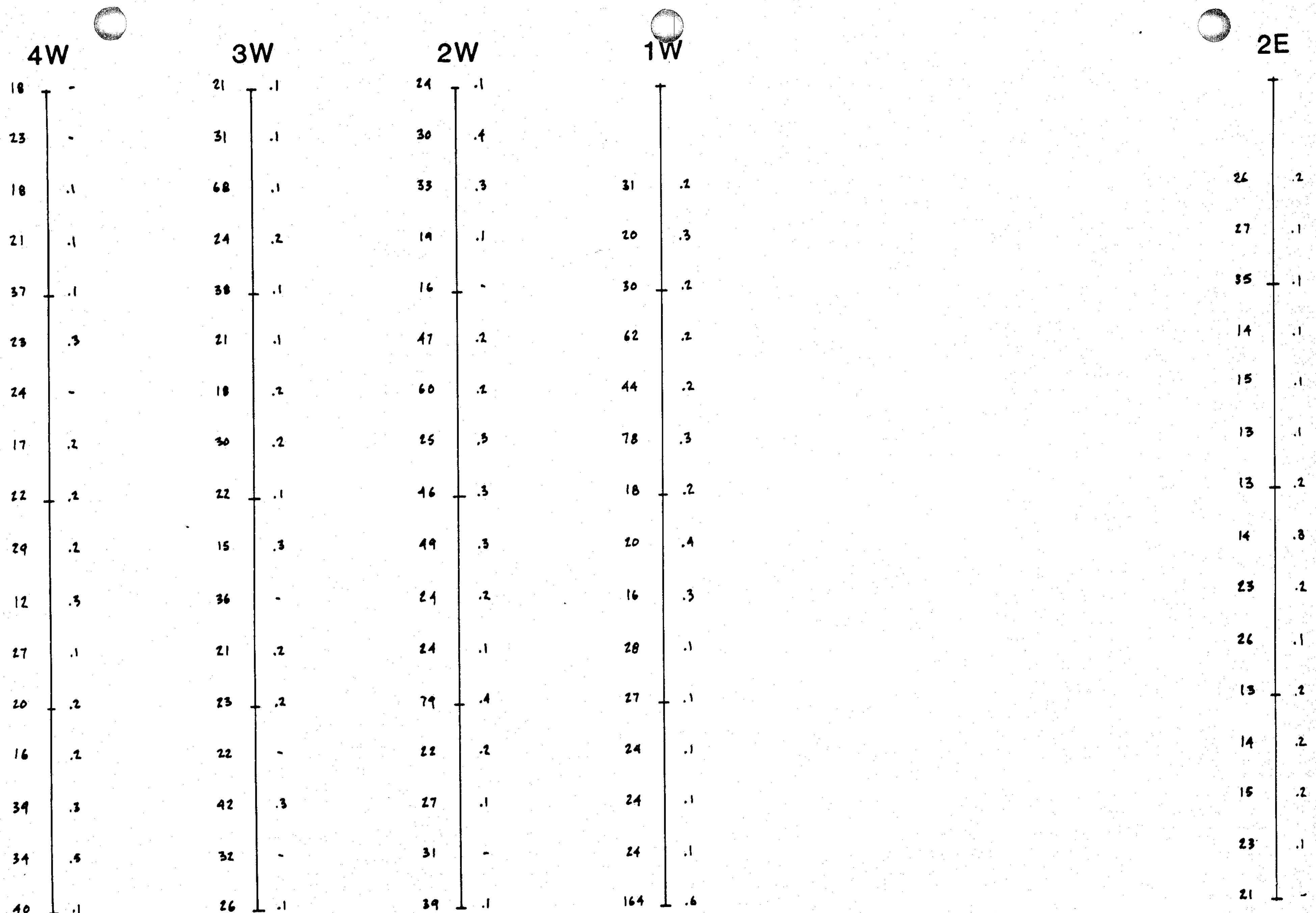
4. I have no financial interest in the property described herein.

DATED THIS 10 DAY OF DECEMBER, 1987 AT VANCOUVER, B.C.

P. Holbek, Project Geologist

APPENDIX III

GEOCHEMICAL DATA, GRID PLOTS



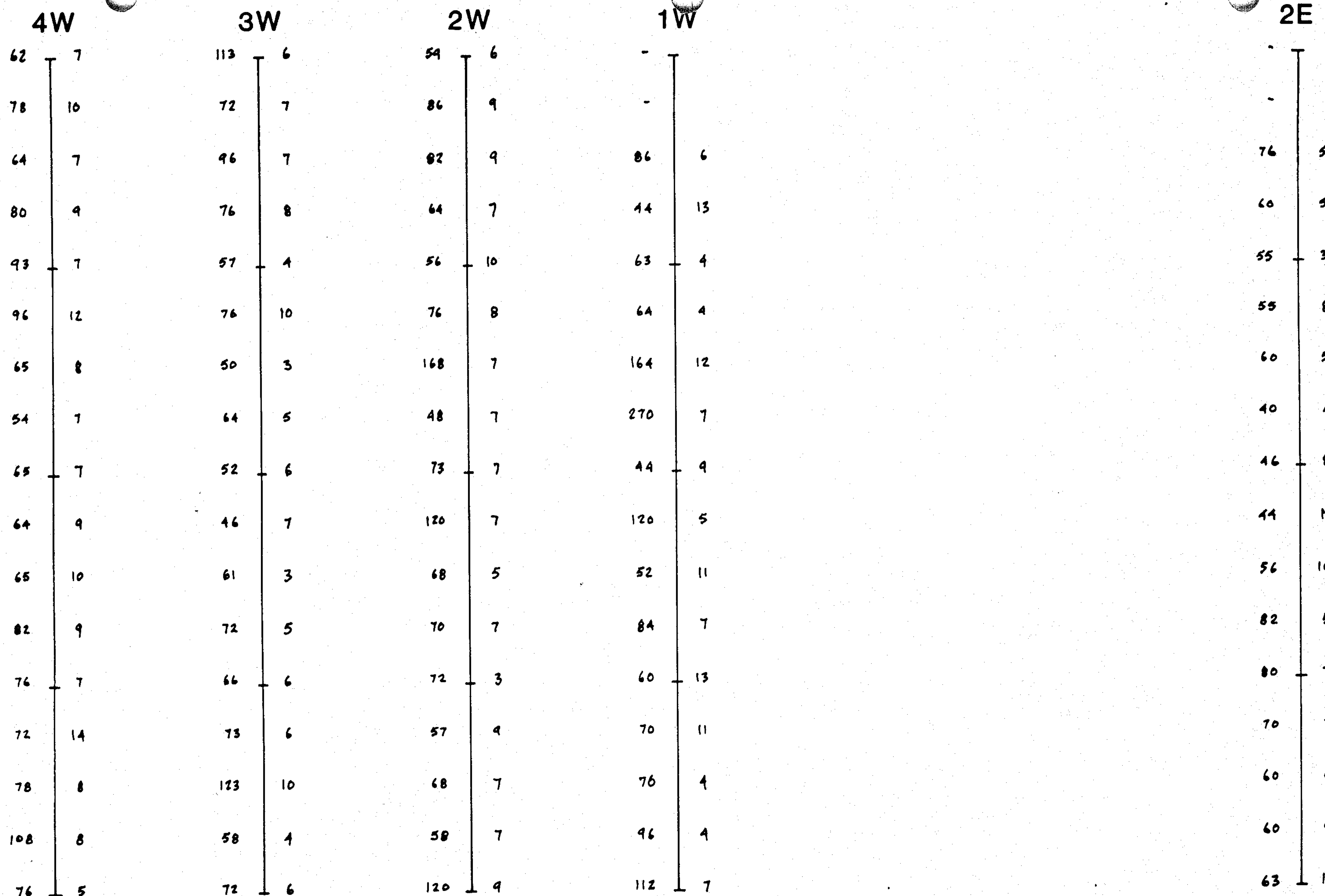
KUTCHO 1987

SCALE 1:2500

SOIL GEOCHEMISTRY Copper / Silver ppm

C TARGET

Figure 3.1



KUTCHO 1987

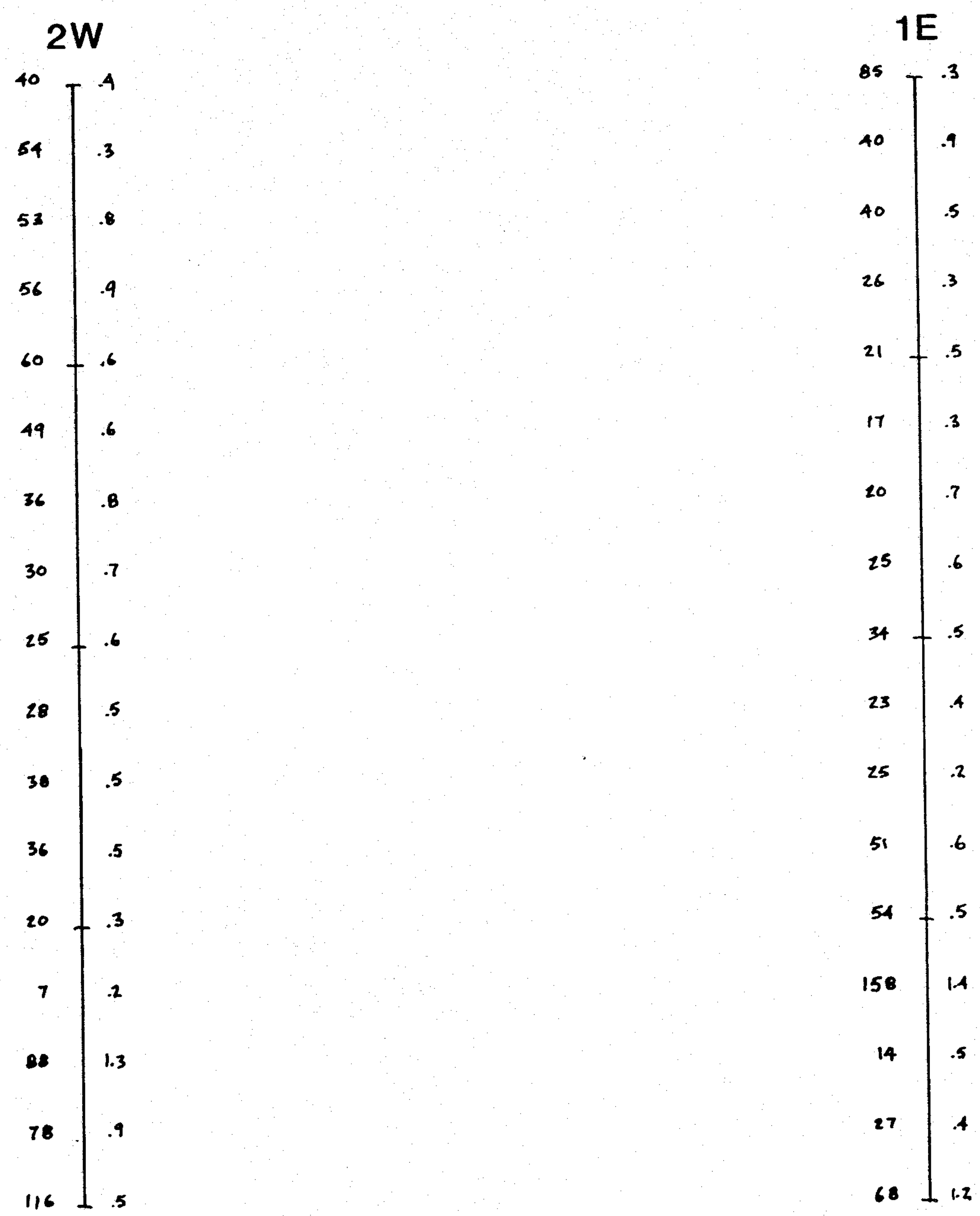
SCALE 1:2500

SOIL GEOCHEMISTRY
C TARGET

Zinc / Lead ppm

Figure 3.2

KUTCHO 1987
SOIL GEOCHEMISTRY



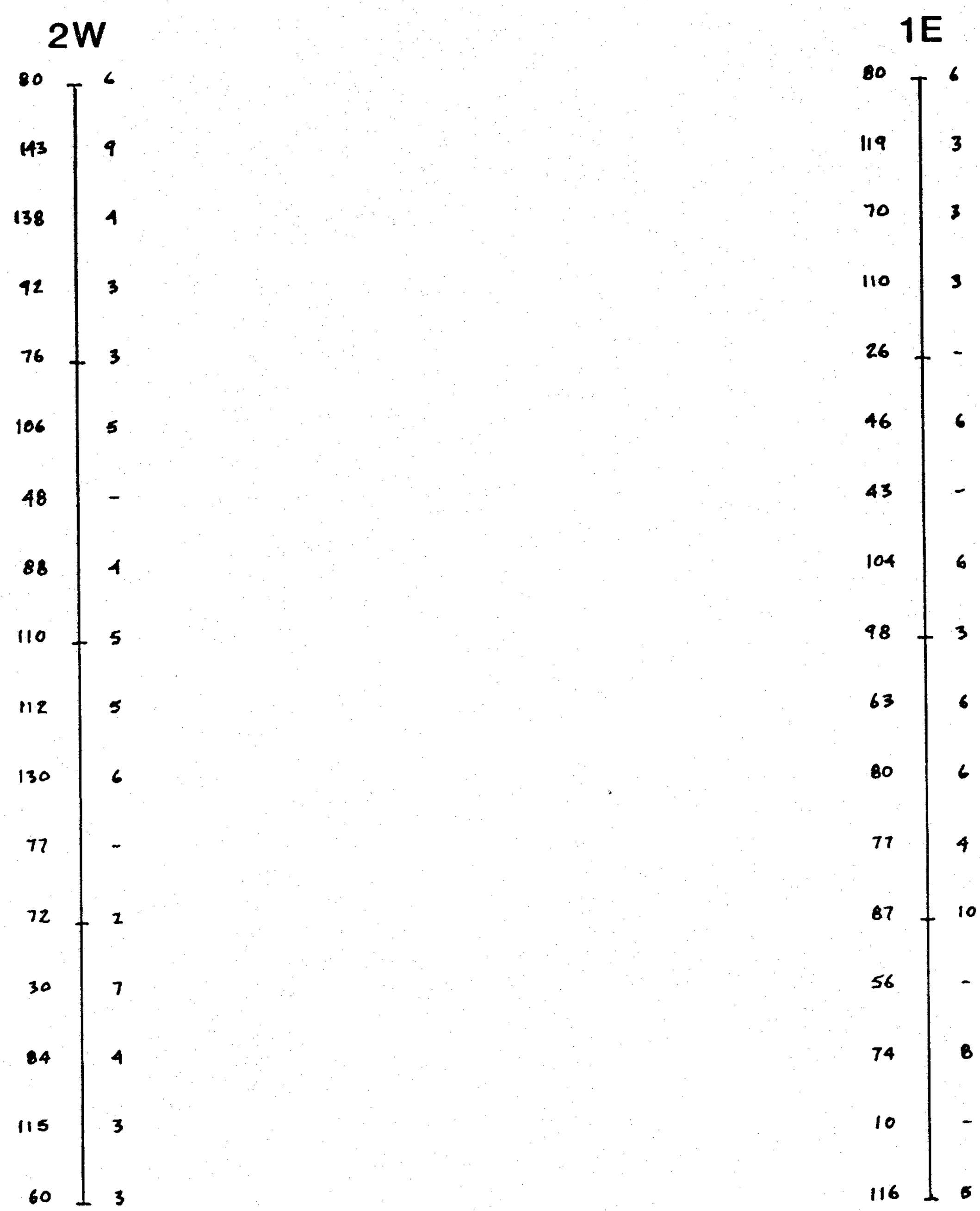
KI TARGET

Copper / Silver ppm

SCALE 1:2500

Figure 3.3

KUTCHO 1987
SOIL GEOCHEMISTRY



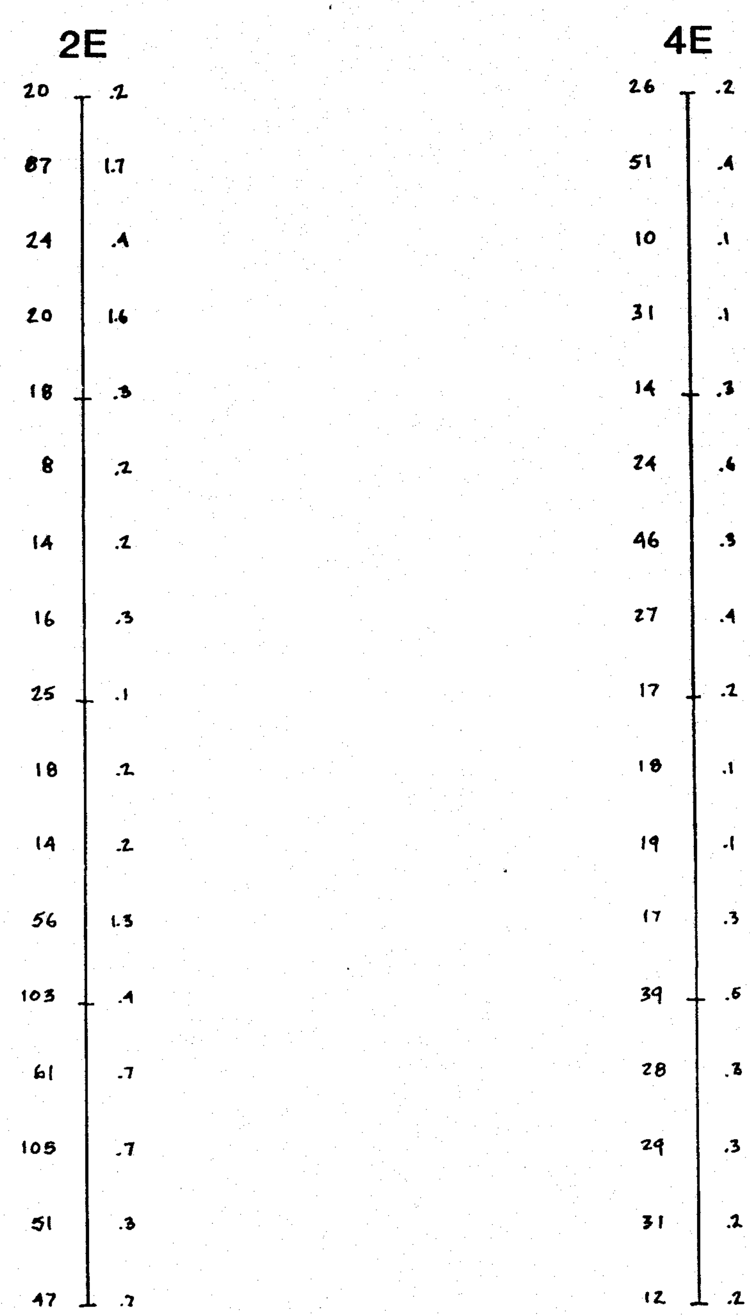
KI TARGET

Zinc / Lead ppm

SCALE 1:2500

Figure 3.4

KUTCHO 1987
SOIL GEOCHEMISTRY



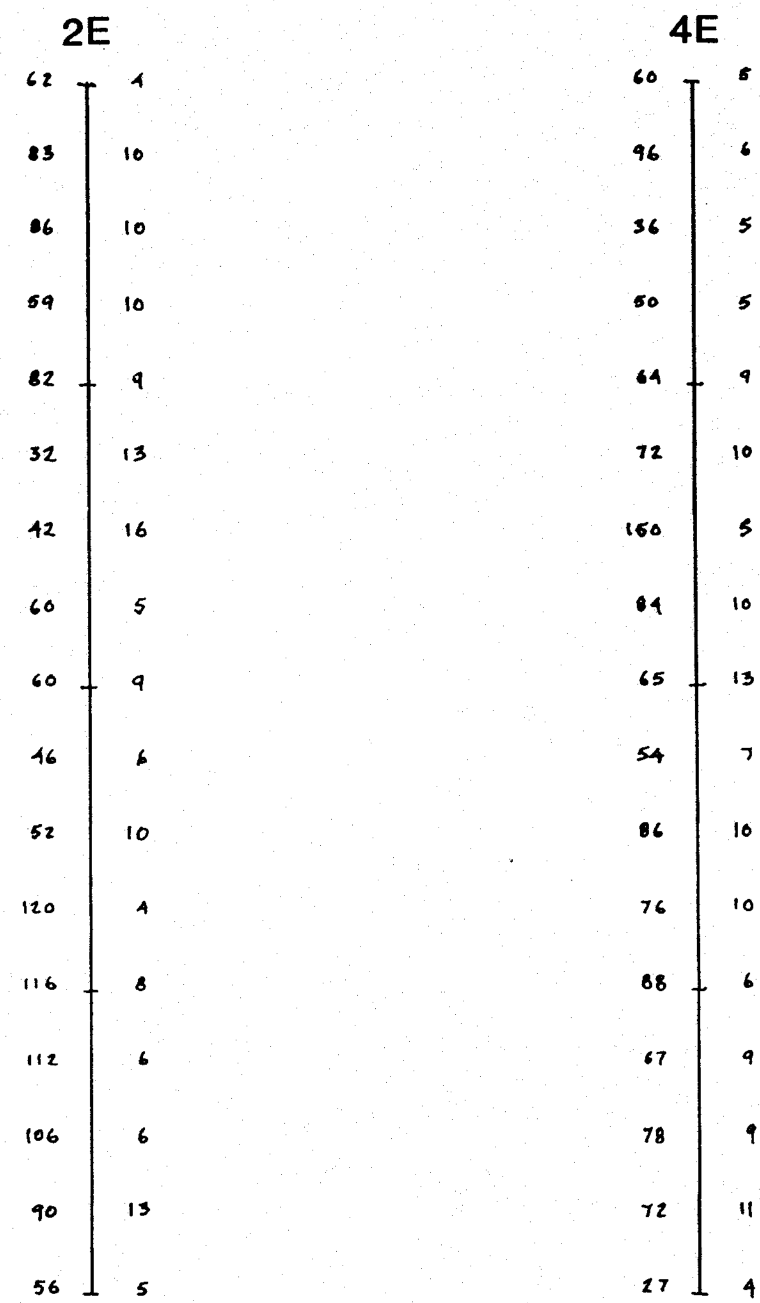
KIG TARGET

Copper / Silver ppm

SCALE 1:2500

Figure 3.5

KUTCHO 1987
SOIL GEOCHEMISTRY



KIG TARGET

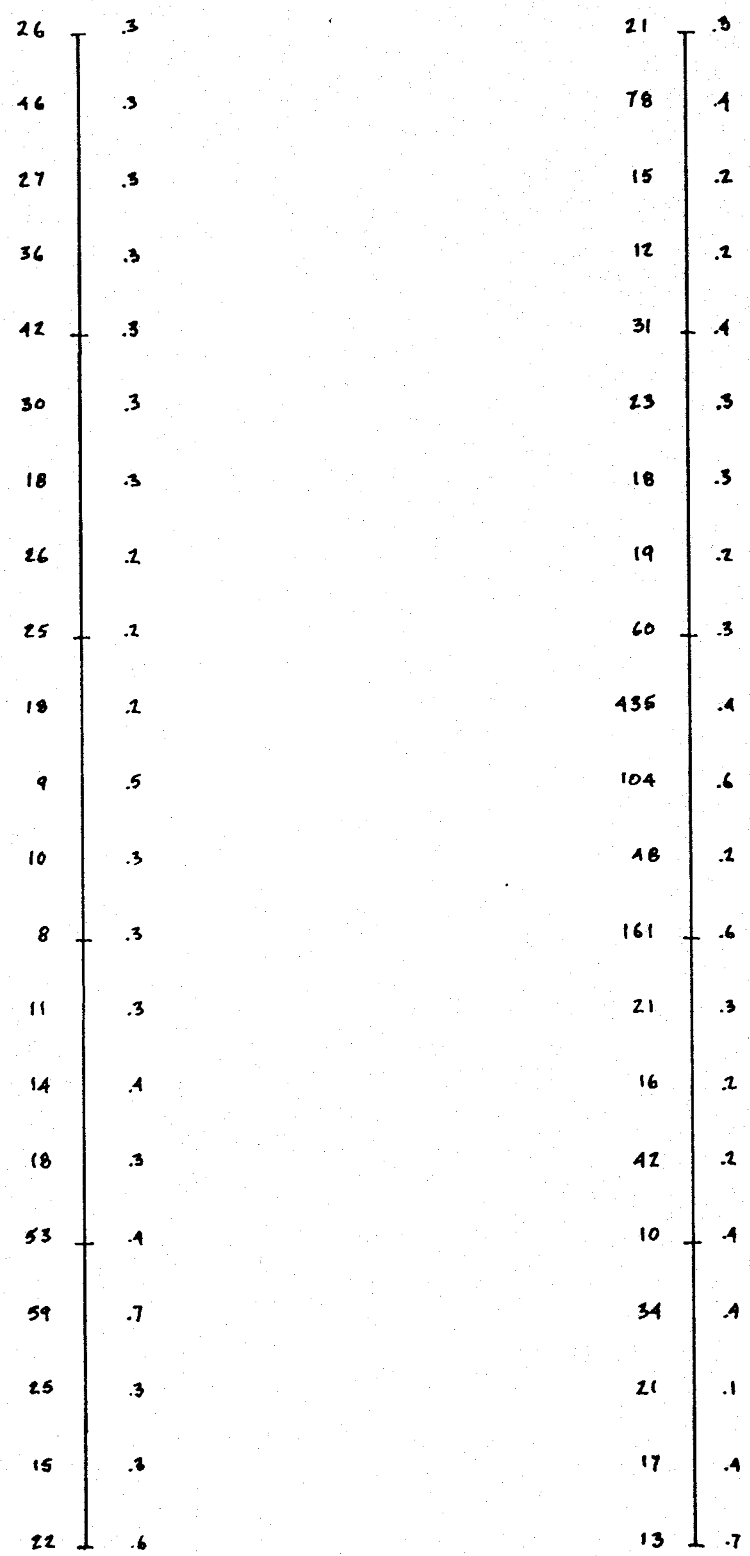
Zinc / Lead ppm

SCALE 1:2500

Figure 3.6

KUTCHO 1987
SOIL GEOCHEMISTRY

2W SCALE 1:2500 0E



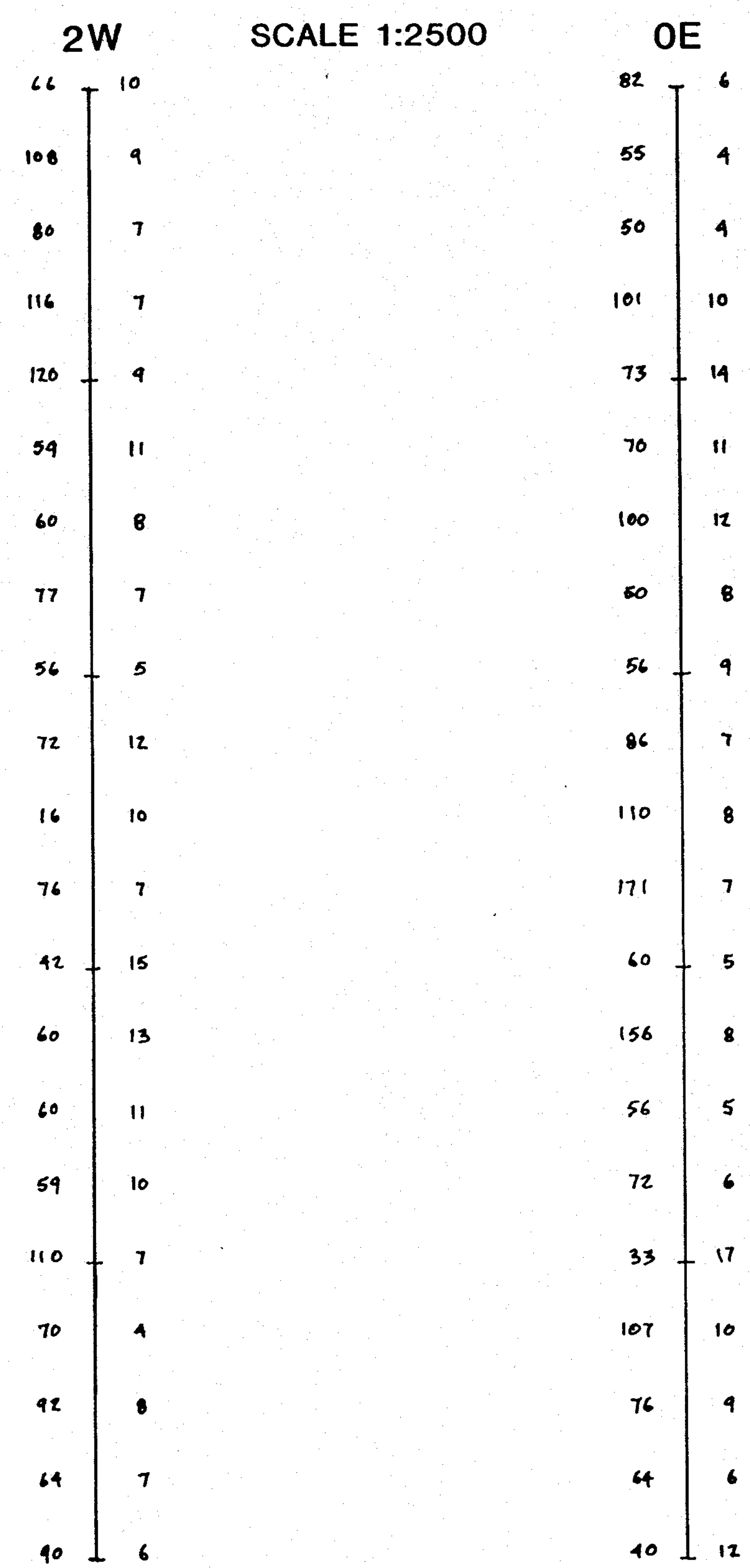
KGH TARGET

Copper / Silver ppm

Figure 3.7

KUTCHO 1987

SOIL GEOCHEMISTRY



KGH TARGET

Zinc / Lead ppm

Figure 3.8

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 227-6756 (COMPLETE)

REFERENCE INFO:

CLIENT: ESSO MINERALS CANADA
PROJECT: SHASTA 123

SUBMITTED BY: PETER THIERSEH
DATE PRINTED: 9-NOV-87

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu	Copper	10	1 PPM	MULT ACID TOT DIG	PLASMA
2	Pb	Lead	10	5 PPM	MULT ACID TOT DIG	PLASMA
3	Zn	Zinc	10	1 PPM	MULT ACID TOT DIG	PLASMA
4	Mo	Molybdenum	10	1 PPM	MULT ACID TOT DIG	PLASMA
5	Ag	Silver	10	0.5 PPM	MULT ACID TOT DIG	PLASMA
6	Ni	Nickel	10	1 PPM	MULT ACID TOT DIG	PLASMA
7	Co	Cobalt	10	1 PPM	MULT ACID TOT DIG	PLASMA
8	Mn	Manganese	10	1 PPM	MULT ACID TOT DIG	PLASMA
9	Fe	Iron	10	0.05 PCT	MULT ACID TOT DIG	PLASMA
10	As	Arsenic	10	5 PPM	MULT ACID TOT DIG	PLASMA
11	Sr	Strontium	10	5 PPM	MULT ACID TOT DIG	PLASMA
12	K	Potassium	10	0.05 PCT	MULT ACID TOT DIG	PLASMA
13	Ca	Calcium	10	0.05 PCT	MULT ACID TOT DIG	PLASMA
14	Mg	Magnesium	10	0.05 PCT	MULT ACID TOT DIG	PLASMA
15	Na	Sodium	10	0.05 PCT	MULT ACID TOT DIG	PLASMA
16	F	Fluorine	10	20 PPM	POT HYDROXIDE FUSION	Specific Ion
17	Au	Gold - Fire Assay	10	5 PPB	FIRE-ASSAY	Fire Assay AA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	10	2 -150	10	CRUSH,PULVERIZE -150	10

REMARKS: IBM diskette to follow.

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REPORT: 227-6756

PROJECT: SHASTA 123 PAG

SAMPLE NUMBER	ELEMENT UNITS	K PCT	Ca PCT	Mg PCT	Na PCT	F PPM	Au PPB
R2 R7KT-01		<0.05	0.13	0.12	4.45	30	20
R2 R7KT-02		<0.05	<0.05	0.13	3.83	25	<5
R2 R7KT-03		<0.05	<0.05	0.17	3.90	30	<5
R2 R7KT-04		<0.05	2.85	3.37	2.29	85	<5
R2 R7KT-05		0.30	0.59	0.76	5.23	210	<5
R2 R7KT-06		0.13	0.19	1.47	1.87	90	<5
R2 R87KP-01		<0.00	0.13	0.23	0.19	55	<5
R2 R87KP-02		0.67	1.33	0.69	3.21	210	<5
R2 R87KP-03		0.07	1.62	0.92	5.20	100	<5
R2 R87KP-07		0.06	3.68	4.34	2.61	240	<5

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REPORT: 227-6756

PROJECT: SHASTA 123 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe PCT	As PPM
R2 R7KT-01		52	27	3082	4	0.7	7	2	98	2.60	<5
R2 R7KT-02		36	19	2718	3	<0.5	5	2	125	3.50	5
R2 R7KT-03		9	27	158	5	<0.5	4	<1	119	5.20	12
R2 R7KT-04		27	44	100	21	0.5	30	12	960	7.70	<5
R2 R7KT-05		5	13	99	1	<0.5	1	3	229	3.60	<5
R2 R7KT-06		10	26	73	24	0.7	5	<1	328	3.60	<5
R2 R87KP-01		8	29	59	6	<0.5	13	3	1047	6.50	28
R2 R87KP-02		9	20	114	<1	<0.5	7	4	664	2.90	<5
R2 R87KP-03		37	24	55	4	0.6	10	13	590	4.90	12
R2 R87KP-07		340	43	168	1	<0.5	28	33	2562	8.70	<5

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REPORT: 127-6756 (COMPLETE)

REFERENCE INFO:

CLIENT: ESSO MINERALS CANADA
PROJECT: SHASTA 123

SUBMITTED BY: PETER THIERSEH
DATE PRINTED: 9-NOV-87

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu	Copper	191	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
2	Pb	Lead	191	2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
3	Zn	Zinc	191	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
4	Ag	Silver	191	0.1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
5	As	Arsenic	191	2 PPM	NITRIC PERCHLOR DIG	Colourimetric
6	Au	Gold - Fire Assay	191	5 PPB	FIRE-ASSAY	Fire Assay AA
7	Au/wt	Sample weight/grams	176	0.1 G		
8	Au/wt	-20 Au Sample Weight	17	0.1 G		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS	191	1 -80	191	DRY, SIEVE -80	191

REMARKS: Please note: Corrected weights and
report recipients.

IBM diskette to follow.

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REPORT: 127-6756

PROJECT: SHASTA 123

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au PPB	Au/wt G	Au/wt G
S1 KGH 00E 00N		21	9	76	0.1	5	<5	10.0	
S1 KGH 00E 25N		34	10	107	0.4	<2	<5	10.0	
S1 KGH 00E 050N		10	17	33	0.4	<2	<5	10.0	
S1 KGH 00E 075N		42	6	72	0.2	6	<5		5.0
S1 KGH 00E 100N		16	5	56	0.2	4	5	10.0	
S1 KGH 00E 125N		21	8	156	0.3	2	<5	10.0	
S1 KGH 00E 150N		161	5	60	0.6	11	<5	10.0	
S1 KGH 00E 175N		48	7	171	0.2	7	<5	10.0	
S1 KGH 00E 200N		104	8	110	0.6	17	<5	10.0	
S1 KGH 00E 225N		435	7	86	0.4	19	10	5.0	
S1 KGH 00E 250N		60	9	56	0.3	2	5	10.0	
S1 KGH 00E 275N		19	8	50	0.2	4	10	10.0	
S1 KGH 00E 300N		18	12	100	0.3	4	<5	10.0	
S1 KGH 00E 325N		23	11	70	0.3	3	<5	10.0	
S1 KGH 00E 350N		31	14	73	0.4	<2	<5	10.0	
S1 KGH 00E 375N		12	10	101	0.2	4	<5	10.0	
S1 KGH 00E 400N		15	4	50	0.2	3	<5	10.0	
S1 KGH 00E 425N		78	4	55	0.4	5	10	10.0	
S1 KGH 00E 450N		21	6	82	0.3	3	<5		10.0
S1 KGH 00E 25S		17	6	64	0.4	5	<5	10.0	
S1 KGH 00E 50S		13	12	40	0.7	3	<5	10.0	
S1 KGH 200W 00N		25	8	92	0.3	6	<5	10.0	
S1 KGH 200W 025N		59	4	70	0.7	6	10	7.0	
S1 KGH 200W 050N		53	7	110	0.4	7	5	10.0	
S1 KGH 200W 075N		18	10	59	0.3	5	5	10.0	
S1 KGH 200W 100N		14	11	60	0.4	5	<5	10.0	
S1 KGH 200W 125N		11	13	60	0.3	4	<5	10.0	
S1 KGH 200W 150N		8	15	42	0.3	2	10	10.0	
S1 KGH 200W 175N		16	7	76	0.3	5	<5	5.0	
S1 KGH 200W 200N		9	10	16	0.5	<2	<5	10.0	
S1 KGH 200W 225N		18	12	72	0.2	6	10	10.0	
S1 KGH 200W 250N		25	5	56	0.2	4	20	10.0	
S1 KGH 200W 275N		26	7	77	0.2	5	<5	10.0	
S1 KGH 200W 300N		18	8	60	0.3	5	<5	10.0	
S1 KGH 200W 325N		30	11	59	0.3	7	<5	8.0	
S1 KGH 200W 350N		42	9	120	0.3	7	<5	10.0	
S1 KGH 200W 375N		36	7	116	0.3	11	<5	10.0	
S1 KGH 200W 400N		27	7	80	0.3	6	<5	10.0	
S1 KGH 200W 425N		46	9	108	0.3	9	<5	10.0	
S1 KGH 200W 450N		26	10	66	0.3	7	<5	10.0	

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REPORT: 127-6756 PROJECT: SHASTA 123

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au PPB	Au/wt G	Au/wt G
S1 KGH 200W 25S		15	7	64	0.3	7	<5	10.0	
S1 KGH 200W 50S		22	6	90	0.6	3	10	10.0	
S1 K100E 00N		68	5	116	1.2	5	<5	7.0	
S1 K100E 025N		27	<2	10	0.4	2	<5		5.0
S1 K100E 050N		14	8	74	0.5	8	<5	10.0	
S1 K100E 075N		158	<2	56	1.4	2	15	5.0	
S1 K100E 100N		54	10	87	0.5	8	<5	10.0	
S1 K100E 125N		51	4	77	0.6	5	<5	10.0	
S1 K100E 150N		25	6	80	0.2	6	<5	10.0	
S1 K100E 175N		23	6	63	0.4	4	<5	10.0	
S1 K100E 200N		34	3	98	0.5	4	<5		10.0
S1 K100E 225N		25	6	104	0.6	6	<5	10.0	
S1 K100E 250N		20	<2	43	0.7	2	10		10.0
S1 K100E 275N		17	6	46	0.3	4	<5	10.0	
S1 K100E 300N		21	<2	26	0.5	<2	<5		10.0
S1 K100E 325N		26	3	110	0.3	5	<5		10.0
S1 K100E 350N		40	3	70	0.5	12	<5		5.0
S1 K100E 375N		40	3	119	0.9	5	<5	10.0	
S1 K100E 400N		85	6	80	0.3	3	<5		5.0
S1 K1200W 00N		116	3	60	0.5	4	<5	10.0	
S1 K1200W 025N		78	3	115	0.9	3	<5	10.0	
S1 K1200W 050N		88	4	84	1.3	2	<5	10.0	
S1 K1200W 075N		7	7	30	0.2	<2	<5	10.0	
S1 K1200W 100N		20	2	72	0.3	<2	<5	5.0	
S1 K1200W 125N		36	<2	77	0.5	7	<5		8.0
S1 K1200W 150N		38	6	130	0.5	5	<5		10.0
S1 K1200W 175N		28	5	112	0.5	5	<5	10.0	
S1 K1200W 200N		25	5	110	0.6	4	20	10.0	
S1 K1200W 225N		30	4	88	0.7	7	10	4.0	6.0
S1 K1200W 250N		36	<2	48	0.8	24	5		4.0
S1 K1200W 275N		49	5	106	0.6	7	<5	3.0	7.0
S1 K1200W 300N		60	3	76	0.6	6	<5		10.0
S1 K1200W 325N		56	3	92	0.9	2	<5		10.0
S1 K1200W 350N		53	4	138	0.8	4	<5	10.0	
S1 K1200W 375N		54	9	143	0.3	11	<5	10.0	
S1 K1200W 400N		40	6	80	0.4	8	<5	10.0	
S1 KIG 200E 0N		47	5	56	0.7	6	<5	10.0	
S1 KIG 200E 025N		51	13	90	0.3	9	<5	10.0	
S1 KIG 200E 050N		105	6	106	0.7	9	<5	5.0	
S1 KIG 200E 075N		61	6	112	0.7	10	<5	6.0	

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Lab Repo

REPORT: 127-6756

PROJECT: SHASTA 123

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au PPB	Au/wt G	Au/wt G
S1 KIG 200E 100N		103	8	116	0.4	8	<5	10.0	
S1 KIG 200E 125N		56	4	120	1.3	8	<5	10.0	
S1 KIG 200E 150N		14	10	52	0.2	5	<5	10.0	
S1 KIG 200E 175N		18	6	46	0.2	7	<5	10.0	
S1 KIG 200E 200N		25	9	60	0.1	7	<5	10.0	
S1 KIG 200E 225N		16	5	60	0.3	6	<5	10.0	
S1 KIG 200E 250N		14	10	42	0.2	4	<5	10.0	
S1 KIG 200E 275N		8	13	32	0.2	3	<5	10.0	
S1 KIG 200E 300N		18	9	82	0.3	10	<5	10.0	
S1 KIG 200E 325N		20	10	59	1.6	4	<5	10.0	
S1 KIG 200E 350N		24	10	86	0.4	5	<5	10.0	
S1 KIG 200E 375N		87	10	83	1.7	9	<5	10.0	
S1 KIG 200E 400N		20	4	62	0.2	8	<5	10.0	
S1 KIG 400E 0N		12	4	27	0.2	3	<5	10.0	
S1 KIG 400E 025N		31	11	72	0.2	4	<5	10.0	
S1 KIG 400E 050N		29	9	78	0.3	6	<5	10.0	
S1 KIG 400E 075N		28	9	67	0.3	4	<5	10.0	
S1 KIG 400E 100N		39	6	88	0.5	5	<5	10.0	
S1 KIG 400E 125N		17	10	76	0.3	6	<5	10.0	
S1 KIG 400E 150N		19	10	86	0.1	5	<5	10.0	
S1 KIG 400E 175N		18	7	54	0.1	6	5	10.0	
S1 KIG 400E 200N		17	13	65	0.2	6	<5		10.0
S1 KIG 400E 225N		27	10	84	0.4	8	5	10.0	
S1 KIG 400E 250N		46	5	150	0.3	3	<5	10.0	
S1 KIG 400E 275N		24	10	72	0.6	5	<5	10.0	
S1 KIG 400E 300N		14	9	64	0.3	6	<5	10.0	
S1 KIG 400E 325N		31	5	50	0.1	5	<5	10.0	
S1 KIG 400E 350N		10	5	36	0.1	3	<5	10.0	
S1 KIG 400E 375N		51	6	96	0.4	11	<5	10.0	
S1 KIG 400E 400N		26	5	60	0.2	5	<5	10.0	
S1 L2E 0+00		21	11	63	<0.1	8	<5	10.0	
S1 L2E 0+25		23	9	60	0.1	7	<5	10.0	
S1 L2E 0+50		15	9	60	0.2	6	<5	10.0	
S1 L2E 0+75		14	7	70	0.2	7	<5	10.0	
S1 L2E 1+00		13	7	80	0.2	7	<5	10.0	
S1 L2E 1+25		26	5	82	0.1	9	<5	10.0	
S1 L2E 1+50		23	10	56	0.2	13	<5	10.0	
S1 L2E 1+75		14	12	44	0.3	7	<5	10.0	
S1 L2E 2+00		13	8	46	0.2	6	<5	10.0	
S1 L2E 2+25		13	4	40	0.1	5	<5	10.0	

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Lab Rep

REPORT: 127-6756

PROJECT: SHASTA 123

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au PPB	Au/wt G	Au/wt G
S1 L2E 2+50		15	5	60	0.1	8	<5	10.0	
S1 L2E 2+75		14	8	55	0.1	7	<5	10.0	
S1 L2E 3+00		35	3	55	0.1	10	<5	10.0	
S1 L2E 3+25		27	5	60	0.1	5	<5	10.0	
S1 L2E 3+50		26	5	76	0.2	5	<5	10.0	
S1 L1W 0+00		164	7	112	0.6	33	<5	10.0	
S1 L1W 0+25		24	4	96	0.1	7	<5	10.0	
S1 L1W 0+50		24	4	76	0.1	7	<5	10.0	
S1 L1W 0+75		24	11	70	0.1	6	<5	10.0	
S1 L1W 1+00		27	13	60	0.1	4	<5	10.0	
S1 L1W 1+25		28	7	64	0.1	6	<5	10.0	
S1 L1W 1+50		16	11	52	0.3	6	<5	10.0	
S1 L1W 1+75		20	5	120	0.4	6	<5	10.0	
S1 L1W 2+00		18	9	44	0.2	9	<5	10.0	
S1 L1W 2+25		78	7	270	0.3	26	<5	10.0	
S1 L1W 2+50		44	12	164	0.2	18	<5	10.0	
S1 L1W 2+75		62	4	64	0.2	20	<5	10.0	
S1 L1W 3+00		30	4	63	0.2	18	<5	10.0	
S1 L1W 3+25		20	13	44	0.3	6	<5	10.0	
S1 L1W 3+50		31	6	86	0.2	8	<5	10.0	
S1 L2W 0+00		39	9	120	0.1	10	<5	10.0	
S1 L2W 0+25		31	7	58	<0.1	8	<5	10.0	
S1 L2W 0+50		27	7	68	0.1	19	<5	10.0	
S1 L2W 0+75		22	9	57	0.2	7	<5	10.0	
S1 L2W 1+00		79	3	72	0.4	6	<5	10.0	
S1 L2W 1+25		24	7	70	0.1	6	<5	10.0	
S1 L2W 1+50		24	5	68	0.2	7	<5	10.0	
S1 L2W 1+75		49	7	120	0.3	14	<5	10.0	
S1 L2W 2+00		46	7	73	0.3	7	25	10.0	
S1 L2W 2+25		25	7	48	0.3	9	<5	10.0	
S1 L2W 2+50		60	7	168	0.2	12	<5	10.0	
S1 L2W 2+75		47	8	76	0.2	15	<5	10.0	
S1 L2W 3+00		16	10	56	<0.1	5	<5	10.0	
S1 L2W 3+25		19	7	64	0.1	8	<5	10.0	
S1 L2W 3+50		33	9	82	0.3	9	<5	10.0	
S1 L2W 3+75		30	9	86	0.4	8	<5	10.0	
S1 L2W 4+00		24	6	59	0.1	14	<5	10.0	
S1 L3W 0+00		26	6	72	0.1	8	<5	10.0	
S1 L3W 0+25		32	4	58	<0.1	7	<5	10.0	
S1 L3W 0+50		42	10	123	0.3	7	<5	10.0	

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REPORT: 127-6756

PROJECT: SHASTA 123

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au PPB	Au/wt G	Au/wt G
S1 L3W 0+75		22	6	73	<0.1	8	<5	10.0	
S1 L3W 1+00		23	6	66	0.2	8	<5	10.0	
S1 L3W 1+25		21	5	72	0.2	14	<5	10.0	
S1 L3W 1+50		36	3	61	<0.1	5	<5	10.0	
S1 L3W 1+75		15	7	46	0.3	7	<5	10.0	
S1 L3W 2+00		22	6	52	0.1	7	<5	10.0	
S1 L3W 2+25		30	5	64	0.2	8	5	10.0	
S1 L3W 2+50		18	3	50	0.2	5	<5	10.0	
S1 L3W 2+75		21	10	76	0.1	6	<5	10.0	
S1 L3W 3+00		38	4	57	0.1	10	<5	10.0	
S1 L3W 3+25		24	8	76	0.2	10	<5	10.0	
S1 L3W 3+50		68	7	96	0.1	8	<5	10.0	
S1 L3W 3+75		31	7	72	0.1	7	<5	10.0	
S1 L3W 4+00		21	6	113	0.1	11	<5	10.0	
S1 L4W 0+00		40	5	76	0.1	52	<5	10.0	
S1 L4W 0+25		34	8	108	0.5	7	<5	10.0	
S1 L4W 0+50		39	8	78	0.3	14	<5	10.0	
S1 L4W 0+75		16	14	72	0.2	8	<5	10.0	
S1 L4W 1+00		20	7	76	0.2	8	<5	10.0	
S1 L4W 1+25		27	9	82	0.1	7	<5	10.0	
S1 L4W 1+50		12	10	65	0.3	8	<5	10.0	
S1 L4W 1+75		29	9	64	0.2	6	5	10.0	
S1 L4W 2+00		22	7	65	0.2	10	5	10.0	
S1 L4W 2+25		17	7	54	0.2	6	<5	10.0	
S1 L4W 2+50		24	8	65	<0.1	9	<5	10.0	
S1 L4W 2+75		23	12	96	0.3	8	5	10.0	
S1 L4W 3+00		37	7	93	0.1	11	<5	10.0	
S1 L4W 3+25		21	9	80	0.1	11	<5	10.0	
S1 L4W 3+50		18	7	64	0.1	9	<5	10.0	
S1 L4W 3+75		23	10	78	<0.1	9	<5	10.0	
S1 L4W 4+00		18	7	62	<0.1	5	<5	10.0	

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,009

ESSO MINERALS CANADA

KUTCHO GRID 'C'

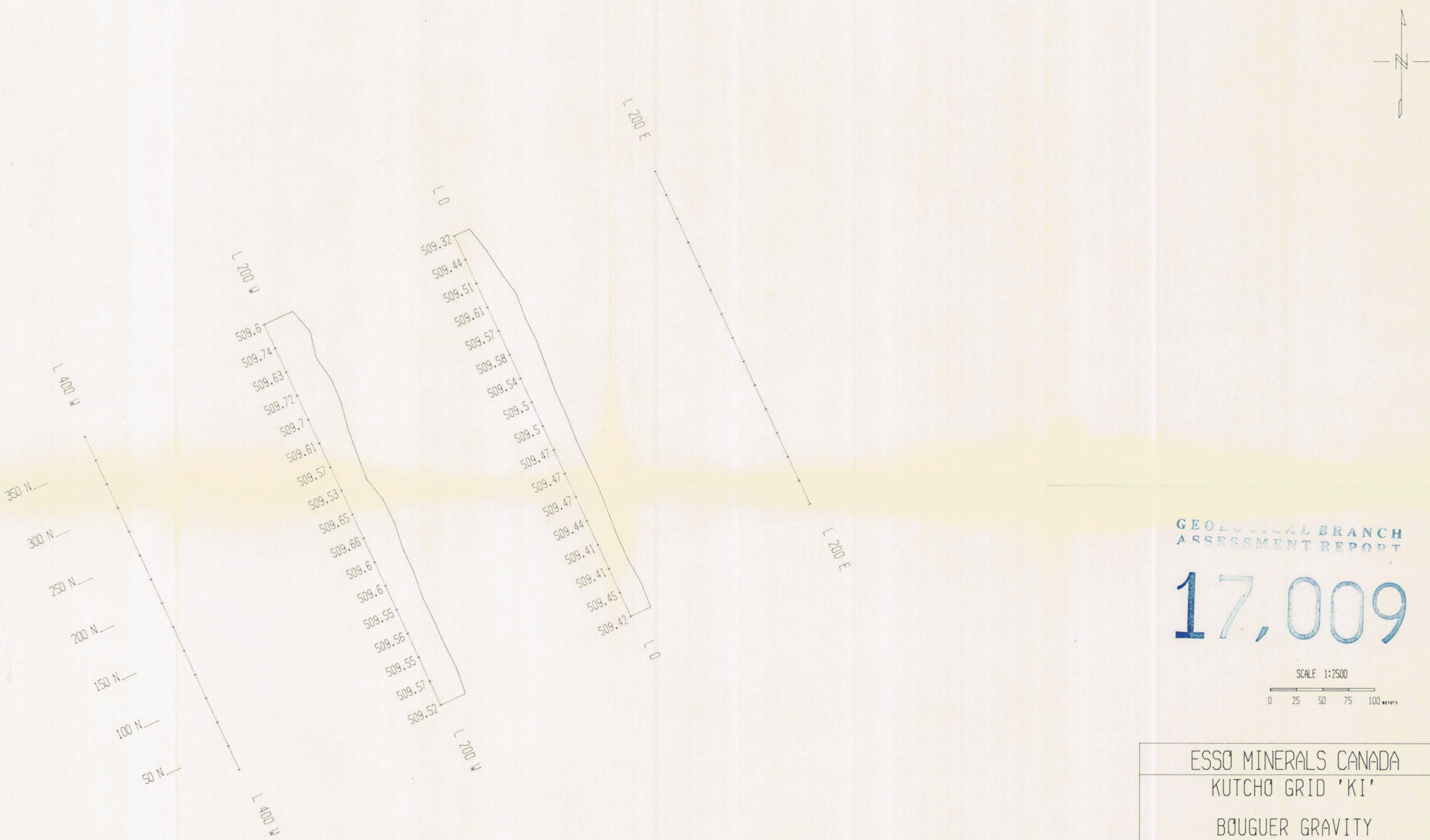
BOUGUER GRAVITY PROFILE MAP

REVISIONS

By	Date	Approv.By

To accompany a report by P.T. & Z.D.

Project No:	MA22	Report No:	C.933
Mining Div:	Liard	N.T.S.:	104I/1W
Survey By:	Z.D.	Drafted By:	S.L
Date:	Oct. 1987	Map No:	45



SCALE 1:2500

0 25 50 75 100 meters

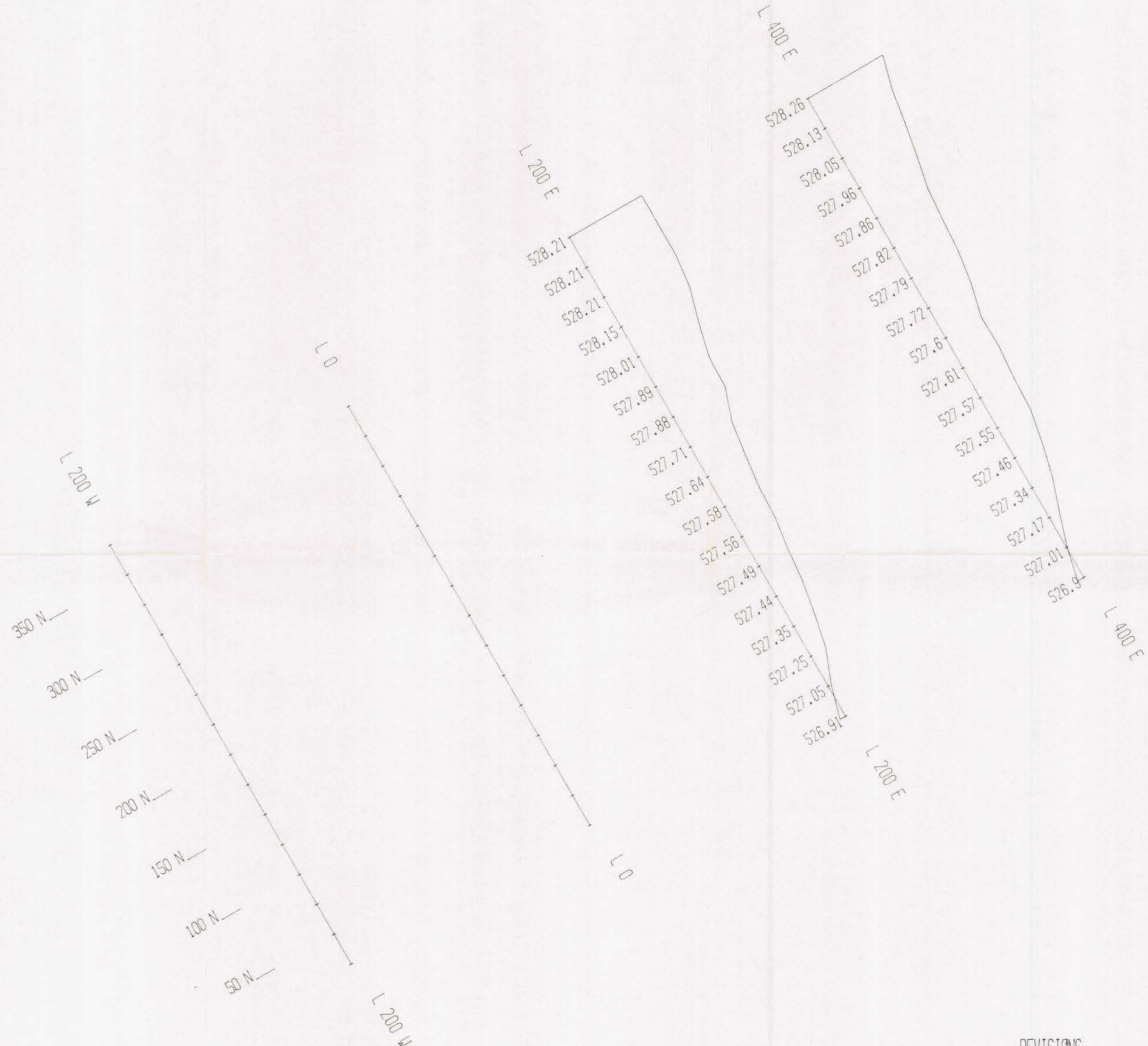
REVISIONS

By	Date	Approv.By

ESSO MINERALS CANADA
KUTCHO GRID 'KI'
BOUGUER GRAVITY
PROFILE MAP

To accompany a report by P.T. & Z.D.

Project No:	MA22	Report No:	C.933
Mining Div:	Liard	N.T.S.:	104I/1W
Survey By:	Z.D.	Drafted By:	S.L
Date:	Oct. 1987	Map No:	46



SCALE 1:2500

0 25 50 75 100 meters

ESSO MINERALS CANADA

KUTCHO GRID 'KIG'

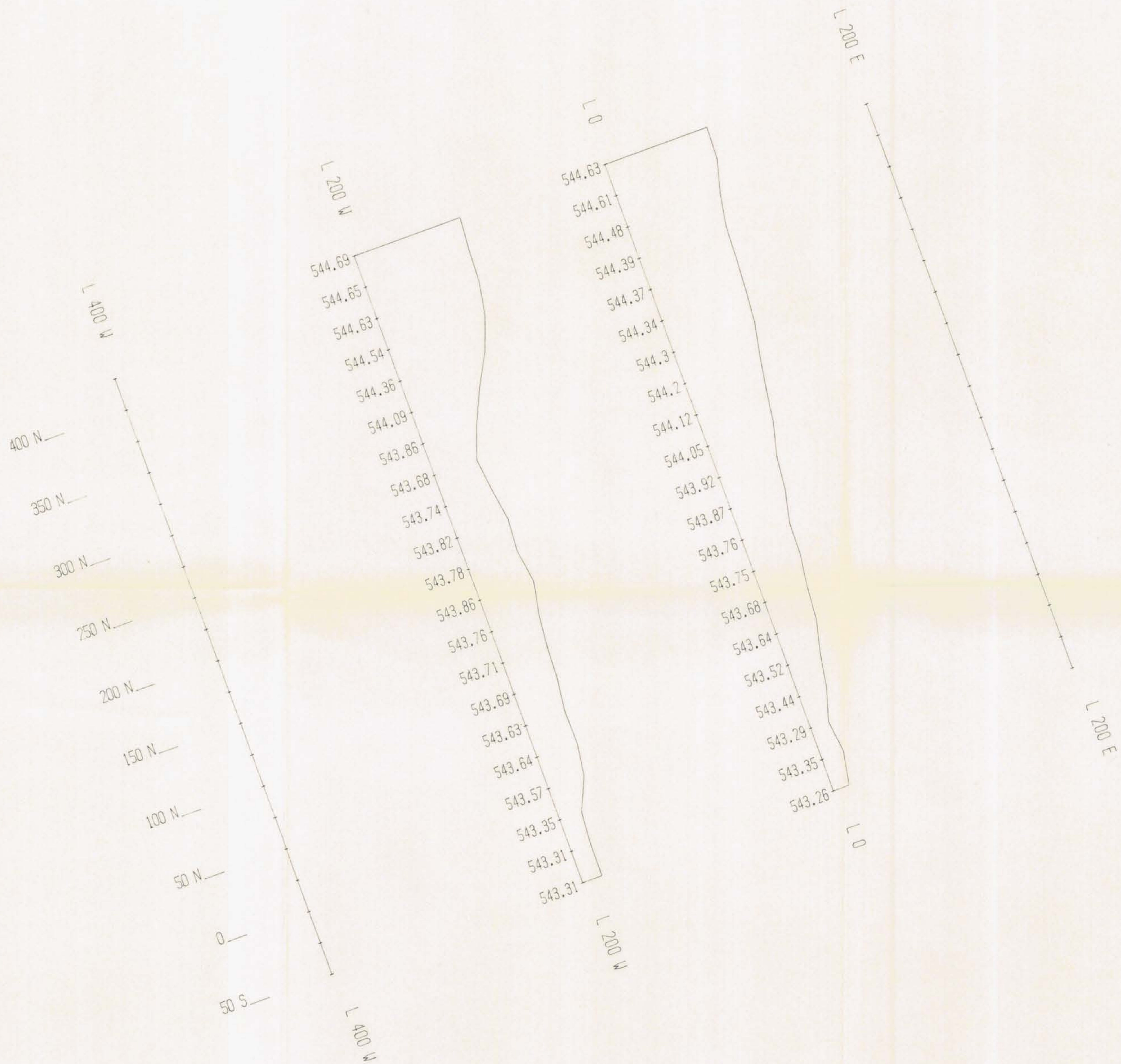
BOUGUER GRAVITY PROFILE MAP

REVISIONS

By	Date	Approv.By

To accompany a report by P.T. & Z.D.

Project No:	MA22	Report No:	C.933
Mining Div:	Liard	N.T.S.:	104I/1W
Survey By:	Z.D.	Drafted By:	S.L
Date:	Oct. 1987	Map No:	47



GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,009

SCALE 1:2500

0 25 50 75 100 meters

ESSO MINERALS CANADA

KUTCHO GRID 'KGH'

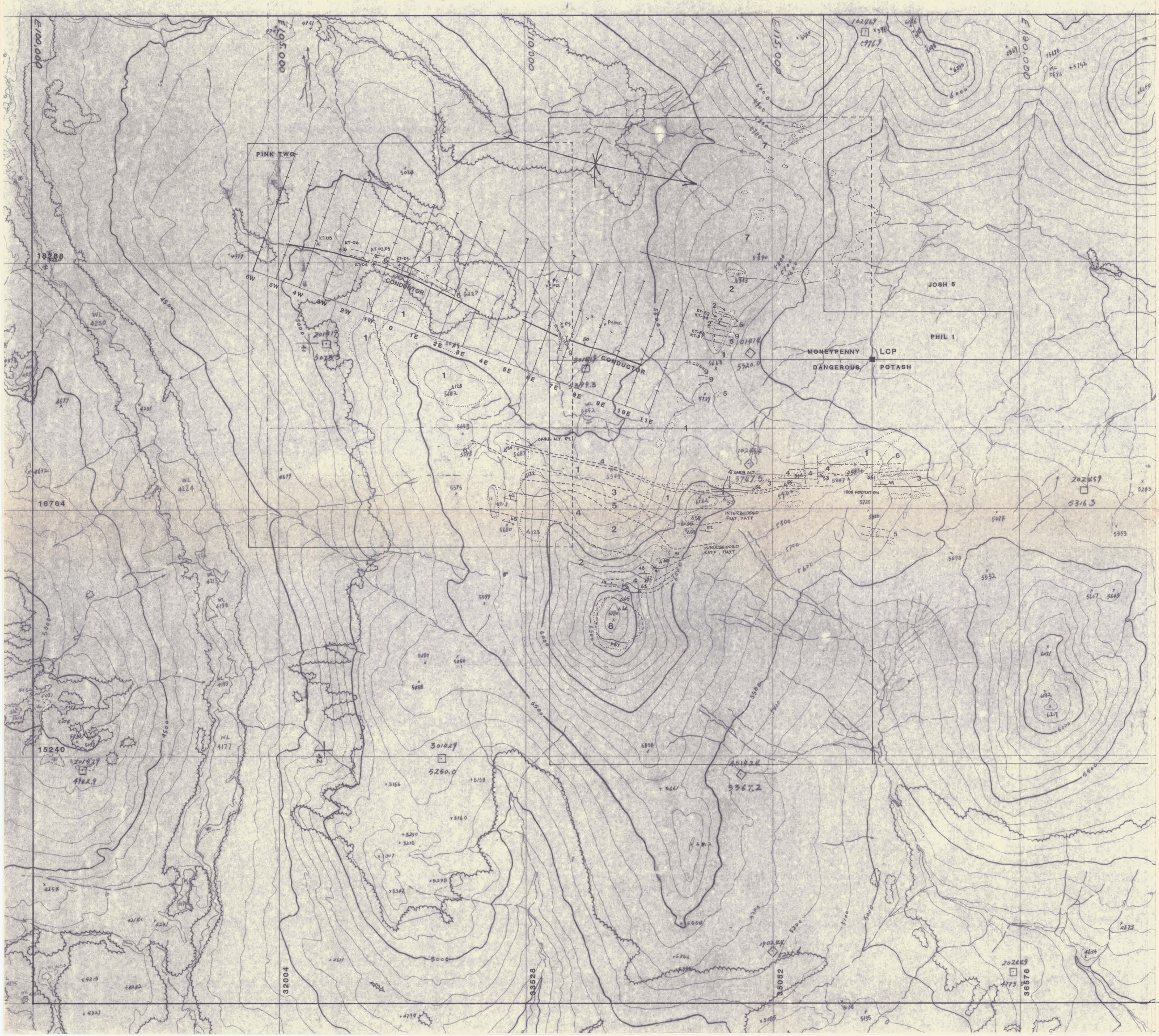
BOUGUER GRAVITY PROFILE MAP

REVISIONS

By	Date	Approv.By

To accompany a report by P.T. & Z.D.

Project No:	MA22	Report No:	C.933
Mining Div:	Liard	N.T.S.:	104I/1W
Survey By:	Z.D.	Drafted By:	S.L
Date:	Oct. 1987	Map No:	4.8



LEGEND

9	DYKE	FELDSPAR-HORNBLENDE PORPHYRY ANDESITE DIKES
8	DIOR	DIORITE, MICRODIORITE INTRUSIVE
7	LMST	SINWA (?) LIMESTONE; ARGILLACEOUS LIMESTONE
6	CHTF	TUFFACEOUS CHERTS; MAY BE PARTLY EXHALATIVE IN ORIGIN
	SEXL	SILICA EXHALITE; LAMINATED AMORPHOUS QUARTZ AND FINE GRAINED PYRITE
5	QXAT QFXT	QUARTZ CRYSTAL TUFFS; QUARTZ-FELDSPAR CRYSTAL TUFFS
4	ASTF	ASH TUFFS; VARIABLE COMPOSITION
3	LATF LXTF	LITHIC ASH TUFFS; LITHIC CRYSTAL TUFFS; FINE GRAINED FELSIC TUFFS; QUARTZ-SERICITE SCHIST
2	MTFW	MAFIC TUFFS AND WACKES; FINE GRAINED CHLORITIC SCHISTS WITH FRAGMENTAL TO EPICLASTIC TEXTURES
1	BSLT	BASALT; FINE TO MEDIUM GRAINED CHLORITIC SCHISTS; COMMONLY WITH COARSE EPIDOTE KNOTS, MAY INCLUDE SOME MTFW

LIMITS OF OUTCROP

GEOLOGICAL CONTACT - DEFINED, INFERRED, APPROXIMATE

FOLIATION, BEDDING

GEOLOGICAL STATION LOCATION

TRENCH

ROCK GEOCHEMICAL SAMPLE LOCATION

TREND OF EM CONDUCTOR DEFINED BY GENIE SURVEY

SULPHIDE RICH FLOAT

FAULT

0 1 2 3
X00m

SCALE 1:12,000

REVISIONS

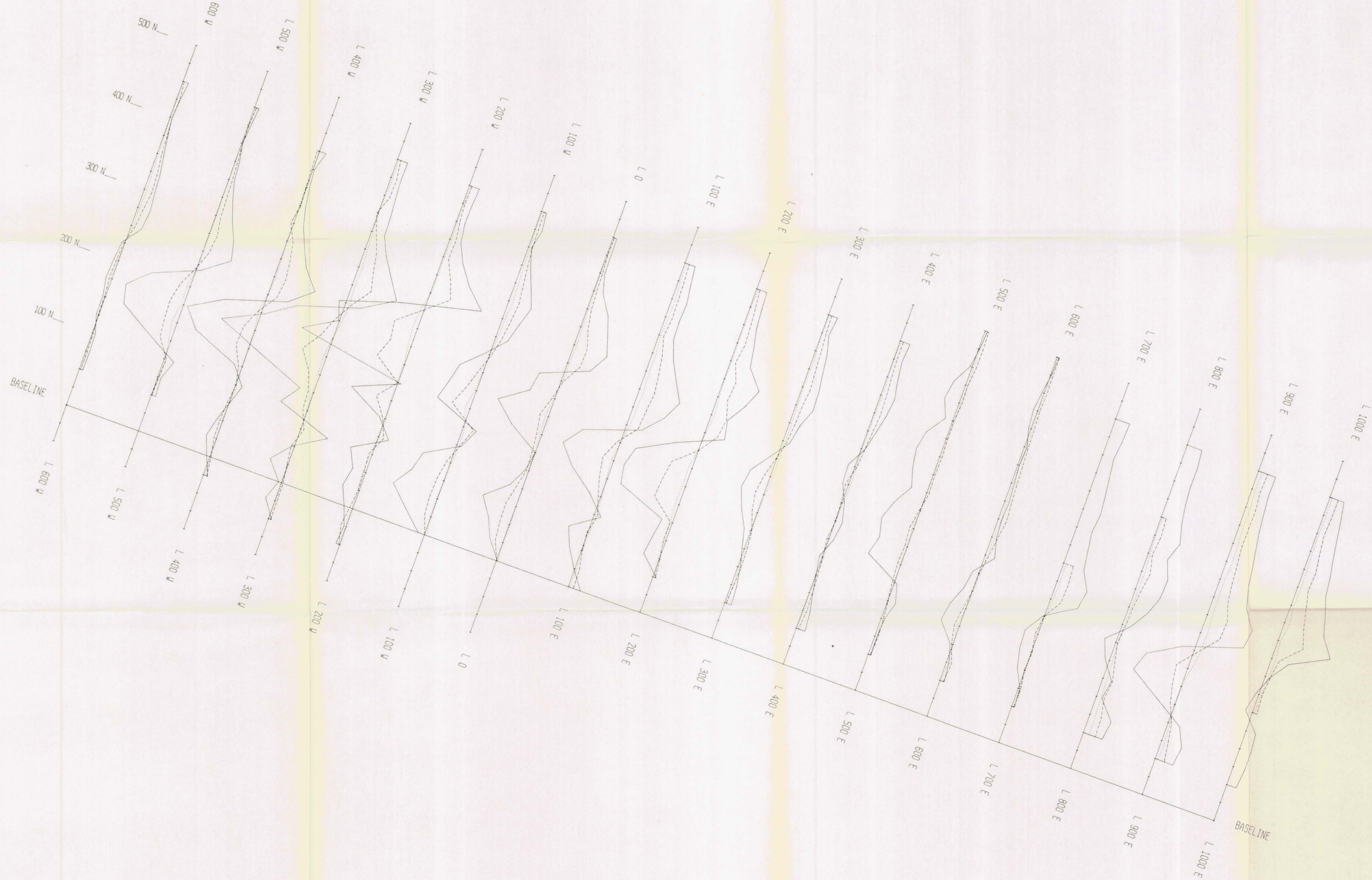
By	Date	Approv. By
PCT	NOV 87	PMH

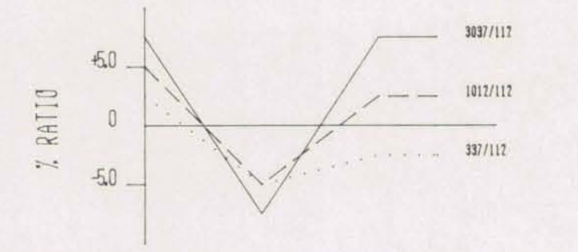
ESSO MINERALS CANADA

KUTCHO CREEK
TARGET "C"
GEOLOGY
GRID AND SAMPLE LOCATION

To accompany a report by

Project No: MA-22	Report No: C.933
Mining Div: LIARD	NTS: 104 I/1W
Survey By: PH PT 86 DH 85	Drafted By: PCT
Date: NOV 1986	Map No: 2.2





SCALE 1:2500

0 50 100 150 200 meters

ESSO MINERALS CANADA			
KUTCHO GRID 'C'			
GENIE-EM			
PROFILE MAP			
To accompany a report by P.T. & Z.D.			
Project No:	MA22	Report No:	C.933
Mining Div:	Liard	N.T.S.:	104I/1W
Survey By:	S.L.	Drafted By:	S.L
Date:	Oct. 1987	Map No:	4.1

REVISIONS

By	Date	Approv.By

ESSO MINERALS CANADA

KUTCHO GRID 'KI'

GENIE-EM

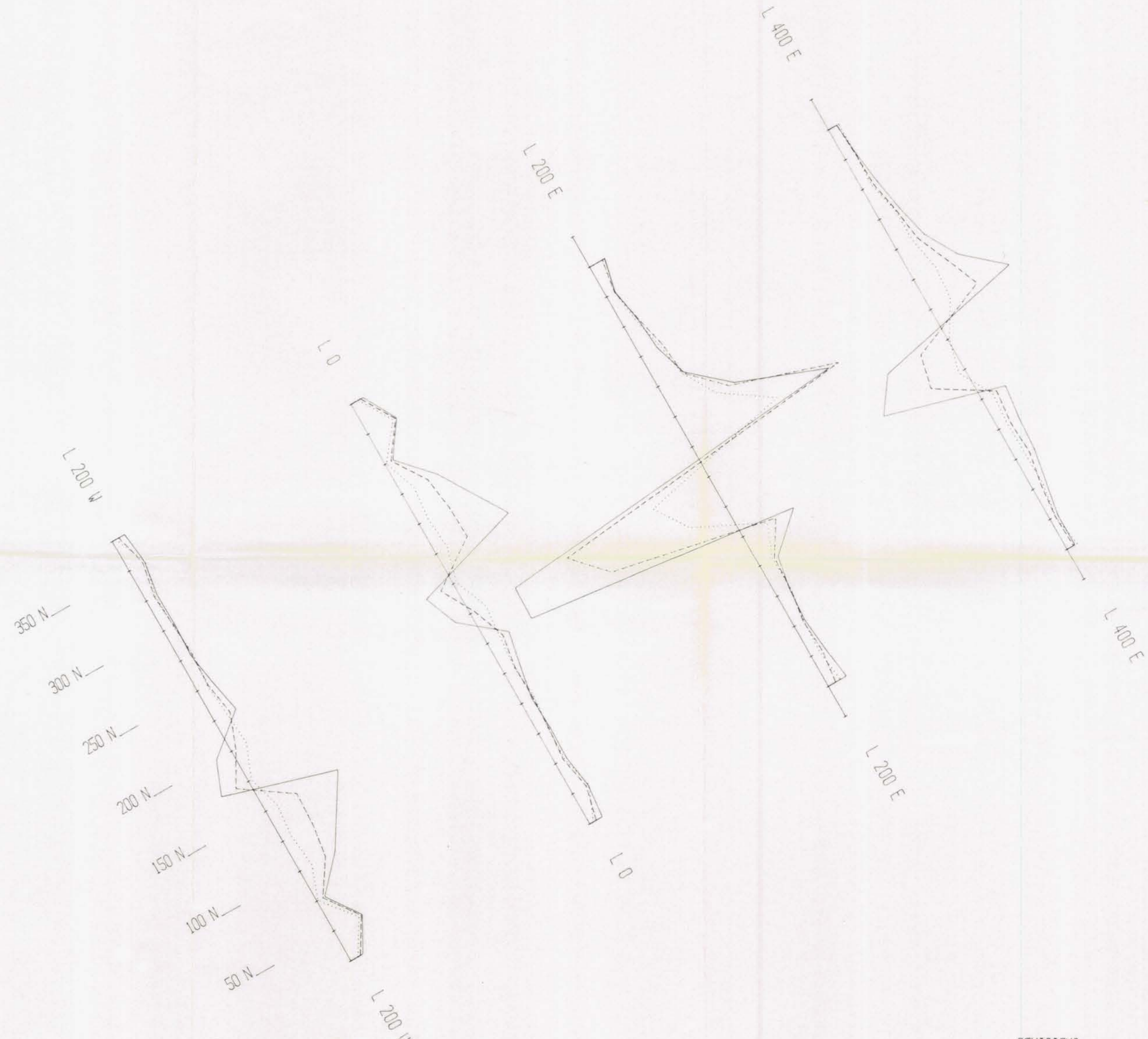
PROFILE MAP

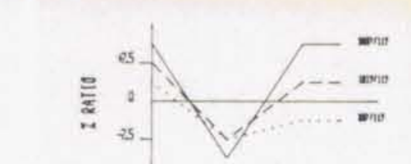
REVISIONS

By	Date	Approv.By

To accompany a report by P.T. & Z.D.

Project No:	MA22	Report No:	C.933
Mining Div:	Liard	N.T.S.:	104I/1W
Survey By:	P.T.	Drafted By:	S.L
Date: Oct. 1987		Map No: 42	





SCALE 1:2500

0 25 50 75 100 meters

ESSØ MINERALS CANADA

KUTCHØ GRID 'KIG'

GENIE-EM

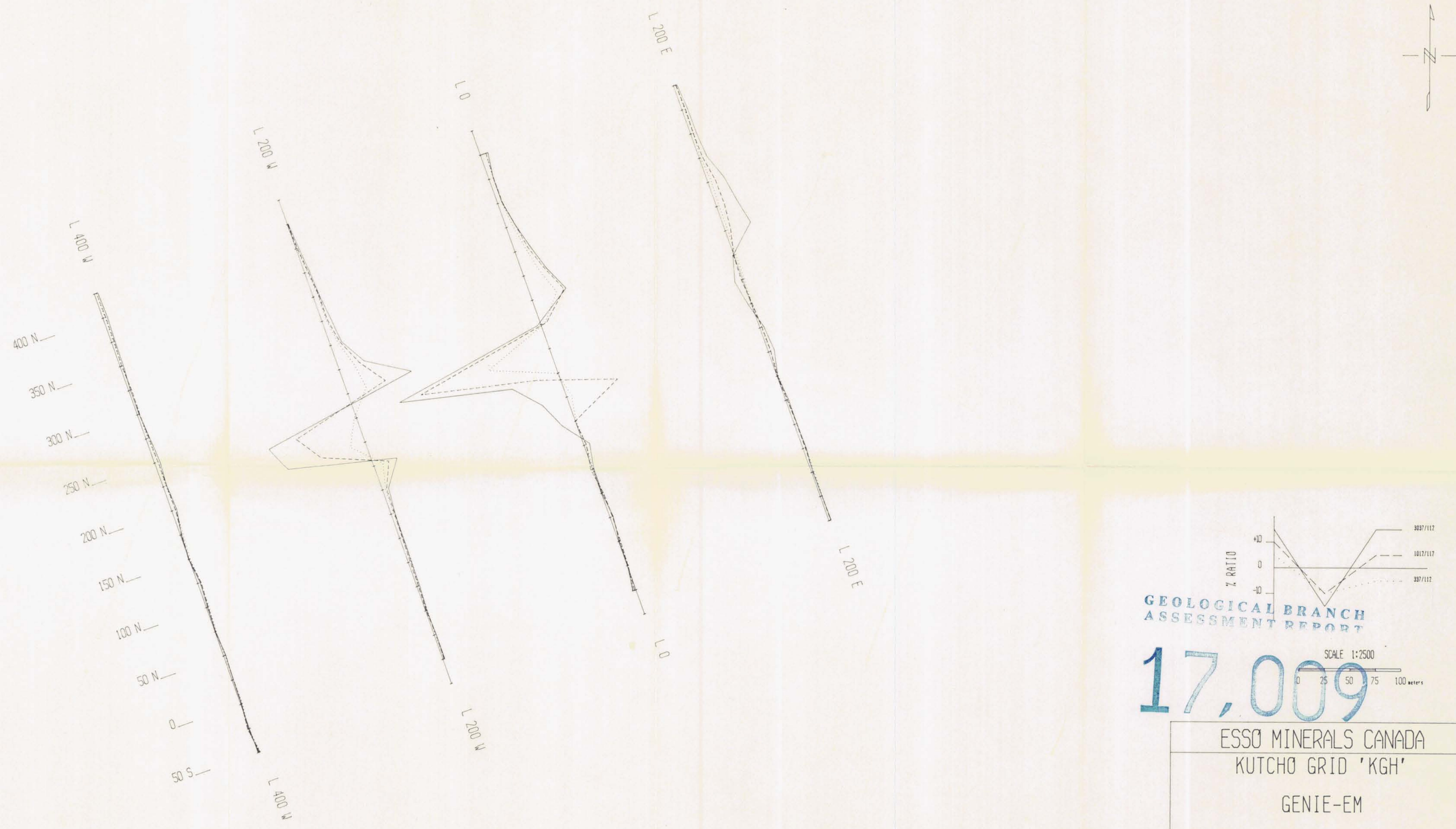
PRØFILE MAP

REVISIONS

By	Date	Approv.By

To accompany a report by P.T. & Z.D.

Project No:	MA22	Report No:	C.933
Mining Div:	Liard	N.T.S.:	104I/1W
Survey By:	P.T.	Drafted By:	S.L
Date:	Oct. 1987	Map No:	43



ESSØ MINERALS CANADA

KUTCHØ GRID 'KGH'

GENIE-EM

PRØFILE MAP

REVISIONS

By	Date	Approv.By

To accompany a report by P.T. & Z.D.

Project No:	MA22	Report No:	C.933
Mining Div:	Liard	N.T.S.:	104I/1W
Survey By:	P.T.	Drafted By:	S.L
Date:	Oct. 1987	Map No:	44