87-572 - 16241
6/88

GEOLOGICAL AND GEOCHEMICAL REPORT

on the

SHASTA 3 CLAIM

Omenica Mining Division

NTS 94E/~~[illegible]~~7W; ~~[illegible]~~6E

Lat: 57° ~~15'~~N 16'06"   Long: 127° 00'W 12"

~~Owner:~~
International Shasta Resources Ltd.

Operator:
Esso Minerals Canada
Owner: A Division of Esso Resources Canada Limited

FILMED

By:
Peter Holbek
Peter Thiersch

September 1, 1987

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Ministry - 2
Intl. Shasta - 1
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SUMMARY

The Shasta 3 Claim is located on the north end of the Shasta Claim Group within the Toodoggone River District. Numerous epithermal-style, gold-silver deposits are hosted by Jurassic and older aged rocks within the district. Reconnaissance geochemical sampling on the Shasta 3 Claim in 1983 by Newmont Exploration Canada Ltd. led to a small, two line km soil grid in 1984. This grid identified a 100 m by 200 m area with anomalous silver and gold geochemistry.

To further define and evaluate the geochemical anomaly on the Shasta 3 Claim a program of geochemical sampling and geological mapping was undertaken. A slope corrected 700 m by 700 m grid was established over the area of interest with samples at 25 m intervals. The grid area was geologically mapped at a 1:2000 scale.

The geochemical survey defined an area 200 m wide, 400 m long and open to the north, of anomalous Cu, Pb, Zn, Ag and Au. Maximum values for silver and gold are 47.4 ppm and 695 ppb, respectively. The northern end of the anomalous area corresponds to observed quartz and calcite stockwork style mineralization. Shape of the precious and base metal anomalies have been modified by downslope dispersion. Calcium and barium anomalies correspond to observed hydrothermal alteration and fracture zones and suggest a possible northwesterly trend to the mineralization.

The geochemical and geological surveys should be extended to the north. A VLF-Resistivity survey should be conducted over the anomalous area prior to trenching.

1.0 INTRODUCTION

1.1 Location and Access

The Shasta 3 claim is part of the Shasta claim group located in the Toodoggone River area approximately 275 km north of Smithers, B.C. (Figure 1.1). The property was accessed by fixed wing aircraft from Smithers to the Sturdee River airstrip, located 10 km west of the study area, and then by helicopter from Sturdee airstrip. During the 1987 field season a helicopter base was maintained at the strip by Northern Mountain Helicopters Ltd. Subsequent to this study, a four-wheel drive road was constructed from the property to existing roads leading from the Sturdee airstrip to Baker Mine.

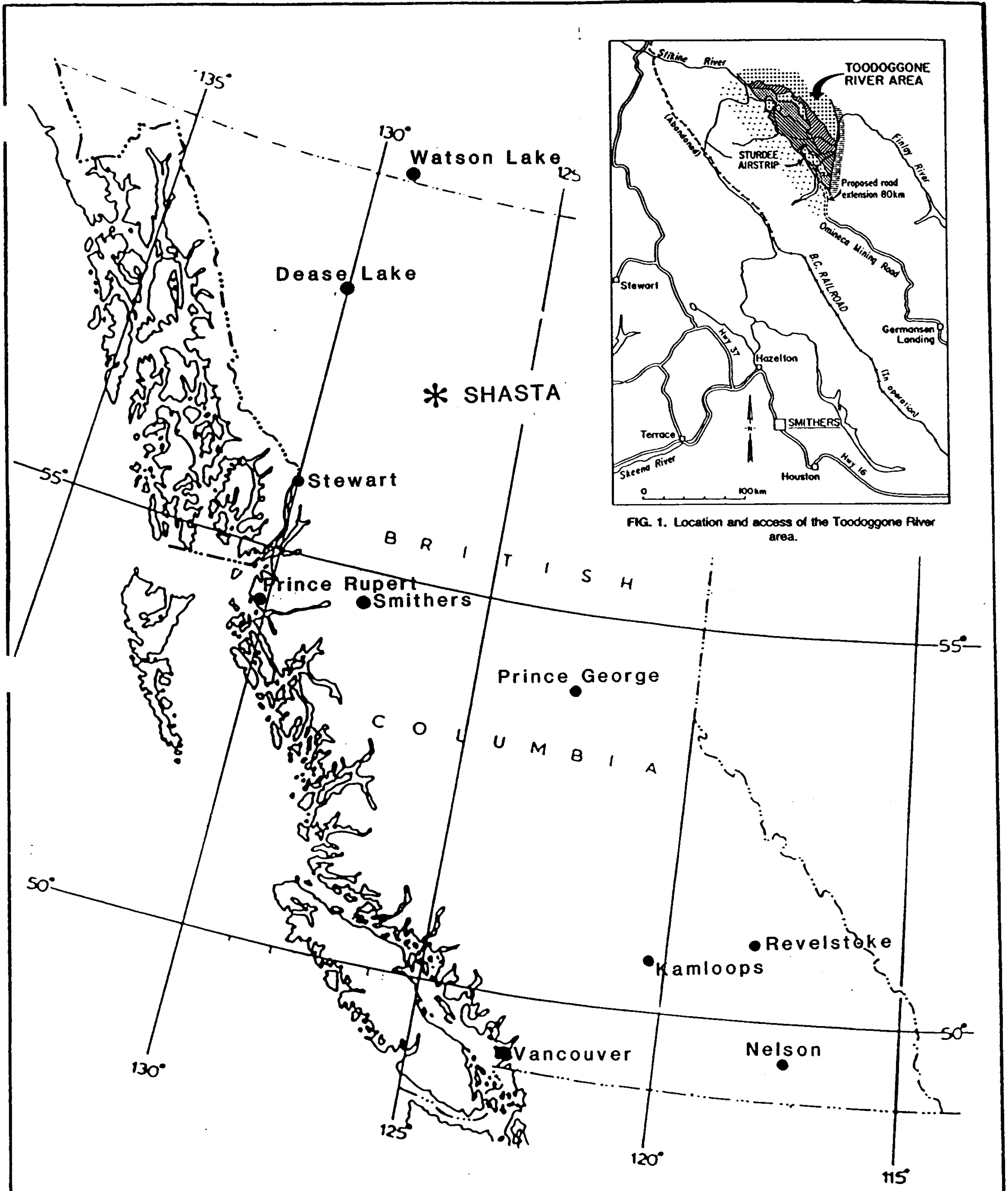
1.2 Land Status

The Shasta Property consists of 66 units in five claims which comprise the Shasta 87 group. The claims are owned by International Shasta Resources Ltd. and are under option to Esso Minerals Canada Ltd. Claim data is summarized in Table 1 below. The work described in this report was conducted on the Shasta 3 claim in the northern property area (Figure 1.2) and is being applied to Shasta 3, 4 and 5 claims.

TABLE 1

SUMMARY OF CLAIM DATA

CLAIM NAME	UNITS	RECORD NO.	RECORD DATE
SHASTA 1	20	8542	July 6, 1987
SHASTA 2	10	8574	July 6, 1987
SHASTA 3	18	5229	June 22, 1983
SHASTA 4	12	5230	June 22, 1983
SHASTA 5	6	5779	Sept. 7, 1983

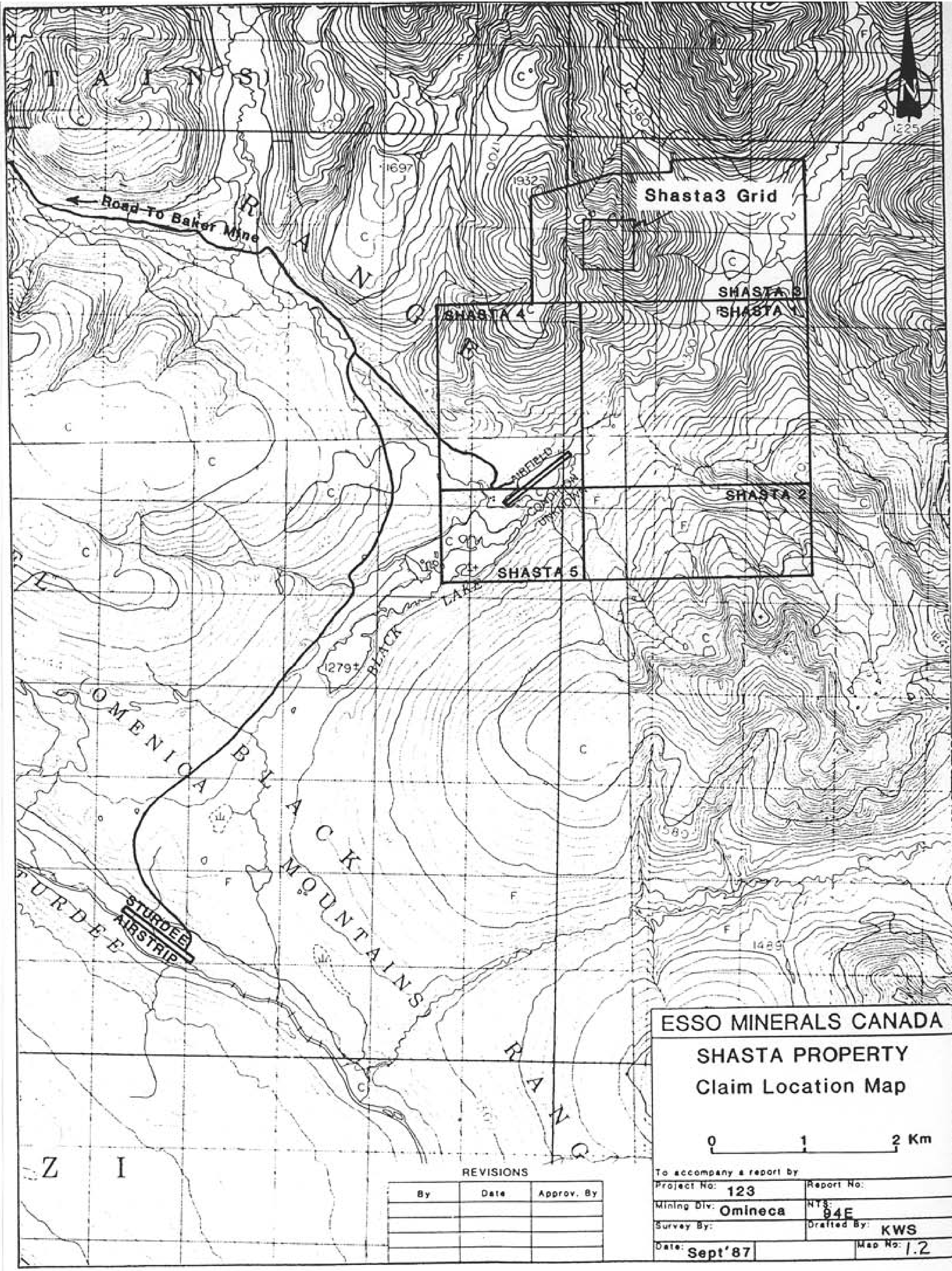


ESSO MINERALS CANADA

SHASTA PROJECT

LOCATION MAP

FIGURE 1

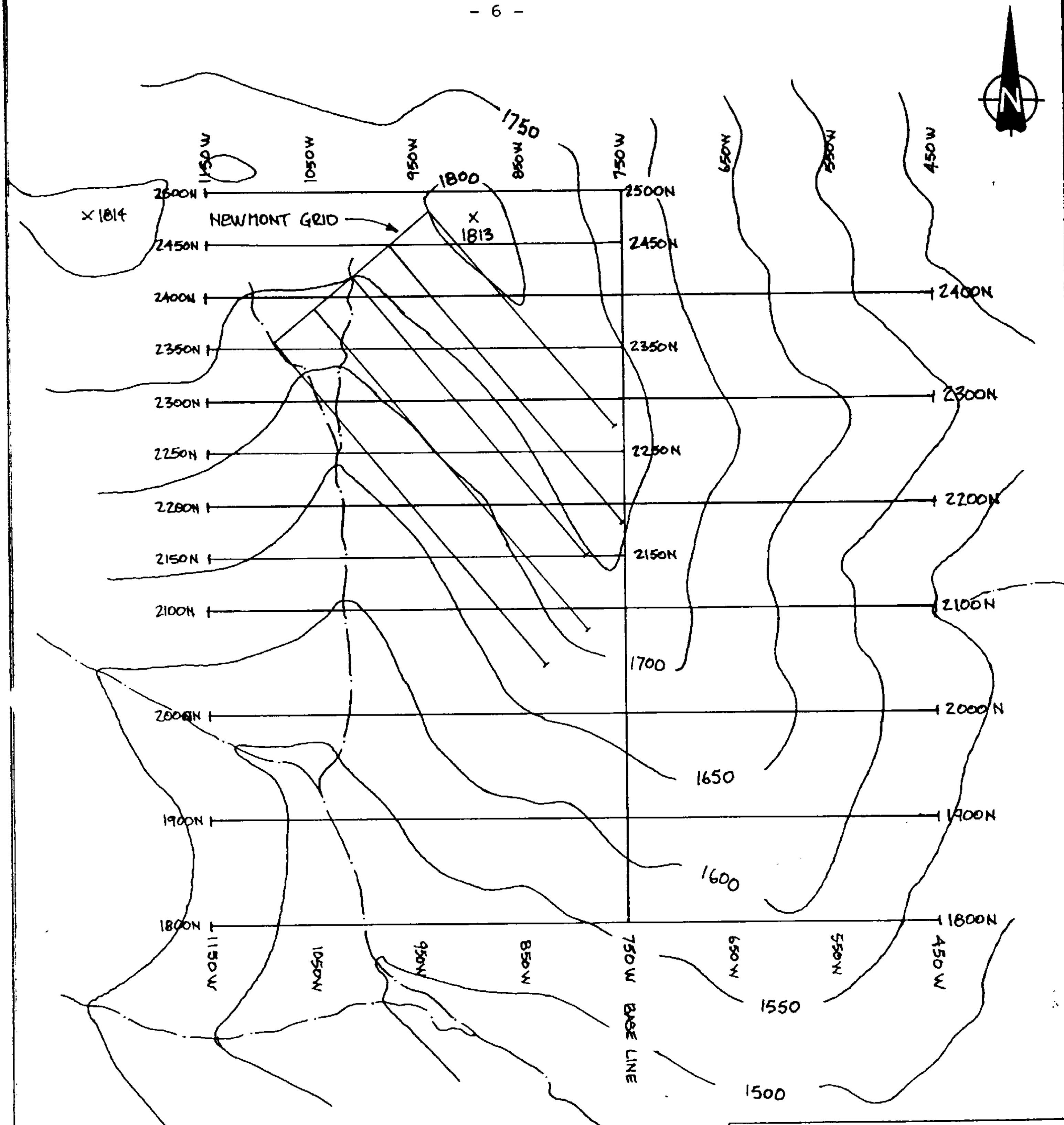

Shasta3 Grid
Road To Baker Mine
SHASTA 3
SHASTA 1
SHASTA 4
SHASTA 2
SHASTA 5
AIRFIELD
BLACK LAKE
STURDEE AIRSTRIP
OMENICA
BLACK
MOUNTAINS
1697
1932
1279
1225
1489
1580
ESSO MINERALS CANADA
SHASTA PROPERTY
Claim Location Map
0 1 2 Km
REVISIONS
By
Date
Approv. By
To accompany a report by
Project No: 123
Report No:
Mining Div: Omineca
NTS: 94E
Survey By:
Drafted By: KWS
Date: Sept'87
Map No: 1.2

1.3 Exploration History

The original claims in the property area were staked in 1972 by Shasta Mines and Oil Ltd. Initial work, consisting of prospecting, soil and rock geochemical surveys, geological mapping and magnetometer surveys were carried out between 1973 and 1975 by W. Meyers and Associates Ltd. on behalf of the owner (which was later renamed International Shasta Resources Ltd.). Most of this work was carried out on the south side of Jock Creek (Shasta 1 claim area). In 1978 the property was optioned and quickly returned by Asarco Ltd. Newmont Exploration Canada Ltd. optioned the property in 1983 and increased its size with additional claims. Newmont conducted extensive soil geochemical, geological and geophysical surveys in addition to 2675 m of diamond drilling during 1983 and 1984. A two line kilometer soil geochemical grid was established on the Shasta 3 claim in 1984 consequent to anomalous (Ag, Au) reconnaissance soil and rock geochemical samples. Results of this survey indicated an area about 100 m by 200 m in size containing anomalous values in Ag, Au, Cu, Pb and Zn (Downing, 1985).

1.4 Present Work

The purpose of this study was to further define geochemical anomalies located by Newmont exploration on the Shasta 3 claim in 1984. Work was conducted on the property over a nine day period between June 9 and June 18, 1987 and consisted of geological and geochemical surveys over a 700 m by 700 m grid centered on the previously defined anomalous area (Figure 1.3).



ESSO MINERALS CANADA

SHASTA 3 CLAIM
Geochemical Grid

0 100 200 m

To accompany a report by

Project No: 123	Report No:
Mining Div: Omineca	NTS: 94E
Survey By:	Drafted By: KWS
Date: Sept'87	Map No: 1.3

REVISIONS

By	Date	Approv. By

A slope corrected grid was established, using compass and hip chain, consisting of a 700 m north-south baseline with 700 m east-west crosslines separated by 100 m and flagged at 25 m intervals. Line separation was reduced to 50 m in the north-west quadrant of the grid, covering the area of Newmont's initial 1984 grid. Six mandays were spent establishing grid control, nine mandays on geochemical sampling, and three mandays on geological mapping. A total of 276 soil samples and 3 rock chip samples were collected over 7.6 line kilometers. An area of 5 square kilometers was mapped at a scale of 1:2000. Mapping and sampling on the north end of the grid was restricted by snow cover.

1.5 Physiography

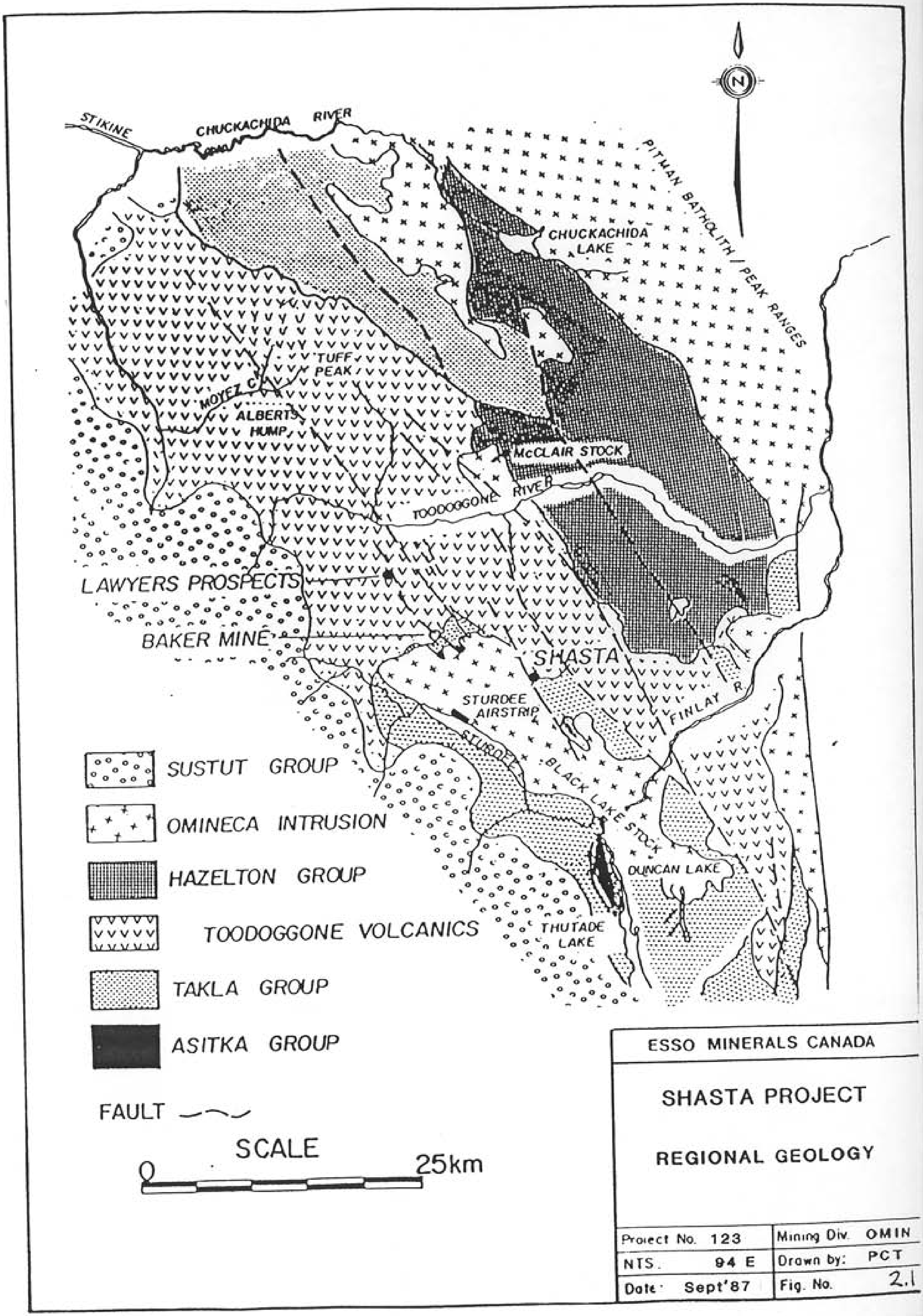
The area covered by the present survey is moderately rugged, with elevations ranging between 1500 m and 1800 m. Slope gradients often reach 60%. The higher elevations are dominated by talus slopes and, as might be expected, soil development is poor. At lower elevations, where soil development is better, the slopes are covered by sub-alpine conifers and grasses. Mean annual precipitation ranges from 50 cm to 75 cm, most of this occurring as rainfall during the summer months. Average temperatures vary from $-20^{o}C$ in winter to $+12^{o}C$ in summer. Snow was persistent at higher elevations until mid-June. The survey area is drained by a small creek which flanks the grid to the west.

2.0 GEOLOGY AND MINERALIZATION

2.1 Regional Setting

The Toodoggone River area lies on the eastern margin of the Intermontane Belt in the Cassiar-Omineca Mountains (Figure 2.1). The oldest rocks in the area are the Permian Asitka Group crystaline limestones, which sit in thrust contact with Late Triassic Takla volcanics (Gabrielse et al, 1976). Takla volcanics consist of andesite flows and augite-tremolite andesite porphyries and are easily distinguished from the overlying Jurassic Toodoggone volcanics. Toodoggone volcanics (Carter, 1972) include andesitic and dacitic flows, tuffs, pyroclastic breccias and associated sediments. The youngest rocks in the area are the Tertiary to Cretaceous Sustut Group, comprised of chert pebble conglomerates and sandstones, which unconformably overlie the Toodoggone volcanics. Omineca Intrusives of granodiorite to quartz monzonite composition and Early Jurassic to Triassic age intrude the Takla and Toodoggone volcanics.

The structure of the area is dominated by Early Jurassic to Tertiary normal faults which trend from north-northwest to north-northeast. These faults are thought to have acted as conduits for mineralizing hydrothermal solutions (Schroeter, 1982).


STIKINE
CHUCKACHIDA RIVER
PITMAN BATHOLITH / PEAK RANGES
CHUCKACHIDA LAKE
TUFF PEAK
MOYEZ C
ALBERTS HUMP
McCLAIR STOCK
TOODOGGONE RIVER
LAWYERS PROSPECTS
BAKER MINE
SHASTA
STURDEE AIRSTRIP
FINLAY R.
STURDEE
BLACK LAKE STOCK
DUNCAN LAKE
THUTADE LAKE
SUSTUT GROUP
OMINECA INTRUSION
HAZELTON GROUP
TOODOGGONE VOLCANICS
TAKLA GROUP
ASITKA GROUP
FAULT
SCALE
0
25km
ESSO MINERALS CANADA
SHASTA PROJECT
REGIONAL GEOLOGY
Project No. 123
Mining Div. OMIN
NTS. 94 E
Drawn by: PCT
Date: Sept'87
Fig. No. 2.1

2.2 Property Geology

The Shasta Property is an epithermal Ag-Au vein type deposit occurring in Toodoggone volcanics near the margin of the Black Lake Stock, one of the Omineca Intrusives. Mineralized zones of quartz-carbonate stockworks and breccia veins are structurally controlled by variable, but generally, north-northwest trending faults. Mineralization appears to be restricted to feldspar-quartz crystal and lithic tuff units characterized by salmon orange to pink coloured feldspars.

Geological mapping was conducted on the Shasta 3 claim at a scale of 1:2000 (Figure 2.2) to identify favourable structure or lithology and to correlate geochemical anomalies with surface mineralization or alteration. Four lithological units are recognized: a light grey feldspar-quartz crystal lithic tuff; a maroon feldspar crystal tuff; a dark grey hornblende crystal tuff; and a dark grey hornblende crystal tuff breccia or lahar. Extensive faulting makes it difficult to determine stratigraphic relationships. The feldspar-quartz crystal lithic tuff unit is a medium-grained intermediate tuff composed of 20-30% (1-4 mm) subhedral white to orange feldspar crystals, 5-10% (1-3 mm) rounded glassy quartz grains, and 1-5% (1-3 mm) euhedral biotite booklets, with a 10-30% component of lithic fragments of generally similar mineralogy. The maroon feldspar crystal tuff is composed of 20-30% (1-4 mm) subhedral white feldspar crystals, and up to 5% (1-2 mm) euhedral hornblende crystals, in a fine- grained maroon hematitic matrix. The hornblende crystal tuff consists of 10-20% (2-8 mm) euhedral hornblende crystals, and 5-15% (1-3 mm) subhedral white feldspar crystals, in a fine-grained grey matrix. The hornblende tuff or lahar is mineralogically identical. It is comprised of 30-60% (2-10 cm) poorly sorted subangular fragments in a fine to medium-grained grey matrix, with local thin segregations of fine maroon matrix.

The feldspar-quartz crystal lithic tuff is the dominant unit in the survey area and appears to be at least 200 m thick. This unit is mineralogically and texturally similar to the unit that hosts the major showings on the Shasta 1 claim. The maroon tuff occurs as thin interbeds within the feldspar-quartz crystal lithic tuff and north of the survey area, appears to overlie the crystal lithic tuff with a thickness in excess of 200 m. The few bedding attitudes obtained indicate a north-east strike and shallow north-west dip, similar to the regional trend. The hornblende tuff occurs in fault contact with the feldspar-quartz crystal lithic tuff and is not seen elsewhere on the Shasta Property. The hornblende tuff-lahar appears to be in fault contact with both the feldspar-quartz crystal tuff and the hornblende tuff.

2.3 Mineralization and Alteration

Mineralization on the Shasta Property is hosted by structurally controlled quartz-carbonate stockwork and breccia veins. Multi-episodic mineralization and rebrecciation is evident in varicoloured crystaline and chalcedonic crosscutting quartz veins and late stage calcite veins. Sulphides present are pyrite, galena, sphalerite, rare chalcopyrite, acanthite, native silver and electrum.

Alteration halos peripheral to mineralization are extremely variable in intensity; ranging from broad zones of propyllitic alteration (chlorite, epidote and calcite +/- pyrite) to narrow envelopes of silicification. Destruction of mafic minerals, giving the rock a bleached appearance, often accompanies silicification. Changes in the colouration of feldspars from salmon orange or pale pale grey to bright pink or brick red occurs proximal to veining, but it is uncertain what, if any, chemical changes this represents.

In the Shasta 3 survey area propylitic alteration is widespread, whereas silicification is much more restricted. The feldspar-quartz crystal lithic tuff exhibits chloritic alteration of mafics and mild "pinking" of feldspars. Epidote is observed as fracture coatings and as irregular clots in the matrix up to 1 cm in zie, possibly pseudomorphing lithic fragments. Two zones of silicification were identified within the grid area. At 2500N 900W, a 15 m wide band of moderately quartz stockworked talus is located. A grab sample returned geochemical values of 19 ppm Ag, 590 ppb Au, 90 ppm Cu, 477 ppm Pb and 947 ppm Zn. A second showing at 2550N 850W appears in outcrop as a narrow (.5 m) band of silicified interbedded maroon crystal tuff. Here, a grab sample returned values of 7.6 ppm Ag, 77 ppb Au, 195 ppm Cu, 274 ppm Pb and 419 ppm Zn.

3.0 GEOCHEMISTRY

3.1 Methods

Soil samples were collected at 25 m stations along grid lines from the 'B' horizon at depths between 0.3 m and 0.5 m and placed in Kraft paper bags. In areas of talus, samples consisted of fines taken from similar depths. The samples were dried in the field at ambient temperatures and then shipped to ACME Analytical Labs of Vancouver for 30 element ICP geochemical analysis. Three rock chip samples were also analyzed by 30 element ICP.

The analytical method involves digesting a 0.5 gram sample of -80 mesh material with 3 ml of 3-1-2 HCl-HNO3-H2O at 95^{o}C for one hour and then diluting 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. Gold was analyzed by atomic absorption following a hot aquaregia digestion and extraction into M.I.B.K.

Results were shipped to the field via floppy disk and interpreted using Geomicro Systems Services Ltd.'s GEOCHEM program run on a Compaq II portable micro computer.

3.2 Results

Only 17 elements of the 30 element ICP analysis are deemed useful and include - Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, Sr, V, Ca, P, La, Cr, Mg and Ba.

Results are tabulated in Appendix 2 and elementary statistics for each of the 17 elements are contained in Appendix 3. A correlation matrix is also located in Appendix 3.

Threshold values and contour intervals for Cu, Pb, Zn, Ag and Au were determined from cumulative probability plots (Sinclair, 1976) and are tabulated below:

Element	Max.	Min.	Threshold 1st Contour	2nd Contour	Percentile	3rd Contour	Percentile
Cu(ppm)	156.	5.	32.	48.	95	80.	98
Pb(ppm)	1443.	2.	30.	150.	85	200.	96
Zn(ppm)	1627.	28.	200.	500.	95	800.	98
Ag(ppm)	47.4	0.1	1.5	4.0	95	8.0	97
Au(ppb)	695.	1.	25.	70.	83	220.	95

Results are posted and contoured on 1:2500 scale plots (Figures 3.1 to 3.5). All of the plotted elements display similar anomalous trends with a north-south elongated anomaly centered at approximately 2400N and 850W. The anomalous area is approximately 300 m to 400 m long, 200 m wide and open to the north. Scattered single or double point anomalous outliers also occur. Silver gives the tightest zonation and best contrast between anomalous values and background while lead yields low contrast and broad anomalous zones. The anomalous area straddles a northwesterly trending ridge and occurs primarily within feldspar quartz crystal, lithic tuffs (FQLT). Location of the strongest anomalous areas correspond to observed occurrences of quartz and calcite stockworks, either in outcrop or talus.

Symbol plots for the other elements were generated by computer and compared with the contour plots for silver and gold. Observations are listed below:

As
Very little contrast and few anomalies, generally poor spatial and numeric correlation with silver and gold.

Fe
Seemingly random distribution of high values no observed spatial correlation with precious or base metals, geology or soil type.

Ca and Ba
Low contrast anomalies that correlate very well with observed faults and fracture patterns (compare Figure 3.6 with Figure 2.2).

Mg
Fair correlation with gold distribution but anomalous areas more diffuse and lower contrast - may reflect alteration halo.

P and Cr
No particularly useful patterns.

Mn
Displays good spatial correlation with precious metals.

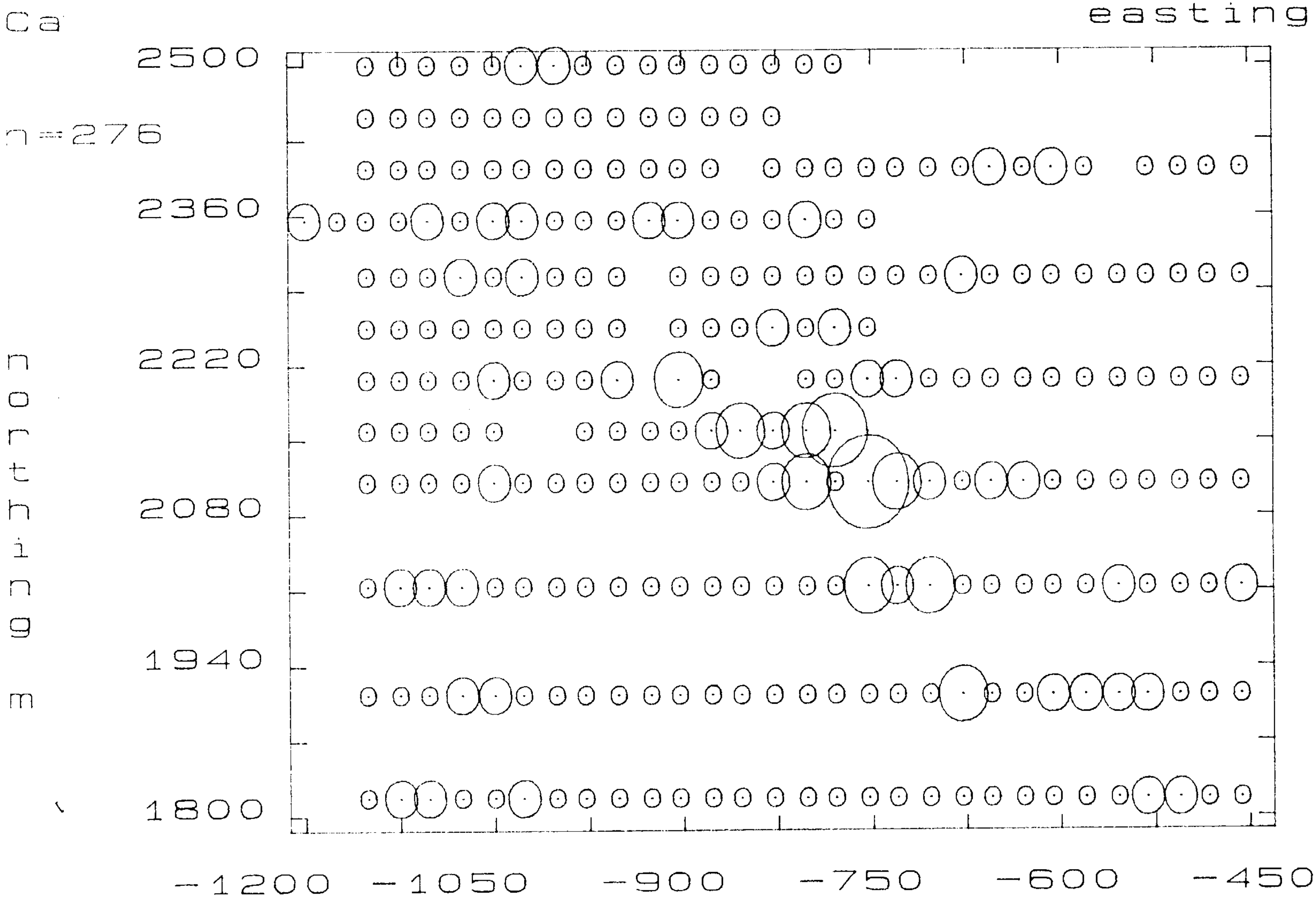


Fig. 3.6

Symbol Plot for Calcium of the Shasta 3 Grid Area

3.3 Discussion of Results

Observed mineralization occurs near the center or upslope from the center of the anomalous area and is indicative of potential source material. Both mechanical and chemical downslope dispersion are likely to have occurred and orientation of mineralization is uncertain. Element contours suggest northeasterly trends, however, these trends could also be produced by downslope dispersion. A northeasterly trending mineralized zone, as suggested by Ca and Ba anomalies and with superimposed downslope dispersion, gives a better account of anomalous values and alteration patterns. Extension of the survey to the north would contribute to the interpretation of orientation.

The survey was successful in defining the southern part of a potentially mineralized area. Talus fines appear to be a suitable sample medium. Equally spaced sample locations along both north-south and east-west orientations would help eliminate bias in contouring but would not eliminate the effects of dispersion.

4.0 CONCLUSIONS AND RECOMMENDATIONS

A broad, elongate multi-element anomaly was defined on the north end of the survey area. The anomalous zone is 200 m wide, 300 to 400 m long and open to the north. Observed mineralization corresponds to the north end of the anomalous area. Orientation of mineralization is difficult to determine from base and precious metal geochemistry due to downslope dispersion. Calcium and barium anomalies appear to reflect a northwesterly trending fracture pattern. Mineralization related to this trend with superimposed northeasterly downslope dispersion could result in anomalous patterns as illustrated (Figures 3.1 to 3.5).

The survey area should be extended to the north with follow-up EMR geophysical surveys to determine structural trends. The combined geochemical and geophysical targets should then be trenched.

REFERENCES

Downing, B.W., 1985 - Report on the 1984 Exploration Program, Shasta Project. Internal company report for Newmont.

Carter, N.C., 1971 - Toodoggone River Area, B.C. B.C. Department of Mines and Petroleum Resources, G.E.M., p. 63-70

Shroeter, T.G., 1982 - Toodoggone River (94E). B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1981, Paper 1982-1, p. 122-333

Shroeter, T.G., 1983 - Toodoggone River (94E). B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1982, Paper 1983-1, p. 125-333

Sinclair, A.J., 1976 - Application of Probability Graphs in Mineral Exploration. AEG Spec. Vol. 4

APPENDIX 1

STATEMENT OF COSTS AND QUALIFICATIONS

APPENDIX 1

STATEMENT OF COSTS AND QUALIFICATIONS

STATEMENT OF COSTS

Personnel (June 7 to 18 inclusive)	
P. Thiersch - 12 days @ $135/day	$ 1,620.
R. Carmichael - 10 days @ $135/day	1,350.
P. Holbek - 1 day @ $245/day	245.
Logistics	
Central Mountain Air Services (Smithers to Sturdee return - split charter)	900.
Northern Mountain Helicopters 2.4 hrs @ $600/hr (includes fuel)	1,440.
Food and Accommodation 23 mandays @ $50/day	1,150.
Materials and Supplies	200.
Analysis	
276 soils @ $10.75 (incl. prep)	2,967.
3 rocks @ $18/sample	54
Report Preparation	750.
TOTAL	$10,676.

APPENDIX 1

STATEMENT OF COSTS AND QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Peter Holbek, of 1276 West 21st Street, N. Vancouver, B.C. V7P 2C9, do 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 a graduate of The University of British Columbia B.Sc. (Honors) 1980.

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

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

DATED THIS 14th DAY OF SEPTEMBER, 1987 AT VANCOUVER, B.C.

P. Holbek, Project Geologist

STATEMENT OF QUALIFICATIONS

I, Peter Thiersch, do hereby certify the following to be true:

I reside at 5839 Falcon Rd., West Vancouver, B.C.

I received a Bachelors Degree in Geological Sciences from the University of B.C. in 1986.

I have five seasons of field experience.

I am currently employed by Esso Minerals Canada as a Project Geologist.

Signed,

APPENDIX 2

GEOCHEMICAL RESULTS

Shasta 3 soils

northing m	easting m	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
2500	-1150	5	7	53	0.1	2
2500	-1125	7	14	62	0.3	1
2500	-1100	9	16	65	0.1	1
2500	-1075	10	15	54	0.1	1
2500	-1050	8	11	57	0.1	3
2500	-1025	8	16	49	0.1	45
2500	-1000	13	20	76	0.4	5
2500	-975	37	646	769	9.3	480
2500	-950	32	300	364	2.2	350
2500	-925	22	169	166	1.4	85
2500	-900	100	755	1184	6.7	117
2500	-875	32	232	349	1.6	49
2500	-850	57	501	695	4.3	695
2500	-825	44	359	694	2.1	150
2500	-800	59	540	768	6.4	163
2500	-775	13	58	190	0.1	11
2450	-1150	13	10	92	0.1	3
2450	-1125	17	20	63	0.6	1
2450	-1100	17	16	58	0.1	1
2450	-1075	16	17	48	0.1	4
2450	-1050	17	18	67	0.1	1
2450	-1025	14	18	81	0.1	3
2450	-1000	23	135	284	0.7	21
2450	-975	34	174	386	2.5	152
2450	-950	42	216	334	7.3	187
2450	-925	54	684	553	2.0	43
2450	-900	17	367	490	3.6	134
2450	-875	35	113	218	4.1	178
2450	-850	41	367	591	5.6	365
2450	-825	35	223	397	2.4	215
2400	-1150	20	19	80	0.9	13
2400	-1125	16	22	70	0.5	12
2400	-1100	14	22	55	0.1	4
2400	-1075	13	25	75	0.1	4
2400	-1050	14	21	70	0.1	1
2400	-1025	19	17	90	0.1	3
2400	-1000	13	33	107	0.1	7
2400	-975	18	42	183	1.0	6
2400	-950	34	157	338	8.6	315
2400	-925	38	409	529	3.5	67
2400	-900	38	248	422	4.2	195
2400	-875	151	985	997	47.4	425
2400	-825	60	778	630	1.9	290
2400	-800	47	637	360	1.5	42
2400	-775	38	716	431	1.2	115
2400	-750	41	355	439	2.2	92
2400	-725	35	364	392	1.3	68
2400	-700	31	196	311	0.7	125
2400	-675	29	140	226	0.5	67
2400	-650	37	96	193	1.5	15

Shasta 3 soils

northing m	easting m	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
2400	-625	21	52	173	0.6	7
2400	-600	13	41	153	0.7	1
2400	-575	32	44	204	0.6	16
2400	-525	11	27	86	0.1	17
2400	-500	13	30	76	0.1	125
2400	-475	23	50	126	2.6	25
2400	-450	14	48	128	0.4	9
2350	-1200	14	17	56	0.1	2
2350	-1175	14	15	90	0.1	60
2350	-1150	17	28	67	0.1	205
2350	-1125	7	17	60	0.1	5
2350	-1100	18	14	61	0.5	1
2350	-1075	12	22	85	0.1	1
2350	-1050	12	33	106	0.1	2
2350	-1025	13	26	62	0.1	6
2350	-1000	22	130	406	0.1	1
2350	-975	12	39	161	0.1	2
2350	-950	156	479	1514	5.7	225
2350	-925	122	1443	918	15.6	250
2350	-900	39	717	497	6.0	72
2350	-875	35	86	137	0.8	48
2350	-850	107	175	325	2.4	295
2350	-825	70	975	998	9.7	200
2350	-800	33	147	138	3.2	190
2350	-775	41	232	246	3.6	55
2350	-750	29	161	225	1.5	62
2300	-1150	14	20	63	0.1	4
2300	-1125	15	19	62	0.1	1
2300	-1100	14	24	73	0.1	29
2300	-1075	15	18	52	0.4	1
2300	-1050	10	12	59	0.1	1
2300	-1025	7	23	61	0.1	1
2300	-1000	15	55	148	0.4	29
2300	-975	16	31	180	0.7	120
2300	-950	43	262	617	0.4	56
2300	-900	29	141	227	2.6	45
2300	-875	18	65	152	0.1	395
2300	-850	27	116	125	5.1	225
2300	-825	49	277	327	0.3	46
2300	-800	19	53	104	0.2	11
2300	-775	30	201	214	1.0	47
2300	-750	31	154	184	1.3	85
2300	-725	27	56	122	0.6	8
2300	-700	11	34	106	0.1	2
2300	-675	30	75	95	3.2	35
2300	-650	21	49	117	0.7	8
2300	-625	16	107	203	0.4	515
2300	-600	13	28	153	0.6	2
2300	-575	17	54	122	0.7	28
2300	-550	17	49	178	1.3	5

Shasta 3 soils

-thing m	easting m	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
2300	-525	18	88	265	1.9	1
2300	-500	17	60	165	0.5	13
2300	-475	17	48	220	0.5	6
2300	-450	25	156	261	2.2	22
2250	-1150	9	13	66	0.4	3
2250	-1125	11	12	64	0.1	4
2250	-1100	11	9	54	0.3	2
2250	-1075	19	11	69	0.2	2
2250	-1050	16	51	138	1.0	11
2250	-1025	9	25	110	0.2	2
2250	-1000	21	113	342	0.7	13
2250	-975	22	182	421	2.5	52
2250	-950	18	110	282	1.0	24
2250	-900	25	61	124	0.2	123
2250	-875	27	23	92	0.1	21
2250	-850	24	23	82	0.1	41
2250	-825	11	18	60	0.1	2
2250	-800	23	142	205	2.1	3
2250	-775	36	466	487	2.9	44
2250	-750	34	67	176	0.7	28
2200	-1150	16	23	60	0.3	1
2200	-1125	9	18	60	0.2	4
2200	-1100	16	13	72	0.1	1
2200	-1075	9	16	75	0.1	1
2200	-1050	15	53	104	0.2	245
2200	-1025	15	57	227	0.3	23
2200	-1000	12	21	113	0.2	3
2200	-975	20	120	216	1.5	47
2200	-950	154	198	1627	9.7	145
2200	-900	72	251	181	13.3	112
2200	-875	27	200	130	0.4	12
2200	-800	29	70	120	3.6	17
2200	-775	26	356	263	0.3	7
2200	-750	27	184	295	0.4	6
2200	-725	55	106	200	1.1	12
2200	-700	27	53	142	0.1	7
2200	-675	15	47	216	0.3	11
2200	-650	13	42	128	0.3	2
2200	-625	16	65	233	0.7	20
2200	-600	21	72	219	0.4	7
2200	-575	16	66	266	0.4	2
2200	-550	42	97	254	0.7	19
2200	-525	17	43	215	0.1	15
2200	-500	13	30	160	0.4	16
2200	-475	14	27	157	0.7	5
2200	-450	11	21	153	1.0	24
2150	-1150	19	14	58	0.1	1
2150	-1125	15	7	56	0.3	1
2150	-1100	16	5	76	0.1	10
2150	-1075	9	9	58	0.4	1

Shasta 3 soils

northing m	easting m	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
2150	-1050	12	15	151	0.6	1
2150	-975	18	46	158	0.4	1
2150	-950	17	25	173	0.1	1
2150	-925	25	39	170	0.1	18
2150	-900	21	33	94	0.1	3
2150	-875	38	50	100	1.0	27
2150	-850	31	44	126	0.2	26
2150	-825	20	48	84	1.2	375
2150	-800	22	305	470	5.5	76
2150	-775	20	60	87	2.8	9
2100	-1150	11	14	87	0.1	1
2100	-1125	11	9	94	0.1	1
2100	-1100	9	15	99	0.1	1
2100	-1075	14	13	68	0.1	1
2100	-1050	18	30	132	0.3	1
2100	-1025	12	19	101	0.3	1
2100	-1000	15	17	101	0.3	28
2100	-975	24	34	119	0.3	8
2100	-950	18	22	112	0.1	4
2100	-925	20	15	93	0.3	3
2100	-900	18	58	187	0.2	1
2100	-875	18	26	232	0.5	3
2100	-850	30	34	118	0.2	27
2100	-825	20	33	98	0.9	185
2100	-800	16	25	58	0.2	34
2100	-775	13	15	62	0.1	10
2100	-750	9	24	64	0.8	4
2100	-725	46	63	110	0.4	15
2100	-700	26	48	115	0.3	11
2100	-675	16	27	79	0.1	6
2100	-650	14	16	56	0.2	6
2100	-625	15	11	58	0.1	11
2100	-600	19	21	61	0.5	4
2100	-575	26	18	64	0.4	24
2100	-550	8	7	65	0.7	56
2100	-525	16	23	90	1.6	21
2100	-500	11	8	105	0.2	27
2100	-475	12	20	74	0.1	15
2100	-450	13	35	135	0.6	10
2000	-1150	10	16	38	0.1	3
2000	-1125	5	11	28	0.1	1
2000	-1100	10	7	44	0.1	5
2000	-1075	15	30	116	0.2	9
2000	-1050	16	15	115	0.1	34
2000	-1025	9	15	97	0.1	1
2000	-1000	9	14	71	0.1	1
2000	-975	13	10	80	1.3	6
2000	-950	12	11	89	0.1	31
2000	-925	13	21	96	0.1	3
2000	-900	19	15	121	0.2	5

r ·thing m	easting m	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
2000	-875	24	22	112	0.3	22
2000	-850	23	41	135	0.4	7
2000	-825	13	23	94	2.1	23
2000	-800	12	25	151	0.4	59
2000	-775	9	21	139	0.1	1
2000	-750	17	39	109	0.3	1
2000	-725	15	20	128	1.7	1
2000	-700	6	17	58	0.2	1
2000	-675	13	15	171	0.1	2
2000	-650	15	9	83	0.1	17
2000	-625	15	17	94	0.3	5
2000	-600	15	15	113	0.7	6
2000	-575	12	10	70	0.6	7
2000	-550	12	14	62	0.1	13
2000	-525	11	13	62	0.1	1
2000	-500	9	9	68	0.1	2
2000	-475	10	2	57	0.1	28
2000	-450	15	8	71	0.6	13
1900	-1150	15	10	96	0.1	8
1900	-1125	15	22	137	0.5	20
1900	-1100	12	16	144	0.6	21
1900	-1075	11	2	50	0.1	1
1900	-1050	13	11	60	0.1	1
1900	-1025	13	5	54	0.1	1
1900	-1000	14	8	69	0.2	2
1900	-975	13	9	81	0.1	1
1900	-950	12	5	70	0.2	21
1900	-925	9	16	88	0.1	2
1900	-900	10	7	85	0.1	1
1900	-875	16	8	72	0.1	3
1900	-850	23	102	207	0.3	24
1900	-825	38	106	157	0.8	25
1900	-800	25	212	216	1.0	57
1900	-775	34	190	158	0.5	20
1900	-750	23	74	187	0.3	14
1900	-725	22	70	147	0.4	210
1900	-700	39	341	56	0.3	159
1900	-675	13	9	64	1.2	11
1900	-650	13	8	84	0.3	3
1900	-625	8	12	80	0.2	16
1900	-600	16	16	83	0.3	5
1900	-575	13	13	77	0.1	73
1900	-550	11	7	58	0.3	3
1900	-525	8	2	44	0.6	4
1900	-500	12	24	87	2.6	29
1900	-475	10	18	68	0.4	9
1900	-450	10	19	132	0.5	5
1800	-1150	10	17	63	0.1	4
1800	-1125	13	17	58	0.1	1
1800	-1100	15	17	62	0.1	1

Shasta 3 soils

northing m	easting m	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1800	-1075	9	21	64	0.2	23
1800	-1050	9	14	69	0.3	1
1800	-1025	20	27	113	0.1	3
1800	-1000	9	20	67	0.1	1
1800	-975	12	20	80	0.1	28
1800	-950	23	20	65	0.2	4
1800	-925	16	21	73	0.1	10
1800	-900	14	20	69	0.1	1
1800	-875	14	10	59	0.1	3
1800	-850	13	13	75	0.1	6
1800	-825	10	19	84	0.1	2
1800	-800	13	19	85	0.1	1
1800	-775	15	23	113	0.3	30
1800	-750	14	15	80	0.6	34
1800	-725	24	36	128	1.0	120
1800	-700	19	67	338	0.3	16
1800	-675	20	45	169	0.5	12
1800	-650	9	17	110	0.5	8
1800	-625	15	26	133	0.4	48
1800	-600	16	8	61	0.9	13
1800	-575	12	14	76	1.3	65
1800	-550	14	38	106	1.2	125
1800	-525	14	8	64	0.4	12
1800	-500	14	12	58	0.4	4
1800	-475	17	15	69	0.3	32
1800	-450	13	13	58	0.2	1

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PH

ACME ANALYTICAL LABORATORIES   852 E. HASTINGS ST. VANCOUVER B.C.   V6A 1R6

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: SOILS -80MESH   AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUNE 22 1987   DATE REPORT MAILED: June 29/87   ASSAYER. D. Toye .DEAN TOYE, CERTIFIED B.C. ASSAYER

ESSO MINERALS PROJECT-SHASTA   File # 87-1927   Page 1

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
L25+00N 900W	1	100	755	1184	6.7	4	9	3094	3.85	39	6	ND	3	94	10	2	2	99	1.15	.131	15	4	1.26	76	.13	5	2.73	.01	.09	1	117
L25+00N 875W	1	32	232	349	1.6	11	8	1663	3.59	11	7	ND	2	127	2	2	2	91	1.25	.134	16	8	1.21	73	.09	4	2.91	.01	.10	1	49
L25+00N 850W	1	57	501	695	4.3	21	10	2182	5.09	34	5	ND	1	38	2	4	2	93	.27	.098	15	17	1.09	79	.02	2	2.30	.01	.06	1	695
L25+00N 825W	1	44	359	694	2.1	17	9	2248	4.58	22	5	ND	1	40	1	2	2	86	.32	.081	15	17	1.03	99	.03	2	2.22	.01	.08	1	150
L25+00N 800W	1	59	540	768	6.4	19	8	1897	4.48	20	7	ND	2	87	3	2	2	86	.69	.105	23	15	1.01	99	.02	2	2.79	.01	.10	1	163
L25+00N 775W	1	13	58	190	.1	6	11	2131	4.34	6	5	ND	1	22	1	2	3	92	.44	.105	10	5	1.31	87	.08	3	1.65	.02	.07	1	11
L24+50N 1150W	1	13	10	92	.1	4	6	542	3.06	2	5	ND	1	97	1	2	2	48	.68	.167	10	3	.55	217	.01	3	2.31	.01	.15	1	3
L24+50N 1125W	1	17	20	63	.6	10	9	841	3.10	14	5	ND	1	89	1	2	2	53	.81	.122	14	11	.38	137	.05	2	3.41	.02	.09	1	1
L24+50N 1100W	1	17	16	58	.1	12	7	944	2.92	9	5	ND	1	77	1	2	2	56	.78	.159	19	7	.41	159	.06	3	2.96	.02	.15	1	1
L24+50N 1075W	1	16	17	48	.1	10	6	1090	2.90	3	5	ND	1	87	1	2	2	54	.76	.142	16	10	.38	127	.09	3	3.09	.02	.11	1	4
L24+50N 1050W	1	17	18	67	.1	9	7	1805	3.10	5	7	ND	1	93	1	2	2	47	.57	.158	17	9	.40	192	.05	4	3.67	.01	.14	1	1
L24+50N 1025W	1	14	18	81	.1	8	5	1017	2.38	6	5	ND	1	107	1	2	2	38	1.08	.146	13	6	.43	83	.07	2	4.71	.01	.13	1	3
L24+50N 1000W	1	23	135	284	.7	14	8	1828	4.21	17	5	ND	1	31	2	2	2	81	.19	.106	12	14	.65	224	.02	2	2.30	.01	.10	1	21
L24+50N 975W	1	34	174	386	2.5	22	10	1397	3.92	10	5	ND	1	49	1	2	3	74	.31	.061	13	17	1.02	186	.02	2	2.61	.01	.13	1	152
L24+50N 950W	1	42	216	334	7.3	27	7	1147	3.44	13	5	ND	1	52	1	2	2	74	.36	.077	16	24	.91	135	.04	3	2.38	.01	.06	1	187
L24+50N 925W	1	54	684	553	2.0	17	8	2510	4.04	12	5	ND	1	56	2	2	2	88	.44	.107	14	17	.92	152	.02	2	2.57	.01	.12	1	43
L24+50N 900W	1	17	367	490	3.6	11	9	2035	3.68	16	5	ND	1	120	2	2	2	97	.61	.120	13	7	1.25	199	.08	2	2.20	.02	.08	1	134
STD C	17	57	38	123	6.8	68	27	955	3.79	39	14	7	31	45	16	17	18	58	.45	.094	34	52	.85	160	.08	34	1.67	.06	.13	12	-
L24+50N 875W	1	35	113	218	4.1	17	9	1789	4.37	14	5	5	1	87	1	2	2	94	.43	.080	20	17	.90	160	.06	3	2.86	.01	.06	1	178
L24+50N 850W	1	41	367	591	5.6	14	10	2737	5.30	18	7	ND	2	51	2	2	6	80	.31	.076	16	14	1.00	80	.02	6	2.81	.01	.07	1	365
L24+50N 825W	1	35	223	397	2.4	21	8	1270	3.62	13	5	ND	1	78	2	2	2	69	.59	.083	14	17	.85	99	.05	2	2.55	.01	.08	1	215
L24+00N 1150W	1	20	19	80	.9	12	8	1380	3.55	21	5	ND	1	30	1	2	2	66	.31	.121	23	12	.49	109	.04	2	2.39	.02	.11	1	13
L24+00N 1125W	1	16	22	70	.5	7	7	1192	2.80	23	5	ND	1	98	1	2	2	54	.96	.132	16	6	.51	95	.04	5	2.74	.03	.13	1	12
L24+00N 1100W	1	14	22	55	.1	16	7	720	3.12	13	5	ND	1	110	1	2	2	52	.66	.140	17	14	.51	240	.08	6	3.12	.02	.12	1	4
L24+00N 1075W	1	13	25	75	.1	9	7	1344	3.39	8	5	ND	1	53	1	2	2	57	.36	.117	13	8	.36	208	.03	2	3.19	.01	.13	1	4
L24+00N 1050W	1	14	21	70	.1	6	5	911	3.20	4	5	ND	1	73	1	2	2	48	.70	.188	33	5	.40	235	.04	2	2.70	.02	.13	1	1
L24+00N 1025W	1	19	17	90	.1	9	7	819	2.79	9	5	ND	1	62	1	2	2	49	.57	.111	21	6	.69	272	.01	2	3.09	.01	.24	1	3
L24+00N 1000W	1	13	33	107	.1	9	7	842	3.49	8	5	ND	1	95	1	2	2	47	1.15	.154	29	7	.81	254	.05	2	2.94	.01	.16	1	7
L24+00N 975W	1	18	42	183	1.0	5	5	1318	3.43	5	5	ND	1	36	1	2	2	62	.74	.297	19	4	.71	222	.01	3	2.28	.01	.12	1	6
L24+00N 950W	1	34	157	338	8.6	4	11	2433	5.33	72	5	ND	2	14	2	2	6	90	.23	.153	10	4	1.27	138	.01	2	2.89	.01	.10	1	315
L24+00N 925W	1	38	409	529	3.5	9	10	3489	4.46	14	5	ND	1	42	8	2	2	109	.36	.132	11	11	.85	170	.07	2	2.20	.01	.07	1	67
L24+00N 900W	1	38	248	422	4.2	16	10	2060	4.54	16	5	ND	1	156	2	2	3	94	.38	.075	16	18	1.01	183	.03	5	2.74	.01	.08	1	195
RE L24+50N 1100W	1	15	14	59	.1	11	7	963	2.97	11	5	ND	1	77	1	2	2	56	.79	.164	19	8	.42	165	.06	2	2.97	.01	.15	1	2
L24+00N 875W	1	151	985	997	47.4	16	11	4407	4.47	19	5	ND	1	60	5	2	2	89	.85	.169	39	16	1.01	154	.02	2	2.60	.01	.09	2	425
L23+50N 1200W	1	14	17	56	.1	10	7	1573	2.82	41	5	ND	1	289	1	2	2	75	1.66	.179	39	11	.44	273	.04	2	3.74	.02	.17	1	2
L23+50N 1175W	1	14	15	90	.1	7	8	1460	3.78	11	5	ND	1	48	1	2	2	62	.72	.205	26	9	.64	215	.02	2	3.04	.01	.17	1	60
L23+50N 1150W	1	17	28	67	.1	6	6	1494	3.60	38	5	ND	1	99	1	2	2	51	.92	.171	27	11	.42	165	.04	7	3.31	.02	.11	1	205
L23+50N 1125W	1	7	17	60	.1	8	7	791	4.02	104	5	ND	1	56	1	2	2	67	.62	.120	26	6	.43	137	.04	2	2.66	.02	.12	1	5
STD C/AU-S	18	58	37	127	6.7	67	28	977	3.91	39	14	7	32	47	16	15	17	59	.46	.097	34	54	.85	172	.08	37	1.70	.06	.14	13	46

SAMPLE#	MO	CU	PB	ZN	AG	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AU*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB
L2350N 1100W	1	18	14	61	.5	2	5	667	2.27	55	5	ND	1	57	1	2	2	38	1.63	.242	63	5	.33	389	.01	2	1.99	.01	.16	2	1
L2350N 1075W	1	12	22	85	.1	4	8	1256	3.95	3	5	ND	1	52	1	2	2	57	1.05	.161	17	6	.45	261	.06	2	2.50	.01	.16	1	1
L2350N 1050W	1	12	33	106	.1	4	6	934	2.88	12	5	ND	1	135	1	2	2	50	1.81	.125	17	5	.77	181	.06	3	5.36	.02	.14	1	2
L2350N 1025W	1	13	26	62	.1	5	4	666	2.25	16	5	ND	1	170	1	2	2	45	2.27	.123	17	7	.66	220	.08	2	5.65	.01	.11	1	6
L2350N 1000W	1	22	130	406	.1	11	11	1717	4.39	8	5	ND	1	82	1	2	5	62	.57	.090	8	11	1.31	139	.01	2	2.70	.01	.14	1	1
L2350N 975W	1	12	39	161	.1	4	9	1546	4.88	7	5	ND	1	158	1	2	3	93	.46	.117	19	8	1.19	161	.04	2	3.20	.01	.08	1	2
L2350N 950W	2	156	479	1514	5.7	3	8	965	3.74	10	5	ND	5	83	7	2	15	36	.50	.172	55	1	.55	148	.01	3	1.09	.02	.25	1	225
RE L2300N 725W	1	26	53	126	.7	9	10	2107	5.21	5	5	ND	1	92	1	2	2	119	.77	.103	20	11	1.28	92	.03	4	3.05	.01	.07	1	5
L2350N 925W	1	122	1443	918	15.6	1	7	8531	3.30	11	5	ND	2	184	15	2	4	89	2.20	.108	30	5	.85	254	.01	2	4.38	.01	.11	1	250
L2350N 900W	1	39	717	497	6.0	7	7	1422	3.82	3	5	ND	1	198	3	2	3	115	2.08	.096	24	12	.84	96	.04	2	4.30	.03	.10	1	72
L2350N 875W	1	35	86	137	.8	24	9	1771	3.82	8	5	ND	1	117	1	2	6	88	.57	.096	23	24	1.07	238	.02	2	2.95	.01	.08	1	48
L2350N 850W	1	107	175	325	2.4	20	8	2015	4.03	16	5	ND	2	49	2	2	5	78	.47	.058	52	18	1.14	115	.01	2	2.97	.01	.10	1	295
L2300N 1150W	1	14	20	63	.1	4	6	770	3.28	10	5	ND	1	113	1	2	2	61	1.34	.115	21	7	.50	115	.05	4	3.51	.01	.16	1	4
L2300N 1125W	1	15	19	62	.1	14	7	766	3.50	10	5	ND	1	84	1	2	2	63	1.17	.195	18	11	.51	165	.04	14	2.72	.02	.17	1	1
L2300N 1100W	1	14	24	73	.1	7	6	2015	3.25	7	5	ND	1	93	1	2	2	55	.48	.092	14	8	.47	204	.03	2	3.85	.01	.14	1	29
L2300N 1075W	1	15	18	52	.4	6	5	546	2.55	118	9	ND	1	118	1	2	2	53	1.56	.149	39	8	.43	225	.03	2	3.46	.03	.10	1	1
L2300N 1050W	1	10	12	59	.1	4	3	662	1.88	10	5	ND	1	97	1	2	2	29	1.12	.145	14	5	.38	95	.07	3	5.63	.02	.10	1	1
L2300N 1025W	1	7	23	61	.1	3	4	865	2.48	10	5	ND	1	127	1	2	3	45	1.67	.135	23	4	.36	140	.08	2	5.05	.01	.14	1	1
L2300N 1000W	1	15	55	148	.4	8	6	1141	3.37	8	5	ND	1	87	1	2	2	69	.88	.102	14	9	.75	160	.06	2	4.03	.01	.08	1	29
L2300N 975W	1	16	31	180	.7	6	8	927	3.35	12	5	ND	1	59	1	2	2	41	.77	.119	14	7	.44	117	.08	17	4.22	.02	.12	1	120
L2300N 950W	1	43	262	617	.4	2	10	3278	4.79	19	5	ND	2	56	3	2	13	106	.30	.147	22	5	1.63	102	.01	2	3.28	.01	.10	1	56
L2300N 900W	1	29	141	227	2.6	7	10	2381	4.30	9	5	ND	1	47	1	2	2	97	.76	.174	22	12	1.28	107	.05	3	2.85	.01	.06	1	45
L2300N 875W	1	18	65	152	.1	7	8	1456	4.22	2	5	ND	1	91	1	2	2	87	.53	.089	12	10	.99	148	.03	2	3.19	.01	.06	1	395
L2300N 850W	1	27	116	125	5.1	22	9	1527	3.91	14	5	ND	2	75	1	2	2	84	.80	.070	38	21	1.04	117	.04	3	3.13	.01	.08	1	225
L2300N 825W	1	49	277	327	.3	4	9	1440	4.24	21	5	ND	2	17	2	2	7	47	.20	.125	12	7	.92	76	.01	2	2.27	.01	.11	1	46
STD C	17	58	37	123	6.8	66	26	945	3.79	37	17	7	31	43	15	17	22	56	.46	.084	33	53	.85	168	.07	36	1.74	.06	.12	14	-
L2300N 800W	1	19	53	104	.2	9	7	1528	3.25	3	5	ND	1	201	1	2	2	67	1.27	.142	18	8	.78	132	.05	2	3.73	.04	.08	2	11
L2300N 775W	1	30	201	214	1.0	10	8	1908	3.87	7	5	ND	2	130	1	2	2	80	1.11	.125	23	11	.90	94	.04	4	3.67	.02	.10	1	47
L2300N 750W	1	31	154	184	1.3	8	9	2041	4.26	6	5	ND	1	90	1	2	2	90	.85	.142	21	12	1.01	97	.04	4	2.87	.01	.09	1	85
L2300N 725W	1	27	56	122	.6	11	10	2082	5.00	5	5	ND	2	91	1	2	3	114	.74	.095	20	11	1.24	93	.03	2	2.98	.01	.07	2	8
L2300N 700W	1	11	34	106	.1	2	14	2896	4.76	3	6	ND	1	24	1	4	2	101	.37	.205	8	6	.82	144	.01	2	1.95	.01	.07	1	2
L2300N 675W	1	30	75	95	3.2	9	6	1119	2.86	3	5	ND	3	199	1	2	2	63	2.42	.104	19	7	.76	98	.04	2	5.41	.02	.18	1	35
L2300N 650W	1	21	49	117	.7	5	6	1141	3.52	3	5	ND	3	134	1	2	2	74	1.32	.143	16	5	.77	109	.02	3	4.64	.02	.13	2	8
L2300N 625W	1	16	107	203	.4	8	9	1790	4.77	10	5	ND	2	74	1	2	2	100	.80	.129	16	11	.88	123	.02	2	3.57	.01	.08	1	515
L2300N 600W	1	13	28	153	.6	3	6	720	3.36	6	5	ND	1	63	1	3	2	67	.60	.059	9	5	.66	100	.03	2	3.82	.02	.09	1	2
L2300N 575W	1	17	54	122	.7	4	7	1090	3.94	9	5	ND	2	98	1	2	2	81	1.28	.099	12	7	.87	86	.05	2	3.67	.01	.12	2	28
L2300N 550W	1	17	49	178	1.3	2	8	1174	4.37	2	5	ND	3	84	1	2	3	83	1.03	.104	19	5	1.18	85	.08	6	5.29	.01	.11	1	5
L2300N 525W	1	18	88	265	1.9	3	7	1078	4.40	11	5	ND	1	52	2	2	2	72	.36	.055	15	7	.96	103	.05	2	3.21	.01	.13	1	1
STD C/AU-S	18	56	40	126	6.7	64	27	966	3.90	37	25	8	33	46	16	16	23	59	.48	.083	34	55	.87	171	.08	35	1.82	.06	.14	12	52

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
L2300N 500W	1	17	60	165	.5	15	7	685	4.80	6	5	ND	1	26	1	4	2	80	.23	.059	11	20	.68	104	.05	6	2.41	.01	.07	1	13
L2300N 475W	1	17	48	220	.5	10	9	901	5.01	4	5	ND	1	36	1	3	2	102	.32	.080	9	15	.95	144	.02	10	2.79	.01	.08	1	6
L2300N 450W	27	25	156	261	2.2	4	7	1184	4.07	5	7	ND	1	100	1	2	4	60	.47	.067	14	4	1.05	217	.04	4	3.14	.01	.15	1	22
L2250N 1150W	1	9	13	66	.4	6	5	533	2.76	7	5	ND	1	84	1	2	2	53	.95	.096	14	7	.46	86	.09	3	4.59	.02	.10	1	3
L2250N 1125W	1	11	12	64	.1	9	6	547	2.82	14	5	ND	1	86	1	3	3	48	.92	.126	16	9	.41	100	.10	2	4.68	.03	.09	1	4
L2250N 1100W	1	11	9	54	.3	7	6	619	2.91	17	5	ND	1	108	1	2	2	56	1.10	.150	13	6	.43	149	.08	5	4.64	.01	.12	1	2
L2250N 1075W	1	19	11	69	.2	17	8	553	3.45	15	5	ND	1	87	1	2	2	60	.95	.108	15	15	.54	119	.17	5	4.16	.02	.08	1	2
L2250N 1050W	2	16	51	138	1.0	10	6	730	2.84	7	5	ND	1	86	1	2	2	59	.90	.112	12	10	.59	142	.07	3	3.75	.01	.08	2	11
L2250N 1025W	1	9	25	110	.2	2	5	812	3.05	7	5	ND	1	109	1	4	2	58	1.23	.113	12	2	.49	140	.06	4	4.12	.01	.14	1	2
L2250N 1000W	1	21	113	342	.7	3	9	1866	3.64	5	6	ND	1	44	1	2	5	67	.41	.098	10	1	1.10	229	.01	2	2.00	.01	.13	1	13
L2250N 975W	2	22	182	421	2.5	4	6	1545	3.69	7	5	ND	1	53	2	2	2	59	.19	.138	7	3	.65	153	.01	4	1.83	.01	.16	1	52
L2250N 950W	1	18	110	282	1.0	1	9	1920	3.72	5	6	ND	2	23	2	2	5	79	.28	.122	17	3	1.26	247	.01	2	2.14	.01	.11	1	24
L2250N 900W	1	25	61	124	.2	5	10	3531	5.08	12	5	ND	1	43	1	2	6	112	.43	.143	48	10	1.12	97	.01	2	3.48	.01	.07	1	123
L2250N 875W	1	27	23	92	.1	9	10	3051	5.07	2	5	ND	1	48	1	2	3	124	.87	.185	41	13	1.02	93	.02	2	3.00	.01	.10	1	21
STD C	18	57	37	125	6.9	62	27	965	3.82	39	18	7	32	46	16	18	18	58	.46	.096	33	54	.85	164	.08	34	1.68	.06	.13	13	-
L2250N 850W	1	24	23	82	.1	8	9	3206	3.64	5	5	ND	1	140	1	2	2	77	1.32	.167	29	10	.83	147	.02	6	3.07	.02	.09	1	41
L2250N 825W	1	11	18	60	.1	5	6	1517	1.89	3	5	ND	1	1267	1	2	2	35	2.15	.158	18	4	.90	867	.02	2	3.65	.04	.12	1	2
L2250N 800W	1	23	142	205	2.1	7	10	3121	5.13	4	6	ND	1	148	1	2	2	120	.70	.242	27	10	1.08	188	.02	2	2.96	.01	.06	1	3
L2250N 775W	1	36	466	487	2.9	6	6	2347	3.37	8	6	ND	2	206	3	2	2	82	1.85	.168	24	7	.89	109	.06	2	3.37	.02	.12	1	44
L2250N 750W	1	34	67	176	.7	7	8	1567	4.45	4	5	ND	2	132	1	2	2	101	1.45	.161	25	7	1.05	96	.02	6	4.38	.01	.10	1	28
L2200N 1150W	1	16	23	60	.3	10	6	640	2.73	21	5	ND	1	118	1	2	2	55	1.34	.124	15	10	.48	110	.11	5	4.81	.02	.11	1	1
L2200N 1125W	1	9	18	60	.2	6	4	528	2.45	25	6	ND	1	91	1	2	2	38	.94	.144	17	5	.36	93	.08	2	5.30	.03	.10	1	4
L2200N 1100W	1	16	13	72	.1	6	5	515	2.48	36	7	ND	1	118	1	2	2	49	1.32	.141	11	9	.54	111	.04	2	3.31	.02	.10	1	1
L2200N 1075W	1	9	16	75	.1	6	6	882	3.34	5	5	ND	1	74	1	2	2	68	.60	.076	11	8	.46	152	.07	2	2.81	.02	.09	1	1
L2200N 1050W	1	15	53	104	.2	5	6	1134	2.51	6	5	ND	1	151	1	2	2	49	1.78	.110	11	6	.49	132	.06	2	3.94	.01	.14	1	245
L2200N 1025W	1	15	57	227	.3	4	7	1505	3.33	7	5	ND	1	108	1	2	2	63	1.07	.119	11	4	.90	168	.03	2	3.01	.01	.15	1	23
L2200N 1000W	1	12	21	113	.2	5	4	706	2.92	6	5	ND	1	118	1	3	2	51	1.13	.142	11	4	.49	140	.04	4	4.36	.01	.12	1	3
L2200N 975W	1	20	120	216	1.5	9	9	2693	4.18	13	5	ND	1	61	2	2	2	72	.57	.145	13	12	.66	152	.04	3	2.86	.01	.10	1	47
L2200N 950W	1	154	198	1627	9.7	5	5	1419	2.55	18	12	ND	1	87	21	2	2	58	2.48	.202	53	5	.71	137	.01	2	1.85	.01	.10	2	145
RE L2250N 1050W	1	13	51	142	1.1	10	6	742	2.89	7	5	ND	1	85	1	2	2	60	.89	.113	12	10	.60	142	.07	2	3.69	.01	.08	1	15
L2200N 900W	1	72	251	181	13.3	7	5	2601	2.47	14	5	ND	1	224	4	2	2	54	3.23	.122	47	9	.54	97	.07	2	5.53	.01	.15	1	112
L2200N 875W	1	27	200	130	.4	6	9	3967	4.03	3	5	ND	1	103	2	2	2	100	1.04	.239	34	7	.69	217	.01	2	2.72	.01	.08	1	12
L2200N 800W	1	29	70	120	3.6	6	13	9445	6.09	31	5	ND	1	34	1	2	4	150	.95	.266	119	10	.94	211	.01	2	3.17	.01	.08	1	17
L2200N 775W	1	26	356	263	.3	9	12	4002	6.69	14	5	ND	2	21	1	2	2	160	.49	.263	19	12	.74	140	.01	2	2.59	.01	.05	1	7
L2200N 750W	1	27	184	295	.4	5	7	1923	4.73	8	5	ND	2	105	2	2	3	102	1.69	.207	16	7	1.09	77	.02	2	4.59	.01	.11	1	6
L2200N 725W	1	55	106	200	1.1	5	9	1893	4.30	7	5	ND	2	141	3	2	2	95	1.88	.195	52	8	1.09	277	.01	5	4.45	.01	.14	1	12
L2200N 700W	1	27	53	142	.1	6	10	2537	4.64	4	5	ND	1	71	2	2	2	89	1.18	.225	33	7	.75	164	.01	4	2.67	.01	.10	1	7
L2200N 675W	1	15	47	216	.3	5	10	2281	4.06	6	8	ND	1	113	1	2	2	96	.85	.138	15	5	1.06	191	.03	4	3.12	.01	.16	1	11
STD C/AU-S	18	58	35	128	7.0	66	28	985	3.92	39	15	7	32	46	16	17	20	59	.47	.094	34	56	.90	174	.08	35	1.70	.06	.13	14	47

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
L2200N 650W	1	13	42	128	.3	4	9	1892	4.44	5	5	ND	1	87	1	2	2	124	.39	.084	9	6	.81	175	.04	2	3.09	.01	.16	1	2
L2200N 625W	2	16	65	233	.7	10	8	1451	4.68	4	5	ND	1	58	2	2	2	108	.45	.082	15	9	1.01	162	.05	4	3.76	.02	.11	1	20
L2200N 600W	1	21	72	219	.4	9	9	1531	4.97	8	5	ND	1	67	1	2	3	101	.62	.083	16	9	1.04	141	.04	5	3.94	.02	.11	1	7
L2200N 575W	1	16	66	266	.4	8	9	1432	4.77	6	5	ND	1	66	2	2	2	105	.60	.083	14	9	1.02	179	.03	2	3.76	.01	.11	1	2
L2200N 550W	1	42	97	254	.7	5	9	1590	4.14	10	5	ND	1	96	2	2	2	91	1.03	.085	21	5	1.25	120	.03	3	3.91	.01	.14	1	19
L2200N 525W	1	17	43	215	.1	8	9	1135	5.02	6	5	ND	1	59	1	2	2	122	.48	.051	16	8	1.35	91	.05	2	4.73	.01	.13	1	15
L2200N 500W	1	13	30	160	.4	9	7	825	5.06	4	5	ND	1	62	1	2	2	114	.51	.060	15	8	.96	131	.05	4	3.79	.02	.11	1	16
L2200N 475W	1	14	27	157	.7	3	8	836	4.53	9	5	ND	2	86	1	2	2	111	.89	.087	14	5	1.00	168	.04	3	4.31	.01	.15	2	5
L2200N 450W	1	11	21	153	1.0	7	7	725	4.53	5	5	ND	3	55	1	2	2	118	.49	.043	14	8	.93	99	.08	2	3.83	.01	.11	1	24
L2150N 1150W	1	19	14	58	.1	6	6	536	2.88	13	5	ND	1	119	1	2	2	65	1.20	.086	12	7	.47	130	.12	3	4.33	.02	.13	1	1
L2150N 1125W	1	15	7	56	.3	11	6	413	2.75	15	5	ND	1	92	1	2	2	59	.92	.091	12	9	.49	121	.09	4	4.85	.01	.11	1	1
L2150N 1100W	1	16	5	76	.1	15	8	464	4.08	17	5	2	2	65	1	2	2	76	.57	.076	15	17	.52	139	.20	6	4.50	.02	.10	1	10
L2150N 1075W	1	9	9	58	.4	8	5	367	2.91	17	5	ND	2	79	1	2	2	49	.70	.091	15	6	.33	102	.11	5	5.31	.04	.10	1	1
L2150N 1050W	2	12	15	151	.6	8	6	1061	4.06	9	5	ND	1	54	1	2	2	67	.50	.089	18	10	.49	147	.10	6	4.08	.02	.11	1	1
L2150N 975W	2	18	46	158	.4	9	9	1680	4.01	12	5	ND	1	104	1	2	2	79	1.46	.112	18	12	.81	293	.05	4	3.16	.02	.14	1	1
L2150N 950W	2	17	25	173	.1	6	9	1776	3.84	5	5	ND	1	104	1	2	2	58	1.43	.125	13	5	.60	243	.05	3	2.44	.01	.15	1	1
L2150N 925W	1	25	39	170	.1	9	10	2237	4.44	9	5	ND	1	88	2	2	2	92	.93	.088	15	9	.78	199	.05	3	3.20	.02	.15	1	18
L2150N 900W	1	21	33	94	.1	4	9	2094	3.69	3	5	ND	1	80	1	2	2	81	1.36	.165	18	7	.64	94	.03	3	2.89	.01	.14	1	3
L2150N 875W	1	38	50	100	1.0	7	9	1613	3.65	4	5	ND	2	190	1	2	2	95	2.55	.121	28	6	.91	70	.07	6	4.83	.01	.17	1	27
L2150N 850W	1	31	44	126	.2	5	7	1002	3.26	10	5	ND	2	169	1	2	2	81	2.77	.155	39	6	.82	91	.04	4	4.65	.01	.17	1	26
L2150N 825W	1	20	48	84	1.2	5	10	5034	4.06	4	5	ND	2	140	1	2	2	105	1.71	.124	51	7	.88	420	.01	15	3.79	.02	.19	1	375
RE L2200N 650W	1	14	45	129	.2	5	9	1835	4.37	4	5	ND	1	85	1	2	2	125	.39	.083	9	8	.78	174	.04	2	3.02	.01	.15	1	1
L2150N 800W	1	22	305	470	5.5	3	5	2874	2.87	5	5	ND	2	268	3	2	2	73	3.28	.101	29	2	.75	116	.01	4	4.97	.01	.20	1	76
L2150N 775W	1	20	60	87	2.8	2	5	1833	2.41	6	5	ND	2	281	1	2	2	55	4.29	.084	35	4	.61	109	.03	4	5.85	.02	.17	1	9
L2100N 1150W	1	11	14	87	.1	4	6	533	3.50	11	5	ND	1	75	1	3	2	70	.56	.077	13	9	.56	152	.11	8	4.49	.02	.11	2	1
L2100N 1125W	1	11	9	94	.1	9	6	518	3.46	9	5	ND	1	87	1	2	2	73	.67	.077	13	10	.54	145	.12	4	4.78	.02	.11	1	1
L2100N 1100W	2	9	15	99	.1	8	7	416	3.58	7	5	ND	1	54	1	3	2	66	.34	.058	12	12	.45	124	.12	6	4.18	.02	.09	1	1
L2100N 1075W	1	14	13	68	.1	12	5	492	3.23	9	5	ND	1	111	1	2	2	67	1.02	.125	15	9	.43	128	.10	5	4.17	.02	.12	1	1
L2100N 1050W	1	18	30	132	.3	4	6	1158	3.03	15	5	ND	1	143	1	2	2	63	1.51	.114	22	7	.60	220	.05	5	3.75	.02	.19	1	1
L2100N 1025W	2	12	19	101	.3	6	7	1061	3.35	7	5	ND	1	78	1	2	2	63	.61	.093	10	10	.51	208	.02	6	2.34	.01	.15	1	1
L2100N 1000W	1	15	17	101	.3	8	7	857	4.12	7	5	ND	1	95	1	2	2	74	.96	.064	23	11	.60	197	.09	5	3.37	.01	.14	1	28
L2100N 975W	2	24	34	119	.3	18	9	1406	4.69	5	5	ND	1	49	1	2	2	88	.35	.077	14	20	.83	141	.05	6	2.67	.01	.13	1	8
STD C	22	62	39	139	7.4	69	29	1043	3.97	44	14	8	36	52	17	16	23	67	.52	.083	38	61	.90	184	.10	38	1.71	.07	.16	14	-
L2100N 950W	2	18	22	112	.1	18	11	2380	4.47	4	5	ND	1	63	1	2	2	68	.63	.099	15	18	.61	239	.06	8	2.79	.02	.10	1	4
L2100N 925W	2	20	15	93	.3	25	8	1230	3.84	4	5	ND	1	56	1	2	2	71	.50	.077	15	26	.79	130	.04	3	2.99	.01	.11	1	3
L2100N 900W	1	18	58	187	.2	9	7	1386	3.85	3	5	ND	1	75	1	2	2	85	.74	.108	14	10	.76	304	.03	5	3.41	.02	.12	1	1
L2100N 875W	2	18	26	232	.5	6	8	1959	3.40	4	5	ND	1	62	5	2	2	80	.51	.121	17	11	.62	151	.04	3	3.20	.01	.11	1	3
L2100N 850W	1	30	34	118	.2	12	7	1021	3.42	2	5	ND	1	102	1	2	2	111	1.01	.078	12	12	.75	108	.07	4	3.82	.03	.09	1	27
STD C/AU-S	20	58	39	130	6.8	66	28	983	3.93	39	20	8	33	47	16	15	21	60	.47	.079	35	57	.92	178	.08	37	1.83	.07	.13	13	52

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
L2100N 825W	1	20	33	98	.9	4	5	772	2.89	9	5	ND	2	154	1	2	2	86	2.16	.096	12	6	.74	53	.09	3	5.07	.02	.10	1	185
RE L2000N 1100W	1	9	5	44	.1	8	4	464	2.19	8	5	ND	3	148	1	2	2	46	1.47	.096	11	9	.39	114	.09	4	2.79	.02	.12	2	1
L2100N 800W	1	16	25	58	.2	5	5	825	2.97	4	6	ND	2	243	1	2	2	81	3.20	.115	18	7	.76	48	.09	6	4.50	.03	.12	2	34
L2100N 775W	1	13	15	62	.1	4	6	1033	3.02	5	5	ND	1	121	1	2	2	73	1.41	.137	17	5	.82	70	.10	5	3.09	.02	.09	1	10
L2100N 750W	1	9	24	64	.8	4	3	830	1.99	6	5	ND	1	347	1	2	3	45	5.34	.106	16	3	.59	98	.06	2	6.66	.02	.16	1	4
L2100N 725W	1	46	63	110	.4	2	5	1146	2.87	8	5	ND	3	220	1	2	5	61	3.14	.100	12	6	.69	111	.02	2	5.17	.01	.14	1	15
L2100N 700W	1	26	48	115	.3	3	6	1235	3.10	5	7	ND	1	126	1	2	2	68	1.72	.140	12	5	.75	154	.03	2	3.41	.01	.11	1	11
L2100N 675W	1	16	27	79	.1	4	5	823	3.05	4	6	ND	1	90	1	2	2	61	1.13	.090	14	7	.58	109	.04	3	3.06	.01	.09	1	6
L2100N 650W	1	14	16	56	.2	2	5	679	3.02	7	5	ND	1	121	1	2	2	66	1.94	.073	22	4	.69	124	.07	2	4.05	.01	.08	1	6
L2100N 625W	1	15	11	58	.1	4	4	587	2.91	7	5	ND	1	107	1	2	2	48	1.55	.093	30	4	.46	96	.01	4	4.20	.02	.09	1	11
L2100N 600W	1	19	21	61	.5	8	6	758	3.09	10	5	ND	2	105	1	2	2	66	1.29	.077	17	8	.66	77	.03	2	4.60	.01	.09	1	4
L2100N 575W	1	26	18	64	.4	7	7	594	3.87	16	5	ND	1	86	1	2	2	63	1.03	.081	25	8	.55	146	.02	2	3.88	.02	.09	1	24
L2100N 550W	1	8	7	65	.7	6	7	594	3.41	5	5	ND	2	96	1	2	2	81	1.22	.100	13	6	.77	55	.06	5	4.22	.01	.08	1	56
L2100N 525W	1	16	23	90	1.6	10	7	590	4.93	9	5	ND	1	41	1	4	2	93	.32	.061	14	11	.51	81	.06	6	3.00	.02	.06	1	21
L2100N 500W	1	11	8	105	.2	2	5	475	3.41	7	5	ND	3	73	1	3	2	62	.73	.093	11	8	.53	86	.03	3	4.56	.01	.06	1	27
L2100N 475W	1	12	20	74	.1	3	6	838	3.34	7	5	ND	2	89	1	2	2	90	1.02	.095	12	5	.82	90	.03	2	3.42	.01	.09	1	15
L2100N 450W	1	13	35	135	.6	4	6	745	3.50	5	5	ND	3	73	1	2	2	98	.86	.121	10	5	.84	87	.03	12	3.68	.01	.08	1	10
STD C	19	59	40	129	6.8	63	28	975	3.89	41	17	8	33	46	16	16	19	59	.46	.095	37	56	.87	165	.08	38	1.69	.06	.13	14	-
L2000N 1150W	1	10	16	38	.1	6	4	381	1.50	7	5	ND	2	147	1	2	2	26	1.42	.071	11	6	.32	96	.04	2	2.28	.01	.12	1	3
L2000N 1125W	1	5	11	28	.1	3	3	370	1.50	6	5	ND	2	165	1	2	2	31	1.57	.097	12	1	.24	79	.07	5	2.13	.02	.10	1	1
L2000N 1100W	1	10	7	44	.1	9	4	475	2.19	6	5	ND	2	152	1	2	2	45	1.51	.095	11	10	.39	115	.07	2	2.77	.02	.12	1	5
L2000N 1075W	1	15	30	116	.2	5	6	946	2.62	19	8	ND	2	145	1	2	2	54	1.69	.089	13	7	.70	251	.07	3	2.94	.02	.15	1	9
L2000N 1050W	1	16	15	115	.1	25	9	1117	3.69	14	5	ND	1	75	1	2	2	62	.60	.112	13	28	.98	169	.07	2	2.93	.01	.10	1	34
L2000N 1025W	1	9	15	97	.1	5	6	820	3.63	9	5	ND	1	64	1	2	2	75	.36	.065	12	10	.44	158	.07	5	2.52	.02	.07	1	1
L2000N 1000W	1	9	14	71	.1	8	6	650	3.44	10	5	ND	1	67	1	2	2	65	.47	.090	10	9	.47	128	.07	2	3.11	.02	.07	1	1
L2000N 975W	1	13	10	80	1.3	12	6	459	3.68	11	6	ND	1	56	1	4	2	63	.41	.103	10	14	.57	129	.09	4	3.28	.01	.09	1	6
L2000N 950W	1	12	11	89	.1	10	7	513	3.32	7	5	ND	1	71	1	2	2	54	.43	.137	9	11	.56	177	.06	2	3.06	.01	.10	1	31
L2000N 925W	1	13	21	96	.1	9	8	628	3.75	15	5	ND	1	58	1	2	2	64	.31	.082	10	13	.70	152	.06	2	2.65	.01	.08	1	3
L2000N 900W	1	19	15	121	.2	9	7	709	3.74	11	5	ND	1	50	1	2	2	80	.23	.116	10	15	.66	193	.03	4	2.54	.01	.08	1	5
L2000N 875W	1	24	22	112	.3	19	8	570	3.76	5	5	ND	1	45	1	2	2	75	.27	.077	13	21	.68	235	.05	3	3.08	.01	.09	1	22
L2000N 850W	1	23	41	135	.4	17	8	769	3.61	6	5	ND	1	68	1	2	2	81	.66	.092	14	17	.80	174	.05	5	3.34	.02	.09	1	7
L2000N 825W	1	13	23	94	2.1	9	5	625	3.27	8	6	ND	1	109	1	2	2	81	1.23	.099	12	10	.69	82	.07	2	3.68	.01	.09	1	23
L2000N 800W	1	12	25	151	.4	9	7	1475	3.55	7	6	ND	1	77	2	2	3	91	.98	.103	11	8	.78	135	.06	2	3.48	.01	.10	1	59
L2000N 775W	1	9	21	139	.1	1	9	1386	4.07	4	7	ND	2	66	1	3	2	102	.95	.110	11	5	1.23	89	.08	2	2.73	.02	.09	1	1
L2000N 750W	1	17	39	109	.3	5	4	937	2.90	2	5	ND	2	213	2	2	2	138	3.08	.121	13	7	.67	107	.06	5	5.42	.02	.17	1	1
L2000N 725W	1	15	20	128	1.7	4	6	704	2.94	6	5	ND	2	118	1	2	2	78	1.50	.128	15	7	.63	132	.06	3	4.85	.02	.12	1	1
L2000N 700W	1	6	17	58	.2	2	4	636	2.16	5	5	ND	3	237	1	2	2	70	2.90	.101	13	5	.53	156	.12	2	6.25	.02	.14	1	1
L2000N 675W	1	13	15	171	.1	3	5	1134	2.62	3	5	ND	2	89	1	2	2	72	1.10	.067	10	5	.98	131	.01	4	3.57	.01	.09	2	2
STD C/AU-S	18	59	36	129	6.9	63	28	984	3.93	41	16	8	33	47	16	15	21	60	.47	.095	35	57	.85	175	.08	40	1.69	.07	.14	13	45

SAMPLE#	MO	CU	PB	ZN	AG	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AU*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB
L2000N 650W	1	15	9	83	.1	8	6	664	3.70	9	5	ND	1	83	1	2	2	76	.87	.086	15	12	.56	91	.11	4	4.42	.02	.08	1	17
L2000N 625W	1	15	17	94	.3	4	7	1733	3.94	3	5	ND	2	29	1	2	2	98	.51	.138	19	5	.96	159	.01	5	2.87	.01	.09	1	5
L2000N 600W	1	15	15	113	.7	4	7	1385	3.96	4	5	ND	1	61	1	2	2	104	.73	.128	20	7	.76	130	.02	4	3.82	.01	.07	3	6
L2000N 575W	1	12	10	70	.6	3	5	920	3.08	4	5	ND	2	97	1	2	2	56	1.16	.111	29	7	.60	98	.01	4	4.61	.01	.11	2	7
L2000N 550W	1	12	14	62	.1	5	7	896	3.34	4	5	ND	4	150	1	2	2	90	2.04	.064	18	5	.88	68	.02	2	4.67	.01	.13	2	13
L2000N 525W	1	11	13	62	.1	2	5	477	3.26	8	5	ND	1	113	1	3	2	67	1.18	.098	11	6	.42	96	.13	5	4.17	.02	.13	1	1
L2000N 500W	1	9	9	68	.1	5	4	450	3.42	5	5	ND	1	74	1	3	2	68	.66	.076	10	9	.39	83	.09	3	3.55	.02	.09	2	2
STD C	18	58	36	131	6.6	66	28	978	4.03	41	13	8	32	47	17	15	19	59	.49	.090	35	55	.90	164	.08	39	1.76	.06	.13	15	-
L2000N 475W	1	10	2	57	.1	4	5	478	3.11	7	5	ND	1	128	1	2	2	65	1.42	.110	11	5	.42	72	.10	4	4.06	.02	.11	1	28
L2000N 450W	1	15	8	71	.6	4	6	626	3.31	7	5	ND	3	122	1	2	2	84	1.55	.074	14	6	.83	60	.05	5	5.09	.01	.13	2	13
L1900N 1150W	1	15	10	96	.1	6	6	1137	3.61	3	5	ND	2	77	1	2	2	93	.85	.100	12	7	.83	121	.03	2	4.02	.01	.12	1	8
L1900N 1125W	1	15	22	137	.5	4	8	783	4.68	3	5	ND	2	49	1	2	2	127	.42	.066	11	7	.94	93	.05	3	3.38	.01	.09	1	20
L1900N 1100W	1	12	16	144	.6	4	7	800	4.80	2	5	ND	1	53	1	2	2	103	.45	.059	13	8	.87	104	.02	2	3.07	.02	.08	1	21
L1900N 1075W	1	11	2	50	.1	4	3	779	2.42	3	5	ND	1	209	1	2	2	44	2.21	.130	12	4	.34	89	.09	4	4.86	.05	.10	2	1
L1900N 1050W	1	13	11	60	.1	3	6	763	3.12	8	5	ND	2	177	1	2	2	65	2.13	.108	16	5	.52	101	.10	4	3.72	.04	.13	1	1
L1900N 1025W	1	13	5	54	.1	9	5	534	3.26	5	5	ND	2	98	1	2	2	66	1.07	.125	11	9	.48	103	.12	6	3.27	.01	.08	1	1
L1900N 1000W	1	14	8	69	.2	6	6	531	3.67	9	5	ND	1	78	1	2	2	67	.73	.095	11	8	.58	131	.11	2	3.52	.01	.09	1	2
L1900N 975W	1	13	9	81	.1	6	6	512	3.78	10	5	ND	3	66	1	2	2	72	.57	.062	10	10	.63	116	.15	2	3.95	.02	.09	1	1
L1900N 950W	1	12	5	70	.2	8	7	517	3.82	7	5	ND	2	79	1	2	2	69	.57	.086	11	8	.57	174	.10	2	3.23	.01	.09	2	21
L1900N 925W	1	9	16	88	.1	3	8	581	4.33	2	5	ND	3	45	1	2	2	72	.33	.060	9	6	.63	155	.10	2	3.09	.01	.12	1	2
L1900N 900W	1	10	7	85	.1	4	7	622	3.70	2	5	ND	2	63	1	2	2	62	.62	.097	11	6	.79	119	.15	2	4.26	.01	.08	2	1
L1900N 875W	1	16	8	72	.1	7	7	598	3.70	5	5	ND	3	125	1	2	2	68	1.09	.113	12	7	.81	139	.21	2	3.45	.01	.09	1	3
L1900N 850W	1	23	102	207	.3	2	7	1306	4.03	12	5	ND	2	110	1	2	4	84	.64	.100	8	4	.92	332	.01	2	2.03	.01	.20	1	24
L1900N 825W	1	38	106	157	.8	4	7	691	5.45	8	5	ND	1	131	1	2	2	70	.48	.145	7	8	.52	412	.01	3	1.95	.01	.27	1	25
RE L2000N 600W	1	15	18	114	.8	4	5	1411	3.96	2	5	ND	2	62	1	2	2	103	.73	.128	20	8	.78	135	.02	2	3.84	.01	.08	1	15
L1900N 800W	1	25	212	216	1.0	4	5	1166	4.54	9	7	ND	3	92	1	2	2	93	.61	.074	31	4	.90	406	.01	3	1.83	.01	.32	2	57
L1900N 775W	1	34	190	158	.6	4	7	937	4.88	3	5	ND	1	48	2	2	6	74	.34	.172	5	6	.49	543	.01	3	1.59	.01	.18	2	20
L1900 750W	1	23	74	187	.3	10	7	1167	4.22	4	5	ND	1	47	2	2	3	80	.48	.101	9	14	.80	397	.01	2	1.89	.01	.14	1	14
L1900N 725W	1	22	70	147	.4	4	6	680	4.02	4	5	ND	1	43	1	2	2	52	.37	.157	5	6	.64	548	.01	2	2.09	.01	.11	1	210
L1900N 700W	6	39	341	56	.3	3	6	396	4.26	6	15	ND	3	142	1	2	13	55	1.05	.179	11	5	.20	788	.01	3	1.60	.02	.13	1	159
L1900N 675W	1	13	9	64	1.2	5	4	422	2.07	2	5	ND	2	209	1	2	2	53	2.92	.122	13	7	.60	47	.05	2	6.60	.03	.11	1	11
L1900N 650W	1	13	8	84	.3	5	5	640	2.83	2	5	ND	2	120	1	2	2	92	1.47	.120	9	6	.79	106	.06	2	4.61	.01	.14	1	3
L1900N 625W	1	8	12	80	.2	4	5	785	2.86	4	5	ND	2	107	1	2	2	88	1.12	.149	11	5	.70	118	.03	2	4.36	.02	.09	1	16
L1900N 600W	1	16	16	83	.3	3	4	696	2.62	3	5	ND	1	106	1	2	2	110	1.52	.084	11	5	.59	63	.05	2	5.56	.01	.08	2	5
L1900N 575W	1	13	13	77	.1	4	5	689	2.83	6	5	ND	1	148	1	2	2	71	1.70	.080	11	5	.74	88	.07	4	4.98	.02	.11	2	73
L1900N 550W	1	11	7	58	.3	4	5	603	2.55	5	5	ND	2	196	1	2	2	77	2.33	.084	13	7	.70	40	.12	2	6.21	.02	.11	2	3
L1900N 525W	1	8	2	44	.6	2	3	458	2.15	6	5	ND	3	257	1	2	2	99	2.72	.093	13	3	.65	38	.09	2	5.61	.02	.16	1	4
L1900N 500W	1	12	24	87	2.6	4	7	661	4.23	8	5	ND	2	95	1	2	2	117	.71	.066	11	9	.88	92	.08	3	3.59	.01	.12	1	29
STD C/AU-S	17	57	36	126	6.9	62	27	945	3.90	37	16	7	30	45	16	17	22	57	.47	.089	33	54	.87	167	.08	35	1.69	.06	.13	13	50

ESSO MINERALS PROJECT-SHASTA FILE # 87-1927

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
L1900N 475W	1	10	18	68	.4	3	7	728	4.16	6	5	ND	2	77	1	2	3	134	.68	.060	12	1	.97	77	.02	2	4.10	.01	.11	1	9
L1900N 450W	1	10	19	132	.5	5	8	628	4.55	7	5	ND	1	54	1	2	2	98	.42	.052	9	2	.73	122	.02	2	3.43	.02	.07	1	5
L1800N 1150W	1	10	17	63	.1	1	5	509	2.92	2	5	ND	1	108	1	2	2	60	1.17	.061	13	1	.47	98	.13	4	4.36	.02	.17	1	4
L1800N 1125W	1	13	17	58	.1	5	5	565	2.45	8	5	ND	1	162	1	2	2	50	1.72	.082	14	2	.50	106	.08	3	3.69	.03	.12	1	1
L1800N 1100W	1	15	17	62	.1	4	5	500	2.93	5	5	ND	1	150	1	2	2	59	1.63	.070	11	2	.50	113	.10	3	4.41	.03	.12	1	1
L1800N 1075W	1	9	21	64	.2	5	4	463	2.34	4	5	ND	1	114	1	2	2	47	1.21	.076	12	2	.40	67	.09	4	4.32	.02	.09	1	23
L1800N 1050W	1	9	14	69	.3	4	4	488	2.94	5	5	ND	1	70	1	2	2	52	.78	.099	15	2	.41	112	.07	2	2.74	.02	.06	1	1
RE L1800N 775W	1	14	23	103	.3	6	8	668	4.22	10	5	ND	1	47	1	2	2	54	.41	.063	11	2	.58	193	.04	2	3.34	.01	.10	1	32
L1800N 1025W	1	20	27	113	.1	2	10	1740	4.09	5	5	ND	4	178	1	2	3	52	1.57	.153	19	1	.94	256	.20	3	2.54	.01	.15	1	3
L1800N 1000W	1	9	20	67	.1	7	5	341	3.13	7	5	ND	1	58	1	2	2	51	.47	.116	10	6	.40	102	.09	3	4.00	.01	.07	1	1
L1800N 975W	1	12	20	80	.1	5	6	429	3.96	8	5	ND	1	71	1	2	2	71	.58	.090	11	4	.48	121	.12	2	3.79	.02	.08	1	28
L1800N 950W	1	23	20	65	.2	7	6	661	3.18	6	5	ND	2	133	1	2	2	57	1.19	.084	12	4	.62	126	.13	6	3.39	.01	.12	1	4
L1800N 925W	1	16	21	73	.1	7	6	531	3.66	8	5	ND	1	103	1	4	2	67	1.04	.141	12	5	.53	139	.11	4	3.11	.01	.11	1	10
L1800N 900W	1	14	20	69	.1	8	6	464	3.17	6	5	ND	1	94	1	2	2	55	.95	.092	10	4	.50	152	.07	2	3.15	.01	.08	1	1
L1800N 875W	1	14	10	59	.1	5	4	559	2.27	2	5	ND	1	94	1	2	2	39	.94	.056	12	2	.63	86	.08	2	2.80	.01	.08	1	3
L1800N 850W	1	13	13	75	.1	8	7	547	3.16	4	5	ND	1	110	1	2	2	57	1.10	.087	10	4	.63	125	.10	2	3.65	.01	.09	1	6
STD C	19	64	39	132	6.9	63	28	976	3.98	40	14	7	33	46	16	16	24	58	.47	.084	35	59	.89	168	.08	36	1.85	.06	.13	14	-
L1800N 825W	1	10	19	84	.1	6	7	669	3.52	5	5	ND	1	97	1	3	2	63	.88	.085	10	3	.66	128	.09	4	4.73	.01	.08	1	2
L1800N 800W	1	13	19	85	.1	6	8	807	3.84	8	5	ND	1	103	1	3	2	67	1.15	.081	10	3	.79	159	.10	5	4.34	.02	.10	2	1
L1800N 775W	1	15	23	113	.3	7	8	724	4.61	12	5	ND	1	52	1	2	2	60	.45	.072	12	4	.64	210	.04	2	3.64	.01	.12	1	30
STD C/AU-S	18	59	44	131	6.7	74	28	968	3.93	41	14	7	33	46	16	15	20	59	.46	.084	35	69	.89	174	.08	35	1.82	.06	.13	15	47

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

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H20 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-P12 SOIL -80 MESH, P13 ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

JUL 2

DATE RECEIVED: JULY 09 1987 DATE REPORT MAILED: July 22/87 ASSAYER. D. Toye ...DEAN TOYE. CERTIFIED B.C. ASSAYER

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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
L2500N 1150W	1	5	7	53	.1	2	4	404	2.31	3	5	ND	1	18	1	2	2	35	.24	.097	13	2	.34	201	.01	2	1.83	.01	.10	3	2
L2500N 1125W	2	7	14	62	.3	3	4	568	2.12	7	5	ND	1	71	1	5	3	37	.54	.166	17	5	.23	320	.01	2	2.04	.01	.13	1	1
L2500N 1100W	2	9	16	65	.1	5	4	937	2.88	6	5	ND	1	80	1	2	2	48	.47	.113	12	5	.31	222	.02	2	2.24	.01	.10	2	1
L2500N 1075W	1	10	15	54	.1	4	4	1522	2.00	2	5	ND	1	59	1	3	3	35	.30	.130	13	5	.27	175	.03	2	3.73	.01	.06	1	1
L2500N 1050W	1	8	11	57	.1	5	4	548	2.46	10	5	ND	1	145	1	2	2	43	.82	.121	13	8	.32	291	.09	4	1.90	.01	.09	2	3
L2500N 1025W	1	8	16	49	.1	3	4	1451	1.79	7	5	ND	1	162	1	2	2	28	1.90	.101	14	4	.47	84	.06	2	3.28	.01	.13	2	45
L2500N 1000W	1	13	20	76	.4	12	6	1088	2.88	7	5	ND	1	163	1	2	2	45	1.50	.118	16	10	.58	116	.12	4	3.02	.01	.14	2	5
L2500N 975W	4	37	646	769	9.3	5	12	4452	6.23	93	5	ND	2	24	3	2	8	105	.43	.175	16	7	1.73	155	.01	2	2.89	.01	.10	1	480
L2500N 950W	2	32	300	364	2.2	12	8	2211	4.05	19	5	ND	1	46	1	3	2	91	.44	.103	23	12	1.13	228	.02	2	2.33	.01	.07	1	350
L2500N 925W	2	22	169	166	1.4	21	8	1234	3.82	16	5	ND	1	47	1	4	2	91	.34	.079	20	20	.80	124	.04	3	2.54	.01	.05	2	85
L2400N 825W	3	60	778	630	1.9	13	11	3752	6.68	18	5	ND	2	39	2	2	2	97	.32	.174	34	14	.93	128	.02	2	2.60	.01	.06	1	290
L2400N 800W	1	47	637	360	1.5	8	10	5384	4.71	14	5	ND	3	47	4	2	6	75	.45	.246	44	11	.75	205	.01	2	2.92	.01	.07	1	42
L2400N 775W	3	38	716	431	1.2	16	13	7264	4.44	12	5	ND	1	27	10	2	2	66	.25	.143	17	17	.66	231	.01	2	1.86	.01	.08	1	115
L2400N 750W	3	41	355	439	2.2	12	9	2688	4.78	18	5	ND	1	43	4	4	2	71	.44	.107	18	11	.81	173	.01	2	1.97	.01	.08	1	92
RE L1800N 750W	1	13	15	81	.5	9	6	639	3.47	10	5	ND	1	97	1	2	2	52	.86	.084	16	9	.57	197	.05	4	3.21	.01	.10	1	9
L2400N 725W	2	33	364	392	1.3	12	9	2371	5.01	10	5	ND	1	47	2	2	2	77	.47	.151	25	14	.78	160	.01	2	2.69	.01	.08	1	68
L2400N 700W	2	31	196	311	.7	14	8	1847	5.21	12	5	ND	1	44	1	2	2	83	.29	.104	18	14	.80	143	.01	2	2.25	.01	.07	1	125
L2400N 675W	3	29	140	226	.5	6	11	3291	4.33	5	5	ND	1	86	4	2	2	74	.99	.195	22	8	.73	191	.01	2	2.05	.01	.09	1	67
L2400N 650W	2	37	96	193	1.5	7	7	2202	3.57	4	5	ND	1	112	2	2	4	65	1.50	.169	35	9	.72	239	.02	2	2.95	.01	.09	1	15
L2400N 625W	2	21	52	173	.6	6	6	1138	3.44	6	7	ND	1	80	4	3	2	66	.56	.122	14	8	.56	208	.01	2	2.37	.01	.08	1	7
L2400N 600W	2	13	41	153	.7	3	5	974	3.35	21	5	ND	1	184	1	4	3	68	1.57	.114	15	4	.77	140	.03	2	3.21	.01	.11	1	1
L2400N 575W	3	32	44	204	.6	5	6	1361	2.90	7	5	ND	1	100	6	2	2	64	1.34	.124	19	7	.74	232	.01	2	2.09	.01	.08	2	16
L2400N 525W	1	11	27	86	.1	5	5	647	4.14	2	5	ND	1	67	1	2	3	83	.65	.077	9	4	.59	114	.01	2	2.69	.01	.06	1	17
L2400N 500W	2	13	30	76	.1	6	5	1001	3.86	7	5	ND	1	38	1	2	2	100	.21	.055	10	11	.43	146	.02	2	2.31	.01	.06	2	125
L2400N 475W	2	23	50	126	2.6	8	6	1031	3.61	10	9	ND	2	86	1	2	2	71	1.04	.118	42	9	.53	325	.02	2	3.58	.01	.10	1	25
STD C	19	54	41	122	6.8	63	27	901	3.78	36	17	7	33	48	16	17	21	54	.47	.087	37	50	.85	178	.08	32	1.64	.05	.12	13	-
L2400N 450W	3	14	48	128	.4	9	6	582	4.54	8	5	ND	1	46	1	2	2	81	.42	.090	13	8	.73	100	.03	2	3.12	.01	.07	1	9
L2350N 825W	2	70	975	998	9.7	2	12	6219	5.56	10	5	ND	5	19	5	2	2	83	.33	.106	34	1	2.31	109	.01	2	2.74	.01	.06	1	200
L2350N 800W	1	33	147	138	3.2	10	6	1924	2.81	12	5	ND	4	261	1	2	2	65	2.68	.106	19	6	.89	87	.05	2	4.70	.01	.15	1	190
L2350N 775W	1	41	232	246	3.6	8	8	2401	4.40	16	5	ND	4	95	1	2	3	86	.94	.110	28	8	1.08	111	.01	2	2.74	.01	.09	1	55
L2350N 750W	3	29	161	226	1.5	10	8	2264	4.23	11	5	ND	1	61	3	3	2	71	.61	.123	17	10	.75	137	.01	2	2.17	.01	.09	2	62
L1800N 750W	2	14	15	80	.6	9	6	632	3.55	12	5	ND	1	98	1	3	2	52	.89	.081	17	7	.58	198	.05	2	3.33	.01	.10	1	34
L1800N 725W	3	24	36	128	1.0	4	7	1273	3.66	29	7	ND	1	43	1	2	2	54	.62	.071	28	1	.75	232	.01	2	1.89	.01	.11	2	120
L1800N 700W	1	19	67	338	.3	3	8	2255	4.08	12	6	ND	2	22	1	2	2	67	.27	.073	10	3	1.42	124	.01	2	2.31	.01	.12	1	16
L1800N 675W	2	20	45	169	.5	9	8	1101	3.84	7	5	ND	2	62	1	2	2	74	.72	.069	11	8	.88	602	.01	2	2.58	.01	.11	1	12
L1800N 650W	2	9	17	110	.5	6	8	791	3.76	12	5	ND	4	238	1	7	2	119	1.32	.100	22	2	1.15	201	.08	2	3.98	.01	.14	3	8
L1800N 625W	1	15	26	133	.4	8	6	827	3.62	10	5	ND	3	144	1	4	2	92	.84	.125	13	7	1.01	230	.01	2	3.47	.01	.11	1	48
[illegible]	1	16	8	61	.9	18	8	476	3.37	10	5	ND	2	71	1	4	2	107	.40	.038	13	15	.70	171	.04	2	2.84	.01	.08	2	13

ESSO MINERALS PROJECT - SHASTA 123 FILE # 87-2324

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
L1800N 575W	1	12	14	76	1.3	8	6	713	3.04	12	5	ND	2	86	1	2	3	67	.76	.091	13	5	.61	91	.03	2	3.13	.01	.11	1	65
L1800N 550W	1	14	38	106	1.2	5	7	915	3.54	16	5	ND	1	53	1	2	2	80	.31	.062	9	2	.88	74	.01	2	2.31	.01	.11	2	125
L1800N 525W	1	14	8	64	.4	3	8	636	4.08	12	5	ND	5	108	1	2	2	64	1.66	.071	30	1	.54	66	.01	2	3.06	.01	.07	2	12
STD C	19	55	41	135	7.2	72	30	989	3.74	43	20	8	33	46	19	16	24	58	.46	.094	40	51	.86	165	.07	32	1.60	.05	.15	15	-
L1800N 500W	1	14	12	58	.4	4	6	1325	2.90	6	5	ND	6	108	1	2	2	50	1.71	.081	39	4	.57	35	.01	2	2.77	.01	.09	1	4
L1800N 475W	1	17	15	69	.3	9	7	727	3.60	8	5	ND	3	88	1	2	2	77	.93	.056	10	4	.64	79	.01	3	3.02	.01	.09	1	32
L1800N 450W	1	13	13	58	.2	10	7	724	3.52	10	5	ND	2	38	1	2	2	61	.46	.045	8	6	.56	79	.01	2	2.33	.01	.09	1	1

APPENDIX 3

ELEMENTARY STATISTICS

SHASTA	Elementary Statistics	Fri Aug 28

Shasta 3 soils

Variable:Pb ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	2.000
Maximum:	1443.000
Range:	1441.000
Mean:	94.406
Median:	25.000
Variance:	31528.582
Standard Deviation:	177.563
Standard Error:	10.688
Coefficient of Variation (%):	188.085
Coefficient of Skewness:	3.796
Coefficient of Kurtosis:	20.825
Log 10 Transformed Mean:	37.026
Log 10 Variance:	7.633
Log 10 Standard Deviation:	2.763

SHASTA	Elementary Statistics	Fri Aug 28

Shasta 3 soils

Variable:Cu ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	5.000
Maximum:	156.000
Range:	151.000
Mean:	22.051
Median:	16.000
Variance:	403.961
Standard Deviation:	20.099
Standard Error:	1.210
Coefficient of Variation (%):	91.148
Coefficient of Skewness:	4.187
Coefficient of Kurtosis:	24.751
Log 10 Transformed Mean:	17.966
Log 10 Variance:	2.390
Log 10 Standard Deviation:	1.546

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Zn ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	28.000
Maximum:	1627.000
Range:	1599.000
Mean:	176.076
Median:	106.000
Variance:	42579.687
Standard Deviation:	206.348
Standard Error:	12.421
Coefficient of Variation (%):	117.193
Coefficient of Skewness:	3.769
Coefficient of Kurtosis:	20.999
Log 10 Transformed Mean:	124.845
Log 10 Variance:	3.224
Log 10 Standard Deviation:	1.796

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Ag ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	0.100
Maximum:	47.400
Range:	47.300
Mean:	1.191
Median:	0.300
Variance:	11.639
Standard Deviation:	3.412
Standard Error:	0.205
Coefficient of Variation (%):	286.545
Coefficient of Skewness:	9.726
Coefficient of Kurtosis:	124.311
Log 10 Transformed Mean:	0.394
Log 10 Variance:	8.629
Log 10 Standard Deviation:	2.937

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Ni ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	1.000
Maximum:	27.000
Range:	26.000
Mean:	7.413
Median:	6.000
Variance:	23.025
Standard Deviation:	4.798
Standard Error:	0.289
Coefficient of Variation (%):	64.730
Coefficient of Skewness:	1.578
Coefficient of Kurtosis:	5.650
Log 10 Transformed Mean:	6.147
Log 10 Variance:	2.673
Log 10 Standard Deviation:	1.635

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Co ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	3.000
Maximum:	14.000
Range:	11.000
Mean:	7.000
Median:	7.000
Variance:	4.007
Standard Deviation:	2.002
Standard Error:	0.120
Coefficient of Variation (%):	28.597
Coefficient of Skewness:	0.499
Coefficient of Kurtosis:	3.212
Log 10 Transformed Mean:	6.713
Log 10 Variance:	1.602
Log 10 Standard Deviation:	1.266

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Mn ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	341.000
Maximum:	9445.000
Range:	9104.000
Mean:	1367.283
Median:	1002.000
Variance:	1378921.250
Standard Deviation:	1174.275
Standard Error:	70.683
Coefficient of Variation (%):	85.884
Coefficient of Skewness:	3.290
Coefficient of Kurtosis:	18.272
Log 10 Transformed Mean:	1085.582
Log 10 Variance:	2.847
Log 10 Standard Deviation:	1.687

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Fe %

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	1.500
Maximum:	6.690
Range:	5.190
Mean:	3.637
Median:	3.610
Variance:	0.749
Standard Deviation:	0.866
Standard Error:	0.052
Coefficient of Variation (%):	23.797
Coefficient of Skewness:	0.372
Coefficient of Kurtosis:	3.558
Log 10 Transformed Mean:	3.532
Log 10 Variance:	1.469
Log 10 Standard Deviation:	1.212

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:As ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	2.000
Maximum:	118.000
Range:	116.000
Mean:	10.489
Median:	7.000
Variance:	161.576
Standard Deviation:	12.711
Standard Error:	0.765
Coefficient of Variation (%):	121.185
Coefficient of Skewness:	5.376
Coefficient of Kurtosis:	38.609
Log 10 Transformed Mean:	7.705
Log 10 Variance:	2.971
Log 10 Standard Deviation:	1.724

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Sr ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	14.000
Maximum:	1267.000
Range:	1253.000
Mean:	100.543
Median:	87.000
Variance:	7810.878
Standard Deviation:	88.379
Standard Error:	5.320
Coefficient of Variation (%):	87.901
Coefficient of Skewness:	8.594
Coefficient of Kurtosis:	110.658
Log 10 Transformed Mean:	83.977
Log 10 Variance:	2.403
Log 10 Standard Deviation:	1.550

Variable:V ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	26.000
Maximum:	160.000
Range:	134.000
Mean:	74.014
Median:	71.000
Variance:	503.087
Standard Deviation:	22.430
Standard Error:	1.350
Coefficient of Variation (%):	30.304
Coefficient of Skewness:	0.615
Coefficient of Kurtosis:	3.563
Log 10 Transformed Mean:	70.645
Log 10 Variance:	1.635
Log 10 Standard Deviation:	1.279

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Ca %

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	0.190
Maximum:	5.340
Range:	5.150
Mean:	1.009
Median:	0.850
Variance:	0.520
Standard Deviation:	0.721
Standard Error:	0.043
Coefficient of Variation (%):	71.445
Coefficient of Skewness:	2.007
Coefficient of Kurtosis:	9.190
Log 10 Transformed Mean:	0.814
Log 10 Variance:	2.948
Log 10 Standard Deviation:	1.717

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:P %

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	0.038
Maximum:	0.297
Range:	0.259
Mean:	0.113
Median:	0.106
Variance:	0.002
Standard Deviation:	0.042
Standard Error:	0.003
Coefficient of Variation (%):	37.287
Coefficient of Skewness:	1.229
Coefficient of Kurtosis:	5.180
Log 10 Transformed Mean:	0.106
Log 10 Variance:	1.759
Log 10 Standard Deviation:	1.326

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:La ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	5.000
Maximum:	119.000
Range:	114.000
Mean:	17.812
Median:	14.000
Variance:	126.993
Standard Deviation:	11.269
Standard Error:	0.678
Coefficient of Variation (%):	63.269
Coefficient of Skewness:	3.795
Coefficient of Kurtosis:	27.256
Log 10 Transformed Mean:	15.774
Log 10 Variance:	1.994
Log 10 Standard Deviation:	1.412

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Cr ppm

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	1.000
Maximum:	28.000
Range:	27.000
Mean:	8.109
Median:	7.000
Variance:	21.648
Standard Deviation:	4.653
Standard Error:	0.280
Coefficient of Variation (%):	57.379
Coefficient of Skewness:	1.277
Coefficient of Kurtosis:	5.189
Log 10 Transformed Mean:	6.820
Log 10 Variance:	2.552
Log 10 Standard Deviation:	1.598

SHASTA Elementary Statistics Fri Aug 28
Shasta 3 soils

Variable:Mg %

Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	0.200
Maximum:	2.310
Range:	2.110
Mean:	0.731
Median:	0.700
Variance:	0.077
Standard Deviation:	0.277
Standard Error:	0.017
Coefficient of Variation (%):	37.850
Coefficient of Skewness:	1.162
Coefficient of Kurtosis:	6.486
Log 10 Transformed Mean:	0.682
Log 10 Variance:	1.839
Log 10 Standard Deviation:	1.356

SHASTA	Elementary Statistics	Fri Aug 28

Shasta 3 soils

Variable:Ba ppm

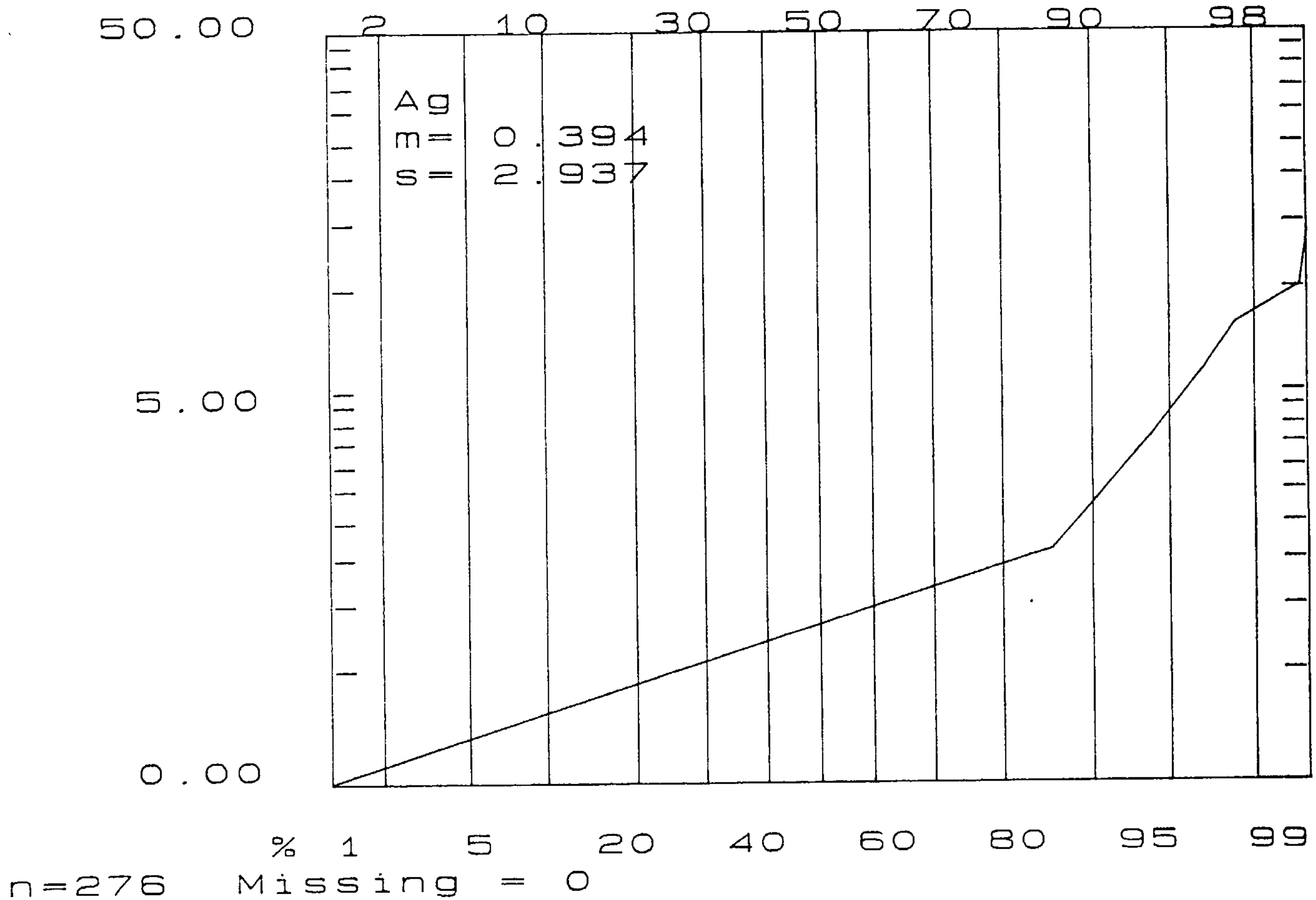
Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	35.000
Maximum:	867.000
Range:	832.000
Mean:	155.877
Median:	132.000
Variance:	9637.861
Standard Deviation:	98.173
Standard Error:	5.909
Coefficient of Variation (%):	62.981
Coefficient of Skewness:	3.457
Coefficient of Kurtosis:	20.641
Log 10 Transformed Mean:	137.152
Log 10 Variance:	2.074
Log 10 Standard Deviation:	1.440

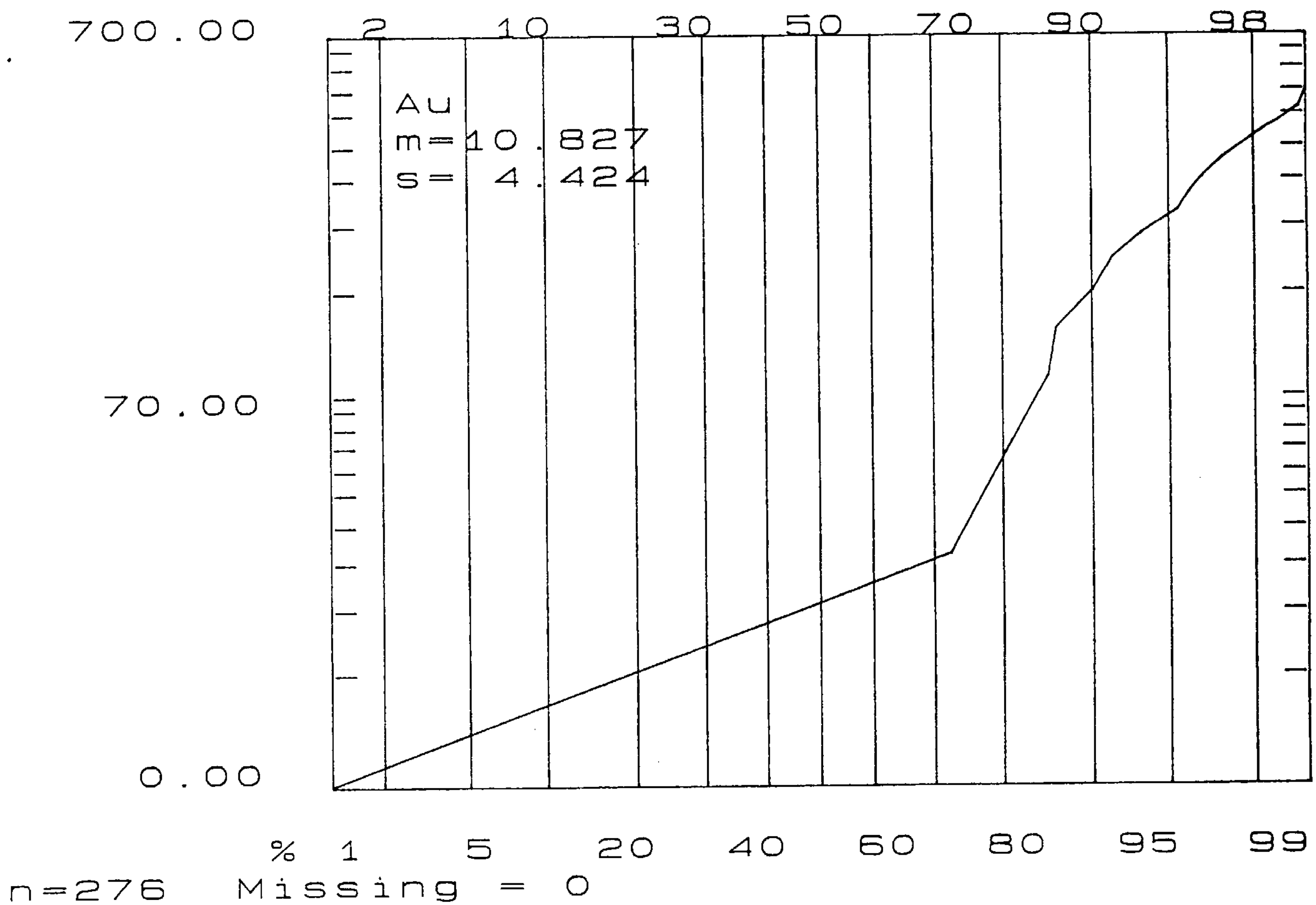
SHASTA	Elementary Statistics	Fri Aug 28,

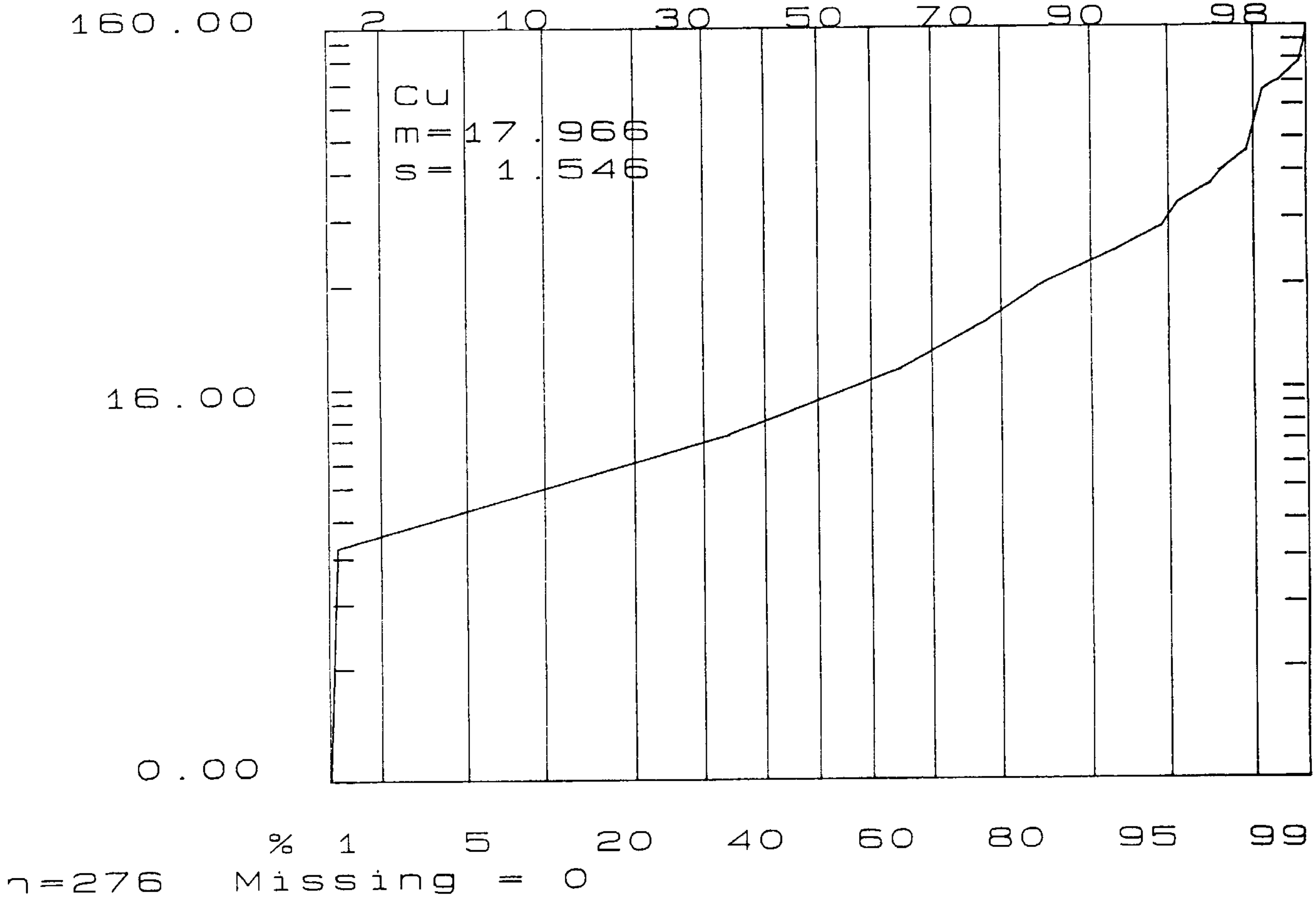
Shasta 3 soils

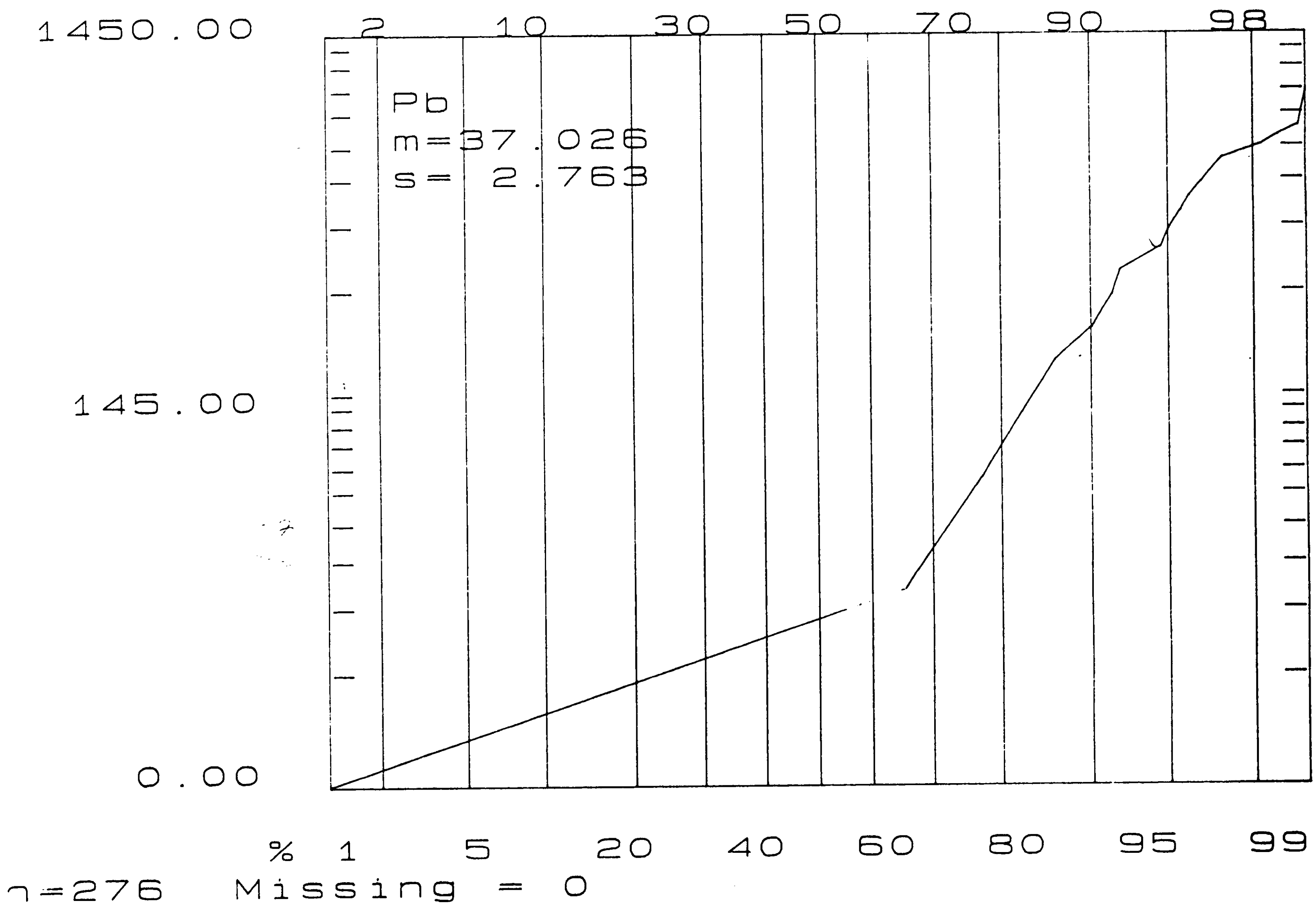
Variable:Au ppb

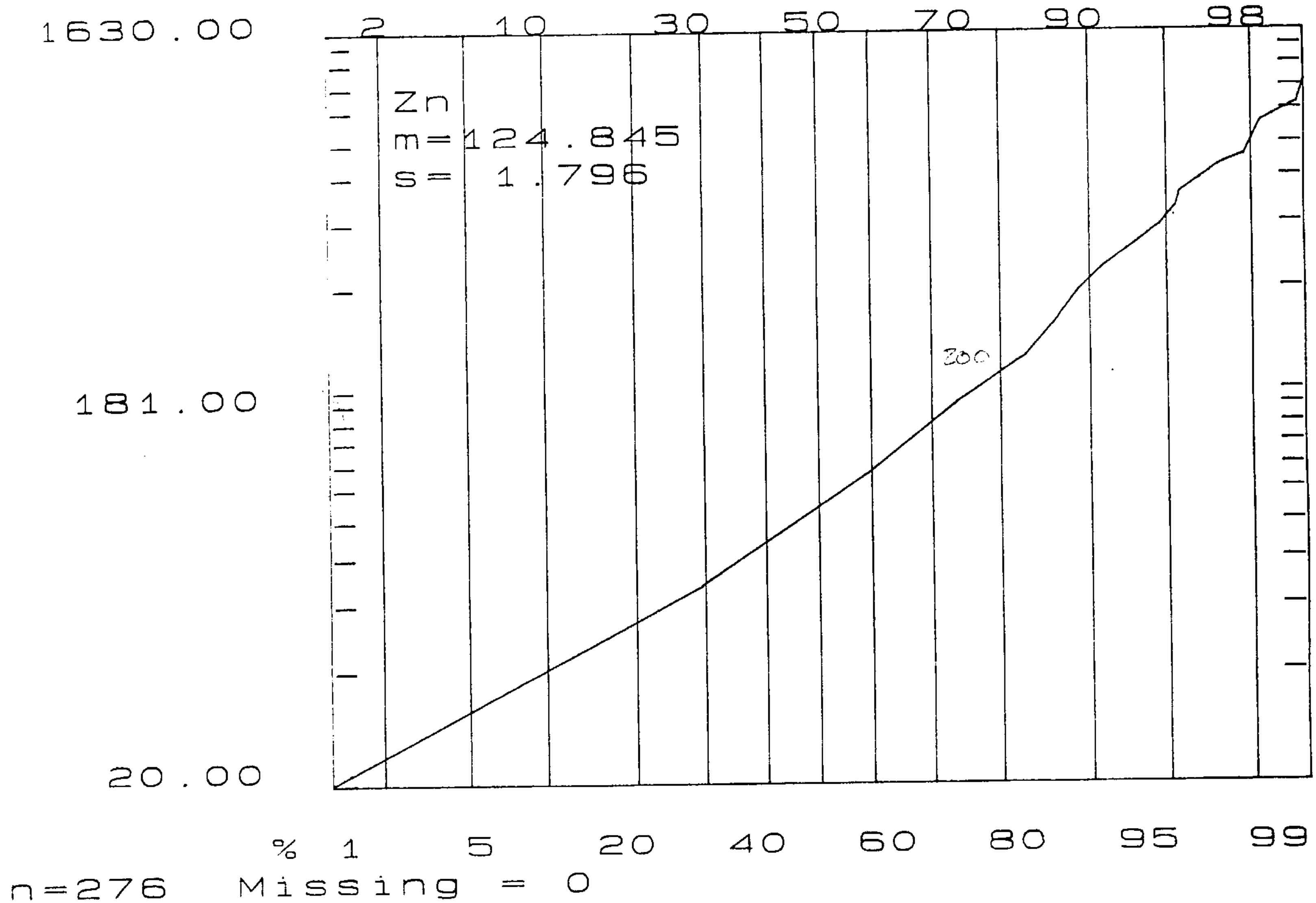
Number of Samples Selected:	276
Number of Missing or Null Values:	0
Minimum:	1.000
Maximum:	695.000
Range:	694.000
Mean:	46.482
Median:	11.000
Variance:	8574.655
Standard Deviation:	92.599
Standard Error:	5.574
Coefficient of Variation (%):	199.216
Coefficient of Skewness:	3.446
Coefficient of Kurtosis:	17.255
Log 10 Transformed Mean:	10.827
Log 10 Variance:	19.575
Log 10 Standard Deviation:	4.424


50.00
5.00
0.00
2 10 30 50 70 90 98
Ag
m= 0.394
s= 2.937
% 1 5 20 40 60 80 95 99
n=276 Missing = 0


700.00
70.00
0.00
2 10 30 50 70 90 98
Au
m=10.827
s= 4.424
% 1 5 20 40 60 80 95 99
n=276 Missing = 0


Cu
m= 17.966
s= 1.546
160.00
16.00
0.00
2 10 30 50 70 90 98
% 1 5 20 40 60 80 95 99
n=276 Missing = 0


1450.00
145.00
0.00
2 10 30 50 70 90 98
Pb
m=37.026
s= 2.763
% 1 5 20 40 60 80 95 99
n=276 Missing = 0



1630.00
181.00
20.00
2 10 30 50 70 90 98
Zn
m=124.845
s= 1.796
300
% 1 5 20 40 60 80 95 99
n=276 Missing = 0

Shasta 3 soils

	Cu	Pb	Zn	Ag	Ni	Co	Mn
Cu	1.000 (276)	0.726 (276)	0.849 (276)	0.691 (276)	0.196 (276)	0.330 (276)	0.484 (276)
Pb		1.000 (276)	0.783 (276)	0.642 (276)	0.168 (276)	0.406 (276)	0.683 (276)
Zn			1.000 (276)	0.588 (276)	0.140 (276)	0.392 (276)	0.493 (276)
Ag				1.000 (276)	0.157 (276)	0.228 (276)	0.417 (276)
Ni					1.000 (276)	0.351 (276)	0.085 (276)
Co						1.000 (276)	0.644 (276)
Mn							1.000 (276)

	Fe	As	Sr	V	Ca	P	La
Cu	0.259 (276)	0.151 (276)	-0.058 (276)	0.133 (276)	0.021 (276)	0.220 (276)	0.442 (276)
Pb	0.375 (276)	0.195 (276)	-0.070 (276)	0.227 (276)	-0.075 (276)	0.197 (276)	0.235 (276)
Zn	0.353 (276)	0.202 (276)	-0.128 (276)	0.198 (276)	-0.118 (276)	0.163 (276)	0.258 (276)
Ag	0.158 (276)	0.188 (276)	-0.018 (276)	0.128 (276)	0.047 (276)	0.105 (276)	0.279 (276)
Ni	0.238 (276)	0.089 (276)	-0.173 (276)	0.107 (276)	-0.329 (276)	-0.134 (276)	0.022 (276)
Co	0.796 (276)	0.145 (276)	-0.285 (276)	0.537 (276)	-0.429 (276)	0.213 (276)	0.241 (276)
Mn	0.482 (276)	0.148 (276)	-0.073 (276)	0.391 (276)	-0.066 (276)	0.418 (276)	0.532 (276)

Shasta 3 soils

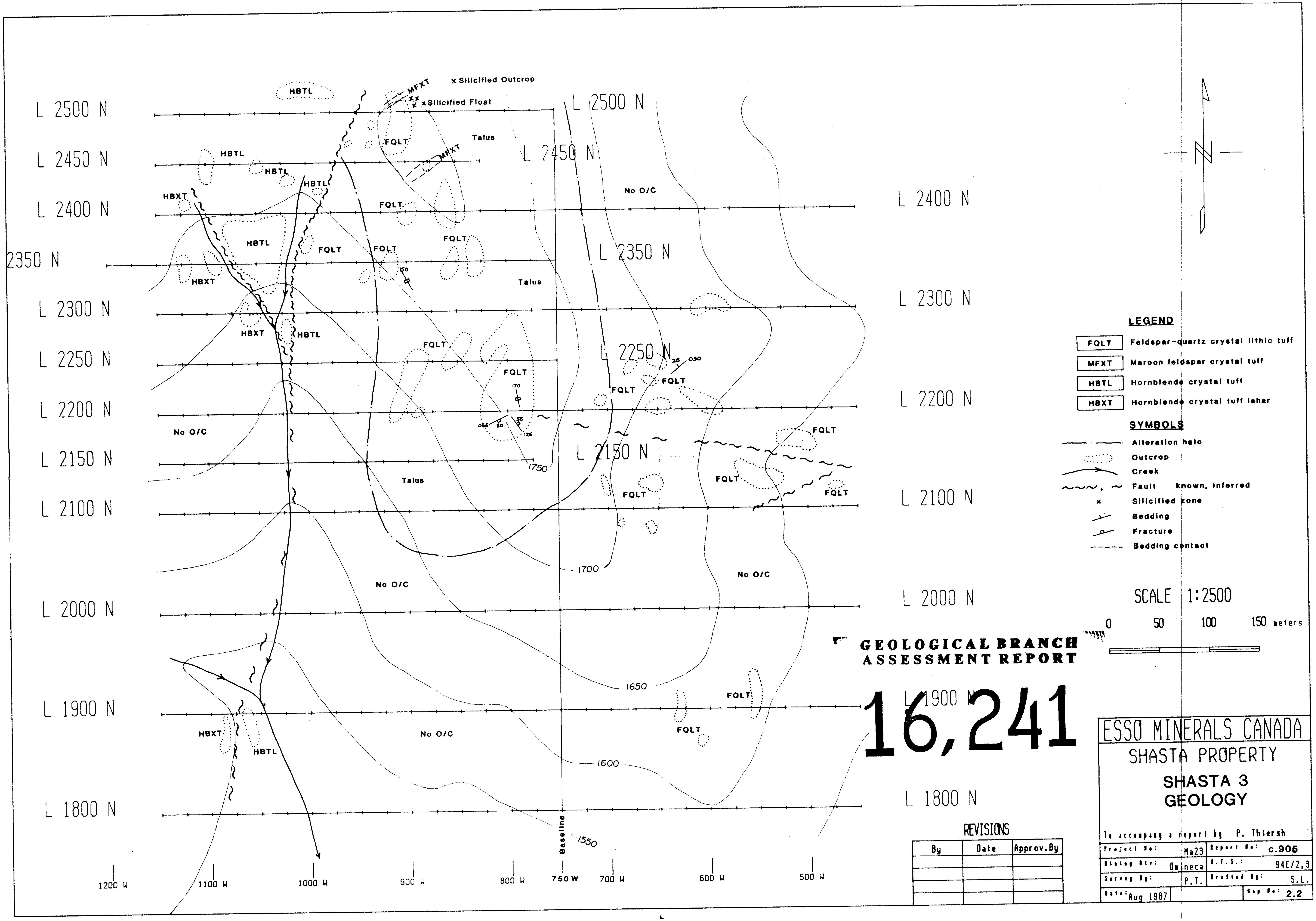
	Cr	Mg	Ba	Au
Cu	0.180 (276)	0.334 (276)	0.041 (276)	0.507 (276)
Pb	0.173 (276)	0.415 (276)	0.056 (276)	0.542 (276)
Zn	0.111 (276)	0.481 (276)	-0.019 (276)	0.524 (276)
Ag	0.141 (276)	0.263 (276)	-0.029 (276)	0.494 (276)
Ni	0.880 (276)	0.111 (276)	-0.018 (276)	0.276 (276)
Co	0.388 (276)	0.641 (276)	0.089 (276)	0.344 (276)
Mn	0.161 (276)	0.475 (276)	0.100 (276)	0.393 (276)

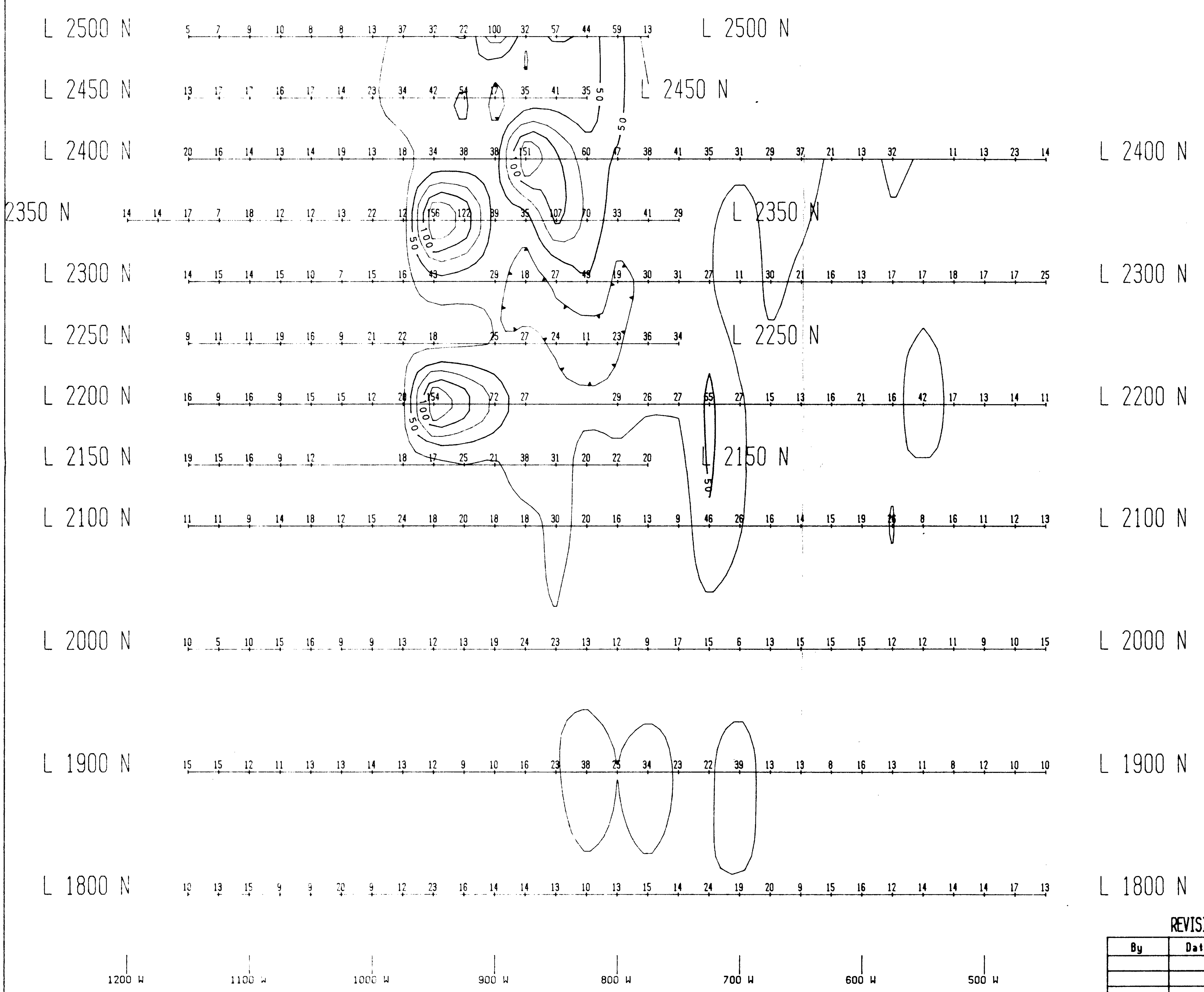
	Fe	As	Sr	V	Ca	P	La
Fe	1.000 (276)	0.113 (276)	-0.408 (276)	0.677 (276)	-0.532 (276)	0.105 (276)	0.155 (276)
As		1.000 (276)	-0.096 (276)	-0.027 (276)	-0.074 (276)	0.173 (276)	0.247 (276)
Sr			1.000 (276)	-0.175 (276)	0.599 (276)	0.059 (276)	0.042 (276)
V				1.000 (276)	-0.167 (276)	0.002 (276)	0.142 (276)
Ca					1.000 (276)	0.097 (276)	0.200 (276)
P						1.000 (276)	0.448 (276)
La							1.000 (276)

Shasta 3 soils

	Cr	Mg	Ba	Au
Fe	0.331 (276)	0.590 (276)	0.074 (276)	0.331 (276)
As	0.073 (276)	0.072 (276)	0.024 (276)	0.292 (276)
Sr	-0.210 (276)	-0.071 (276)	0.291 (276)	-0.101 (276)
V	0.222 (276)	0.605 (276)	-0.128 (276)	0.176 (276)
Ca	-0.336 (276)	-0.156 (276)	-0.125 (276)	-0.120 (276)
P	-0.064 (276)	-0.015 (276)	0.265 (276)	0.038 (276)
La	0.063 (276)	0.137 (276)	0.091 (276)	0.188 (276)

	Cr	Mg	Ba	Au
Cr	1.000 (276)	0.118 (276)	0.010 (276)	0.245 (276)
Mg		1.000 (276)	-0.069 (276)	0.351 (276)
Ba			1.000 (276)	0.031 (276)
Au				1.000 (276)


L 2500 N
L 2450 N
L 2400 N
2350 N
L 2300 N
L 2250 N
L 2200 N
L 2150 N
L 2100 N
L 2000 N
L 1900 N
L 1800 N
HBTL
HBXT
MFXT
FQLT
x Silicified Outcrop
x Silicified Float
Talus
No O/C
1750
1700
1650
1600
1550
Baseline
1200 W
1100 W
1000 W
900 W
800 W
750 W
700 W
600 W
500 W
N
LEGEND
FQLT Feldspar-quartz crystal lithic tuff
MFXT Maroon feldspar crystal tuff
HBTL Hornblende crystal tuff
HBXT Hornblende crystal tuff lahar
SYMBOLS
Alteration halo
Outcrop
Creek
Fault known, inferred
Silicified zone
Bedding
Fracture
Bedding contact
SCALE 1:2500
0 50 100 150 meters
GEOLOGICAL BRANCH
ASSESSMENT REPORT
16,241
REVISIONS
By
Date
Approv.By
ESSO MINERALS CANADA
SHASTA PROPERTY
SHASTA 3
GEOLOGY
To accompany a report by P. Thiersh
Project No: Ma23
Report No: c.905
Mining Div: Omineca
N.T.S.: 94E/2,3
Survey By: P.T.
Drafted By: S.L.
Date: Aug 1987
Map No: 2.2



CONTOUR INTERVAL = 25 ppm

SCALE 1:2500

0 50 100 150 meters

REVISIONS

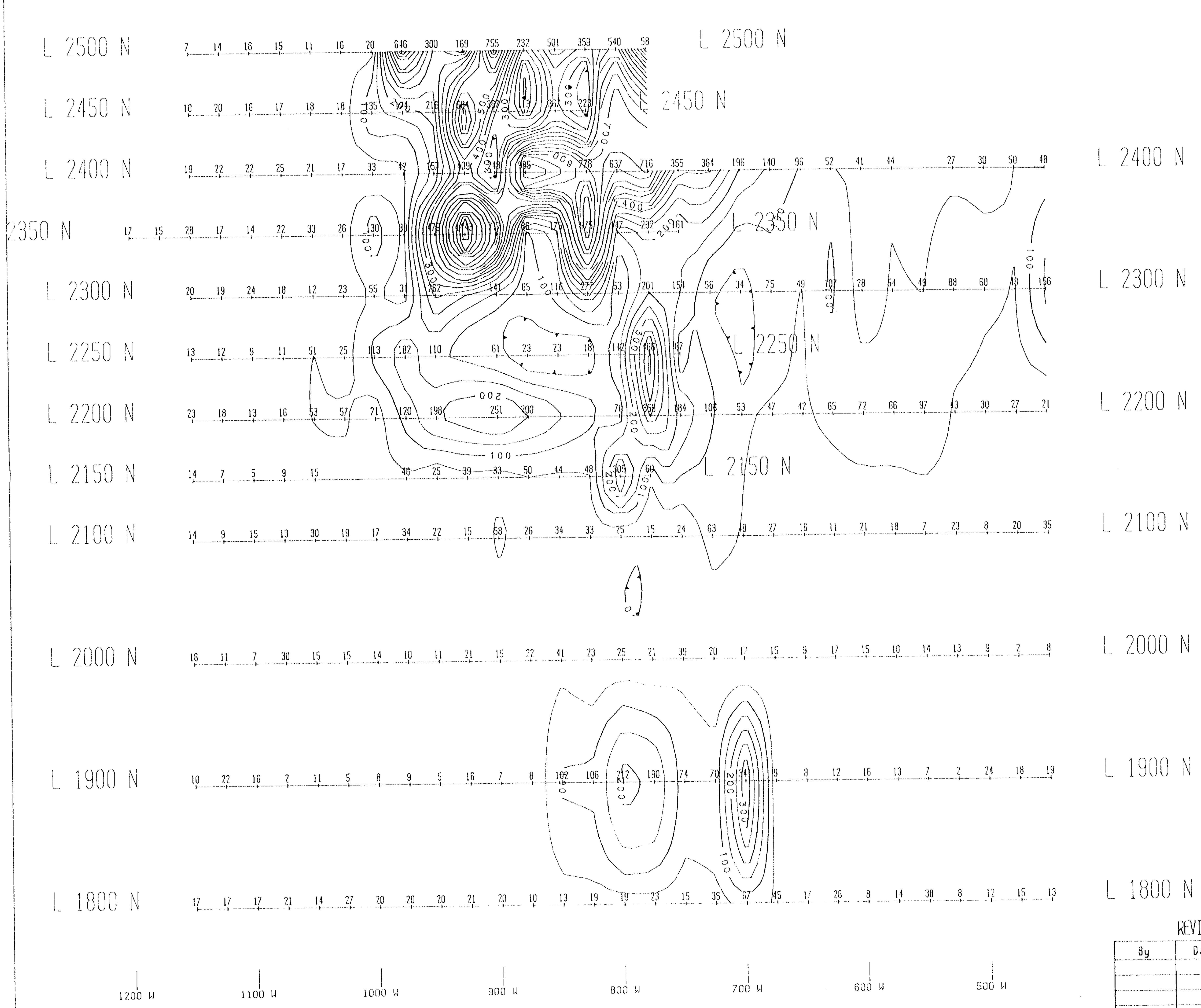
By	Date	Approv.By

ESSO MINERALS CANADA

SHASTA PROPERTY
Cu (ppm)
CONTOUR MAP

To accompany a report by P. Thiersh

Project No:	Ma23	Report No:	C.905
Mining Div:	Omineca	N.T.S.:	94E/2,3
Survey By:	P.T.	Drafted By:	S.L.
Date: Aug 1987		Map No:	3.1



CONTOUR INTERVAL = 50 ppm

GEOLOGICAL BRANCH ASSESSMENT REPORT

16,241

SCALE 1:2500

0 50 100 150 meters

ESSO MINERALS CANADA

SHASTA PROPERTY

Pb (ppm)

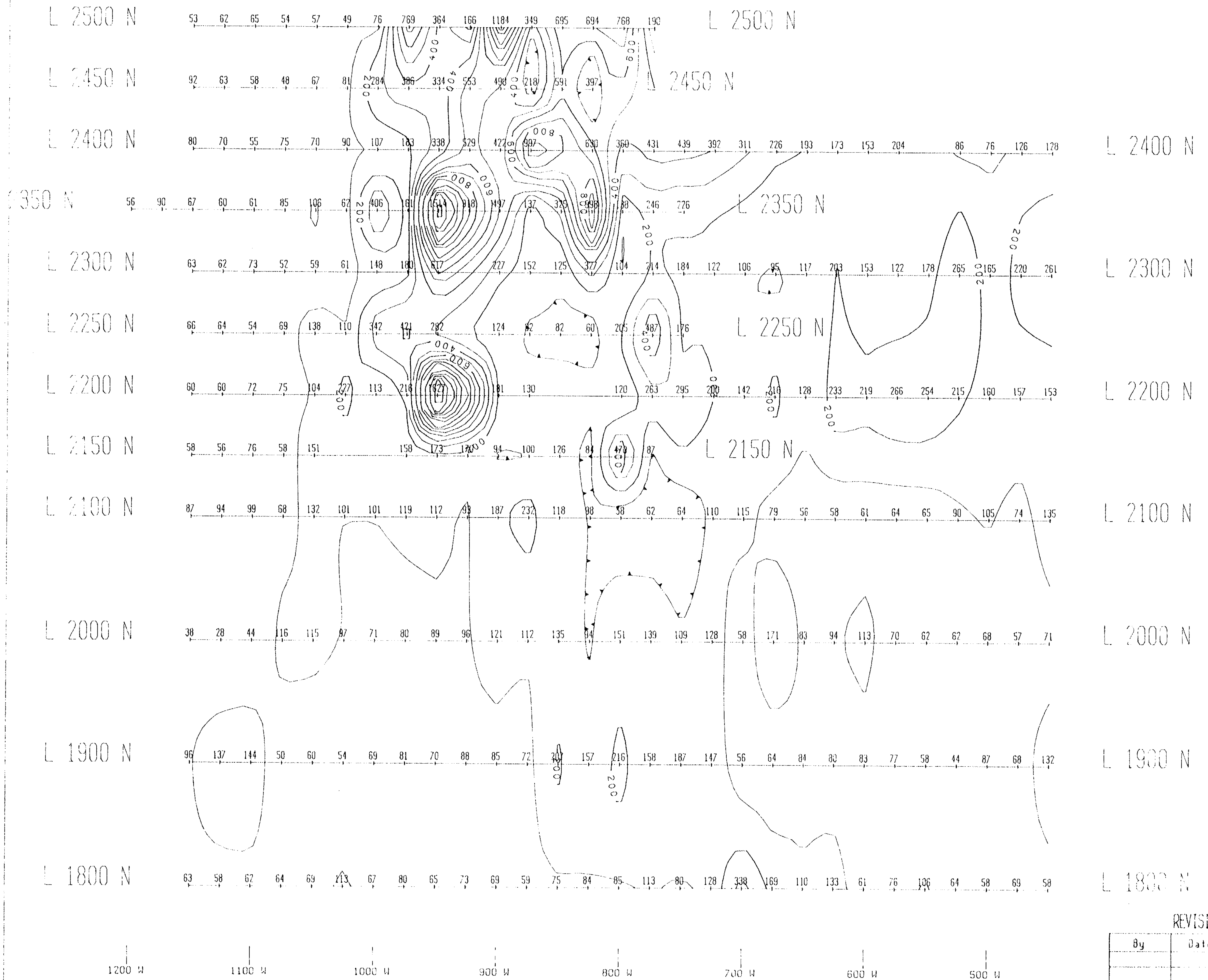
CONTOUR MAP

To accompany a report by P. Thiersh

Project No: Ma23	Report No: c.905
Mining Div: Omineca	N.T.S.: 94E/2,3
Survey By: P.T.	Drafted By: S.L.
Date: Aug 1987	Map No: 3.2

REVISIONS

By	Date	Approv.By



CONTOUR INTERVAL = 100 ppm

SCALE 1:2500

0 50 100 150 meters

REVISIONS

By	Date	Approv. By

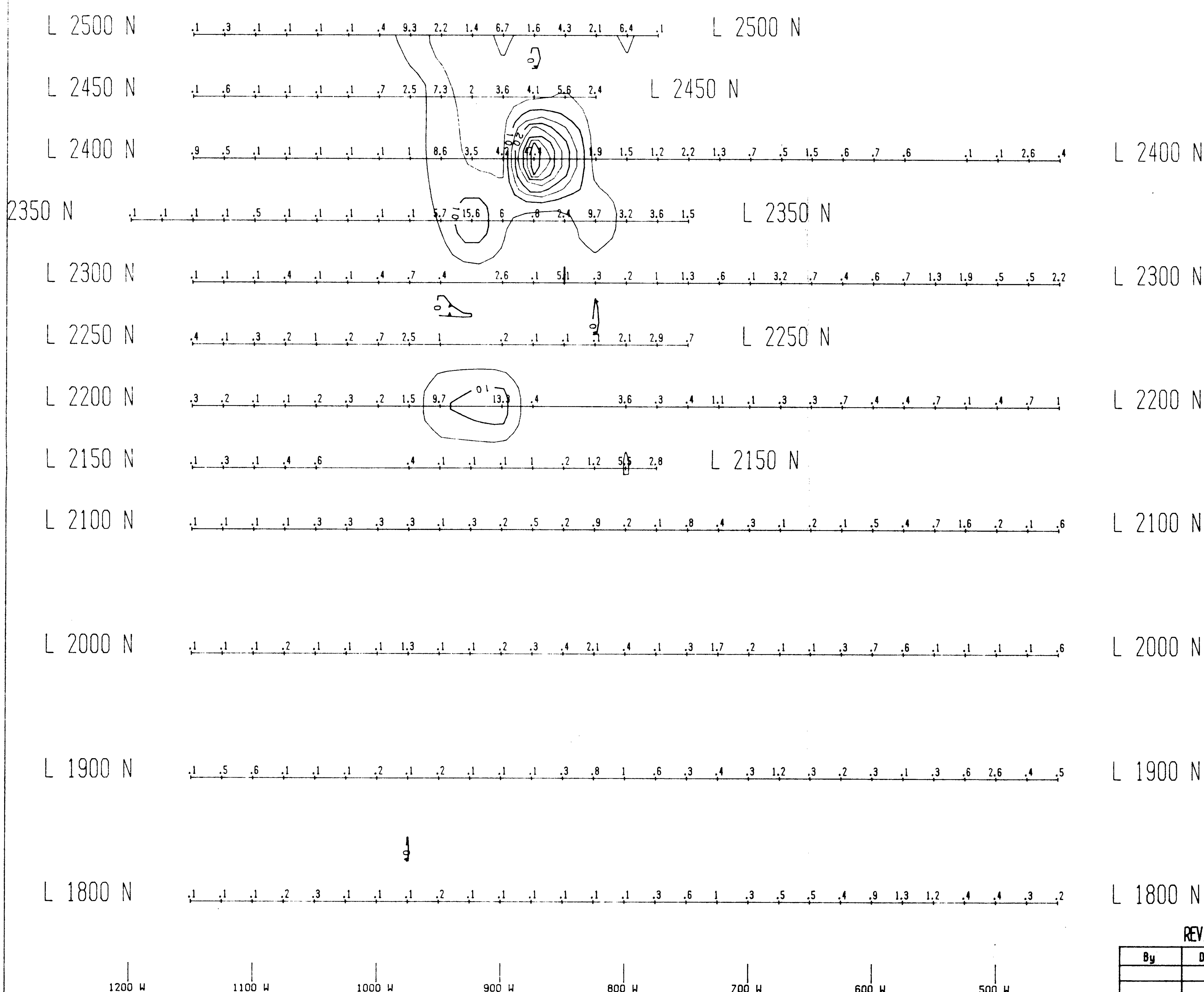
ESSO MINERALS CANADA

SHASTA PROPERTY

Zn (ppm) CONTOUR MAP

To accompany a report by P. Thiersh

Project No: Ma03	Report No: c.905
Mining Div: Omineca	N.T.S.: 94E/2,3
Survey By: P.T.	Drafted By: S.L.
Date: Aug 1987	Map No: 3.3



CONTOUR INTERVAL = 5 ppm

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,241

SCALE 1:2500

0 50 100 150 meters

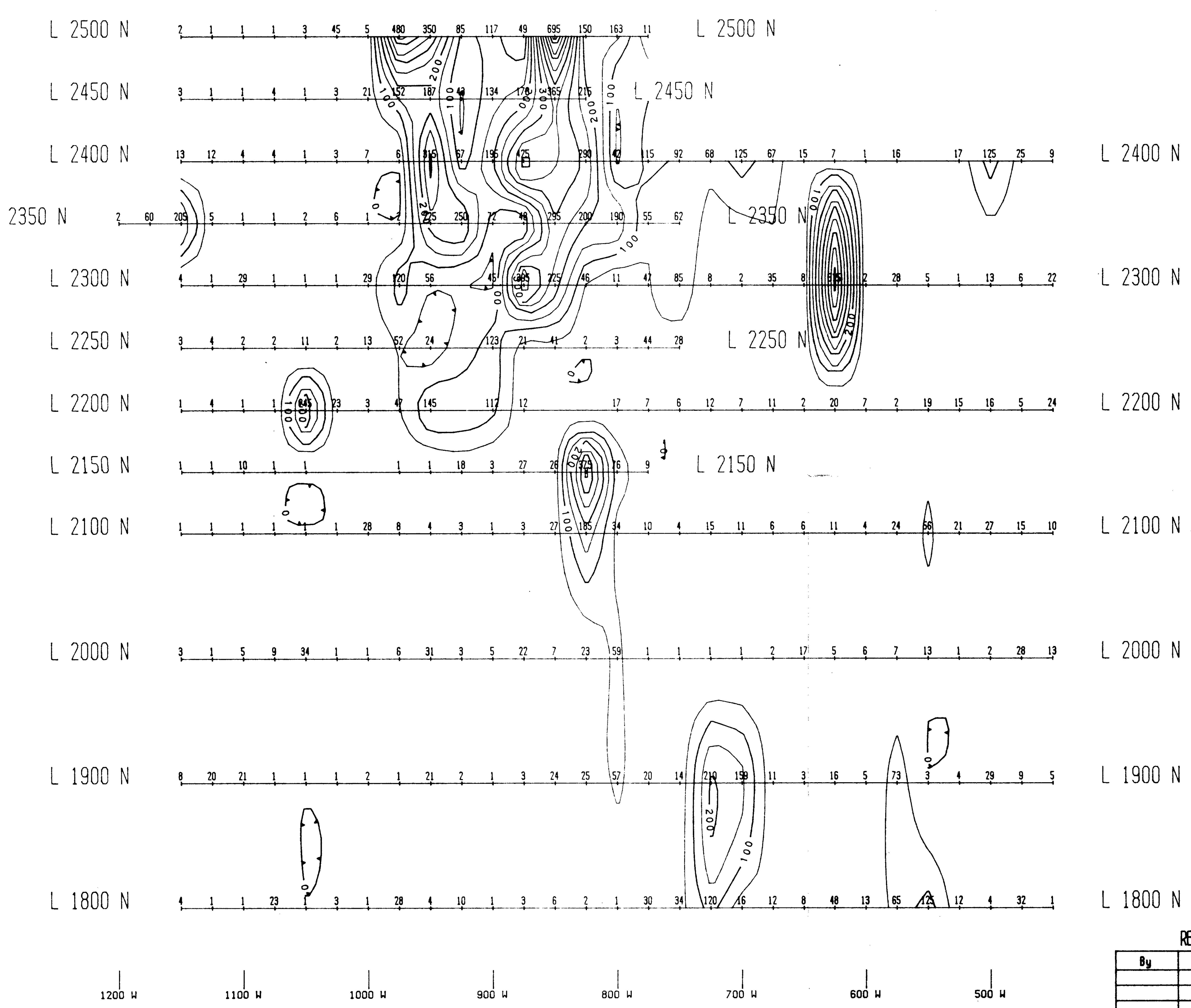
REVISIONS		
By	Date	Approv.By

ESSO MINERALS CANADA

SHASTA PROPERTY
Ag (ppm)
CONTOUR MAP

To accompany a report by P. Thiersh

Project No:	Ma23	Report No:	c.905
Mining Div:	Omineca	N.T.S.:	94E/2,3
Survey By:	P.T.	Drafted By:	S.L.
Date: Aug 1987		Map No:	3.4



CONTOUR INTERVAL = 50 ppb

SCALE 1:2500

0 50 100 150 meters

REVISIONS

By	Date	Approv.By

ESSO MINERALS CANADA

SHASTA PROPERTY

Au (ppb)

CONTOUR MAP

To accompany a report by P. Thiersh

Project No:	Ma23	Report No:	c.905
Mining Div:	Omineca	N.T.S.:	94E/2,3
Survey By:	P.T.	Drafted By:	S.L.
Date:	Aug 1987	Map No:	3.5