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GEOCHEMICAL AND GEOPHYSICAL
REPORT
ON THE
RAINBOW 2 AND 3 MINERAL CLAIMS

Tulameen District - Similkameen Mining Division
British Columbia
49°34′ → 120°50′

NTS 92H/10W

Field Work Performed: October 16, 1994 to November 16, 1994.

Office Work Performed: November 17, 1994 to January 15, 1995.

by

T.E. Lisle, P. Eng.
and
E. A. Ostensoe, P. Geo.

January 15, 1995.

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,798

CONTENTS

ILLUSTRATIONS

TABLES

1. INTRODUCTION

The authors submitted, in May, 1994, a proposal to the Prospectors Assistance Program, British Columbia Ministry of Energy, Mines and Petroleum Resources, for partial funding of a limited exploration program of the Rainbow claims, Tulameen district, Similkameen Mining Division, B.C.

The proposal included preparation of 23.3 kilometres of grid lines, 32 line kilometres of geological, magnetic and electromagnetic surveys, and the collection and analysis of 640 soil samples and 100 rock samples. The estimated cost of the combined program was $27,679.20. The authors wish to acknowledge with thanks the assistance of grants received that funded a significant part of the cost of their work.

The authors, in the period October 16, 1994 to November 16, 1994, completed a large part of the proposed program of work. Unusually early and heavy snowfalls in the project area, combined with time and budget constraints, frustrated geological mapping and caused elimination of parts of the electromagnetic survey.

This report describes exploration work completed with the help of the 1994 Prospectors Assistance Program funding. All technical observations are presented and are discussed in the report Several maps have been prepared and various appendices contain the basic data. Some interpretation has been attempted and suggestions for additional work are included.

2. LOCATION AND ACCESS

The Rainbow claims lie on the north slope of the Tulameen River valley six to ten kilometres west and northwest of the village of Tulameen in southcentral British Columbia (Figures 1 and 2). Geographic coordinates are 49^0 43' north and $120^0$50' west and NTS sheet is 92H/10W.

Elevations are between 840 metres asl at Tulameen River and 1646 metres asl in the central part of Rainbow 3 claim. Terrain is relatively subdued but near Lawless Creek and its tributary streams, slopes are steep.

Access to the claims is by the Lawless Creek Forest Service road that passes from the Coquihalla Highway easterly toTulameen and by the Princeton to Tulameen paved road. A logging road along the north side of Tulameen River west of the town gives access to the south part of the Rainbow 4 claim. Roads have gravelled, all weather surfaces and are maintained throughout much of the year. The common claim line of the Rainbow 2 and Rainbow 3 claims crosses the Lawless Creek Forest Road about 8.1 km northwest of Tulameen.

3. PROPERTY

The Rainbow property comprises three claims with a total of 46 units (Table 1). They are located within the Similkameen Mining Division and are owned jointly by T. Lisle and E. Ostensoe (Figure 2).

Claim Name	Units	Record No.	Located	Expiry
Rainbow 2	20	309158	May 6, 1992	May 6, 1995
Rainbow 3	16	309159	May 7, 1992	May 7, 1995
Rainbow 4	10	323956	March 1, 1994	March 1, 1995

Table 1. Rainbow Claims.

4. CLIMATE, TOPOGRAPHY AND VEGETATION

The climate in the Rainbow claims area is transitional between dry conditions of the southern Interior Plateau and wetter conditions of the Cascade Mountains. Summers are hot and dry and winters are cold with substantial snowfalls. More than one metre of snow fell in the project area in the period October 16 through November 16, 1994.

The Rainbow claims span elevations from the Tulameen River, about 900 metres asl, and the top of Boulder Mountain, about 1675 metres asl. North of the Lawless Creek forest road, the terrain is forested and topography is mostly gentle; the lower portion, south of that road, is steep and

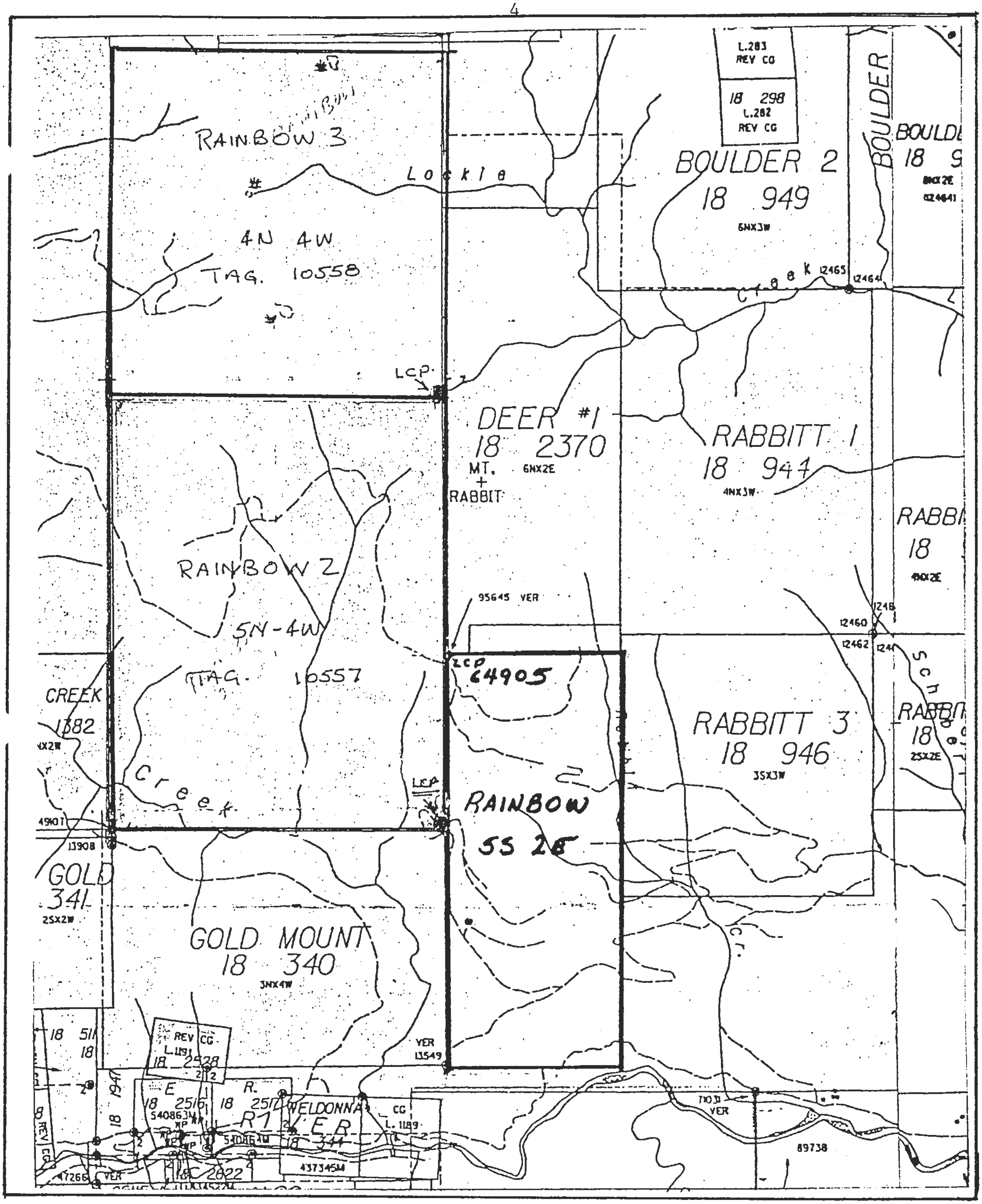
LOCATION MAP, RAINBOW CLAIMS

TULAMEEN AREA

SIMILKAMEEN MINING DIVISION

BRITISH COLUMBIA

Fig 1



RAINBOW PROJECT, CLAIM MAP.

BRITISH COLUMBIA CLAIM MAP 92 H 056

Figure 2.

characterized by bluffs and canyons. Several small streams originate on Boulder Mountain and flow either southerly to Lawless Creek or easterly to Boulder Creek.

The upper parts of the area are forested with thick stands of spruce, fir, and balsam, and a few red cedar trees. Large yellow pine trees are present but not numerous on south facing parts of upper slopes. Large parts of the area north of the Lawless Creek forest road have been logged in recent years.

5. HISTORY

The mining history of the Tulameen area is documented in numerous government publications and in more than 120 technical reports that have been filed as assessment work on mineral prospects in a 300 square kilometre area approximately centred on Tulameen.

The first comprehensive geological map of the Tulameen area was included in GSC Memoir 26, authored by Charles Camsell and issued in 1913. Camsell showed a small granitic stock intrusive into Nicola Group and dioritic rocks at Boulder Mountain.

Early prospectors were undoubtedly attracted to the Tulameen area by placer mining possibilities, particularly by discoveries of platinum in nearby streams and by production of large nuggets from Lawless and Boulder Creeks. A large gossaned alteration zone, now exposed by sidecuts along the Lawless Creek forest road, occurs along a substantial creek valley that passes through Rainbow 2 claim. Several small bedrock pits located north of the road were excavated many decades ago and expose local concentrations of pyrite and magnetite within the zone.

Geological and geochemical assessment work reports numbered 16016 and 17271 apply to parts of the Rainbow claims. A preliminary prospecting report by Lisle and Ostensoe in 1993 presents some information concerning the geology of the claims. Important background information may be obtained from these and other sources.

6. 1994 WORK PROGRAM

The following work was completed on the Rainbow claim between October 16 and November 16, 1994:

	Rainbow 2		Rainbow 3	
	Proposed	Completed	Proposed	Completed
Linecutting (100 m lines - 25 m spacing)	11.3 km	11.3 km	12.0 km	11.0 km

Soil Geochemistry	340	359*	300`	249*
Rock Geochemistry	50	6	50	0
Magnetic Survey	17.0 km	17.0 km	15.0 km	10.0 km
VLF-EM Survey	17.0 km	10.0 km	15.0 km	7.0 km
Geological Survey	17.0 km	0	15.0 km	0

* - 412 of 608 soil samples have been analysed.

Table 2. Work - Proposed and Completed

7. REGIONAL SETTING

The Nicola Group in southern British Columbia is part of a linear northwesterly Cordilleran belt of volcanic and sedimentary rocks developed in an Upper Triassic island arc environment. The Groups is, at least in the Princeton-Merritt area, a westward younging assemblage comprising

a) an eastern belt of alkalic and calc-alkalic submarine volcanic rocks, lahar deposits, basaltic flows, and high-level syenitic stocks,

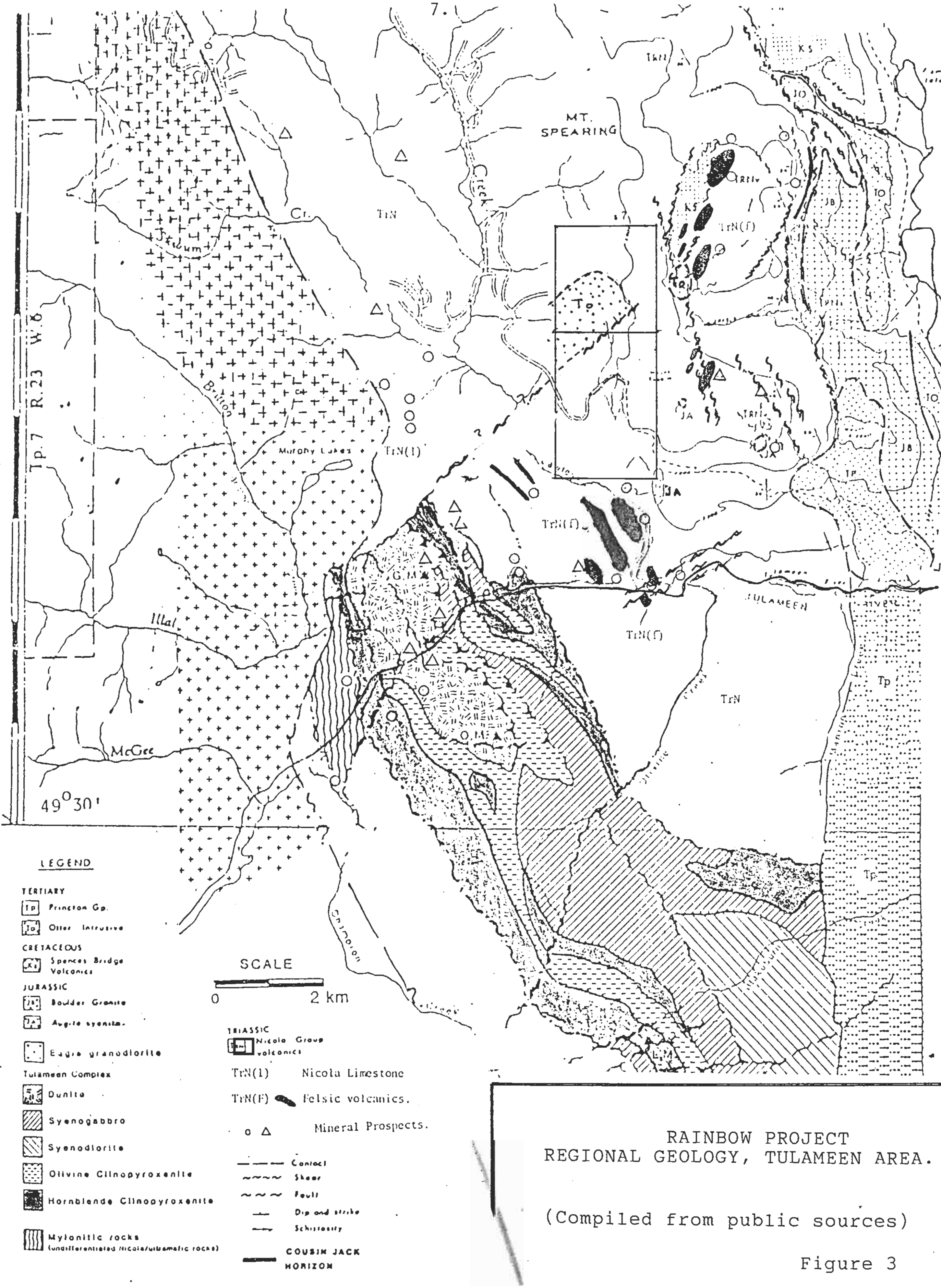
b) a central belt of alkalic and calc-alkalic subaerial and submarine assemblages of andesite, basalt and co-magmatic intrusions of diorite and syenite, and breccia, conglomerate and lahar deposits,

c) a western belt of calc-alkalic flow and pyroclastic rocks ranging in composition from andesite to rhyolite, with minor interbedded limestone, volcanic conglomerate, sandstone and argillite. This assemblage underlies much of the Tulameen area.

The Nicola Group rocks, west of Tulameen, are bounded on the west by the Eagle Granodiorite, a syntectonic intrusion of apparent Upper Jurassic age. The contact area is marked by an amphibolitic zone. Both the Nicola and Eagle rocks dip westerly along a regionally developed northwest foliation. Figure 3 illustrates some features of the regional geology near the Lawless Creek area.

Several small intrusions are present in the Tulameen area, including Late Traissic to Early Jurassic granites and the Tulameen ultramafic complex of apparent Late Triassic age (Nixon, 1988). Tertiary-age granite stocks, particularly the Otter Granite, are important relatively young plutons.

All of the older rock units are disrupted by northeast faults of mid-Tertiary age that mark significant right-lateral and vertical displacement. One such fault is believed to form the northern



RAINBOW PROJECT
REGIONAL GEOLOGY, TULAMEEN AREA.

(Compiled from public sources)

Figure 3

boundary of the Tulameen ultramafic complex at Grasshopper Mountain a few kilometres southwest of the Rainbow claims and to trend northeasterly through the Rainbow. Regional evidence suggests that rocks on the north side of the fault are offset four kilometres northeasterly.

Nicola Group volcanic rocks and related intrusions are hosts to world-class copper-gold porphyry deposits at Kamloops and Princeton, and copper-molybdenum porphyry deposits at Highland Valley, north of Merritt, and elsewhere in the Cordillera. The western belt of the Nicola Group embraces many mineral prospects in addition to the large Craigmont copper-iron deposit.

8. GEOLOGY OF THE RAINBOW CLAIMS

The geology of the Tulameen area was described by C. Camsell in 1913 in GSC Memoir 26. He identified, within the current Rainbow 3 claim, a stock of Otter Granite intrusive into Nicola Group rocks, and to the south, a smaller augite syenite pluton.

The Otter Granite stock is of Early Tertiary age and is commonly medium grained and pink coloured. Composition varies from granite to, in a border phase, quartz diorite. Prospecting by the writers during 1992 (assessment report, 1993) revealed that it may have dimensions about 1.5 by 2.0 kilometres, that it is elongate northwesterly, and it is possibly truncated on its south side by a northeast fault. Enclosing rocks have been to variable degrees altered by siliceous potassic feldspar metasomatism.

Camsell noted the presence of a small elongated intrusion of augite syenite south of the Otter Granite. Rice (GSC Memoir 243, 1947) determined that this intrusion is of Late Triassic to Early Jurassic age, and that it includes some peridotite, pyroxenite and gabbroic phases. Details of the dimensions and composition of this body on the Rainbow claims have not been determined. It is known however to be dark grey-green, fine to medium grained, and dioritic and has been observed to be magnetically distinct from neighboring rock types.

East of the Otter Granite-type stock, a formation previously described as a breccia forms a persistent belt that trends north-northwesterly through much of the eastern part of the Rainbow survey grid. This unit is tuffaceous, locally cherty, and includes sections that contain beige to pink coloured fine-grained clasts up to 40 cms in diameter, as well as subordinate amounts of small mafic clasts. At 27+00N, 5+00W, it is well-bedded, strikes northwest and dips -72$^{(\ )}$ west. The writers believe that this breccia is similar to, possibly part of, a formation known to be present near sulphide mineral occurrences elsewhere on Boulder Mountain. Copper mineralization was noted near the east boundary of Rainbow 2 claim.

Prospecting by the writers during 1992 investigated a large pale coloured alteration zone situated between the Otter Granite-type complex on the west and the above-described breccia on the east. The zone is siliceous, weakly porphyritic, and exhibits strongly developed argillic (clay-sericite-pyrite) alteration. It is well exposed along the Lawless Creek Forest road at 19+50N, 3+50 to 5+50 W and in a logging slash at 25+00N, 5+00 to 6+00W. The presence of finely disseminated sulphide grains, localized concentrations of coarse grained sulphides, and the weakly to vaguely expressed porphyritic textures are similar to, and suggest an affinity to, a series of mineralized porphyry dykes that is exposed elsewhere in the Princeton-Tulameen district. Old prospector's workings found at 20+00N, 3+50W and 22+00N, 5+00W explored limonitic, very highly altered zones with 10% pyrite and up to 5% magnetite. These workings occur within a distinct magnetic trend that is described in the following section of this report.

Parts of the Rainbow claims are underlain by andesitic to dacitic flows and fragmental rocks of the Nicola Group. A distinctive coarsely porphyritic andesite rock type also occurs in other parts of the Boulder Mountain-Rabbitt Mountain area.

A satisfactory more comprehensive discussion of the petrology, structure, alteration and mineralization of the Rainbow property cannot yet be presented. Detailed geological mapping was planned as part of the 1994 work program but was precluded by onset of winter conditions.

9. MAGNETIC SURVEY

A magnetic survey was conducted over the Rainbow claim grid in the fall of 1994 using two GSM-19 (19-T) high sensitivity proton magnetometer/gradiometers equipped with inbuilt microprocessors and memory. The field instrument was synchronized with a similar unit that was set up in Tulameen as a base station.

The magnetometers were initially tuned to a total magnetic field intensity of 58,000 nT, appropriate for the survey area. Observations were taken at 12.5 metre intervals on all 100 metre spaced grid lines with the exception of lines 35+00N and 36+00N. Steve Lowe, geophysical technician, data processor and auto-cad operator, was given the Rainbow grid data and executed corrections and procedures to produce computer generated plan and profile presentations (Figures 4(a) and (b).

Technical data and specifications of the GSM-19 and 19T magnetometer systems are included in Appendix 2(a) of this report.

The results of the magnetic survey are summarized as follows:

1) Magnetic relief in the survey areas low and commonly within a range of 300 nT near 58,000 nT
2) Magnetic values tend to be slightly higher in the north and east parts of the grid relative to values observed elsewhere
3) The southwest corner of the grid, in particular lines 8+00N through 14+00N from about 5+00W to 10+00W, exhibits high magnetic relief (up to about 1100 nT) and is magnetically distinct from the balance of the grid
4) A series of narrow magnetic "highs", up to about 500 nT, form a conspicuous, but locally broken, north-northwesterly linear trend from the southeast to northwest corners of the grid.

This linear trend is locally flanked at distance about 200 metres to the east by a series of magnetic highs that are either isolated or are part of a weaker north-northeasterly linear trend.

5) An overall northerly to northwesterly magnetic grain to the grid is emphasized by a small number of line to line responses of small amplitude, both positive and negative.

Preliminary interpretation of the magnetic data relative to 1992 prospecting and mapping, indicates that the magnetic response noted in 3) above is a reflection of the underlying dioritic unit. The cause of the north northwest linear magnetic texture is more obscure. That part of the grid between 20+00N and 24+00N may reflect pyrite-magnetite accumulations between the large felsic alteration zone to the west and the bedded clastic unit to the east A secondary linear magnetic feature between lines 28+00N and 34+00N is at least in part coincident with an eastern section of the Otter Granite member.

10. VLF-EM SURVEY

A very low frequency electromagnetic survey was conducted over about two-thirds of the Rainbow property grid using a Sabre model 27 VLF-EM receiver.

The VLF-EM technique measures the field-strength of signals that are generated by distant very powerful radio transmitters. Variations in dip angle and field strength are recorded in the field, processed using the Fraser Filter method, plotted, and then interpreted in terms of conductivity contrasts. Conductive areas can be identified and related to geological features including structures and, possibly, mineralization. Results can be confused by conductive clay layers and by terrain effects. Faults and shear zones may produce anomalous data but only if conductivity is associated with them.

The Sabre model 27 VLF-EM instrument is a sensitive precise radio signal receiver. For purposes of the Rainbow grid survey the 18.6 Khz. signal generated by a station near Seattle, Washington, was employed. The ideal station should be located so that the direction of the signal is approximately perpendicular to the direction of the grid lines. The Cutler, Maine and Annapolis, Maryland stations would also have been appropriate signal sources.

Two measurements were recorded in the field:

1) tilt angle of the resultant field, measured in degrees of tilt
2) field strength of the horizontal component of the VLF field

Tilt angle measurements were "Fraser Filtered", a process that enables data to be presented on a plan map and contoured. Instrument specifications and detailed field procedures are described in Appendix 2(b) of this report.

Figure 5 displays Fraser filtered tilt angle observations. Data have been extended between grid lines where appropriate and have been contoured where sufficient information is available. No overall electromagnetic pattern has been recognized but several trends have been identified. Better interpretation of data will be possible when the remaining grid lines have been surveyed.

11. GEOCHEMISTRY

Bedrock exposure in the Rainbow claims area varies greatly but, in general, outcrop distribution suggests that parts of the property have only shallow overburden cover, in the order of a metre or less. The east part of Rainbow 3 claim has few outcrops and along parts of the Lawless Creek Forest road some till deposits are obviously several metres deep.

Juvenile podzolic soils that prevail in most of the Rainbow area are developed on tills and colluvium deposits. Southwest of the Rainbow property, eutric bronisols are dominant in a plateau-like area and on gentle westerly slopes but both eutric bronisols and humo-ferric podsols are present on steep southerly slopes (Cook, Fletcher, 1994).

Soil samples were taken from the Rainbow claim grid as a means of investigating the distribution of metal values in the underlying bedrock. The samplers recorded the soil characteristics at the time of sample collection (Appendix 1). Where topography is subdued, soil horizons are well developed in the till and the depth of overlying 'A' horizon soils varies from about 10 cm to in excess of one metre. 'B' horizon soils are generally less than 40 cms deep, are reddish brown coloured, and include 10 to 20% gravel-sized fragments and a few cobble-sized clasts. 'B' soils may rest directly on bedrock but more commonly overlie 'C' soils that are pale to yellow-brown with highly variable amounts of clay, silt, sand and clast content. Soil horizon development is rudimentary on steeper terrain where active colluvium or till and colluvium deposits prevail.

The intent of the soil sampling program was to sample the lower 'C' horizon. The practical limit of our sampling tools and methods was about 1 metre and if the 'C' was not encountered then the deepest available soil was sampled. Samples were taken from pits (average depth about 0.5 m) that were dug at 50 metre intervals along the grid lines. Soils were placed in standard kraft soil envelopes. Details of colour, depth, horizon were recorded, along with estimates of clay, silt, sand and fragment contents on sample sheets that comprise Appendix 1(a).

All soil samples were air dried and then transported to Vancouver, B. C. Four hundred and twelve soil samples, up to the time of this report, were submitted to Acme Analytical Laboratories Ltd. for drying and screening, followed by geochemical analysis for gold by acid leach and atomic absorption methods and for 30 other elements by induced coupled plasma determination. Five rock samples, collected from old prospecting workings on lines 20+00N and 22+00N, were analyzed for the same elements plus platinum and palladium. One rock sample was analysed by whole rock ICP methods. Analytical data is contained in Appendix 1(b) of this report. One hundred and ninety-eight soil samples have been placed in temporary storage and will be analysed when funds are available for that purpose.

The results of the analyses for five of the elements of particular interest to us, gold, silver, copper, lead and zinc, are summarized herewith:

Element	No. of Samples	Range of Contents	Remarks
Gold	412	≤ 1 to 290 ppb	44 samples ≥ 10 ppb
Silver	412	≤ 0.1to0.70ppm	17 samples≥ 0.30 ppm
Copper	412	≤ 1to466ppm	15 samples ≥ 100 ppm
Lead	412	≤ 2to270ppm	5 samples≥ 20ppm
Zinc	412	6 to 517 ppm	8 samples≥ 200ppm

Contouring, due to wide line spacing and gaps in analytical information, is not practical. The data does not permit much line to line correlation of possibly anomalous metal values but does indicate that some areas of the grid are anomalous.

The strongest clustering of anomalous gold-copper-zinc values occurs in the southeast section of the grid from about 10+00N to 20+00N. The higher responses are located near north to northwest trending magnetic features. The grid section 24+00N, 4+00W to 34+00N, 0+00W contains several soils anomalous in copper and gold and increasingly to the northeast, zinc. Anomalous copper and zinc analyses appear to be related to eastern parts of the grid that are thought to be underlain by a clastic sedimentary unit.

Anomalous gold analyses are to some extent clustered along the western side of the Rainbow grid, an area that is underlain by Otter Granite in the north, a mafic diorite complex in the south, and by Nicola volcanic rocks in the central portion. Some possible zones appear to trend westerly off the grid.

A few, generally isolated, anomalous gold analyses occur within or near the large alteration zone that occupies central parts of the grid. The more easterly section of this zone is partly marked by strong magnetic patterns and old trenches expose significant pyrite-magnetite mineralization. Five rock samples from the alteration zone did not generate analyses of interest but the wide scattering of anomalous gold in soil values suggest that further examination is warranted.

12. CONCLUSIONS

The writers have completed programs of geophysical surveys and geochemical soil sampling on the Rainbow 2 and 3 mineral claims. Data have been plotted and evaluated. Approximately 198 soil samples remain to be analysed. Geological mapping and additional geophysical work are required in order to provide complete coverage of the existing grid. Approximately one half of the property remains to be explored by prospecting and surveys.

The Rainbow claims are located in an area of Nicola Group volcanic and sedimentary rocks that have been intruded by granitic rocks of Jurassic age and by dioritic rocks of Early Tertiary age. One major zone of intense argillic alteration is exposed on Rainbow 3 claim. Geochemically anomalous metal values are present in some areas of magnetic and electromagnetic activity.

It is concluded that the Rainbow claims exhibit geological characteristics favourable for the location of worthwhile deposits of massive sulphide and precious metals.

13. RECOMMENDATIONS

1) Analyse remaining soil samples and complete in-fill soil sampling at 25 metre spacing in areas of continuing interest

2) Map geologically all of the existing grid

3) Extend grid to northwest to provide coverage in the area of the apparent geophysical/ geochemical trend along the Otter Granite contact. Complete soil sampling, geological mapping, and magnetic and VLF-EM surveys of the grid extension

4) Extend grid to southeast onto Rainbow 4 claim to cover anticipated geophysical/geochemical trend in that direction

5) Methodically prospect remaining areas of the Rainbow claims

6) Compile and correlate Rainbow project data with detailed exploration data from claims that adjoin to the east and compile available data, geology, magnetics, electromagnetics and geochemistry, at suitable scale onto a single map.

7) Investigate other possible contouring configurations of VLF-EM data

T.E. Lisle, P. Eng

Erik A. Ostensoe, P. Geo

Erik A. Ostensoe

14. REFERENCES

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3) Camsell, C.	Geology and Mineral Deposits of the Tulameen District, British Columbia, Geol. Surv. Canada Memoir 26, 1913
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7) Lisle, T. E. and Ostensoe, E.	Prospecting Report on the Rainbow 2 and 3 Mineral Claims, Tulameen Area, Similkameen Mining Division, B. C., January 15, 1993.

15. PERSONNEL

The following persons carried out the field work and prepared the accompanying report:

1) T. E. LISLE, P. Eng.
- geologist, (UBC, 1964)
- more than thirty years experience in mineral exploration, principally in western and northern North America
- member of APEGBC, Geol. Assoc. Canada, CIMM
- performed field work as described in this report in the period October 16 through November 16, 1994

2) E. A. OSTENSOE, P. Geo.
- geologist, (UBC, 1960)
- more than thirty years experience in mineral exploration, principally in western North America
- member of APEGBC
- performed field work as described in this report in the period October 16 through November 16, 1994.

16. STATEMENT OF EXPENDITURES - Rainbow Project
- Tulameen, B. C.
- October-November, 1994

1. Travel and Transportation	- Four wheel drive-equipped Chev. Blazer (Ostensoe)	
	- one month @ $1000	$ 1000.00
	- Four wheel drive-equipped Ford Bronco (Lisle)	
	- one month @ $1000	1000.00
2. Soil and Rock Sample Analyses	- Acme Analytical Laboratories Ltd.	
	- invoice 94-4193	3996.05
	- invoice 94-4562	1309.68
3. Equipment, supplies, photocopying, map reproduction		863.95
4. (a) Accommodation	- house in Tulameen - one month	1000.00
(b) Food		743.65
5. Report Preparation	- ten person days @ $250/day	2500.00
	- fee for magnetometer data processing	200.00
6. Wages - field	- 64 person days @ $250/day	16000.00

Total Expenditures---$28,613.33

Erik A. Ostensoe

E. A. OSTENSOE

17. APPENDICES

APPENDIX 1. (a) GEOCHEMICAL DATA SHEETS
(b) Certificates of Analysis

APPENDIX 2. GEOPHYSICAL INSTRUMENTS
(a) Instruction Manual - GSM-19T Magnetometer
(b) Specifications and Instructions - Sabre Model 27 VLF-EM Receiver

APPENDIX 1

GEOCHEMICAL DATA

Abbreviations used on data sheets.

Type of survey : S = soil; SS = Silt; R = Rock

Depth : Recorded in meters.

Material : T = Till; Co = Colluvium; A = Alluvial;
GF = Glaciofluvial. F = Fluvial; O = Organic

% Organic : L = Low; M = Moderate; H = High

Colour : Br. = Brown; (L = Light; P = Pale; Y = Yellow;
R = Red; G = Grey, Dk = Dark)
Bl= Black.
G = Grey.
O = Orange

% Gravel : Estimated % of gravel sized fragments.*
Till commonly contains up to 10% cobble-sized fragments.

Horizon : A. Commonly black organic-rich surface material.
B. Commonly Brown to red-brown.
C. Commonly pale to yellow brown occurring at a depth of 0.5 meters or deeper.

Clay : L = Low; M = Moderate; H = High.

Silt : L = Low; M = Moderate; H = High.

Sand : L = Low; M = Moderate; H = High.

874.

PROJECT Rainbow Z.
DATE Nov 4, 1994.
LOCALITY Tulameen, B.C.

PLOTTED AIR PHOTO
MAP 92H056
SAMPLER T.E. Lisle

8N

	SAMPLE		LOCATION NTS UTM GRID ✓			TYPE SURV	BDRK	PT.S	Depth	material	organic	colour	CON	% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	W	NORTH														
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0+00	8+00	S	7		.45	T	L	YBr		±20	C	M	M	M	Hard Pan [illegible] bed.
2				0+50	8+00	S	?		.60	T?	L	BR.		25	C?	L-M	M	M-H	[illegible]
3				1+00	8+00	S	?		.45	T	L	YBr		±15	C	L-M	M	M	
4				1+50	8+00	S	?		.40	T	L	PBr		15-20	C	M	M	M-H	
5				2+00	8+00	S	?		.40	T	L	YBr.		±15	C	M	M	M-H	5 M [illegible]
6				2+50	8+00	S	?		.45	T?	L	YBr		<15	C	H	L	L	Dry clay or till
7				3+00	8+00	S	?		.40	T	L	YBr PBr		20-25	C	L-M	M	M.	HARD ⁝ COMPACT.
8				3+50	8+00	S	?		.55	T	L	PBr		25	C	L	M	H	Near Bedrock ? 20-2? [illegible] A-5A
9				4+00	8+00	S	?		.50	T	L	PBr		±20	C?	M	M	M	
10				4+50	8+00	S	?		.60	T	L	PBr		20	C?	M	M	M	10% SR [illegible]
				5+00	8+00	S	?.		.40	T?	L	PBr.		20%	C?	M	M	M	very Hard.

SN.

PROJECT Rainbow

DATE Nov. 4, 1994

LOCALITY Tulameen B.C.

PLOTTED

AIR PHOTO

MAP 92H 056

SAMPLER T.O.L.

SAMPLE		LOCATION Z	EAST W	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
			5+50	8+00	S	?		.45	T?	L	YBR		+20	C?	L	M	H	Repeat [illegible]
			6+00	8+00	S			.65	T	L	BR		+20	C?	L	M	M-H	50% SA-SR [illegible]
			6+50	8+00	S	?		.45	T	L	P.BR		15-20	C	L-M	M	M-H	15% [illegible] SA-SR [illegible]
			7+00	8+00	S	?		.30	T	L	P BR		15-20	C	M-H	M	M	Steep [illegible]
			7+50	8+00	S	?		.50	T	L	P BR		20	C	M	M	M	
			8+00	8+00	S	GST.		.20	Col?	L	BR.		+30	C?	L	M	M-H	Talus [illegible]
			8+50	8+00	S	GST		.25	Col?	L	BR		+35	C?	L	M	H	Lower [illegible] [illegible] Near [illegible]
			9+00	8+00	S	GST + DIO		.25	Col?	L	BR		+30	C	L	M	M	Base of [illegible] Frags [illegible] Bluffs
			9+50	8+00	S	GST + DIO		.15	T	L	P BR		~15	C	H	M	M	[illegible] clayey till
			10+00	8+00	S	?		.50	T	L	YBR		15-20	C	M-H	M	M	Near BR ? angular to SA. Frags.

PROJECT RAINBOW

L9N

DATE NOVEMBER 4, 1994.

LOCALITY LAWLESS CR., TULAMEEN, B.C.

PLOTTED AIR PHOTO

MAP

SAMPLER ERIK OSTENSOE

LOCATION NTS / UTM / [✓ GRID]

	SAMPLE 1,2,3,4	5,6,7,8	Z 9,10	WEAST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	material 29	Organic 30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand. 41	REMARKS
1				0+00	9+00				.60			?			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2				0+50					.35			Gy br		5	C	H	L	L	
3				1+00					.40			Lt br		5	C	H	L	[illegible]	
4				1+50					.50			Gy br		15	C	H	[illegible]	L	clay with some fist sized frag[illegible]
5				2+00					.40			Dkrd br		10	C	M	M	L	Probably mixed B+C. Large angular frags, [illegible]
6				2+50					.50			Gy br		10	C	H	L	L	clay till
7				3+00					.70			Yel br		15	C	H	M	M	softer till
8				3+50					.40			Yel br		15	C	M	M	M	Hard till Flatter ground.
9				4+00					.50			Gy br		10	C	H	M	L	Till. Hard, stoney.
10				4+50					.50			Br		2	B/C	M	M	M	Soil. Logged long ago

L9N

PROJECT RAINBOW

DATE NOVEMBER 4, 1994.

LOCALITY LAWLESS CR., TULAMEEN, B.C.

PLOTTED **AIR PHOTO**

MAP

SAMPLER Erik Ostensoe

LOCATION NTS / UTM / [✓ GRID]

SAMPLE 1,2,3,4	5,6,7,8	LOCATION Z 9,10	EAST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	organic material 29	30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
			5+00	9+00				.50			Dk br		3	B/C	H	M	M	Soil not till. Rocky. Flat ground.
			5+50					.60			Dk br		2	B/C	H	M	H	Above till. Also took a second spl from B horizon at depth 40cm
			6+00					.40			Lt br		5	C	H	M	L	Till. V. hard. Flatter terrain than to the W.
			6+50					.30			Lt br		10	C	H	L	L	Clay till V. hard. Slope 25°W.
			7+00					.50			Lt br		5	C	H	M	L	As below.
			7+50					.50			Lt br		10	C	H	M	L	Modified till.
			8+00					.40			Red br		5	B	M	M	L	Near top of steepest terrain. Good material.
			8+50					.45			Lt br		15	C	M	M	L	Treeroot near △ Poor, much angular talus. Cr. at 8+60W.
			9+00					.35			Dk brown		15	B/C	H	M	M	Light soil in colluvium.
			9+50					.30			Red brown		3	B	M	M	M	Much Colluvium. Otps close by.
			10+00					.50			Lt br.		5	C	H	M	L	Near top of slope. Sidehill drops off steeply to East.

LION

PROJECT RAINBOW

DATE November 3, 1994

LOCALITY LAWLESS CREEK, TULAMEEN, BC

PLOTTED AIR PHOTO

MAP

SAMPLER T.E.LISLE

SAMPLE		LOCATION NTS UTM [✓ GRID]			TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand.	REMARKS
		Z	WEST	NORTH														
1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
			0+00	10+00	S			.45	T	L	Br-PBr		15-20	C	M	M	M	[illegible]
			0+50	10+00	S			.25	T	L	PBr		±15	C	H	L	L-M.	[illegible]
			1+00	10+00	S			.35	T	L	PBr		15	C	M	M	M	
			1+50	10+00	S			.60	T	L	PBr		+20	C	L	M	H	[illegible]
			2+00	10+00	S			.40	T	M	Br		±15	B	H	M	L	[illegible]
			2+50	10+00	S			.70	?	L	PBr		15-20	C?	L	L	H	[illegible]
			3+00	10+00	S			.70	T	L	PBr		15-20	C	L	L-M	H	[illegible]
			3+50	10+00	S			.60	T	L	YBr PBr		15-20	C	L-M	M	M-H	[illegible]
		A	4+00	10+00	S			.55	T	L	PBr		15-20	C	L-M	L-M	M	[illegible]
			4+50	10+00	S			.45	T	L	YBr		15-20	C	L-M	M	M-H	Sandy till
		(B)	4+00W	10+00	S			.15	T.	L	RBR		±15	B	M-H	M	L-M.	[illegible]

LION

PROJECT RAINBOW

DATE November 3, 1994

LOCALITY LAWLESS CREEK, TULAMEEN, B.C.

PLOTTED

AIR PHOTO

MAP

SAMPLER ERIK OSTENSOE

SAMPLE		LOCATION NTS UTM [✓ GRID] Z	WEAST	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
			5+00	10+00	S			.55	T	L	Y B		+15	C	M	M	M	Till TEL
			5+50		S			.50	T	L	Y B		+15	C	M-H	M	L-M	TEL
			6+00		S			.50			Pale br		15	C	M	M	M	Till. On ridge facing west.
			6+50		S			.25			Grey br		10	C	M	M	M	HARDPAN TILL. Steep slope West
			7+00		S			.45			Br		5	C	M	H	M	Not hardpan
			7+50		S			.40			Br		10	C	M	H	M	As above. Some talus from otps up slope. V. steep W.
			8+00		S			.35			Lt br		70	C/B	L	M	H	Angular talus frags from otps at 7+80W area. Large bag of sample due to scarcity of fines.
			8+50		S			.50			Lt br		20	C	L	H	H	cr. at 8+25W to 8+35W Sandy modified till.
			9+00		S			.45			Lt br		10	C	M	M	M	Till-like but modified.
			9+50		S			.50			Lt br		2	C	H	M	L	clay.
			10+00					.50			Red br		5	B	L	M	M	Sandy, rusty, Lowermost B.

LIIN

PROJECT RAINBOW

DATE November 2, 1994

LOCALITY Lawless Creek, Tulameen, BC

PLOTTED

AIR PHOTO

MAP

SAMPLER Erik Ostensoe

	SAMPLE		LOCATION NTS UTM [✓ GRID]			TYPE SURV	BDRK	DR PT.S	Depth	material	organic	COL	C	% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	WEAST	NORTH														
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0+00	11+00				.60			Grey br			C	H	L	L	clayey and stone till.
2				0+50					.50			Lt br			C	H	L	L	As above.
3				1+00					.20			Dk Rd br			B	L	M	M	V. shallow. Bedrock otp closeby.
				1+50					.60			Pale br		10	C	M	M	?	Till.
5				2+00					.50			Middle Br.		5	?C	M	H	M	Uppermost till?
6				2+50					.60			Yel br		5	C	H	M	L	Till
7				3+00					.90			Br		5	C	H	M	L	Till. Road cut bank.
3				3+50					.55			Pale br		5	C	H	M	?	Till. Old logged area
9				4+00					.50			Yel br		10	C	H	M	?	V. hard till.
0				4+50					.35			Yel br		15	C	H	M	?	As above.

L 11N

PROJECT RAINBOW

DATE November 2/3, 1994

LOCALITY LAWLESS CREEK, TULAMEEN, B.C.

PLOTTED AIR PHOTO

MAP

SAMPLER ERIK OSTENSOE

SAMPLE 1,2,3,4	5,6,7,8	LOCATION NTS UTM [✓ GRID] Z 9,10	W EAST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	organic material 29	30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
			5+00	11+00				.50			Yel br		10	C	H	M	?	Till
			5+50					.40			mixed br		20	B/C	M	M	M	Mixed B/C. horizons. V. hard C. steep slope
			6+00					.40			Gy br		20	C	H	M	L	V. hard till
			6+50					.60			Gy br		25	C	M	M	L	Hard stoney till much rock frags.
			7+00					.40			Lt br		15	C	H	M	L	Till. V. steep slope!
			7+50					.50			Dk br		60	?C	L	M	H	Poor sample.
			8+00					.50			Gy br		20	C	H	M	L	Hard clay ~~till~~ Cr. at 7+75 to 7+82 W.
			8+50					.50			Dk br		25	C	L	M	H	Water washed material. Few fines. Poor sample!
			9+00					.45			Gy br		5	C	H	M	L	Till. V. hard.
			9+50					.50			Gy br		5	C	H	M	L	Stoney clay. Rounded rocks.
			10+00					.65			Dk gy br		2	C	H	M	L	Clay with cobbles May be lacustrine.

L12N

PROJECT RAINBOW

DATE Nov. 6, 1994

LOCALITY LAWLESS CR. TULAMEEN. B.C.

PLOTTED

AIR PHOTO

MAP

SAMPLER Erik Ostensoe

	SAMPLE 1,2,3,4	 5,6,7,8	LOCATION NTS/UTM/GRID Z 9,10	EAST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	organic material 29	 30	colour 31,32	 33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
1				10+00	12+00				.45			Br		?	C	H	M	L	Good material from B/C interface area.
2				9+50					.40			Lt bR		3	C	H	M	L	okay.
3				9+00					.40			Lt br		2	C	H	M	L	
4				8+50					.50			Lt gy br.		5	C	M	M	L	Harder ↓
5				8+00					.50			Br.		15	C	L	M	H	Washed till. Hard, rocky.
6				7+50					.50			Lt br		15	C	M	M	M	Cr. at 7+75W. Several channels. Spl. taken 5m S of line due to bldrs.
7				7+00					.70			Br		30	C	L	L	H	coarse sand/gravel. Waterwashed till-from tree root exposure.
8				6+50					.50			Lt br		10	C	H	M	L	Till.
9				6+00					.35			Pale br		5	C	H	L	L	clay till. Hard.
10				5+50					.60			Lt br		15	C	M	M	M	Loose gravelly till.

PROJECT RAINBOW

DATE November 6, 1994

LOCALITY LAWLESS CR. TULAMEEN, BC

PLOTTED AIR PHOTO

MAP 12N.

SAMPLER Erik Ostensoe

	SAMPLE	SAMPLE	LOCATION NTS UTM [✓ GRID] Z	W EAST	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				5+00	12+00				.55			Lt br		8	C	M	M	L	Till
2				4+50					.60			Lt br		10	C	M	M	L	Till
3				4+00					.50			DK Br		5	C	H	M	L	Road cut. East side of road is at 4+04W. W side about 4+12W. Till
4				3+50					.45			Lt br		5	C	H	M	L	Till
5				3+00					.50			Lt br		3	C	H	H	L	Till – clayey.
6				2+50					.35			~~DK~~ Red br.		8	B	M	M	L	Good soil but rocky
7				2+00					.30			~~DK~~ Chos brown			B	M	M	L	v. rocky Colluvium + soil.
8				1+50					.35			Br			C	H	M	L	Till?
9				1+00					.25			Pale Yellow Br			B/C	H	H	O	Rocky. Outcrops near. Fine powdery soil.
10				0+50					.35			Lt br		5	C	H	H	L	v. finely textured soil
				0+00					.25			Grey br		High	B/C	H	M	L	Much outcrop. Old trenches. Angular large rock frags with clay infilling.

L13N

PROJECT RAINBOW

DATE NOVEMBER 1/2, 1994.

LOCALITY LAWLESS CR. TULAMEEN, BC

PLOTTED AIR PHOTO

MAP 13N

SAMPLER ERIK OSTENSOE

SAMPLE		LOCATION NTS UTM [✓ GRID]			TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
1,2,3,4	5,6,7,8	Z 9,10	W~~E~~AST 11,12,13,14,15	NORTH 16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
			0+00	13+00				.70			DK BR		50	B	L	L	M	Much talus fines. Angular frags.
			0+50					.60			Dk Yel.Br		15	C	M	M	M	Till. on slope 20° south
			1+00					.70			Lt br		10	C	M	M	M	? not usual till. Modified till ?
			1+50					.70			Yel br		15	C	M	M	L	Till.
			2+00					.60			Rd br		10	B/C	M	M	M	Not [illegible] con. Flat ground.
			2+50					.50			Yel br		10	C	H	M	M	Till.
			3+00					.50			Yel grey		15	C	H	M	M	Hard till.
			3+50					.40			Grey		20	C	H	M	M	Hard till.
			4+00					.50			Lt br		15	C	H	M	M	Till ROAD
			4+50					.50			Lt br		10	C	H	M		Till.

PROJECT RAINBOW

DATE November 2, 1994

LOCALITY Lawless Cr. Tulameen, B.C.

PLOTTED AIR PHOTO

MAP

SAMPLER Erik Ostensoe

13N

SAMPLE		LOCATION NTS UTM [✓ GRID] Z	WEAST	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
			5+00	13+00				.50			Grey		5	C	H	M		Clayey till
			5+50					.25			Grey br		5	C	H	L		Stoney hard till.
			6+00					.40			Grey br.		5	C	H	L	L	Clayey till. Cr. at 6+25W.
			6+50					.50			Grey br		5	C	H	M	L	Clayey till. Spl is from knife ridge between 2 drainages
			7+00					.70			Dk br		5	C	H	M	M	Till but loosened a bit.
			7+50					.50			~~Red~~ Br		10	B	L	H	H	Gravel, 20° slope S. Cr. at 7+25W.
			8+00					.50			Br		5	C	H	M	?	Till. steep slope to S. Cr. at 8+25W.
			8+50					.30			Grey		10	C	H	M	?	Till. Steep slope to SSE.
			9+00					1.00			grey br			C	H	M	M	Disturbed till from beneath tree root.
			9+50					.65			Ltbr			C	M	M	?	Till.
			10+00					.45			GreyBr			C	H	M	L	Till. Hard, stoney.

L14N

PROJECT RAINBOW

DATE OCT 31, NOV. 1, 1994

LOCALITY LAWLESS CR. TULAMEEN, BC

PLOTTED AIR PHOTO

MAP 14N

SAMPLER ERIK OSTENSOE

SAMPLE 1,2,3,4	5,6,7,8	LOCATION NTS/UTM/GRID Z 9,10	WEAST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	material 29	organic 30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
			0+00	14+00				.30			Grey Br.		3	C	H	H	H	Till.
			0+50					.50			Dk Br.		5	C	H	H	M	Maybe till likely ovb.
			1+00					.50			Rd Br		10	C	M	H	H	
			1+50					.50			DK BR.		10	C	M	M	H	
			2+00					.50			Grey br		5	C	M	M	L	uppermost till. Also took B-horizon sample for comparison
			2+50					.70			~~DK~~ BR		3	BC	H	H	L	soil. Not till.
			3+00					.50			~~Dkgy~~ br		5	C	H	M	L	Till.
			3+50					.55			~~Dkgr~~ br		2	C/B	H	M	L	clayey. Dark soil.
			4+00					.55			Rd br		3	C/B	M	M	M	Fair to good material. Road E side at 4+08W
			4+50					.55			Br		5	B/C	M	M	M	Flatter ground than to the west. Not till.

L14N

PROJECT RAINBOW
DATE NOVEMBER 1, 1994
LOCALITY LAWLESS CR. TULAMEEN, BC

PLOTTED AIR PHOTO
MAP
SAMPLER Erik Ostensoe

14N.

	SAMPLE 1-4	SAMPLE 5-8	LOCATION (NTS / UTM / [✓ GRID]) Z 9-10	WEAST 11-15	NORTH 16-21	TYPE SURV 22	BDRK 23-24	DR PT.S 25	Depth 26-28	material 29	organic 30	colour 31-32	33	% Gravel 34-35	Horizon 36-37	Clay 38-39	Silt 40	Sand 41	REMARKS
1				5+00	14+00				.50			Pale grey		1.0	C	H	M	L	Till.
2				5+50					.50			Grey br		1.0	C	H	M	L	See below.
3				6+00					.50			Grey br		1.5	C	H	M	L	V. Very hard clay till. Seems v. sterile.
4				6+50					Deep? .50			Grey br		2	C	H	L	L	clay till. This is from an old landslip scar so might be 3 or 4 m. deep. Cr. at 7+10 W. Spl. from sideslope. Much
5				7+00					.50			Grey br		3	C	H	M	M	clay, some coarse gravel. may be moving down hill.
6				7+50					.50			Lt br		5	C	H	H	M	Till under veneer 30cm thick of coarse waterworn gravel to 1"!
7				8+00					.70			Grey br		3	C	H	M	L	clay till. Slope 25° S.
8				8+50					.50			Grey br		5	C	H	M	L	clay till. Cr. at 8+60 W waterfoll 10m upstream to North.
9				9+00					.50			Grey		5	C	H	L	L	clay till On steep slope to SE.
10				9+50					.55			Dk rd br		1.5	C	L	M	M	Gravel rich, 1cm+ dia
				10+00					.60			Rd br.		10	C	L	H	H	Sandy, low clay. dark colour. Fair.

L15N

PROJECT RAINBOW

DATE October 31, 1994

LOCALITY LAWLESS CREEK, TULAMEEN, B.C.

PLOTTED

AIR PHOTO

MAP

SAMPLER ERIK OSTENSOE

LOCATION: NTS / UTM / [✓ GRID]

	SAMPLE 1-4	SAMPLE 5-8	LOCATION Z 9-10	W/E ST 11-15	NORTH 16-21	TYPE SURV 22	BDRK 23-24	DR PTS 25	Depth 26-28	material 29	organic 30	colour 31-32	33	% Gravel 34-35	Horizon 36-37	Clay 38-39	Silt 40	Sand 41	REMARKS
1				5+00	15+00				.60			Dk br		25	C	O	L	H	washed gravel. Likely of no value.
2				4+50					.55			Lt br		15	C	L	M	M	Fair to good matl. 15m W of roadedge.
3				4+00					.35			BR		10	C	H	H	M	not till.
4				3+50					.45			Lt br		20	C	H	H	L	Probable [illegible]
5				3+00					.50			Lt br		20	C	M	M	L	
6				2+50					.55			Lt br-yellow		5	C	M	M	M	Upper [illegible]
7				2+00					.35			Lt br		5	C	M	M	M	
8				1+50					.40			Lt br		5	C	M	M	M	
9				1+00					.20			BR		5	C	M	M	M	[illegible] rock. BR?
10				0+50					.50			[illegible]		5	C	MH	M	M	
				0+00					.35			Grey BR		5	C	H	M	L	Tree root. Rocky.

L15N

15N

PROJECT RAINBOW

DATE OCTOBER 31, 1994

LOCALITY LAWLESS CR. TULAMEEN, BC

PLOTTED

AIR PHOTO

MAP

SAMPLER ERIK OSTENSOE

	SAMPLE 1,2,3,4	5,6,7,8	LOCATION NTS UTM [✓ GRID] Z 9,10	W~~E~~ AST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	material 29	organic 30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
1				10+00	15+00				.55			Rd br		10	C	L	M	H	Sandy. Not Dk reddish. till.
2				9+50					.70			Grey br		5	C	H	M	M	Till Taken at 9+55W
3				9+00					.50			Rd br		10	B/C	D	L	H	Sandy soil. Red To dk choc brown
				8+50					.50			Rd br		15	C	L	M	M	Uppermost till.
5				8+00					.60			Rd br		20	?B	O	L	H	Gravel/sand not till.
				7+50					.50			Rd br		20	B/C	O	L	H	May include topmost till. Sandy material + dirt.
7				7+00					.70			Pale br		15	B/C	L	M	H	C horizon? Not till.
				6+50					.50			Pale br		15	C	L	M	H	Washed till material on slope.
9				6+00					.70			Pale br		20	C	O	M	H	Fine red. [illegible] loose angular rock frags & sand
0				5+50					.55			Pale br		20	C	L	M	H	

L16N

PROJECT RAINBOW

DATE OCT 29/30, 1994.

LOCALITY Lawless Cr. Tulameen BC

PLOTTED **AIR PHOTO**

MAP

SAMPLER Erik Ostensoe

	SAMPLE		LOCATION NTS / UTM / GRID			TYPE SURV	BDRK	DR PT.S	Depyh	material		colour	organic	% Gravel	Hprizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	Z 9 10	WEAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0+00	16+00				.30			LT BR.			C	M	M	M	clay at top of till.
2				0+50					.40			LT BR.			C	H	M	M	Clay-sand at top of till.
3				1+00					.45			Y BR.			C	M	M	M	
4				1+50					.45			Lite BR.			C	H	M	M	Till
5				2+00					.45			Lite BR.			C	M	M	H	Till.
6				2+50					.50			Lt BR			C	H	M	M	Uppermost till.
7				3+00					.40			~~Lt~~-Yel Br.		10	C	M	M	M	Till.
8				3+50					.50			~~Yel~~ Br gr		10	C	M/~~H~~	M	?	Modified till
9				4+00					.55			Yel YBr.		15	C	M/H	M	L	Till. Much rock.
10				4+50					.50			Red Br.		10	B/C	M	M	M	Just below road. W side. coarse rocks. Poor to fair spl.

LIGN

PROJECT RAINBOW

DATE OCT. 30, 1994

LOCALITY LAWLESS CR. TULAMEEN, BC

PLOTTED

AIR PHOTO

MAP

SAMPLER ERIK OSTENSOE

	SAMPLE 1 2 3 4	5 6 7 8	LOCATION NTS UTM [✓ GRID] Z 9 10	EAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	TYPE SURV 22	BDRK 23 24	DR PT.S 25	Depth 26 27 28	organic material 29	30	colour 31 32	33	% Gravel 34 35	Horizon 36 37	Clay 38 39	Silt 40	Sand 41	REMARKS
1				5+00	16+00				.40			Rd br		25	C	L	M	M	Much gravel. no till as such.
2				5+50					.50			Red br		20	B/C	L	M	H	Not till. Sub-Rounded gravel.
3				6+00					.50			Yel br		25	C	M	M	M	Till. Cr. at 6+00W spl. taken from slope at 5+72W Flows S.
				6+50					.55			Rd br		15	C	L	H	H	Not till.
5				7+00					.50			Rd br		15	C	L	L	M	Top of till.
6				7+50					.60			Yel br		15	C	M	M	L	Till.
7				8+00					.55			Red br.		20	C	L	L	H	Gravelly, rocky.
3				8+50					.45			Yel br		10	C	L	M	H	sandy/gravelly On ridge, Creek at 8+70W, flows S.
9				9+00					.50			Lt br		5	C	H	L	M?	Upper till?
.0				9+50				10	.30			DK br		0	B	L	M	M	on bedrock or bldr. Much organic. Poor spl.
				10+00					.60			Rd br		10	(B)C	L	H	H	Gravelly. ~~20~~ 25m W of small cr. (flows SE'ly)

17N

PROJECT RAINBOW

DATE Oct 29/94

LOCALITY TULAMEEN

PLOTTED

AIR PHOTO

MAP 92H 056

SAMPLER T.B.L.

	SAMPLE		LOCATION NTS UTM GRID ✓			TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	~~EAST~~ W	NORTH														
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0+00	17+00	S	?		.45	T	L	PBr		20	C?	M	M	M.	
2				0+50	17+00	S	?		.30	T	L	Br		+25	C?	H-M.	M	M	Bedrock? Location Approx
3				1+00	17+00	S	?		.55	T	L	P.Br		20	C	M	M	M	
4				1+50	17+00	S	?		.45	T	L	P-Y Br		+15	C	M	M	H-M.	
5				2+00	17+00	S	?		.40	T	L	P.Br.		15-20	C	M.	M	M.	
6				2+50	17+00	S	?		.55	T	L	R-Y Br		+15	C	M	M	M+H.	Top of "C"
7				3+00	17+00	S	?		.50	T	L-M.	DK.Br.		10	B	M-H	M	L	Low Draw.
8				3+50	17+00	S	?		.50	T	L	P.Br.		15	C?	M	M	M.	
9				4+00	17+00	S	?		.45	T	L	P.Br.		+15	C	M.	M	M	
10		443		4+50	17+00	S	?		.25	T	L	P.Br.		~20	C	H	M	M	Lower Road Bank by ditch.

L17N

PROJECT RAINBOW

DATE OCTOBER 30, 1994.

LOCALITY LAWLESS CR. TULAMEEN, B.C.

PLOTTED **AIR PHOTO**

MAP

SAMPLER ERIK OSTENSOE

	SAMPLE 1 2 3 4	SAMPLE 5 6 7 8	LOCATION NTS/UTM/GRID Z 9 10	WEAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	TYPE SURV 22	BDRK 23 24	DR PT.S 25	Depth 26 27 28	material 29	organic 30	colour 31 32	33	% Gravel 34 35	Horizon 36 37	Clay 38 39	Silt 40	Sand 41	REMARKS
1				5+00	17+00				.60			Yel br		10	C	L	M	M	Till - borderline material.
2				5+50					.50			Rd br		15	C	M	M	M	Till.
3				6+00					.35			Yel br		40	C	L	L	H	colluvium + Talus fines Cr. at 6+15W. 5→
4				6+50					.40			Rd br		35	?C	L	M	H	Much coarse rock frags
5				7+00					.45			Rd br		20	C	L	M	H	coarse rocky
6				7+50					.50			Rd br		15	C	L-M	M	M	Fairly good spl.
7				8+00					.40			Dk Rd		10	?C/B	H	H	M	Big rocks.
8				8+50					.50			Dk br		10	C	M	M	M	Not till.
9				9+00					.50			Dk br		25	C	L	M	H	Sand + gravel
10				9+50					.50			Rd br		20	C	L	M	H	Sandy.
				10+00					.45			Rusty red		20	3	L	M.	H	Sandy, + gravel

PROJECT RAINBOW

DATE OCT. 29, 1994 (SAT.)

LOCALITY LAWLESS CR. TULAMEEN, B.C.

PLOTTED

AIR PHOTO

MAP 18N.

SAMPLER Erik Ostensoe

LOCATION NTS / UTM / [✓ GRID]

SAMPLE 1 2 3 4 5 6 7 8	LOCATION Z 9 10	WEAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	TYPE SURV 22	BDRK 23 24	DR PT.S 25	Depth 26 27 28	organic material 29	30	colour 31 32	33	% Gravel 34 35	Horizon 36 37	Clay 38 39	Silt 40	Sand 41	REMARKS
		10+00	18+00				.45			Rd Br		10	C	M	M	M	Sandy material with small gravel.
		9+50					.45			Rd BR		10	C	L	H	H	Similar to 10W
		9+00					.45			Pale Brwn BR		5	C	H	M	L	Clayey till
		8+50					.50			Rd Br		10	C	M	H	M	[illegible]
		8+00					.60			Dk Br		10	C	H	M	L	[illegible]
		7+50					.60			Rd BR		15	C	M	H	M	Cr. [illegible] 25° [illegible] side [illegible] material [illegible]
		7+00					.45			Rd BR		10	C	M	H	H	[illegible]
		6+50					.50			Rd Br		10	C	M	H	H	Rocky [illegible]
		6+00					.75			Rd Br		10	C	M	H	H	On slope to Cr. at 5+90W. Good spl.
		5+50					.50			Rd BR		5	C	H	H	L	[illegible] Clayey Rusty.

L18N

PROJECT RAINBOW

DATE OCT. 29, 1994

LOCALITY LAWLESS CR. TULAMEEN, B.C.

PLOTTED

AIR PHOTO

MAP

SAMPLER E. OSTENSOE

	SAMPLE		LOCATION NTS UTM GRID Z	WEAST	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
				5+00	18+00				.50			Dk Br			C	H	H	L	Cr. at 5+20W to 5+25W. Stoney.
2				4+50					.50			Dk Br			C	H	H	M	Road 4+10W to 4+15W
3				4+00					.50			Yel. Br.			C	M	M	M	Till.
1				3+50					.40			Pale Br			C	M	M	M	[illegible]
5				3+00					.35			Rd Br			B	M	M	M	Dr. hard[illegible] + till.
5				2+50					.70			Yel. Br.			C	M	M	L	[illegible]
7				2+00					.45		25	Yel Br			C	H	M	M	Stony till-Much rock in sample
3				1+50					.40		20	Br			C	M	M	M	Till. V. hard, Stoney
9				1+00					.20			Dk Br			B/C	L	M	H	BR. [illegible] shallow in trees.
0				0+50					.35			Rd Br			B	L	M	M	FAIR
				0+00					.20			Rd Br			B	M	M	M	V. rocky ground poor soil

19N

PROJECT RAINBOW

DATE OCT 1994

LOCALITY TULAMEEN, BC

PLOTTED AIR PHOTO

MAP 92H056

SAMPLER T.B.LISLE

LOCATION NTS / UTM / GRID ✓

	SAMPLE 1-4	SAMPLE 5-8	LOCATION Z 9-10	~~EAST~~ W 11-15	NORTH 16-21	TYPE SURV 22	BDRK 23-24	DR PT.S 25	Depth 26-28	organic material 29	30	colour 31-32	33	% Gravel 34-35	Horizon 36-37	Clay 38-39	Silt 40	Sand 41	REMARKS
1				4+50	19+00	S			.40	TF ?	L	RBr		35	B ?	L-M	M	M-H	
2				4+00	19+00	S			.20	TF	L	RBr		+50	C ?	L	L	M	
3				3+50	19+00				.55	T	L	P.Br		20	C ?	M	M	M	
4				3+00	19+00	S	?		.45	T	L	P.Br.		25	C ?	L-M.	M	M-H	
5				2+50	19+00	S	?		.45	T	L	P.Br.		15	C	M.	M	M	
6				2+00	19+00	S	?		.50	T	L	P.Br.		15	C	M-H	M	M	
7				1+50	19+00	S	Closest		.15	T	L	DKBr.		10-15	C	M-H.	M	M	
8				1+00	19+00	S	?		.40	T	L	P.Br.		15	C	M	M	M	
9				0+50	19+00	S	?		.45	T	L	P.Br.		+15	C ?	M.	M	M	
10				0+00	19+00	S			.40	T	L	P.Br.		+15	C ?	M.	M	M	

) 19N.

19N

PROJECT Rainbow

DATE OCT. 20/84

LOCALITY Tulameen

PLOTTED

AIR PHOTO

MAP 92H056

SAMPLER T. E. LISLE

LOCATION NTS / UTM / GRID [✓]

	SAMPLE		LOCATION			TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	~~EAST~~ W	NORTH														
	1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
1				10+00	19+00	S			.50	T	L	Br.		15-20	C	M-H	M	M-L.	clayey Till
2				9+50	19+00				80	T		Br		10	C	H	M	L	EAO sample brown clayey till.
3				9+00	19+00	S			.50	T	L	Pale. Br.		15	C	M	M	L-M.	
4				8+50	19+00				.40	T	L	YB		15	C	M-H	M	M	
5				8+00	19+00	S			.55	T	L	RB		± 20	B?	M	M	M	
6				7+50	19+00	S			.60	T	L	YB		20	C	M-H	M	M-H	
7				7+00	19+00	S			.65	T	L	YB		± 20	C	M-H	M	M.	
8				6+50	19+00	S			.60	T	L	YB		± 20	C	L-M.	M	M	10M W of. CK.
9				6+00	19+00	S			.50	T	L	YB		20	C	L-M.	M	M-H.	
10				5+50	19+00	S			.65	T	L	R-Y B		25	C?	L-M.	M	M	Rocks Angular to sub angular.
				5+00	19+00	S			.55	T	L	Pale Br.		15-20	C	L-M.	M	H	

20N

PROJECT Rainbow. 2

DATE Oct. 27/94

LOCALITY Tulameen.

PLOTTED

AIR PHOTO

MAP 92H056

SAMPLER T.E. Lisle

	SAMPLE 1,2,3,4	5,6,7,8	LOCATION (NTS / UTM / GRID ✓) Z 9,10	~~EAST~~ W 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	material 29	organic 30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
1				0+00	20 00	S	?		.60	T	L	P.Br		20	C	M.	M	M	
2				0+50	20+00	S	?		.40	T	L	P.Br.		+15	C?	M	M	M	
3				1+00	20+00	S			.50	T	L	Y.Br.		15	C	M	M	H?	
4				1+50	20+00				.45	T	L	Y.Br.		15	C	M	M	M	
5				2+00	20+00				.60	T	L	RBr		15	B?	M	M	M	
6				2+50	20+00	S			.60	T	L	P.Br.		15	B? C?	M	M	M	C?
7				3+00	20+00	S			.30	T	L	BR		20	B	M	M	M	? subcrop ?
8				3+50	20+00	S			.70	T	L	YBr		+15	C	M	M	M	Near old pits
9				4+00	20+00	S			.40	T	L	P.Br.		20	C	M	M	M	
10				4+50	20+00	S			.50	T	L	YBr.		20	C	M-H	M	M	
				5+00	20+00	S			.65	T	L	BR		20	B?	M	M	M	Near Bldrk? Bedrock

20N

20N·

PROJECT RAINBOW 2
DATE OCT 27 / 94
LOCALITY TULAMOON

PLOTTED
AIR PHOTO
MAP 92H 056
SAMPLER T. E. L.

	SAMPLE		LOCATION NTS UTM GRID ✓			TYPE SURV	PDRK	DR PT.S		organic										REMARKS
			Z	WEST	NORTH				Depth	material		colour		%Gravel	Horizon	Clay	Silt	Sand		
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41		
1				5+50	20+00				·25	T	L	YBr		+30	C	H	M	L		
2				6+00	20+00				·50	T	L	PBr		20	C	M-H	M	M-L		
3				6+50	20+00	S			·60		H	Bl		<5	A	L?	L	L		
				7+00	20+00	S			·50	T	L	GBr		15	C?	M	M	M		
5				7+50	20+00	S			·60	T	L	R Br YBr		15	C?	M	M	M		
6				8+00	20+00	S			·65	T	L	R-Br Y-Br		20	C?	M	M	M		
7				8+50	20+00	S			·70	T	L	R Br YBr		20	C?	M	M	M		
8				9+00	20+00	S			·60	T	L	YBr Br		15	C	M	M	M		Top of 'C'
9				9+50	20+60	S			·60	T	L	Br		15-20	C?	H	M	L		
10				10+00	20+00	S			·50	T	L	YBr RBr		20	C?	M	M	M		

L21N

21N

PROJECT RAINBOW

DATE Oct.

LOCALITY LAWLESS CR. TULAMEEN BC

PLOTTED

AIR PHOTO

MAP

SAMPLER E. OSTENSOE

SAMPLE		LOCATION NTS UTM [✓ GRID] Z	W EAST	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	material		organic colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
			5+00	21+00				.50			Yel br		20	C	M	H	H	
			5+50					.80			Yel Br		10	C	M	M	M	
			6+00					2.00			Yel Br.			C	H	H	M	Road cut bank clay till.
			6+50					.40			~~Red~~ br			C	L	H	H	Gravel, sand 3m South [illegible] road.
			7+00					Road cut 2.0						C	H	L	L	[illegible]
			7+50					.55			Yel Br.			C	M	M	M	[illegible] 5
			8+00				?	Unknown			Dk Br			C	M	M	M	From high cut bank Till
			8+50					.45			Rd BR			C	M	M	M	
			9+00					.50			Rd br			C	L	M	H	SANDY
			9+50					.50			Pale br			?C	L	M	H	SANDY. Road is 7m W of 10 W.
			10+00					.40			Red brown			B(c).	M	M	M	

L2IN

2/N

PROJECT RAINBOW

DATE OCTOBER 28, 1974

LOCALITY LAWLESS CREEK, TULAMEEN, BC

PLOTTED **AIR PHOTO**

MAP

SAMPLER Erik Ostensoe

LOCATION NTS / UTM / [✓ GRID]

SAMPLE 1,2,3,4	5,6,7,8	Z 9,10	W EAST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PTS 25	Depth 26,27,28	organic material 29	30	colour 31,32	CON 33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
			0+00	21+00				.70			Rd br			B	H	L	L	Tree root special.
			0+50					.50			BR			C	M	H	M	Tree root. Good material.
			1+00					.40			DK BR			BC	M	M	M	Fair. Rocky
			1+50					.35			Rusty br			B	L	M	L	Rocky. Sandy
			2+00					.40			Rd br			B	L	H	L	Rocky ground. Lower B.
			2+50					.60			DK br			CB	M	H	M	B/C.
			3+00					.50			DK br			C	L	H	L	on top of hardpan
			3+50					.50			Rdbr			C	M	H	H	Rx otp at 2+80 W. o.k.
			4+00					.45		15	Yel br			C	L	H	H	
			4+50					.30		15	Rd br			B	L	M	H	Colluvium. On steep S-facing slope

L22N

~~1A~~

PROJECT RAINBOW

DATE OCTOBER 25, 1994.

LOCALITY LAWLESS CREEK, TULAMEEN BC

PLOTTED

AIR PHOTO

MAP 92H-056

SAMPLER [illegible]

22N

	SAMPLE		LOCATION ~~NTS~~ ~~UTM~~ GRID			TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	Z 9 10	W EAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	Shaft 7 x 6 at 5+00W
1				5+00	22+00		Schist		.40			Red br		10	C	L	M	M	Rocky. BR otp adjoins spl. site. Rusty sericit schist fmn. Continu to 5+25W. in otp
2				4+50					.70			Lt br		10	C	M	M	M	Not till.
3				4+00					.50			dk br		10	C	M	M	M	Till
4				3+50					.50			mid br		5	C	H	M	M	From immediately above till layer
5				3+00					.60			mid br		10	C	M	M	M	As above.
6				2+50					.30			DK br		5	C/B?	M	M	M	Open [illegible] BR otps
7				2+00					.30			~~DK Rd~~ Br		10	B	M	M	M	Colluvium. and reddish-br. v.rocky. soil.
8				1+50					.40			Rd br		10	B/C	M	M	H	Not a till.
9				1+00					.40			Br		15	C	M	M	H	Sandy, rocky till.
10				0+50					.60			Grey br		10	C	H	L	L	Muddy till - clay would rusty B be better?
				0+00					.50			DkGrey		5	C	H	L	L	Tree root. All clay.

~~15~~

22N

PROJECT RAINBOW

DATE OCT. 25 1994

LOCALITY LAWLESS CR TULAMEEN, BC

PLOTTED **AIR PHOTO**

MAP 92H - 056

SAMPLER Erik Osterso

SAMPLE 1,2,3,4	5,6,7,8	LOCATION NTS UTM [✓ GRID] Z 9,10	W EAST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	organic material 29	30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
			10+00	22+00				.50			br		15	C	M	M	M	Topmost layer of till?
			9+50					1.80			lt br		10	C	H	M	L	Soil taken at 9+41W from road cut bank. Good spl.
			9+00					.60			dk br		5	C	M	H	M	Not the usual hard packed rocky till Deep soil.
			3+50					.40			dk br		5	C	M	M	M	Dirt from top of till layer
			3+00					.80			lt br		5	C	M	M	M	Till
			7+50					.90			lt br		10	C	H	M	L	creeks at 7+47, 7+65W spl from creek bank Rocky till layer. Forest east of 7+50W
			7+00					.80			lt br		10	C	H	M	M	Till
			6+50					.65			lt br		10	c	M	M	M	Till
			6+00					.50			~~Grey~~ br		15	C	M	M	M	Pale brown to grey Hard stoney till.
			5+50					.50			Lt br		10	C	M	M	M	Stoney till. From slope W'ly to creek at 5+54W

L23N

15

PROJECT RAINBOW

DATE OCTOBER 25/27, 1994

LOCALITY LAWLESS CR. TULAMEEN BC

PLOTTED **AIR PHOTO**

MAP 92H-053

SAMPLER E Ostensoe

	SAMPLE		LOCATION NTS / UTM / GRID			TYPE SURV	BDRK	DR PT.S	material Depth	organic		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	WEAST	NORTH														
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0+00	23+00				.50			Lt br			C	HH	L	L	clay spl. (A long 50 metres!)
2				0+50					.50			Rd br		10	C	M	H	H	
3				1+00					.60			Rd br		5	C	H	M	M	
4				1+50					.45			Yel br		5	C	H	M	M	DK red layer at surface. OCTOBER 27th 1994
5				2+00					.45			Yel br		3	C	H	M	M	
6				2+50					.50			Yel br		5	C	H	M	[illegible]	
7				3+00					.20			Dk br		[illegible]	[illegible]	M	M		[illegible] 270/80° West
8				3+50					.50			Yel br		[illegible]		M	M	[illegible]	[illegible]
9				4+00					.60			Rd br		[illegible]	C	M	M	M	
10				4+50					.50			Br		5	C	H	M	L	

L23N

16

PROJECT RAINBOW

DATE OCTOBER 27, 1994

LOCALITY LAWLESS CR. TULAMEEN, BC

PLOTTED

AIR PHOTO

MAP

SAMPLER Erik Ostensoe

SAMPLE 1,2,3,4	SAMPLE 5,6,7,8	LOCATION NTS/UTM/GRID Z 9,10	EAST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	material 29	organic 30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
			5+00	23+00				.40			Dk Br		3	B/C	H	L	L	Rocky. [illegible]
			5+50					.35			Br		10	C	L	H	H	[illegible]
			6+00					.55					10	C	M	M	M	
			6+50					.45			Grey Br		5	C	H	M	L	
			7+00					.45			Grey Br		5	C	H	L	L	-till.
			7+50					.50			BR		5	C	H	L	L	
			8+00					.50			Grey Br		10	C	H	H	L	Till slash at 8+27 W.
			8+50					.50			Br		3	C	H	M	L	[illegible]
			9+00					.70			Br		3	C	H	M	L	
			9+50					.55+			Yellow Br		8	C	H	M	M	T[illegible]
			10+00					.55			Yel br		10	C	M	M	H	Sandy till

L24N

18.

PROJECT RAINBOW

DATE Oct. 26, 1994

LOCALITY LAWLESS CR. TULAMEEN, B.C.

PLOTTED

AIR PHOTO

MAP

SAMPLER Erik Ostensoe / T.E. Lisle

SAMPLE		LOCATION NTS UTM [✓ GRID]			TYPE SURV	BDRK	DR PT.S	material Depth		organic	colour		% Gravel	Hprizon	Clay	Silt	Sand	REMARKS
		Z	EAST	NORTH														
1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
			5+00	24+00				.50			Lt br		10	C	M	M	L	
			4+50					.50			Rd br		10	C	M	H	H	c?
			4+00					.85			Vel br		5	C	H	M	L	[illegible]
			3+50					.70			Rd br		5	C	M	M	M	
			3+00					.50			Vel br		5	C	M	M	M	
			2+50					.50			Rd Br		5	C	M	M	L	Rock
			2+00					.50			Dk gy br		5	C	H	M	L	clay try
			1+50					.60			Rd br		5	C	M	M	M	
			1+00					.40			Gy BR		1	C	H	L	L	[illegible] clayey
			0+50					.60			Rd br		5	C	H	H	L	
			0+00					.40			Gybr		5	C	H	M	M	Hard till.

L 24N

~~49~~

PROJECT RAINBOW

DATE Oct. 26, 1994

LOCALITY Lawless Creek, Tulameen B.C

PLOTTED **AIR PHOTO**

MAP

SAMPLER ERIK OSTENSOE

	SAMPLE 1 2 3 4	5 6 7 8	LOCATION NTS UTM [✓ GRID] Z 9 10	WEAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	TYPE SURV 22	BDRK 23 24	DR PT.S 25	Depth 26 27 28	organic material 29	30	colour 31 32	33	% Gravel 34 35	Horizon 36 37	Clay 38 39	Silt 40	Sand 41	REMARKS
1				10+00	24+00				.50			Br		5	C	H	L	L	Tree root special. Not till.
2				9+50					.45			Pale br		5	C	M	M	M	Possible till,
3				9+00					.50			Grey br		10	C	M	M	M	Till. Dense Rocky. Road from 8+72 to slash to 8+55 | 8+77mW
4				8+50					.55			Lt br		10	C	M	M	M	Till. On slope. Creekbed at 8+33 to 8+40W.
5				8+00					.50			Mid. br		5	C	H	M	L	slash 8+20 to 7+75W. Not till.
6				7+50					.50			grey br		5	C	H	H	M	Good spl. Clay. Cr. at 7+22W
7				7+00					.40			lt br		3	C	H	H	L	
8				6+50					.60			lt br		5	C	M	M	M	Slash is 15m N
9				6+00					.50			lt br		5	C	L	M	M	
10				5+50					.40			lt br		10	C	L	M	H	

L25+00N

11

PROJECT RAINBOW

DATE October 24, 1994

LOCALITY LAWLESS CREEK, TULAMEEN, BC

PLOTTED

AIR PHOTO

MAP 92H-056

SAMPLER Erik Ostensoe

	SAMPLE 1,2,3,4	SAMPLE 5,6,7,8	LOCATION NTS/UTM/GRID Z 9,10	W ~~E~~AST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	organic material 29	30	colour 31,32	33	%Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	R
1				0+00	25+00				.80			Lt br		5	C	M	M	M	Flat. [illegible]
2				0+50					.50			Lt br		2	C	H	M	L	Upturned tree Hard packed stoney clay till
3				1+00					.40			Rd br			3	M	M	M	Many rocks!
4				1+50					.40			Y br		5	C	H	L	L	on rock [illegible]
5				2+00					.50			Br		3	C	H	L	M	Upper till
6				2+50					.50			Lt br		10	C	M	H	H	Sandy [illegible] soil [illegible]
7				3+00					.90			Lt br		5	C	H	L	L	upturned tree root area, Muddy brown
8				3+50					.15			Br		30	?C	L	M	H	V poor material. BR is at 15cm Otps to N 3m
9				4+00					.50			Y-br br		20	C	L	H	H	stoney brown till
10				4+50					.35			Red Br		20	B/C	L	M	M	Poorly developed horizons. Edge of forest at 4+30W Otps all around.

L25N

12

PROJECT

DATE

LOCALITY

PLOTTED

AIR PHOTO

MAP

SAMPLER

	SAMPLE 1 2 3 4	5 6 7 8	LOCATION NTS UTM [✓ GRID] Z 9 10	W ~~EAST~~ 11 12 13 14 15	NORTH 16 17 18 19 20 21	TYPE SURV 22	BDRK 23 24	DR PT.S 25	Depth 26 27 28	material 29	organic 30	colour 31 32	33	% Gravel 34 35	Horizon 36 37	Clay 38 39	Silt 40	Sand 41	REMARKS
				5+00	25+00				.15			Rd br		15	B	M	M	M	white bdrock at 15cm Rusty soil.
2				5+50					.30			Blue br		20	C	H	M	L	V sticky blue-black clay, some brown soil. This is beside [illegible] (white zone)
3				6+00					.45			Red br		0	B	H	M	M	Not till
				6+50					.45			Rd br		10	C	M	M	M	Till?
5				7+00					.30			Dk br		5	C	H	M	M	Till
6				7+50					.50			Mid br		5	C	H	M	M	Till
7				8+00					.40			Mid br		15	C	M	M	M	Till. Rocky!
3				Oct. 25/94 8+50					.60			Yel br		10	C	H	M	L	Till. Edge of woods at 8+75W. Cr. at 8+70W.
9				9+00					.50			V pale brown grey		10	C	H	M	M	Till. v hard
0				9+50					.55			grey br		10	C	H	M	M	Till.
				10+00					.35			Lt br		10	C	M	M	M	Till. Claim post at 9+75W

26N.

PROJECT RAINBOW.

DATE OCT 24, 1994

LOCALITY TULAMEEN

PLOTTED

AIR PHOTO

MAP 92 H 05 6.

SAMPLER T.E. LISLE

	SAMPLE		LOCATION ~~NTS~~ ~~UTM~~ GRID ✓			TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	~~EAST~~ W	NORTH														
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0 +00	26 +00	S			.50	Silt?	L	Br.		20	B?	H	M	M	CREEK BOB - Clay-Silt Poor Sample + Gravel.
2				0 +50	26 +010	S			.70	T	L	YBr.		15?	C	M-H	M	L	15M to SE of sta. clayey
3				1 +00	26 +90	S			.65	T	L	RBR YBR		15-20	C	M	M	M	Top of 'C'
4				1 +50	26 +90	S			.50	T	L	YB		10-15	C	M-H	M	L	TREE ROOT
5				2 +00	26 +90	S			.70	T	L	YB RB		15	C	M	M	M	
6				2 +50	26 +90	S			.60	T	L	BBr.		15	C?	M	M	M	TREE ROOT-Arm NORTH
7				3 +00	26 +90				.50	T	L	RBr		15-20	C?	M	M	M	Bottom B?
8				3 +50	26 +00	S			.50	T	L	YBr.		20	C	[illegible]	M	M	subrnd abundant angular frags
9				4 +00	26 +90	S			.60	T	L	PBr.		+15	C?	M	M	M	
10				4 +50	26 +00	S			.45	T	L	Br.		20	C?	M	M	M	subcrop. angular Frags
				5 +00	26 +06	S			.55	T	L	PBr.		15	C.	M	M	M	

26 N.

PROJECT RAINBOW.

DATE OCT 1994

LOCALITY TULAMEEN'

PLOTTED

AIR PHOTO

MAP 92H 056

SAMPLER T.C. LISLE

LOCATION ~~NTS~~ ~~UTM~~ GRID ✓

	SAMPLE		LOCATION			TYPE SURV	BDRK	DK PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	~~EAST~~ W	NORTH														
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
				5+50	26+00	S			.60	T	L	Pale BR		+15	C	M	M	M	
2				6+00	26+00	S			.40	T	L	Pale BR.		15	C	M	M	M	
3				6+50	26+00	S			.15	T	L	Pale BR		+15	C?	M	M	M	Bedrock?
4				7+00	26+00	S			.55	T	L	Pale YBR		15	C	L-M	M	M-H	10m from dry Ck. Edge of Ck bank.
5				7+50	26+00	S			0.40	T	L	YBR		25	C	L-M	M	M-H	
6				8+00	26+00	S			.30	T	L	YBR		20	C	M	M	M	
7				8+50	26+00	S			.40	T	L	Y.BR.		20	C	M	M	M	
8				9+00	26+00	S			.20	T? Col?	L	Pale BR.		25	C	M	M	M	ON "sed"? Colluvium?
9				9+50	26+00	S			.55	T	L	BR.		20	B?	M	M	M.	Poss 'C'
10				10+00	26+00	S			.50	T	L	BR		+20	B?	M.	M	M	C ?

L27N

9

PROJECT RAINBOW

DATE October 23, 1994

LOCALITY Lawless Creek, Tulameen BC

PLOTTED

AIR PHOTO

MAP 92H-056

SAMPLER Erik Ostensoe

	SAMPLE		LOCATION NTS UTM [✓ GRID]			TYPE SURV	BDRK	DR PT.S	Depth	% organic material		colour		% Gravel	Horizon	Clay	Silt	sand	REMARKS
			Z	W~~E~~AST	NORTH														
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0+00	27+00				.50			Ybr			C	H	M	M	Hard packed till
2				0+50					.45			Br		0	?C	H	M	M	May not be hardpan layer.
3				1+00					.50		5	Grey		0	C	H	M	M	Lower, S[illegible] [illegible]
4				1+50															No sample [illegible] black muck organic [illegible]
5				2+00					.60			Lt br		10	C	L	H	H	Rocky. [illegible]
6				2+50					.50			Lt br		5	C	L	H	M	Hardpan
7				3+00					.35			Br		5	C?	M	M	M	Not at all yellow. Hardpan.
8				3+50					.65			Dk br		5	C?	M	M	M	May be from top of B.R.
9				4+00					.50			Lt br		5	C	M	M	M	Good [illegible] till
10				4+50					.60			Br		<10	C	L	H	M	Poorly dev. horizons Edge of forest at 4+30W

L27N

10.

PROJECT RAINBOW

DATE OCTOBER 24, 1994

LOCALITY LAWLESS CREEK, TULAMEEN, B.C.

PLOTTED

AIR PHOTO

MAP 92H-056

SAMPLER E. Ostensoe

SAMPLE		LOCATION NTS UTM [✓ GRID]			TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
1 2 3 4	5 6 7 8	Z 9 10	WEAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
			5+00	27+00				.25			Dk br		5	B	L	M	M	Top of rock ridge at 5+20W. On bedrock no C horizon present
			5+50					.20			YBr		15	C	L	H	H	On broken bedrock
			6+00					.50			Dk Gr		10	C?	M	M	M	
			6+50					.55			Red br		10	C?	M	H	H	
			7+00					.50			Br		10	C	M	M	M	
			7+50					.40			Rd br		10	C	M	M	M	
			8+00					.70			Y br		10	C	H	M	M	[illegible]
			8+50					.20			Y br		25	C	M	M	M	[illegible]
			9+00					.45			Yb		20	C	M	M	M	Trees [illegible]
			9+50					.60			Y br		15	C	M	M	M	[illegible]
			10+00					.70			R-b		20	C	M	H	H	

ZBW

PROJECT RAINBOW

DATE OCT 24th, 1994.

LOCALITY TULAMEEN

PLOTTED

AIR PHOTO

MAP 92H 056

SAMPLER T.C. USLB

	SAMPLE		LOCATION NTS / UTM / GRID			TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	Z 9 10	~~EAST~~ W 11 12 13 14 15	NORTH 16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0+00	28+00	S			.40	T	L	YBR		15	C	M	M	M	
2				0+50	28+00	S			.55	T?	M-L	Dark BR.		15	B	M	M	M	
3				1+00	28+00	S			.50	T	L	YBR		10 TO 15	C	M	M	M.	
4				1+50	28+00	S			.60	T	L	BR		+10	B?	M	M	M	
5				2+00	28+00	S			.50	T	L	BR		15	C	M	M	M	TOP OF 'C'
6				2+50	28+00	S			.60	T	L	YBR		+15	C	M,H	M	M	WET
7				3+00	28+00	S			.60	T	L	YBR		+15	C	M-H	"	M	TREE ROOT 4M S WET
8				3+50	28+00	S			.65	T	L	BR.		-15	C?	M	M	M	4.0 Meters Northly St.
9				4+00	28+00	S			.30	T	L	YBR.		15%	C	M-H	M	M	.5M [illegible] TREE ROOT
10				4+50	28+00	S			0.70	T	L	BR.		10 TO 15	B	M.	M	M	
				5+00	28+00	S	?		.70	T	L	YBR.		15	C	M-H	M	M	← Below Tree Root

S: Soil

28N.

PROJECT RAINBOW.

DATE OCT 23/94

LOCALITY TULAMEEN

PLOTTED

AIR PHOTO

MAP 92H 056

SAMPLER T.E.LISLE

	SAMPLE		LOCATION NTS / UTM / GRID			TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1,2,3,4	5,6,7,8	Z 9,10	~~EAST~~W. 11,12,13,14,15	NORTH 16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
				5+50	28+00				0.50	T	L	BR		162	C	M	M	M	Bottom of B
2				6+00	28+00				.50			R Br Yl Br		+15	C	M	M	M	
3				6+50	28+00	/			.50	T	L	R Br		15	C	M	M	M	
				7+00	28+00	/			.30	T	L	BR		20	C ?	M	M	M	[illegible] -OC
5				7+50	28+00	/			.50	T	L	R Br		15	C?	M	M	M	
6				8+00	28+00	S			.55	T	L	R Br		15	C?	M	M	M	
7				8+50	28+00	S			.15	T	L	R Br		15	C	M	M	M	[illegible] B.[illegible]
8				9+00	28+00	S			.40	T	L	BR		20	B?	M	M	M	
9				9+50	28+00	S			.50		L	BR		15	B?C?	M	M	M	
10				10+00	28+00	S			0.30	T	L	BR		15	B.	M	M	M	Rock

L2911

8

PROJECT RAINBOW

DATE October 23, 1994

LOCALITY Lawless Creek, Tulameen. B.C.

PLOTTED

AIR PHOTO

MAP 92H-056

SAMPLER Erik Ostenson

	SAMPLE 1,2,3,4	5,6,7,8	LOCATION NTS / UTM / [✓ GRID] Z 9,10	W~~E~~AST 11,12,13,14,15	NORTH 16,17,18,19,20,21	TYPE SURV 22	BDRK 23,24	DR PT.S 25	Depth 26,27,28	organic material 29	30	colour 31,32	33	% Gravel 34,35	Horizon 36,37	Clay 38,39	Silt 40	Sand 41	REMARKS
1				5+00	29+00				.3			Y br		15	C	M	M	L	Close to BR.
2				4+50					.50			Y Br		10	C	M	M	L	[illegible]
3				4+00					.40			Dk br		10	C	H	L	L	
4				3+50					.45			Y br		10	C	M	M	M	[illegible]
5				3+00					.60			BR bl		15	C	L	H	H	[illegible]
6				2+50					.40			Rusty br		20	C	L	H	H	Till, hard stoney.
7				2+00					.70			Bl-gr		40	C?	0	L	H	Stream? Gravel, sand and muck poor spl.
8				1+50					.60			Dk br		5	C	H	M	L	Fair [illegible] Clars.
9				1+00					.70			Lt br		10	C	H	L	L	Taken at 1+10 W. Fair-good spl.
0				0+50					.60			Y Br		15	C	M	M	M	Good stoney till.
				0+00					.30			Black		0	A	0	0	0	All organic! Deep hole. Btm of slope.

~~GAT~~

L29N

7

PROJECT RAINBOW

DATE Oct. 23, 1994

LOCALITY Lawless Creek, Tulameen, BC

PLOTTED

AIR PHOTO

MAP 92H-056

SAMPLER Erik Ostensoe

	SAMPLE		LOCATION NTS UTM [✓ GRID] Z	WEAST	NORTH	TYPE SURV	BDRK	DR PT.	Depth	organic material	or	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
				10+00	29+00				.[illegible]0			[illegible]		[illegible]0	[illegible]	M	H	M	
2				9+50					.60			Y br		15	C	H	M	M	[illegible]
3				9+00					[illegible]			Y br		20	[illegible]	[illegible]	H	[illegible]	[illegible]
				8+50					.40			Y br		20	C	M	H	H	Tr[illegible]
5				8+00					.15			[illegible]r		[illegible]	[illegible]	M	H	H	On BR. stp. Edge of woods, at [illegible]
6				7+50					.35			Ybr		20	C	M	H	H	T[illegible]!
7				7+00					.50			Rust red		10	B	M	H	M	Lo[illegible] pebbles
3				6+50					.45			Dk Br		5	B?	M	M	M	[illegible] 3/2 [illegible]?
9				6+00					[illegible]			Dk BR		2	C?	M	M	[illegible]	[illegible] 75W
0				5+50					.35			Y-br		20	C	M	M	M	v. rocky till.

30N

PROJECT RAINBOW.

DATE OCT 23/84

LOCALITY TULAMEEN.

PLOTTED

AIR PHOTO

MAP 92H/056

SAMPLER T.E. LISLE

	SAMPLE	SAMPLE	LOCATION Z	NTS UTM GRID ~~EAST~~ W	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				5+00	30+00	S	?		0.60	T	L	Br		15		M	M	M	
2				4+50	30+00	S	?		0.50	T	L	Br		15	C?	M	M	M	
3				4+00	30+00	S	?		0.50	T	L	Pale Br		15%	C	M	M	M	
4				3+50	30+00	S	?		0.50	T	L	Pale Br.		15%	C?	M	M	M	
5				3+00	30+00	S	A.P.		0.15	T	A	R.Br.		5-10	B? C?	L-M	M	M	on edge of [illegible] outcrop
6				2+50	30+00	S			0.50	T	L	Pale Br.		15%	C	L-M	M	M	
7				2+00	30+00	S			.65	?	H	Bl.		<5	A?	H	L	L	Poor sample.
8				1+50	30+00	S			.65	T	L	RB		+15%	B? C?	Hi	M	L	
9				1+00	30+00	S	?		.60	T	M	Br		15%	B?	H	M	L	0.5 M [illegible]
10				0+50	30+00	S	?	-	.45	T	L	Br		10-15	C?	L-M	M	L	
				0+00	30+00	S	?		.45		X	Pale Br.		15%	C	M	M	M	

30 N

30N:

PROJECT Rainbow.
DATE Oct 23/84
LOCALITY Tulameen.

PLOTTED **AIR PHOTO**
MAP 92H /056
SAMPLER T.E. Lisle

	SAMPLE		LOCATION NTS / UTM / GRID			TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1,2,3,4	5,6,7,8	Z 9,10	~~EAST~~ W 11,12,13,14,15	NORTH 16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
1				10+00	30+00	S			.85	?		O		<5	A?B?	M-H	M/H?	L	BOG. cf to 7+50 W ORANGE peat? below 0.8 meters Black 'A'
2				9+50	30+00	S			.45	T		P.BR.		10-15	C	M	M	M	Bottom of 'B'?
3				9+00	30+00	S			0.55	T		BR		10	C?	M	M	M	Good sample at edge of bog.
4		NS		8+50	30+00	S													Bog. No sample water @ 0.50m deep
5		NS		8+00	30+00	S													Bog. No sample
6				7+50	30+00	S			0.50	?		O		<5	A?B?	H	H	?	BOG - Thin orange layer, below Black clayey 'A' Horizon
7				7+00	30+00	S			0.50	T	L	BR.		±15	B?C?	M	M	M	
8				6+50	30+00	S			0.40	T	L	Pale BR.		15	C?	M	M	M	Subcrop. Sericite schist 3M. from OC
9				6+00	30+00	S			0.55	T	L	BR.		10-15	C?	M	M	M	
10				5+50	30+00	S	?		0.40	T	L	R.BR.		15	B?	M	M	M	

31N

PROJECT RAINBOW.

DATE OCT 22 /94

LOCALITY TULAMEEN

PLOTTED

AIR PHOTO

MAP 92H056.

SAMPLER T.E. LISLE

	SAMPLE		LOCATION NTS / UTM / GRID			TYPE SURV	BDRK	DR PT.S	Depth	material	organic	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	~~EAST~~ W	NORTH														
	1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
1				9+00	31+00	S	?		0.40	T ?		Br.		15%	B?	L-M	M	M	5cm org mat. Sub angular clast to Loc +10 cm.
2				0+50	31+00	S	?		0.70	T		RBr		15%	B	M	M	M	Bottom of B? 2% 5-15cm. SR-SA clasts
3				1+00	31+00	S			0.50	T		YB + RBr		15%	C	M	M	M	Minor 'B'
4				1+50	31+00	S			0.65	T		RBr.		15%	C	M	M	M	Near Bottom 'B' 2% 3-10cm clast SR-SA
5				2+00	31+00	S	?		0.60	–		YB RBr		15%	C+B	M	M	M	Top of 'C' clast [illegible] As Above
6				2+50	31+00	S			0.25	T		Pale Br.	+	15% -	C	M	M	M	TALUS +5% ±5cm Frags Steep Slope
7				3+00	31+00	S			0.50	T		RBr		15%	C?	M	M	M	Steep Slope Abundant angular clasts Below OC
8				3+50	31+00	S	N?		0.20	T		Br.		15%	C	M	M	M	On outcrop/Nicola?
9				4+00	31+00	S			0.45	T		Pale BR		10-15	C	M	M	M	5m from OC
10				4+50	31+00	S			0.50	T		Pale Br.		10-15	C?	M	M	M	[illegible] Yellow Brown
				5+00W	31+00	S			+0.50	T		Y.Br.		10-15	C	M	M	M	– lge SR [illegible]

S=Soil

L Low

M Medium

H High.

3IN

PROJECT Rainbow

DATE OCT 22/94

LOCALITY Tulameen.

PLOTTED

AIR PHOTO

MAP 92 H 056.

SAMPLER TEL.

	SAMPLE		LOCATION NTS UTM GRID ✓			TYPE SURV	BDRK	DR PT.S	Depth	material		organic colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1,2,3,4	5,6,7,8	Z 9,10	~~EAST~~ W 11,12,13,14,15	NORTH 16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
1				5+50	31+00	S			.20	T		Pale BR.		10-15	C	M	M	M	on Bedrock.? Minor Organic
2				6+00	31''00	S			.20	T?		P.BR.		30	C?	L.	M	M	Minor organic ON Bedrock?. B? angular B.R.
3				6+50	31''00	S			.25	T		Pale BR		+10°	C	M.	M	M	ON [illegible]?
4				7+00	31''00	S			.30	T		Pale R.BR.		15	C?.	M	M	M	angular clast 10M from O.C. on Bedrock?
5				7+50	31''00	S			≈0.80	T.		Pale R BR.		15	C	M-H	M	M	near [illegible]? Below Tree Root 4M From Flag ~~to~~
6				8+00	31''00	S			>.80	T		Pale BR.		15	C	M-H	M	M	Beneath Tree Root 3M From Flag
7				8+50	31''00	S			~0.70	T		Pale BR.		15	C	M-H	L-M	L-M	[illegible] 3 M from Flag.
8				9+00	31''00	S			0.35	T		Pale Y-R.BR.		15	B'	M	M	M	Rocky Base of B'
9				9+50	31''00	S			0.45	T.		R BR P BR		10-15	B-C	M	M	M	Base of B'?
10				10+00	31''00	S			0.50	T		RBR.		10-15	B	M	M.	M	& Till Rocky. Base of B?

S Soil.

L Low

H High

M Medium.

L 32N

4

PROJECT RAINBOW

DATE October 22, 1991

LOCALITY [illegible] Creek, T

PLOTTED

AIR PHOTO

MAP

SAMPLER E. Ostensoe

LOCATION NTS UTM [✓ GRID]

	SAMPLE		LOCATION			TYPE SURV	BDRK	DR PT.S	Depth	material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	W/EAST	NORTH					organic				%					
	1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
1				0+00	32+00	S	U		60	S		Lt br.		20	B	H	M	L	5° slope E. 20cm organic. Till.
2				0+50					40			Red br.		25	B	H	L	L	Fair spl. Much rock frags. Charcoal?
3				1+00					60			Dk Red br		10	C	H	M	L	Possible deep B- underlies yellowish brown layer. Till?
4				1+50					50			Y. br		15	C	H	M	M	v. dry. Pale yellow brown
5				2+00					35			Brown mid.		30	C	M	H	H	Till. V rocky Frags to 10 cm.
6				2+50					25			Mid br.		35	C	M	H	M	otp v. close by V. rocky.
7				3+00					40			Mid br		35	C	M	H	H	basal till. v. rocky. Frags. to 10cm
8				3+50					65			Mid br		35	C	M	H	M	basal rocky till. more pale colour than 3+00W
9				4+00					40			Lt br		40	C	M	M	M	till. Large frags. basal.
10				4+50					45			Lt br		35	C	H	M	L	basal till. V. packed gravel + cobbles Crest of a ridge N-S
				5+00					50			Red br.		20	B/C	L	M	M	Drainage. Likely B. Dense packed gravel angular fragments.

L32N

5

PROJECT RAINBOW

DATE October 22, 1994.

LOCALITY Lawless Creek, Tulameen, BC

PLOTTED

AIR PHOTO

MAP

SAMPLER E. Ostensoe.

	SAMPLE		LOCATION NTS UTM [✓ GRID]			TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	Z 9 10	WEAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				5+50	32+00	S			.20			R-br ~~Pale br~~		30	C	M	M	M	On otp. B/C Densely packed till.
2				6+00					.20			Y br		50	C	M	M	L	On rocky ridge Shallow soil. From bottom of B top of C.
3				6+50					.30			Y.br		20	C	H	M	L	Till. Reddish/yellow [illegible]
4				7+00					.40			Y, or		20	C	H	M	L	Hard [illegible]
5				7+50					.35			Y br		20	C	H	M	L	[illegible]
6				8+00					.55			Y br		25	C	H	M	L	As above. [illegible]
7				8+50					.25			R br		65	[illegible]	M	H	M	[illegible]
8				9+00					.35			R/Y br		25	C	H	M	[illegible]	[illegible]
9				9+50					.45			Y br		15	C	H	H	L	[illegible]
10				10+00					.50			Br		10	C	H	M	M	Good soil.

L33N

3

PROJECT Rainbow

DATE October 21, 1994

LOCALITY Lawless Cr., Tulameen, B.C.

PLOTTED AIR PHOTO

MAP

SAMPLER E. Ostensoe

	SAMPLE		LOCATION NTS UTM GRID Z	EAST	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
1				0+00	33+00				.20			BR		M	C	H	L	L	
2				0+50					.22			LT BR		L	C	H	L	L	
3				1+00					.20			Be		H	C	M	M	L	
4				1+50					.17			Red BR		H	B	M	L	L	
5				2+00					.20			Red BR		M	B	M	M	L	
6				2+50					.15			Red BR		H	B	H	M	L	
7				3+00					.17			Be		H	C	M	M	L	
8				3+50					.15			Be		H	C	H	M	L	
9				4+00					.15			BR		L	B	H	L	L	
10				4+50					.15			Grey BR		H	C	H	L	L	
11				5+00					.15			Grey BR.		H	C	H	L	L	

L 33N

6

PROJECT RAINBOW

DATE Oct. 22, 1994

LOCALITY Lawless Creek, Tulameen, B.C.

PLOTTED

AIR PHOTO

MAP

SAMPLER E. Ostrosse

LOCATION: NTS / UTM / [✓ GRID]

	SAMPLE		LOCATION			TYPE SURV	BDRK	DR PT.S	depth	%Organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1 2 3 4	5 6 7 8	Z 9 10	WEAST 11 12 13 14 15	NORTH 16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	
				10+00	33+00				.15			DK BR		Hi	B	M	M	L	V shallow soil over rock. Poor spl.
2				9+50					.40			Rd BR		20	B/C	M	H	M	Good soil but not a good C horizon
3				9+00					.30			Black		10	A	H	L	L	BADD SOIL - edge of small bog. V. dark humus + soil.
4				8+50					.50			Mid Br.		10	C	H	M	L	[illegible]
5				8+00					.50			Yellow BR		25	C	H	M	L	Fair Rocky slope beside otps
6				7+50					.35			Yellow Br		20	C	H	H	L	Good [illegible] Rocky
7				7+00					.25			Lt/ Brown		30	C	H	H	?	Sha[illegible] soil [illegible] bedrock
8				6+50					.20			Lt BR		30	C	H	M	M	V. thi[illegible]
9				6+00					.60			Lt BR		15	C	M	M	M	good spl. (TEL)
10				5+50					.15			RB			B?/C?	M	M	M	On otp. Downslope from bedrock - 2M. (TEL)

34

③

PROJECT Rainbow

DATE Oct 21/94

LOCALITY 34N Toramobro

PLOTTED

AIR PHOTO

MAP 92H 056

SAMPLER T.E. LISLE

LOCATION NTS / UTM / GRID ✓

	SAMPLE 1 2 3 4	5 6 7 8	Z 9 10	~~EAST~~ W 11 12 13 14 15	NORTH 16 17 18 19 20 21	TYPE SURV 22	BDRK 23 24	DR PT. 25	Depth 26 27 28	organic material 29	30	colour 31 32	33	% Gravel 34 35	Horizon 36 37	Clay 38 39	Silt 40	Sand 41	REMARKS
1				0+00	34 00	S	?		.50	T		D.BR		<5	3	H	L	L	organic [illegible] sample
2				0+50	34 00	S	?		.70	T		Y-R BR		10-15	B+C	L-M	M	M	[illegible] 10 cm
3				1+00	34 00	S	?		.50	T		Pale R BR		10-15	B C?	L	M	M	[illegible]
4				1+50	34 00				.65			P BR Y BR.		10	B+C	L	M	M	
5				2+00	34 00				.50	?		DK BR Pale Gy.		10	B+C	M	L-M	L-M.	?
6				2+50	34 00	S			.50	T		R BR		10-15	B?	M	M	M	[illegible] sub [illegible]
7				3+00	34 00	S			.45	T		R-Y BR		+10	C	M	M	M	Top C Bottom B ~75 cm from [illegible]
8				3+50	34 00	S			.50	T		Y BR R BR.		15	B+C	L-M	M	M	~25 cm from [illegible]? Top of C
9				4+00	34 00	S			.45	T		Y BR G BR.		15	C	L-M	M	M	Top of C
10				4+50	34 00	S			.20	T		YBR		10	C	L	M	M	Near BR
				5+00	34 00	S			.50	T		BR.		10-15	B	M	M	M.	Bottom B

34N.

PROJECT RAINBOW.

DATE OCT 22/94

LOCALITY TULAMEEN, BC

PLOTTED

AIR PHOTO

MAP 92H/056.

SAMPLER T.E.LISLE

	SAMPLE		LOCATION NTS UTM GRID			TYPE SURV	BDRK	DR PT.S	Depth	organic material		colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
			Z	~~EAST~~ W	NORTH														
	1 2 3 4	5 6 7 8	9 10	11 12 13 14 15	16 17 18 19 20 21	22	23 24	25	26 27 28	29	30	31 32	33	34 35	36 37	38 39	40	41	~ 995W.
1	~	995W		10+00	34+00	S	?		0.50	T		YBr RBr		10?	C?.	M	M	M	mainly Red Brown Gradey to Y-R. Brown
2				9+50	34' 00	S	?		0.40	7		RBr		8-10?	B?	M	M	M.	[illegible]
3				9+00	34' 00	S	N		.30	T		PBr		10	B-C	M	M	M	3m from OC on [illegible] B.R.
4				8+50	34' 00	S	N		.20	T		PBr.		10	B-C	M	M	M	on Bedrock
5				8+00	34' 00	S			+0.45	T		RBr YBr		10	B+C	M	M	M	Base of 'B'
6				7+50	34' 00	S			.25	7	T.	YBr RBr		10	C?	M	M	M	on Bedrock 1.0m from outcrop.
7				7+00	34'00	S			+0.50	T		Br		15	?	M	M	M	3 Meters from Bedrock.
8				6+50	34' 00	S			+0.50	T		RBr YBr.		10-15	B+C	M	M	M	
9				6+00	34' 00	S			0.20	?		DBr RBr		15	B+C	M-	M	M	On BR.? Poor Sample.
10				5+50	34 00	S			0.45	T		YBr. RBr		15	C+B	M.	M	M	Top of C

PROJECT RAINBOW 3

DATE OCT 21/94

LOCALITY TULAMEEN B.C.

PLOTTED

AIR PHOTO

MAP 92H056

SAMPLER T.E LISLE

	SAMPLE		LOCATION NTS / UTM / GRID ✓			TYPE SURV	BDRK	DR PT.S	Depth	% organic	material	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
	1,2,3,4	5,6,7,8	Z 9,10	~~EAST~~ W 11,12,13,14,15	NORTH 16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
1				5+00	35+00	S			.40	–	L	BrRBr		15	B?	L	M	H	[illegible] 15 cm FRAGS.
2				4+50	35+00	S			.50	T	L	RBr		10-15	B?	L M	M	M	[illegible]
3				4+00	35+00	S			.50	T	L	RBr		5-10	B?	L	M	M-H	[illegible]
4				3+50	35+00	S			.45	T	L	RBr		15	B?	L	M	M	
5				3+00	35+00	S			.50	T	L	RBr		15	B?	L	M	M	[illegible]
6				2+50	35+00	S			.35	T	L	RBr		10	B?	L-M	M	M	
7				2+00	35+00	S			.40	T	L	Pale Br		10	B?C?	L-M	M	M	
8				1+50	35+00	S			.50	T	L	Br	±	10	C?	L-M	M	M	[illegible]
9				1+00	35+00	S			.50	T	L	RBr		5-10	B?	L-M	M	M	
10				0+50	35+00	S			.40	?	L	RBr		0-5	B?	H	M	L	[illegible]
				0+00	35+00	S			.50	T.	L	YBr.		+5	C	L-M	M	?	

35

①

PROJECT Rainbow.

DATE October 21/94.

LOCALITY Tolameen. B.C.

PLOTTED AIR PHOTO

MAP 92H056

SAMPLER T.C. LISLE

	SAMPLE 1 2 3 4	5 6 7 8	LOCATION NTS UTM GRID ✓ Z 9 10	~~EAST~~ W 11 12 13 14 15	NORTH 16 17 18 19 20 21	TYPE SURV 22	BDRK 23 24	DR PT.S 25	Depth 26 27 28	material 29	%organic 30	colour 31 32	33	% Gravel 34 35	Horizon 36 37	Clay 38 39	Silt 40	Sand 41	REMARKS
1				10+00	35+00	S			0.60	BT?		RBR		10%	B?	M	M	M	Frags. ·5-2 cm.
2				9+50	35+00	S			0.50	BT.		R-Y BR.		± 10%	B+C	M+H	M	M	Dk Brown 'B' to 0·35M deep.
3				9+00	35+00	S	?		0.30	T.		R-Y BR		10-15%	B+C	M	M	M	
4				8+50	35+00	S			0·60	T.		R-Y BR.		10%	B+C	M	M	M.	10% ·5 to 10cm Frags.
5				8+00	35+00	S			0·50	T		R-Y BR.		10%	B+C	M	M	M.	10% Round to Sub Rd 0·5 to 10 cm.
6				7+50	35+00	S			0.55	BT.		RBR		5-8%	B?	M	M	M.	3% clasts to 10 cm. 5% gravel to 1cm.
7				7+00	35+00	S			0·50	T.		RBR		10-15	B+C	M	M	M	angular to Sub Round frags ~ 10-15%
8				6+50	35+00	S			0·40	T		YBR		10-15%	C	L	M	M.	
9				6+00	35+00	S			0·35	T.		YBR		5-10%	C	L-M.	M	M.	
10				5+50.	35+00	S			0·40	BT		BR.		5-10%	C?	L-M.	M	M.	Hard Compact Basal Till.

L Low
M Medium

36N

2

PROJECT RAINBOW

DATE OCTOBER 21, 1994

LOCALITY Lawless Cr., Tulameen, B.C.

PLOTTED

AIR PHOTO

MAP

SAMPLER E. Ostensoe

LOCATION NTS / UTM / [✓ GRID]

SAMPLE		Z	WEAST	NORTH	TYPE SURV	BDRK	DR PT.S	Depth	material	organic /	colour		% Gravel	Horizon	Clay	Silt	Sand	REMARKS
1,2,3,4	5,6,7,8	9,10	11,12,13,14,15	16,17,18,19,20,21	22	23,24	25	26,27,28	29	30	31,32	33	34,35	36,37	38,39	40	41	
02			5+00	36+00				.20			Bl		O	A	H	M	L	
			4+50					.14			LT BR		M	C	M	H	L	
			4+00					.12			GR BR		H	C	M	H	M	
			3+50					.20			LT BR		M	B	M	H	M	
			3+00					.20			LT BR		M	C	M	M	L	
			2+50					.15			LT BR		M	C	M	M	L	
			2+00					.15			LT BR		H	C	M	M	L	
			1+50					.20			LT BR		L	C	H	H	L	
			1+00					.15			LT BR		H	C	H	L	L	
			0+50					.20			LT BR		M	C	H	M	L	
			0+00					.20			LT BR.		L	C	H	L	L	

36N

L36N

1

PROJECT RAINBOW

DATE October 21, 1994.

LOCALITY Lawless Creek, Tulameen, B.C.

PLOTTED

AIR PHOTO

MAP 92H-056

SAMPLER Eri

SAMPLE 1-4	SAMPLE 5-8	LOCATION (NTS / UTM / [✓ GRID]) Z 9-10	EAST 11-15	NORTH 16-21	TYPE SURV 22	BDRK 23-24	DR PT.S 25	Depth 26-28	organic material 29	30	colour 31-32	33	% Gravel 34-35	Horizon 36-37	Clay 38-39	Silt 40	Sand 41	REMARKS
02			10+00	36+00	S			.15	5		BR		0	B	L	H	L	
			9+50		S			.15	5		BR		M	B	L	H	M	
			9+00					.15			LT BR		L	C?	H	H	L	
			8+50					.14			GY BR		L	C?	H	H	M	
			8+00					.14			BR		H	C?	H	M	M	
			7+50					.15			LT BR		M	C?	H	M	L	
			7+00					.20			DK BR		L	A	H	H	L	
			6+50					.20			Bl- GY		MM	C	H	H	L	
			6+00					.14			BL		O	A	H	H	O	
			5+50					.25			Bl GR		L	C	H	H	L	

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(6[illegible]4)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Tom Lisle PROJECT R-1 File # 94-4193 Page 1

145 W. Rockland Road, North Vancouver BC V7N 2V8

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
L36N 10+00W	1	44	15	58	<.1	18	13	1198	4.49	4	<5	<2	2	24	.3	<2	<2	70	.28	.106	12	36	1.05	137	.08	<2	3.83	.01	.10	<1	2
L36N 9+50W	1	32	8	53	<.1	22	14	1047	4.30	4	<5	<2	<2	27	<.2	<2	2	69	.31	.071	12	33	.95	148	.09	4	3.56	.02	.10	<1	1
RE L36N 9+50W	1	30	7	50	<.1	20	11	1033	4.19	5	<5	<2	<2	26	<.2	<2	4	68	.30	.069	11	32	.93	141	.09	<2	3.45	.01	.10	<1	1
L36N 9+00W	2	29	3	58	<.1	15	13	723	4.60	2	<5	<2	2	31	<.2	<2	<2	72	.40	.062	29	30	.97	229	.08	2	3.96	.02	.11	<1	1
L36N 8+50W	1	42	<2	73	<.1	21	15	977	4.84	<2	<5	<2	2	23	.2	<2	11	73	.24	.088	9	37	1.16	136	.06	<2	3.59	.02	.11	<1	3
L36N 8+00W	1	32	6	86	<.1	25	15	1081	4.69	<2	<5	<2	<2	35	<.2	<2	<2	72	.42	.069	15	37	1.20	157	.06	<2	3.41	.02	.10	<1	2
L36N 7+50W	1	33	2	66	<.1	21	14	786	4.65	5	<5	<2	2	25	<.2	<2	5	75	.26	.062	16	34	1.06	157	.08	<2	4.17	.02	.08	<1	4
L36N 7+00W	13	54	3	109	.1	17	20	5266	5.18	<2	10	<2	3	81	.4	<2	<2	66	1.10	.152	40	30	.77	329	.05	<2	4.10	.03	.08	<1	3
L36N 6+50W	5	57	6	76	.3	12	10	2690	3.56	4	13	<2	2	73	.6	<2	6	59	1.13	.084	19	29	.87	190	.04	<2	2.88	.02	.08	<1	4
L36N 6+00W	5	104	7	116	.5	25	13	1514	5.20	3	<5	<2	<2	63	.9	<2	4	69	.95	.075	36	34	.92	251	.06	<2	5.12	.03	.10	<1	4
L36N 5+50W	2	67	8	104	.2	22	13	640	4.35	9	<5	<2	3	42	<.2	<2	<2	66	.57	.059	21	34	1.04	208	.06	<2	4.38	.02	.09	<1	3
L36N 5+00W	1	64	8	93	.3	18	12	951	4.16	<2	<5	<2	<2	61	.6	<2	<2	62	.97	.067	28	30	.94	214	.05	5	4.27	.02	.08	<1	3
L36N 4+50W	<1	33	5	150	<.1	16	13	715	4.08	<2	<5	<2	2	24	<.2	<2	<2	67	.29	.084	9	32	.83	131	.09	<2	2.95	.01	.07	<1	1
L36N 4+00W	<1	28	7	114	.2	17	10	487	3.49	2	<5	<2	<2	34	.2	6	<2	64	.36	.043	10	29	.73	125	.08	<2	2.36	.02	.05	<1	5
L36N 3+50W	1	34	11	107	.1	15	11	615	4.28	3	<5	<2	<2	32	.2	3	<2	65	.34	.089	12	30	.75	126	.08	3	3.02	.02	.07	<1	32
L36N 3+00W	<1	34	6	91	<.1	18	11	563	4.03	4	<5	<2	<2	33	<.2	2	<2	66	.34	.051	13	31	.83	109	.08	<2	2.29	.01	.06	<1	4
L36N 2+50W	1	26	10	89	<.1	12	11	418	3.88	3	<5	<2	<2	25	<.2	<2	<2	61	.27	.088	8	26	.69	113	.07	<2	2.37	.01	.06	<1	3
L36N 2+00W	1	29	6	82	.1	12	10	593	3.46	<2	<5	<2	<2	29	<.2	2	<2	57	.33	.043	11	26	.81	114	.06	<2	2.43	.02	.06	<1	2
L36N 1+50W	<1	29	10	109	<.1	15	13	672	3.89	6	<5	<2	3	23	<.2	2	<2	59	.26	.078	10	26	.72	123	.07	<2	2.62	.01	.07	<1	6
L36N 1+00W	1	42	10	102	<.1	11	14	712	4.44	10	<5	<2	2	26	<.2	<2	<2	55	.29	.080	13	22	1.10	84	.04	<2	2.26	.01	.09	<1	2
L36N 0+50W	<1	29	10	115	.1	16	12	711	4.10	3	<5	<2	2	25	<.2	4	4	62	.26	.092	11	23	.91	101	.06	<2	2.58	.01	.09	<1	2
L36N 0+00W	1	32	17	118	.1	10	12	600	4.17	<2	<5	<2	2	28	<.2	3	<2	63	.23	.080	11	26	1.04	83	.06	<2	2.65	.01	.07	<1	9
L34N 10+00W	2	35	10	51	<.1	19	16	462	4.53	2	<5	<2	5	18	<.2	5	<2	66	.13	.054	14	32	1.19	113	.06	<2	3.89	.01	.09	<1	27
L34N 9+50W	2	23	3	57	<.1	14	13	512	3.86	<2	<5	<2	3	17	<.2	<2	<2	65	.16	.054	11	26	.68	103	.10	<2	3.17	.01	.08	<1	4
L34N 9+00W	1	33	7	85	.2	19	14	1332	4.27	<2	<5	<2	3	25	<.2	<2	9	73	.25	.068	10	34	1.04	177	.07	<2	3.51	.01	.09	<1	18
L34N 8+50W	1	34	14	74	<.1	17	13	826	4.27	7	<5	<2	3	17	<.2	4	<2	70	.15	.075	13	30	.83	107	.08	3	3.53	.01	.07	<1	1
L34N 8+00W	7	53	13	89	.1	24	11	517	3.91	4	<5	<2	3	38	.7	5	<2	62	.47	.046	26	33	.99	255	.08	<2	5.45	.02	.09	<1	3
L34N 7+50W	1	38	15	101	<.1	16	15	891	4.39	2	<5	<2	3	17	<.2	5	5	71	.15	.112	11	37	.94	100	.07	5	3.57	.01	.09	<1	2
L34N 7+00W	1	58	3	93	<.1	26	16	1010	4.98	4	<5	<2	3	19	<.2	2	<2	74	.16	.100	11	33	1.43	111	.06	<2	4.09	.01	.13	<1	3
L34N 6+50W	3	30	4	74	<.1	21	13	532	4.10	<2	<5	<2	5	22	<.2	6	<2	63	.24	.049	17	30	.90	191	.06	4	3.53	.01	.08	<1	1
L34N 6+00W	2	28	11	91	<.1	16	19	2185	4.34	2	<5	<2	2	39	<.2	<2	<2	77	.53	.101	42	25	1.01	156	.07	2	3.60	.01	.07	<1	1
L34N 5+50W	2	31	9	109	<.1	15	10	708	3.89	5	<5	<2	2	51	.4	<2	<2	63	.58	.045	24	32	.95	168	.08	<2	2.75	.01	.06	<1	2
L34N 5+00W	2	44	7	118	<.1	21	14	755	4.21	5	<5	<2	<2	54	.4	<2	<2	69	.63	.046	15	36	.96	161	.08	<2	2.82	.02	.08	<1	2
L34N 4+50W	1	34	11	95	<.1	18	13	685	3.94	<2	<5	<2	<2	38	.2	2	<2	62	.49	.056	14	27	1.09	104	.06	<2	2.55	.01	.08	<1	1
L34N 4+00W	1	36	13	103	<.1	13	12	685	4.13	3	<5	<2	2	27	.2	<2	<2	63	.27	.047	13	29	1.00	112	.05	<2	2.58	.01	.09	<1	3
STANDARD C/AU-S	19	57	41	141	6.5	74	31	1051	3.96	41	15	7	35	51	18.7	15	21	62	.51	.094	39	62	.92	190	.08	34	1.88	.06	.15	9	50

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: P1-P10 SOIL P11-P12 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.
<u>Samples beginning 'RE' are duplicate samples.</u>

DATE RECEIVED: NOV 18 1994 **DATE REPORT MAILED:** Nov 25/94 **SIGNED BY**.........D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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
L34N 3+50W	1	46	13	154	.2	18	12	821	4.60	5	<5	<2	4	28	.3	<2	2	67	.31	.087	15	32	.92	149	.06	2	3.72	.01	.11	1	3
L34N 3+00W	1	35	13	142	<.1	17	13	751	4.03	<2	<5	<2	<2	36	.6	<2	3	64	.40	.051	15	30	.90	142	.08	3	2.60	.02	.08	<1	3
L34N 2+50W	2	39	18	148	<.1	14	18	1053	5.03	3	<5	<2	<2	27	.9	<2	<2	83	.30	.111	11	23	.85	155	.07	4	3.32	.02	.07	1	3
L34N 2+00W	1	25	19	132	<.1	11	13	615	3.46	<2	<5	<2	<2	41	.4	<2	<2	59	.60	.035	15	21	.84	205	.05	2	3.45	.03	.06	<1	1
L34N 1+50W	1	40	10	141	.1	13	14	613	4.24	<2	<5	<2	3	20	.6	4	<2	61	.18	.075	14	23	.95	123	.06	5	3.40	.03	.10	2	2
L34N 1+00W	1	41	11	189	.1	13	14	844	4.49	3	<5	<2	3	29	.6	<2	<2	64	.30	.096	16	25	.98	152	.05	3	3.37	.01	.12	1	2
L34N 0+50W	<1	49	12	141	.1	14	12	472	4.28	3	<5	<2	2	32	.3	4	<2	62	.37	.052	18	23	.89	161	.05	<2	3.06	.03	.10	<1	2
L34N 0+00W	1	94	19	198	.2	22	13	1196	4.97	3	<5	<2	3	49	1.0	<2	<2	69	.63	.072	42	31	1.08	234	.05	7	4.71	.03	.16	<1	4
L32N 10+00W	1	29	11	79	<.1	23	15	930	4.30	<2	<5	<2	2	38	.3	<2	<2	72	.46	.060	14	37	1.33	101	.09	3	2.65	.03	.12	<1	3
L32N 9+50W	2	32	17	131	.2	23	13	820	4.34	<2	<5	<2	3	40	1.0	<2	<2	72	.49	.049	19	35	1.09	170	.10	3	2.86	.03	.11	1	11
L32N 9+00W	2	41	8	137	<.1	15	14	874	4.74	3	<5	<2	3	32	1.0	<2	<2	63	.35	.084	33	26	1.09	173	.05	2	3.99	.02	.14	1	11
L32N 8+50W	3	17	6	96	.1	9	11	522	5.35	<2	<5	<2	5	14	.4	3	<2	84	.11	.219	10	20	.82	76	.05	7	3.38	.01	.08	<1	22
L32N 8+00W	2	34	11	100	.1	16	15	819	4.51	4	<5	<2	3	27	.4	<2	<2	68	.24	.066	18	30	1.08	113	.08	7	2.69	.02	.11	<1	6
L32N 7+50W	5	46	10	135	.2	24	15	938	4.85	<2	<5	<2	3	48	.3	<2	5	75	.58	.031	42	38	1.12	192	.06	6	3.88	.03	.11	<1	2
L32N 7+00W	2	40	17	137	.3	21	13	815	4.15	5	<5	<2	<2	45	.9	<2	<2	65	.53	.062	16	32	1.01	154	.07	4	3.02	.02	.11	<1	1
L32N 6+50W	3	46	10	133	<.1	23	12	818	4.36	2	<5	<2	<2	51	1.2	<2	<2	68	.62	.050	20	37	1.16	140	.08	2	2.99	.02	.11	1	2
L32N 6+00W	2	55	10	75	.1	23	24	559	6.23	6	<5	<2	4	16	.9	<2	<2	103	.14	.206	11	24	1.12	103	.06	6	3.40	.01	.07	<1	2
L32N 5+50W	1	39	16	121	<.1	16	11	979	4.73	<2	<5	<2	<2	20	1.0	<2	<2	72	.23	.170	9	28	.97	116	.06	3	3.58	.02	.12	<1	1
L32N 5+00W	5	75	15	176	<.1	24	31	2424	6.11	9	<5	<2	4	49	1.3	<2	5	80	.49	.108	42	35	.94	147	.08	<2	3.96	.01	.09	<1	3
RE L32N 5+00W	5	76	14	168	.1	23	32	2390	6.09	6	<5	<2	5	49	1.1	<2	<2	81	.50	.107	42	34	.95	137	.08	9	3.98	.01	.09	<1	3
L32N 4+50W	1	37	12	88	.1	21	17	680	4.32	7	<5	<2	3	26	1.0	2	<2	63	.24	.052	13	27	1.06	117	.07	5	2.44	.03	.09	<1	2
L32N 4+00W	2	112	16	99	.2	22	24	1015	4.78	6	<5	<2	4	21	.7	<2	<2	74	.20	.088	15	27	1.18	134	.07	4	3.82	.02	.08	1	2
L32N 3+50W	1	321	17	85	<.1	20	19	830	4.43	2	<5	<2	3	31	1.0	<2	<2	68	.40	.042	29	34	1.54	167	.07	3	3.09	.03	.10	1	2
L32N 3+00W	1	66	14	122	.1	20	21	902	4.74	10	<5	<2	2	21	.5	<2	<2	82	.22	.068	11	31	1.34	171	.08	3	3.95	.01	.09	2	1
L32N 2+50W	1	52	20	134	.3	15	17	1101	4.52	7	<5	<2	3	20	.8	5	<2	72	.17	.084	11	26	.95	141	.07	7	3.60	.01	.09	<1	3
L32N 2+00W	2	41	15	136	.1	16	13	618	4.27	<2	<5	<2	2	25	.5	<2	<2	73	.30	.059	10	23	.74	170	.11	4	3.51	.02	.09	<1	4
L32N 1+50W	1	51	15	156	<.1	14	17	796	4.71	5	<5	<2	2	18	.7	3	10	65	.17	.063	14	25	.98	209	.06	3	3.92	.01	.13	<1	2
L32N 1+00W	2	49	18	183	.1	15	13	841	4.24	3	<5	<2	2	36	1.0	<2	<2	62	.51	.072	27	24	.87	207	.06	3	3.32	.02	.12	<1	3
L32N 0+50W	3	64	23	172	.3	18	12	1035	4.44	6	<5	<2	2	46	1.2	<2	5	62	.74	.056	35	25	.90	288	.07	<2	3.83	.03	.12	<1	4
L32N 0+00W	2	41	17	115	.2	19	13	825	3.94	3	<5	<2	2	42	.9	<2	<2	59	.60	.053	22	26	.89	161	.07	<2	2.55	.03	.11	<1	3
L30N 10+00W	6	12	8	16	<.1	5	<1	33	.30	<2	<5	<2	<2	35	.4	6	<2	8	.58	.056	10	3	.08	46	.11	<2	2.28	.05	.01	<1	1
L30N 9+50W	1	38	20	89	<.1	15	14	490	4.36	9	<5	<2	2	25	.7	<2	<2	71	.24	.059	11	35	1.05	139	.08	2	3.11	.02	.08	<1	2
L30N 9+00W	1	36	11	84	.1	18	11	331	3.62	8	<5	<2	<2	29	.6	<2	<2	65	.29	.041	19	29	.80	139	.08	3	3.52	.02	.08	<1	2
L30N 7+50W	1	30	13	6	<.1	4	1	26	.31	5	<5	<2	3	28	<.2	9	<2	13	.21	.059	56	7	.09	89	.10	2	2.64	.04	.02	<1	<1
STANDARD C/AU-S	19	58	42	136	7.1	72	31	1043	3.96	43	19	7	38	52	19.3	13	18	60	.51	.095	40	63	.91	185	.08	34	1.88	.06	.16	13	48

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

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
L30N 7+00W	3	24	7	59	.1	13	15	358	5.00	7	<5	<2	8	16	.2	10	3	64	.10	.110	16	20	.88	92	.05	2	3.92	.02	.07	<1	1
L30N 6+50W	4	54	13	73	<.1	17	17	637	4.94	<2	<5	<2	5	28	.7	2	5	68	.13	.118	19	27	.95	110	.10	<2	3.50	.02	.09	<1	4
L30N 6+00W	2	40	11	68	<.1	23	21	1082	4.67	<2	<5	<2	3	23	<.2	7	4	69	.21	.078	12	26	1.06	138	.06	<2	3.18	.01	.09	<1	4
L30N 5+50W	4	37	8	46	<.1	22	20	889	4.89	<2	<5	<2	2	25	.7	7	<2	80	.25	.066	9	29	1.23	131	.08	<2	3.58	.01	.09	<1	1
L30N 5+00W	2	56	13	62	<.1	21	22	850	4.69	2	<5	<2	4	27	.7	7	2	72	.29	.091	23	30	1.41	113	.08	2	3.92	.02	.08	<1	2
L30N 4+50W	1	64	12	122	.1	21	22	1061	4.64	2	<5	<2	3	27	.8	6	11	72	.26	.096	15	29	1.57	141	.05	<2	3.26	.01	.12	<1	1
L30N 4+00W	1	71	16	101	.1	22	18	909	4.56	6	<5	<2	3	33	.8	5	8	69	.30	.061	13	27	1.36	126	.06	<2	3.10	.01	.12	<1	1
L30N 3+50W	1	67	17	149	<.1	17	20	1107	4.61	6	<5	<2	2	28	.5	<2	<2	66	.29	.081	15	25	1.24	202	.06	<2	3.39	.01	.14	<1	1
L30N 3+00W	1	81	15	109	<.1	21	27	1413	5.02	<2	<5	<2	3	30	.6	5	<2	80	.33	.144	12	26	1.38	155	.06	2	3.77	<.01	.13	1	2
L30N 2+50W	1	55	12	109	.1	21	15	811	4.25	5	<5	<2	3	25	.2	4	<2	66	.26	.087	14	24	.86	164	.09	<2	3.35	.01	.09	<1	4
L30N 2+00W	8	46	4	52	.3	15	10	553	2.57	<2	9	<2	<2	90	.2	<2	5	35	2.60	.066	12	13	1.02	106	.02	4	1.77	.01	.07	<1	2
L30N 1+50W	4	75	31	135	<.1	19	21	1117	6.33	6	<5	<2	2	64	1.2	2	7	72	1.32	.099	21	27	.90	204	.05	<2	3.91	.02	.07	<1	14
L30N 1+00W	5	62	15	99	.2	21	10	1442	3.78	<2	<5	<2	<2	69	.6	<2	3	50	1.39	.063	19	21	.62	177	.05	4	2.51	.03	.06	<1	12
L30N 0+50W	2	53	12	102	.1	23	10	802	4.09	<2	<5	<2	<2	69	.8	<2	2	60	1.43	.049	24	24	.82	212	.06	<2	3.29	.02	.08	<1	3
L30N 0+00W	1	34	12	105	.1	18	11	521	3.88	3	<5	<2	<2	43	.4	7	4	58	.67	.037	18	25	.88	169	.08	2	2.90	.02	.08	<1	2
L28N 10+00W	4	27	5	98	.1	19	13	430	4.16	<2	<5	<2	2	33	.3	6	6	68	.45	.087	11	30	.91	169	.09	4	3.34	<.01	.08	<1	2
RE L28N 10+00W	4	27	10	105	.1	21	13	433	4.19	<2	<5	<2	3	33	.6	4	3	68	.45	.089	11	30	.91	165	.09	3	3.37	.02	.08	<1	1
L28N 9+50W	3	25	10	104	<.1	20	15	470	4.30	<2	7	<2	4	26	.2	<2	4	69	.25	.093	16	27	.72	107	.10	5	3.26	.01	.07	<1	3
L28N 9+00W	4	26	9	55	<.1	20	18	602	5.11	4	<5	<2	6	31	.2	3	<2	64	.36	.077	36	24	.97	161	.07	3	2.98	<.01	.08	<1	4
L28N 8+50W	2	20	9	63	<.1	15	17	539	4.67	9	<5	<2	5	18	.2	3	<2	66	.17	.116	14	24	.74	104	.07	3	3.26	.01	.07	<1	6
L28N 8+00W	4	34	6	60	<.1	18	20	652	5.14	2	<5	<2	5	23	.6	<2	<2	65	.23	.085	41	23	.90	111	.08	<2	3.42	.02	.09	1	3
L28N 7+50W	5	24	8	56	<.1	15	14	305	4.79	4	<5	<2	8	18	<.2	<2	5	68	.18	.098	78	24	.81	65	.08	<2	3.31	.01	.05	<1	6
L28N 7+00W	3	45	12	64	<.1	19	19	822	5.18	<2	<5	<2	5	25	<.2	3	8	78	.23	.158	15	26	1.20	86	.05	4	3.90	<.01	.08	<1	1
L28N 6+50W	3	47	5	59	.1	14	20	576	4.98	<2	<5	<2	6	18	<.2	<2	5	66	.14	.184	16	22	.89	54	.08	<2	4.42	.01	.07	<1	6
L28N 6+00W	2	40	15	69	.2	20	18	491	4.82	5	<5	<2	6	26	.2	7	8	72	.15	.091	19	25	1.14	89	.06	<2	3.85	.01	.08	<1	2
L28N 5+50W	2	52	10	98	<.1	28	18	771	4.33	<2	<5	<2	2	32	.4	4	4	75	.31	.059	18	36	1.38	156	.07	<2	4.18	.01	.09	<1	1
L28N 5+00W	1	84	18	49	<.1	49	24	824	5.40	<2	<5	<2	5	27	<.2	<2	3	93	.26	.108	14	68	3.00	109	.04	<2	4.33	<.01	.09	<1	1
L28N 4+50W	2	60	13	82	<.1	36	23	1161	4.73	<2	<5	<2	3	24	.3	<2	<2	82	.18	.114	13	36	1.24	115	.10	<2	3.78	.01	.07	<1	2
L28N 4+00W	4	52	14	81	.2	25	17	950	4.38	3	<5	<2	2	53	.2	2	11	67	.65	.047	24	26	1.27	116	.07	<2	3.06	.02	.09	<1	2
L28N 3+50W	2	46	13	114	<.1	16	17	648	4.25	<2	<5	<2	2	22	<.2	<2	4	64	.20	.101	17	25	.89	118	.07	3	3.50	.01	.10	<1	2
L28N 3+00W	1	67	10	86	.1	20	16	610	4.51	7	<5	<2	2	32	<.2	<2	<2	67	.34	.062	16	24	1.20	87	.06	<2	2.85	.01	.09	<1	5
L28N 2+50W	2	84	17	101	.1	17	21	839	4.93	8	<5	<2	5	46	.2	<2	10	77	.48	.073	25	28	1.06	90	.06	2	2.94	.02	.08	<1	7
L28N 2+00W	2	65	13	92	<.1	16	20	925	5.08	2	<5	<2	2	55	.3	<2	10	68	.55	.072	20	25	1.02	97	.05	<2	2.87	.01	.07	<1	47
L28N 1+50W	3	42	13	102	.1	18	12	920	3.98	2	5	<2	2	85	.7	<2	8	60	.86	.040	18	24	.75	131	.06	<2	3.04	.01	.07	<1	2
L28N 1+00W	2	40	10	83	<.1	17	14	743	4.00	4	<5	<2	<2	46	<.2	<2	9	59	.62	.037	20	24	.90	116	.05	2	2.56	<.01	.07	<1	4
STANDARD C/AU-S	20	56	43	134	6.9	74	33	1048	3.96	39	22	6	38	52	19.1	13	22	60	.52	.094	40	61	.93	190	.08	34	1.88	.06	.16	10	49

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

ACME ANALYTICAL

Tom Lisle PROJECT R-1 FILE # 94-4193

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
L28N 0+50W	1	55	14	123	.3	16	10	1018	4.19	7	<5	<2	2	80	.5	<2	3	51	1.25	.077	14	26	.73	141	.07	<2	3.17	.03	.08	<1	<1
L28N 0+00W	<1	38	8	130	.3	22	12	819	3.86	3	<5	<2	3	45	.4	6	<2	61	.56	.041	16	33	.98	165	.06	4	2.65	.01	.10	<1	4
L26N 10+00W	2	43	5	100	.2	12	11	761	4.06	5	<5	<2	4	31	<.2	<2	2	64	.54	.054	40	25	.88	244	.07	<2	3.10	.02	.09	<1	3
L26N 9+50W	1	22	9	78	.2	8	13	476	3.69	3	<5	<2	4	24	<.2	2	<2	52	.34	.083	17	21	.68	200	.05	<2	2.50	.01	.08	<1	2
L26N 9+00W	3	13	6	59	<.1	8	15	854	4.23	4	<5	<2	3	37	<.2	<2	<2	48	.35	.168	11	11	.48	438	.02	3	2.55	<.01	.11	<1	1
L26N 8+50W	<1	31	6	75	<.1	14	17	560	4.19	<2	<5	<2	5	25	<.2	<2	4	58	.22	.082	15	23	1.11	116	.06	<2	2.82	.01	.09	<1	2
L26N 8+00W	<1	28	5	47	.2	12	15	650	3.93	5	<5	<2	4	27	<.2	2	<2	54	.29	.079	11	22	1.19	95	.05	4	2.23	<.01	.07	<1	1
L26N 7+50W	1	27	2	47	<.1	21	16	580	4.03	2	<5	<2	3	20	<.2	<2	<2	61	.20	.074	11	25	1.05	94	.04	<2	2.64	.01	.08	<1	<1
L26N 7+00W	2	17	6	43	<.1	13	17	406	3.63	6	<5	<2	3	22	<.2	<2	3	54	.21	.110	25	22	.84	82	.05	3	2.28	<.01	.05	<1	1
L26N 6+50W	<1	30	6	67	.2	17	18	778	4.66	<2	<5	<2	2	26	<.2	<2	<2	73	.27	.106	11	24	1.16	107	.05	3	3.08	.01	.09	<1	2
L26N 6+00W	<1	47	17	97	.1	15	20	1021	4.77	7	<5	<2	3	28	.4	<2	<2	70	.27	.123	11	26	1.13	150	.06	2	3.35	.02	.11	<1	4
L26N 5+50W	1	63	14	147	.4	33	23	856	4.94	3	<5	<2	5	60	<.2	<2	5	62	.80	.075	37	29	1.07	129	.09	2	3.93	.03	.08	<1	6
L26N 5+00W	<1	41	12	88	.2	19	15	742	4.13	5	<5	<2	2	23	.4	2	<2	61	.23	.092	13	23	1.00	118	.05	2	2.82	.01	.09	<1	2
L26N 4+50W	1	41	6	170	.3	20	21	2292	4.80	<2	<5	<2	3	26	.5	<2	<2	76	.29	.183	13	22	.87	157	.07	<2	3.28	.01	.09	<1	3
L26N 4+00W	1	58	7	94	<.1	13	21	1122	4.74	2	<5	<2	2	26	<.2	<2	2	70	.27	.093	16	23	1.12	105	.06	<2	3.50	.01	.09	<1	2
L26N 3+50W	2	55	14	84	.1	21	24	858	5.34	<2	<5	<2	3	26	.3	<2	<2	84	.24	.081	14	24	1.32	90	.05	<2	3.51	.02	.09	<1	2
L26N 3+00W	1	84	9	79	.1	21	27	1110	4.65	<2	<5	<2	<2	27	.5	<2	2	66	.25	.135	13	21	1.06	104	.06	2	3.21	.01	.08	<1	2
RE L26N 3+00W	1	87	11	84	.1	19	28	1129	4.73	<2	<5	<2	3	26	.5	<2	<2	66	.25	.140	13	23	1.07	110	.06	3	3.27	.01	.08	<1	5
L26N 2+50W	2	72	10	95	.4	23	23	1011	4.93	4	<5	<2	4	22	.7	<2	<2	66	.20	.103	16	23	.99	107	.07	4	3.32	.02	.10	<1	9
L26N 2+00W	2	75	10	100	.4	14	18	688	4.71	<2	<5	<2	4	28	<.2	3	<2	76	.27	.069	17	23	1.07	123	.08	<2	2.83	.01	.06	<1	3
L26N 1+50W	1	36	9	84	.3	19	13	687	4.01	3	<5	<2	3	44	.4	2	<2	60	.56	.047	18	29	.89	141	.07	<2	2.38	.01	.07	<1	3
L26N 1+00W	1	49	13	84	.1	14	9	946	3.91	<2	<5	<2	2	54	.2	<2	<2	55	.92	.056	17	27	.75	121	.07	<2	2.54	.03	.05	<1	2
L26N 0+50W	1	55	8	94	.2	17	13	1302	3.86	<2	<5	<2	3	60	.3	<2	<2	54	.77	.080	19	30	1.00	149	.06	<2	2.21	.03	.08	<1	3
L26N 0+00W	2	79	12	124	.4	29	11	852	4.77	<2	<5	<2	2	68	1.1	<2	<2	61	1.18	.080	30	34	.98	210	.04	2	3.68	.03	.10	<1	3
L24N 10+00W	1	33	12	80	.1	15	14	442	4.09	<2	<5	<2	3	26	.4	<2	<2	57	.27	.078	19	23	.92	113	.06	<2	2.58	.02	.08	<1	24
L24N 9+50W	1	40	4	79	<.1	13	13	471	4.04	<2	<5	<2	3	29	.6	<2	<2	60	.28	.051	16	24	1.11	109	.05	<2	2.47	.01	.06	<1	2
L24N 9+00W	1	29	6	91	.3	17	14	636	3.83	<2	<5	<2	4	25	.3	<2	5	56	.27	.082	12	22	1.02	83	.05	<2	2.26	.01	.09	<1	4
L24N 8+50W	1	41	7	123	.2	14	11	716	4.27	<2	<5	<2	<2	27	.4	<2	7	67	.29	.099	13	31	1.02	119	.05	<2	2.73	.01	.11	<1	1
L24N 8+00W	1	50	6	90	.1	16	14	656	4.31	<2	<5	<2	3	26	.8	<2	<2	63	.25	.076	14	25	1.07	157	.05	<2	3.49	.01	.11	<1	3
L24N 7+50W	1	58	9	83	.2	10	10	749	3.89	4	<5	<2	2	28	.5	2	<2	55	.31	.056	16	20	.81	90	.05	<2	1.79	.01	.10	<1	17
L24N 7+00W	2	41	10	62	<.1	17	15	640	4.57	<2	<5	<2	3	34	.3	2	<2	62	.39	.091	19	22	1.09	96	.05	<2	2.12	.01	.10	<1	5
L24N 6+50W	1	36	13	81	.1	14	20	1026	4.32	<2	<5	<2	4	24	.2	<2	<2	61	.22	.111	19	20	.88	142	.06	<2	2.85	.01	.11	<1	9
L24N 6+00W	2	32	10	81	.1	14	20	750	4.84	<2	<5	<2	7	27	.6	4	<2	70	.20	.129	21	19	.81	151	.05	<2	3.11	.01	.10	<1	5
L24N 5+50W	1	33	2	72	<.1	16	21	955	4.73	<2	<5	<2	8	35	.5	<2	5	65	.33	.087	40	18	.84	96	.06	<2	2.66	.02	.07	<1	13
L24N 5+00W	<1	43	12	92	.1	14	15	754	4.34	<2	<5	<2	<2	29	1.0	<2	<2	63	.30	.084	14	21	1.27	86	.05	<2	2.57	.01	.11	<1	6
STANDARD C/AU-S	19	58	38	124	6.7	70	31	1048	3.96	40	14	6	36	51	18.9	14	22	63	.51	.093	40	60	.92	186	.08	38	1.88	.06	.16	9	49

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

Tom Lisle PROJECT R-1 FILE # 94-4193

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
L24N 4+50W	2	56	14	69	.1	7	21	572	5.78	9	<5	<2	7	30	.6	<2	<2	77	.23	.135	16	19	1.16	119	.05	<2	2.84	<.01	.10	<1	23
L24N 4+00W	2	69	10	96	<.1	24	27	885	5.08	9	<5	<2	5	29	<.2	4	4	66	.26	.105	21	23	1.05	87	.06	<2	3.00	.02	.09	<1	3
L24N 3+50W	1	48	16	97	.1	20	25	898	4.63	3	<5	<2	4	24	<.2	<2	2	66	.20	.095	16	23	1.08	134	.08	<2	3.11	<.01	.09	<1	11
L24N 3+00W	<1	44	15	136	.2	25	17	885	4.10	5	<5	<2	4	25	.5	<2	3	58	.23	.085	13	23	.96	148	.06	<2	2.92	.01	.10	<1	1
RE L24N 3+00W	1	44	15	138	.1	22	18	923	4.27	11	<5	<2	4	25	.2	4	<2	60	.24	.088	14	23	1.00	160	.06	<2	3.01	.01	.10	<1	3
L24N 2+50W	1	65	15	134	.3	34	15	754	4.58	5	<5	<2	4	47	.2	3	10	66	.51	.063	17	33	1.17	202	.05	<2	3.39	.01	.09	<1	3
L24N 2+00W	1	47	20	165	.2	17	14	968	4.08	5	<5	<2	2	30	.6	4	7	66	.33	.097	15	26	.86	155	.06	<2	3.01	.01	.09	<1	4
L24N 1+50W	1	41	17	132	<.1	15	15	628	4.15	10	<5	<2	3	23	.2	3	<2	66	.22	.068	12	25	.78	148	.06	<2	3.06	.01	.08	<1	3
L24N 1+00W	1	33	9	88	.3	12	12	687	3.70	8	<5	<2	4	62	.6	5	2	64	.49	.023	17	27	1.03	148	.10	<2	2.35	.02	.09	<1	3
L24N 0+50W	<1	39	16	103	.2	15	12	369	3.76	5	<5	<2	2	29	<.2	3	3	64	.27	.029	14	26	.78	147	.06	<2	3.25	.01	.07	<1	6
L24N 0+00W	1	31	16	138	.2	8	13	511	3.61	10	<5	<2	3	36	.6	7	4	60	.41	.042	12	23	.77	155	.06	<2	2.66	.02	.08	<1	7
L22N 10+00W	1	41	11	97	<.1	22	14	633	4.02	7	<5	<2	3	38	.5	<2	8	60	.40	.049	22	24	1.04	96	.06	<2	2.22	.01	.07	<1	20
L22N 9+50W	1	81	20	128	<.1	19	20	1178	5.32	13	<5	<2	6	48	.4	3	<2	67	.61	.103	28	28	1.29	151	.05	<2	2.27	.01	.11	<1	11
L22N 9+00W	1	49	13	210	.1	18	17	1557	4.40	6	<5	<2	2	28	.9	<2	5	67	.27	.118	18	30	.91	163	.06	<2	3.73	.01	.14	<1	3
L22N 8+50W	1	51	17	162	.1	22	16	900	4.17	7	<5	<2	4	33	.2	3	4	64	.30	.083	27	27	.88	162	.07	<2	3.14	.01	.11	<1	5
L22N 8+00W	1	38	16	81	.1	18	17	649	4.11	7	<5	<2	4	36	<.2	5	9	59	.38	.078	15	26	1.22	56	.07	<2	2.05	<.01	.08	<1	5
L22N 7+50W	1	30	12	69	<.1	16	14	707	3.92	<2	<5	<2	2	38	.2	<2	<2	60	.38	.059	20	24	1.05	84	.05	<2	2.08	.01	.09	<1	4
L22N 7+00W	1	57	12	88	<.1	22	18	637	4.94	6	<5	<2	4	41	<.2	4	2	65	.41	.094	23	23	1.39	96	.06	<2	2.36	<.01	.08	<1	5
L22N 6+50W	1	42	14	110	.2	18	17	540	3.97	6	<5	<2	3	26	.2	5	<2	57	.24	.089	15	19	.92	111	.06	<2	2.65	.02	.08	<1	18
L22N 6+00W	1	36	9	79	<.1	19	16	555	3.95	5	<5	<2	2	37	.3	3	<2	55	.34	.066	24	18	.96	79	.05	<2	2.06	.01	.07	<1	2
L22N 5+50W	2	23	11	48	<.1	10	14	554	3.94	6	<5	<2	4	68	<.2	2	<2	55	.37	.092	22	16	1.08	52	.05	<2	1.75	.02	.09	<1	10
L22N 5+00W	7	31	15	27	<.1	8	16	326	9.90	<2	<5	<2	5	150	.6	<2	<2	144	.29	.275	25	13	1.46	208	.12	<2	2.72	.05	.11	1	3
L22N 4+50W	2	44	12	69	<.1	12	20	511	5.46	5	<5	<2	5	63	<.2	6	3	83	.31	.123	20	20	1.18	157	.10	<2	2.95	.02	.11	<1	3
L22N 4+00W	1	58	11	82	.1	22	27	554	5.26	<2	<5	<2	4	42	.5	9	5	88	.41	.131	22	18	1.05	228	.11	3	3.03	.02	.10	<1	2
L22N 3+50W	1	38	16	99	.2	18	19	563	4.49	10	<5	<2	5	35	.5	7	<2	79	.28	.078	13	23	1.01	145	.09	<2	3.07	.02	.12	<1	1
L22N 3+00W	1	42	9	133	.1	16	17	654	4.15	3	<5	<2	4	30	.4	2	<2	66	.26	.094	14	25	.92	176	.09	<2	2.97	.01	.11	<1	2
L22N 2+50W	1	62	17	110	<.1	21	18	813	4.33	7	<5	<2	4	29	.4	<2	3	73	.29	.140	19	22	.81	118	.12	<2	3.62	.02	.08	<1	12
L22N 2+00W	8	466	12	79	.2	18	34	577	8.02	8	<5	<2	7	21	<.2	<2	3	86	.14	.332	18	16	.94	81	.12	<2	4.77	.02	.06	<1	4
L22N 1+50W	3	44	16	69	<.1	77	26	660	5.47	<2	<5	<2	3	45	<.2	3	2	87	.44	.056	29	75	1.58	137	.07	<2	3.97	.02	.06	<1	4
L22N 1+00W	1	35	7	87	<.1	23	16	669	4.08	<2	<5	<2	2	23	<.2	5	2	63	.22	.060	11	32	1.28	108	.05	<2	2.66	<.01	.06	<1	2
L22N 0+50W	2	72	21	139	.2	13	13	864	4.31	6	<5	<2	4	32	1.0	5	7	58	.55	.055	27	25	.99	156	.05	4	2.43	.02	.10	<1	6
L22N 0+00W	1	61	18	128	<.1	20	14	846	4.26	7	<5	<2	4	27	<.2	<2	3	60	.38	.054	18	25	1.12	100	.05	<2	2.35	.01	.09	<1	3
L20N 10+00W	1	42	17	112	.1	16	14	823	4.00	3	<5	<2	3	30	<.2	8	9	60	.30	.080	20	25	.91	140	.07	<2	2.73	.01	.10	<1	2
L20N 9+50W	1	40	9	91	<.1	16	13	799	3.70	<2	<5	<2	3	40	.3	5	7	64	.40	.057	26	27	.85	104	.08	<2	2.14	.02	.08	<1	4
L20N 9+00W	1	40	17	87	<.1	22	14	688	3.87	5	<5	<2	4	32	.2	3	<2	57	.35	.093	15	22	.96	92	.06	3	2.10	.01	.09	<1	5
STANDARD C/AU-S	19	59	37	132	6.9	72	31	1042	3.96	39	15	7	37	52	19.3	15	19	60	.51	.095	40	63	.92	184	.08	34	1.88	.06	.16	12	50

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

Tom Lisle PROJECT R-1 FILE # 94-4193

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
L20N 8+50W	1	44	15	115	<.1	7	16	770	4.40	<2	<5	<2	5	18	<.2	<2	<2	54	.18	.102	12	19	.67	94	.07	<2	2.32	<.01	.07	<1	2
L20N 8+00W	1	40	10	76	.1	11	16	506	4.07	2	<5	<2	5	20	<.2	<2	3	49	.21	.063	13	19	.71	120	.06	<2	1.68	<.01	.05	1	3
L20N 7+50W	1	43	10	67	.1	11	14	458	4.04	<2	<5	<2	4	15	<.2	<2	<2	49	.18	.076	8	17	.66	93	.05	4	1.87	<.01	.05	<1	3
L20N 7+00W	2	43	11	70	<.1	12	10	621	2.97	3	<5	<2	3	34	.3	3	<2	42	.43	.029	37	21	.81	128	.04	<2	1.90	.01	.07	<1	3
L20N 6+50W	5	35	5	52	<.1	21	14	157	1.50	<2	<5	<2	2	55	<.2	3	5	46	.76	.069	77	13	.52	85	.01	<2	2.25	.01	.06	<1	2
L20N 6+00W	1	30	4	58	<.1	13	16	522	3.96	<2	<5	<2	2	24	<.2	<2	<2	53	.28	.167	11	16	.81	78	.06	<2	2.02	.01	.05	<1	2
L20N 5+50W	3	29	5	60	<.1	6	24	1008	4.59	<2	<5	<2	14	25	.4	<2	4	42	.37	.128	92	12	1.28	56	.02	<2	1.94	<.01	.07	<1	6
L20N 5+00W	1	35	16	132	.1	23	23	993	3.97	<2	<5	<2	4	21	.4	2	<2	56	.24	.094	29	19	.84	79	.07	<2	2.37	.01	.08	<1	2
L20N 4+50W	<1	36	8	98	<.1	10	14	541	3.79	3	<5	<2	4	30	.4	4	<2	58	.32	.074	14	17	.93	81	.08	<2	1.78	<.01	.07	<1	2
L20N 4+00W	5	24	6	74	<.1	12	12	575	3.96	<2	<5	<2	3	36	.2	3	<2	56	.28	.082	10	18	1.25	87	.06	<2	2.10	.01	.11	<1	<1
L20N 3+50W	3	34	14	105	<.1	15	19	614	4.81	<2	<5	<2	4	31	.7	<2	<2	66	.20	.117	14	20	1.03	116	.05	<2	2.71	<.01	.08	<1	1
L20N 3+00W	<1	23	10	107	.1	17	14	997	3.57	<2	<5	<2	2	25	.2	<2	<2	55	.38	.102	7	23	.90	99	.05	<2	2.35	<.01	.09	1	1
L20N 2+50W	1	35	14	120	.1	8	16	1293	3.97	<2	<5	<2	3	20	.3	<2	<2	60	.23	.116	12	24	.74	139	.07	2	2.80	.01	.09	<1	3
L20N 2+00W	20	35	8	65	<.1	8	10	435	8.03	<2	<5	<2	4	37	.4	<2	<2	59	.19	.098	10	24	.86	137	.04	<2	2.10	.01	.09	<1	1
L20N 1+50W	1	52	11	118	<.1	12	14	829	3.95	<2	<5	<2	2	20	.4	<2	<2	54	.24	.062	12	23	.92	103	.05	<2	2.23	.01	.08	<1	3
L20N 1+00W	1	40	12	106	<.1	13	12	675	3.59	<2	<5	<2	3	22	.7	<2	<2	54	.30	.042	13	22	.88	114	.05	<2	2.14	.01	.07	<1	2
RE L20N 1+00W	1	37	11	~~112~~	<.1	13	12	680	3.66	2	<5	<2	2	21	1.0	<2	<2	55	.30	.043	13	24	.89	119	.05	<2	2.15	.01	.07	<1	17
L20N 0+50W	<1	52	13	123	<.1	12	12	952	3.98	2	<5	<2	3	15	.6	<2	<2	61	.20	.072	12	24	.82	120	.06	<2	3.03	<.01	.08	<1	1
L20N 0+00W	1	43	20	128	<.1	13	14	711	4.02	5	<5	<2	3	15	.4	2	<2	62	.14	.064	14	23	.81	122	.06	2	3.44	.01	.07	<1	3
L18N 10+00W	1	38	8	96	<.1	11	12	548	3.63	5	<5	<2	3	26	.6	5	<2	52	.27	.060	19	20	.78	128	.06	<2	2.23	<.01	.07	<1	5
L18N 9+50W	1	40	4	93	<.1	12	15	530	4.27	4	<5	<2	3	21	.2	3	8	53	.22	.089	10	20	.74	114	.06	<2	2.03	.01	.08	<1	2
L18N 9+00W	<1	34	7	101	.2	20	13	514	3.40	<2	<5	<2	2	31	.5	3	<2	52	.34	.082	13	20	.76	90	.05	<2	1.80	.01	.08	1	2
L18N 8+50W	1	43	6	133	<.1	15	14	658	3.98	2	<5	<2	4	22	.6	<2	5	58	.20	.095	15	22	.71	112	.07	<2	2.81	.01	.08	<1	1
L18N 8+00W	<1	24	6	109	.1	19	14	1019	3.63	2	<5	<2	2	27	.5	<2	<2	54	.28	.085	10	18	.84	110	.05	3	2.07	<.01	.09	<1	1
L18N 7+50W	1	21	8	89	.1	7	14	763	3.42	<2	<5	<2	3	20	.3	<2	<2	52	.16	.083	9	17	.70	103	.05	<2	1.92	.01	.06	1	3
L18N 7+00W	1	32	8	102	.1	10	15	662	3.76	4	<5	<2	3	20	.6	<2	<2	53	.21	.108	11	18	.68	108	.06	<2	2.41	.01	.07	<1	2
L18N 6+50W	1	33	11	112	.1	18	14	630	3.83	<2	<5	<2	3	19	.2	2	<2	54	.18	.103	9	18	.63	101	.07	<2	2.24	.01	.06	<1	16
L18N 6+00W	1	41	15	111	<.1	12	17	530	4.24	4	<5	<2	3	25	.7	<2	<2	56	.25	.108	16	17	.75	103	.07	<2	2.24	.02	.06	<1	14
L18N 5+50W	1	35	8	115	.1	16	16	734	4.06	7	<5	<2	3	23	.6	2	4	55	.21	.106	10	17	.75	88	.06	2	1.95	.01	.07	<1	6
L18N 5+00W	1	54	9	104	<.1	17	18	907	4.22	<2	<5	<2	3	35	.5	<2	<2	58	.49	.058	20	26	.99	120	.06	<2	2.22	.01	.08	1	5
L18N 4+50W	1	38	8	79	<.1	13	14	610	3.91	<2	<5	<2	<2	30	.8	4	<2	58	.33	.074	10	20	.98	87	.06	<2	1.82	.01	.07	<1	4
L18N 4+00W	1	54	13	126	.1	13	18	725	4.46	4	<5	<2	3	24	.3	7	<2	62	.29	.099	13	22	.79	117	.06	<2	2.44	.01	.08	2	3
L18N 3+50W	1	41	10	109	<.1	21	14	641	3.73	4	<5	<2	<2	29	.7	8	<2	58	.42	.061	14	25	.90	97	.06	<2	2.14	.01	.09	1	6
L18N 3+00W	1	63	11	161	.2	23	10	961	4.44	10	<5	<2	3	45	1.1	<2	<2	58	.94	.044	26	26	.75	195	.07	<2	4.28	.01	.09	<1	4
L18N 2+50W	2	79	13	93	.1	19	11	863	3.66	12	<5	<2	<2	45	.7	2	<2	52	.86	.055	24	21	.68	119	.07	<2	2.81	.02	.05	<1	8
STANDARD C/AU-S	20	59	38	129	6.9	74	33	1042	3.96	41	18	7	37	52	18.6	15	17	60	.51	.094	40	62	.92	182	.08	33	1.88	.07	.15	15	48

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

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
L18N 2+00W	1	65	10	99	.2	12	14	917	4.00	5	<5	<2	4	50	1.4	<2	<2	66	.70	.087	20	18	1.12	114	.05	2	3.31	.01	.09	1	2
L18N 1+50W	1	79	12	517	<.1	15	14	881	4.34	<2	<5	<2	3	32	3.5	<2	<2	64	.56	.051	21	26	.93	120	.08	<2	3.26	.01	.12	<1	4
L18N 1+00W	1	59	16	245	<.1	15	23	1615	4.33	<2	<5	<2	3	25	.8	<2	<2	66	.27	.114	14	21	.99	154	.06	2	3.62	.01	.10	<1	30
L18N 0+50W	2	103	20	134	<.1	15	35	1142	4.97	4	<5	<2	4	26	.5	<2	5	70	.30	.085	15	23	1.19	137	.05	<2	3.62	.01	.11	<1	4
L18N 0+00W	1	203	14	123	.1	13	19	1107	4.69	<2	<5	<2	3	30	.8	<2	<2	77	.48	.067	13	20	.84	154	.06	4	3.81	.01	.09	<1	2
L16N 10+00W	1	30	14	129	.2	9	13	1010	3.73	8	<5	<2	<2	27	.8	3	5	56	.28	.127	10	20	.70	116	.06	<2	2.25	.01	.07	<1	1
L16N 9+50W	1	47	14	142	.2	10	9	936	3.84	<2	<5	<2	3	44	.7	5	3	61	.52	.044	28	23	.74	147	.07	5	2.47	.02	.09	<1	4
L16N 9+00W	<1	35	8	82	<.1	11	14	798	4.02	8	<5	<2	3	32	.4	3	<2	58	.34	.071	14	22	1.03	62	.06	<2	2.02	.01	.09	<1	25
L16N 8+50W	1	44	15	74	.1	17	20	499	5.44	3	<5	<2	2	45	.4	<2	9	60	.25	.106	13	19	.92	157	.06	3	2.33	<.01	.09	<1	16
L16N 8+00W	2	24	11	83	.1	9	12	714	5.11	<2	<5	<2	5	52	1.0	<2	<2	59	.27	.142	17	16	.64	215	.09	<2	2.13	.02	.09	<1	4
L16N 7+50W	1	42	14	94	<.1	17	17	635	4.62	4	<5	<2	5	38	.7	<2	2	63	.32	.087	16	21	1.10	98	.08	<2	2.26	.01	.07	<1	2
L16N 7+00W	3	45	9	113	.1	16	18	574	5.65	3	<5	<2	8	22	.3	<2	3	64	.20	.137	19	18	.69	99	.11	<2	2.93	.01	.07	<1	5
L16N 6+50W	3	44	10	104	.1	21	23	575	6.15	<2	<5	<2	6	27	.2	<2	<2	68	.27	.157	16	22	.97	106	.06	<2	2.80	.01	.07	<1	4
L16N 6+00W	7	66	9	51	<.1	8	20	623	7.26	5	<5	<2	11	36	.3	<2	<2	69	.39	.166	67	17	1.17	72	.05	2	2.11	.01	.08	<1	8
L16N 5+50W	2	81	14	141	.1	19	17	940	4.70	<2	<5	<2	4	38	.5	<2	<2	60	.52	.083	53	21	.78	174	.07	2	3.32	.02	.09	<1	3
L16N 5+00W	1	50	12	169	<.1	16	17	747	4.40	7	<5	<2	3	32	.7	<2	<2	66	.32	.121	14	21	.79	130	.09	<2	2.62	.02	.07	<1	3
L16N 4+50W	1	45	21	126	.1	20	20	690	4.60	6	<5	<2	2	36	.9	<2	3	68	.38	.121	14	22	.86	123	.08	<2	2.57	.01	.09	<1	1
L16N 4+00W	<1	43	15	118	.1	17	15	713	4.00	5	<5	<2	2	33	.5	3	<2	62	.37	.120	11	22	.93	102	.07	<2	2.24	.01	.10	2	6
L16N 3+50W	<1	27	10	128	.1	14	13	702	3.47	6	<5	<2	<2	28	.5	5	5	59	.33	.081	10	22	.75	116	.08	3	2.47	<.01	.10	<1	<1
L16N 3+00W	<1	58	7	136	<.1	11	14	696	3.99	<2	<5	<2	3	36	.5	<2	<2	65	.38	.055	13	23	.82	126	.09	2	2.50	.01	.09	1	9
RE L16N 3+00W	1	59	10	138	<.1	13	14	711	4.10	4	<5	<2	2	36	<.2	<2	<2	68	.38	.056	14	23	.83	133	.09	<2	2.53	.01	.08	1	8
L16N 2+50W	<1	51	14	135	<.1	12	14	694	3.90	2	<5	<2	<2	33	.5	2	<2	64	.41	.064	13	22	.79	115	.08	<2	2.58	.01	.09	1	10
L16N 2+00W	1	53	10	126	.1	15	16	656	4.02	7	<5	<2	<2	36	.6	<2	3	64	.43	.044	13	22	.98	88	.07	<2	2.05	.01	.07	<1	10
L16N 1+50W	1	70	16	166	.1	19	15	998	4.27	7	<5	<2	2	30	.4	<2	<2	66	.36	.087	17	24	.97	122	.06	<2	2.74	.01	.12	<1	2
L16N 1+00W	<1	61	16	170	<.1	16	14	996	4.14	2	<5	<2	3	27	.3	<2	3	66	.29	.079	15	26	.96	129	.06	<2	2.73	<.01	.10	<1	1
L16N 0+50W	<1	45	12	110	.1	16	12	806	3.86	10	<5	<2	2	29	.2	6	<2	63	.35	.067	14	23	.98	91	.06	<2	2.28	<.01	.08	<1	4
L16N 0+00W	<1	29	11	130	<.1	14	12	775	3.61	6	<5	<2	<2	29	.3	<2	<2	61	.37	.076	11	24	.88	108	.07	2	2.44	.01	.08	<1	10
L14N 10+00W	1	28	10	117	.1	15	13	570	3.59	8	<5	<2	3	24	.4	5	<2	55	.25	.056	9	18	.62	119	.08	<2	1.82	<.01	.07	<1	3
L14N 9+50W	1	44	7	106	.1	12	16	561	4.67	5	<5	<2	4	24	<.2	<2	7	60	.24	.071	17	22	.74	102	.10	<2	2.53	<.01	.09	<1	6
L14N 9+00W	<1	35	8	78	<.1	11	12	578	3.82	3	<5	<2	2	33	<.2	<2	<2	63	.33	.033	10	23	1.10	67	.07	<2	2.03	.01	.10	<1	2
L14N 8+50W	<1	75	11	90	<.1	17	18	965	4.67	6	<5	<2	3	42	.6	<2	10	72	.58	.091	19	33	1.51	85	.08	4	2.90	.01	.13	<1	5
L14N 8+00W	<1	39	9	105	.1	16	15	648	3.79	2	<5	<2	3	34	.7	9	3	60	.34	.087	13	23	.93	170	.09	2	2.71	.01	.14	<1	3
L14N 7+50W	<1	24	13	124	<.1	14	12	647	3.32	6	5	<2	2	29	<.2	4	9	55	.32	.124	9	19	.60	101	.09	2	2.36	.01	.10	<1	2
L14N 7+00W	<1	55	11	101	.3	13	12	778	3.99	8	<5	<2	3	41	<.2	<2	7	60	.59	.095	17	26	1.20	78	.07	4	2.00	.02	.15	<1	5
L14N 6+50W	1	71	20	132	<.1	17	14	953	4.45	7	<5	<2	2	46	.4	<2	<2	64	.65	.091	20	30	1.15	108	.06	4	2.13	.06	.13	<1	8
STANDARD C/AU-S	19	59	39	123	6.8	72	32	1037	3.96	39	22	6	37	52	18.4	14	22	60	.51	.095	40	62	.91	183	.08	33	1.88	.07	.16	14	50

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

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
L14N 6+00W	1	40	12	115	.1	11	12	586	3.72	3	<5	<2	4	33	.3	<2	<2	55	.37	.043	15	22	1.01	67	.07	4	1.66	.01	.10	1	4
L14N 5+50W	1	36	5	140	.1	12	12	691	3.36	5	<5	<2	3	28	<.2	<2	<2	55	.35	.116	10	23	.76	124	.08	4	2.08	.03	.10	<1	3
L14N 5+00W	1	33	7	118	.2	14	12	569	3.52	5	<5	<2	2	33	.3	<2	<2	57	.35	.050	13	24	.85	89	.09	<2	1.89	.01	.14	<1	4
L14N 4+50W	2	57	6	183	<.1	18	19	830	4.83	4	<5	<2	4	31	.2	<2	<2	65	.31	.114	13	23	.86	147	.10	<2	2.97	.02	.10	<1	21
L14N 4+00W	1	52	5	157	<.1	13	15	814	3.87	<2	<5	<2	<2	34	.6	<2	<2	58	.37	.079	16	21	.83	163	.08	2	2.61	.01	.10	<1	7
L14N 3+50W	1	37	6	145	.4	13	10	604	3.23	<2	<5	<2	<2	32	.2	<2	<2	57	.35	.041	16	21	.71	109	.08	2	1.95	.02	.08	<1	4
L14N 3+00W	1	41	13	123	.3	13	12	662	3.58	5	<5	<2	2	31	.2	<2	<2	60	.33	.044	11	22	.89	89	.08	<2	1.86	.01	.10	<1	7
L14N 2+50W	1	55	6	219	.4	14	13	908	3.90	4	<5	<2	3	27	.5	<2	<2	61	.28	.113	13	23	.81	169	.07	<2	3.11	.02	.14	<1	3
L14N 2+00W A	<1	39	10	113	.4	11	12	606	3.51	<2	<5	<2	4	28	.4	2	<2	56	.32	.084	11	22	.81	92	.07	3	1.76	.01	.08	<1	14
L14N 2+00W B	1	37	6	186	.4	12	12	781	3.42	5	<5	<2	2	27	.9	<2	<2	55	.31	.139	12	20	.69	115	.07	2	2.17	.01	.10	<1	5
L14N 1+50W	1	39	11	118	.3	13	13	649	3.72	5	<5	<2	2	25	.2	<2	<2	59	.30	.074	11	22	.90	92	.07	<2	1.91	.01	.08	<1	2
L14N 1+00W	1	52	9	127	.2	15	15	850	4.30	9	<5	<2	2	30	.6	<2	8	67	.37	.129	12	21	.83	159	.09	2	2.19	.01	.10	<1	10
L14N 0+50W	1	39	4	125	.3	14	11	813	4.12	7	<5	<2	2	24	.4	<2	<2	65	.28	.154	17	19	.66	121	.05	<2	2.09	.01	.10	<1	8
L14N 0+00W	1	48	9	92	.3	14	11	545	3.77	6	<5	<2	2	32	.2	<2	<2	63	.39	.052	12	26	1.03	44	.07	<2	1.74	.01	.12	<1	3
L12N 10+00W	1	32	16	80	<.1	10	12	496	3.55	2	<5	<2	<2	32	<.2	<2	<2	54	.36	.047	11	21	.93	54	.06	<2	1.70	.01	.11	<1	3
RE L12N 10+00W	1	33	13	74	.1	8	11	497	3.55	<2	<5	<2	<2	32	<.2	2	<2	54	.36	.047	10	20	.94	58	.06	2	1.69	<.01	.11	<1	4
L12N 9+50W	<1	37	<2	74	.1	16	13	609	3.65	5	<5	<2	2	35	<.2	<2	<2	61	.39	.058	11	26	1.01	74	.08	<2	1.87	.01	.13	<1	1
L12N 9+00W	1	30	4	70	<.1	12	13	540	3.55	<2	<5	<2	2	34	<.2	3	<2	64	.39	.044	9	26	.98	57	.10	<2	1.77	.01	.10	<1	2
L12N 8+50W	<1	27	<2	104	.2	13	11	540	3.23	<2	<5	<2	2	29	.2	<2	<2	55	.33	.046	9	24	.94	88	.07	<2	1.92	.01	.13	<1	4
L12N 8+00W	1	30	8	74	<.1	9	10	522	2.88	<2	<5	<2	<2	29	<.2	<2	5	55	.36	.078	9	23	.79	101	.07	<2	1.77	<.01	.08	<1	3
L12N 7+50W	1	54	13	109	.3	15	14	790	3.89	4	<5	<2	2	44	.3	<2	<2	63	.63	.091	18	30	1.02	94	.08	<2	1.86	.02	.13	<1	7
L12N 7+00W	2	45	7	70	.1	12	13	857	4.11	6	<5	<2	3	39	<.2	<2	<2	63	.57	.087	17	25	1.00	74	.07	<2	1.73	.02	.10	<1	5
L12N 6+50W	1	41	12	117	.2	10	11	641	3.40	3	<5	<2	2	35	<.2	5	<2	51	.41	.077	14	22	.81	84	.07	<2	1.61	.01	.13	<1	23
L12N 6+00W	1	34	11	76	.1	11	10	547	3.37	<2	<5	<2	<2	37	.4	<2	<2	54	.38	.058	13	24	.83	40	.08	<2	1.56	.01	.13	<1	3
L12N 5+50W	1	44	<2	149	.1	13	14	744	3.87	<2	<5	<2	<2	33	.4	<2	<2	64	.32	.060	12	22	.79	134	.10	<2	2.30	.02	.10	<1	1
L12N 5+00W	1	68	7	192	.5	17	16	881	4.26	3	<5	<2	3	35	.2	5	<2	68	.33	.090	15	26	.86	151	.10	4	2.66	.01	.11	<1	3
L12N 4+50W	1	47	11	201	.3	14	15	880	3.68	6	<5	<2	2	27	.5	4	<2	58	.30	.084	11	22	.71	151	.08	<2	2.28	.02	.10	<1	12
L12N 4+00W	1	50	11	121	.2	16	11	769	4.09	13	<5	<2	3	49	.2	2	4	74	.51	.068	16	26	.84	127	.11	<2	2.41	.02	.12	<1	6
L12N 3+50W	<1	43	2	101	.2	17	16	653	4.19	6	<5	<2	2	34	.7	5	<2	71	.40	.058	13	35	1.14	103	.09	<2	1.97	.01	.12	<1	10
L12N 3+00W	1	40	9	117	.3	12	14	641	3.76	10	<5	<2	2	35	<.2	3	<2	58	.46	.112	13	24	1.04	76	.07	<2	1.88	.01	.10	<1	10
L12N 2+50W	<1	52	12	199	.2	19	13	791	3.96	10	<5	<2	2	30	.6	<2	<2	61	.37	.220	13	22	.72	144	.08	<2	2.41	.02	.10	<1	4
L12N 2+00W	1	36	9	118	.3	8	13	1016	4.07	6	<5	<2	3	42	.4	3	2	57	.40	.136	14	19	.71	181	.06	<2	2.14	.03	.10	<1	5
L12N 1+50W	1	61	<2	89	.2	15	13	624	3.79	11	<5	<2	<2	36	<.2	3	<2	63	.42	.133	11	21	.88	119	.06	<2	1.94	.01	.10	<1	48
L12N 1+00W	1	39	11	131	.3	10	9	705	3.06	5	<5	<2	4	16	.3	<2	<2	51	.14	.085	7	20	.59	154	.07	<2	3.04	.02	.07	<1	26
L12N 0+50W	1	53	9	136	.3	16	13	600	3.80	10	<5	<2	3	22	<.2	9	<2	62	.26	.164	10	21	.69	208	.07	<2	2.85	.02	.08	<1	4
STANDARD C/AU-S	19	58	38	136	7.2	74	33	1043	3.96	41	15	6	37	52	18.9	14	21	60	.49	.094	40	62	.92	188	.08	35	1.88	.07	.16	13	53

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

Tom Lisle PROJECT R-1 FILE # 94-4193

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
L12N 0+00W	1	152	3	116	<.1	8	12	644	3.67	5	<5	<2	4	27	<.2	7	9	69	.33	.079	13	21	.93	185	.06	<2	2.49	.01	.10	<1	5
L10N 10+00W	1	33	8	167	<.1	8	11	695	3.31	4	<5	<2	3	28	.3	3	2	54	.35	.124	11	20	.63	140	.09	2	2.26	.02	.09	2	1
L10N 9+50W	1	36	4	76	<.1	10	10	640	3.71	<2	<5	<2	3	44	<.2	<2	8	68	.64	.091	12	35	1.08	73	.10	4	1.86	.02	.13	<1	3
L10N 9+00W	<1	28	5	103	.1	10	10	586	3.47	4	<5	<2	3	37	<.2	<2	4	60	.48	.057	10	25	.92	74	.10	<2	1.75	.01	.11	<1	1
L10N 8+50W	<1	30	7	77	<.1	5	11	496	3.51	6	6	<2	2	30	<.2	<2	3	61	.32	.040	8	24	.90	68	.08	<2	1.72	<.01	.07	<1	5
L10N 8+00W	<1	25	<2	50	<.1	10	13	547	3.49	5	<5	<2	5	66	<.2	4	7	69	.60	.053	11	16	1.07	74	.14	<2	1.88	.01	.10	<1	<1
RE L10N 8+00W	~~1~~	~~26~~	~~<2~~	~~51~~	~~<.1~~	10	13	550	3.52	5	<5	<2	5	66	<.2	<2	<2	70	.61	.051	11	16	1.07	72	.14	2	1.85	.01	.10	<1	<1
L10N 7+50W	<1	37	9	105	.1	14	13	738	4.11	<2	6	<2	3	44	<.2	<2	4	73	.49	.059	13	34	1.25	86	.09	3	2.31	.01	.14	<1	2
L10N 7+00W	1	33	3	107	<.1	18	8	457	3.30	<2	<5	<2	<2	36	<.2	<2	<2	55	.37	.053	12	29	.85	87	.10	<2	1.88	.01	.12	<1	2
L10N 6+50W	<1	24	5	76	<.1	9	10	589	3.44	5	<5	<2	<2	41	<.2	<2	5	58	.49	.045	10	29	1.08	53	.10	4	1.71	.01	.12	<1	88
L10N 6+00W	1	80	7	107	<.1	11	12	569	4.17	4	<5	<2	3	45	<.2	3	<2	71	.50	.056	20	27	1.26	49	.07	5	1.99	<.01	.09	<1	13
L10N 5+50W	<1	42	8	122	<.1	13	11	650	4.08	3	<5	<2	3	37	<.2	<2	<2	68	.46	.088	13	29	1.08	93	.09	4	2.07	.01	.11	<1	7
L10N 5+00W	<1	53	8	135	.1	12	11	603	4.01	3	<5	<2	4	35	<.2	5	3	64	.37	.051	15	27	.97	92	.08	<2	2.02	.01	.09	<1	5
L10N 4+50W	<1	42	5	129	.2	11	12	612	3.74	5	<5	<2	<2	32	<.2	4	5	61	.38	.101	11	23	.91	103	.07	4	1.96	.01	.10	1	9
L10N 4+00W A	1	38	7	145	<.1	11	13	776	3.85	4	<5	<2	<2	32	<.2	<2	3	61	.37	.086	12	25	.92	119	.08	3	2.10	.01	.10	<1	4
L10N 4+00W B	<1	25	12	273	.3	12	12	1368	3.41	5	<5	<2	3	28	<.2	3	3	56	.30	.148	10	21	.65	171	.07	3	2.26	.02	.11	<1	1
L10N 3+50W	1	36	8	122	.1	12	11	606	3.67	6	<5	<2	3	29	<.2	3	<2	61	.35	.063	10	24	.87	103	.08	4	1.75	.02	.09	<1	2
L10N 3+00W	1	42	12	151	.1	15	15	740	4.04	5	<5	<2	3	32	<.2	7	2	66	.38	.091	12	28	.85	118	.08	5	2.00	.01	.08	<1	2
L10N 2+50W	1	66	9	125	.1	15	14	847	4.11	6	5	<2	4	26	<.2	3	2	65	.31	.054	15	25	.86	113	.08	<2	1.89	.02	.08	<1	4
L10N 2+00W	1	30	12	152	<.1	13	15	1494	3.97	3	<5	<2	<2	47	.3	5	7	60	.58	.192	12	22	.80	219	.07	<2	2.22	.02	.14	<1	1
L10N 1+50W	3	169	9	67	<.1	15	26	590	5.24	4	<5	<2	2	44	<.2	<2	8	93	.50	.100	14	31	.87	66	.08	2	1.73	.02	.12	<1	290
L10N 1+00W	1	42	3	89	.1	14	14	637	4.05	5	<5	<2	3	34	<.2	<2	<2	66	.41	.066	14	33	.91	60	.07	2	1.62	.01	.15	1	4
L10N 0+50W	1	57	7	114	<.1	19	18	1393	5.19	7	5	<2	3	47	<.2	2	<2	81	.80	.118	22	38	1.36	117	.07	9	2.36	.03	.17	1	4
L10N 0+00W	<1	32	6	112	.2	14	13	705	3.69	2	<5	<2	3	33	<.2	3	3	68	.44	.076	13	30	.84	106	.09	4	1.76	.02	.19	<1	3
L8N 10+00W	<1	97	5	97	<.1	25	20	615	4.09	7	<5	<2	2	38	<.2	2	<2	71	.45	.066	11	31	.98	83	.10	3	2.46	.01	.11	<1	1
L8N 9+50W	1	57	4	117	.1	14	11	694	4.07	10	<5	<2	2	40	<.2	5	<2	73	.47	.045	23	37	1.09	88	.09	3	2.36	.01	.12	<1	18
L8N 9+00W	<1	37	<2	345	.2	14	16	887	3.85	8	6	<2	3	42	<.2	2	12	80	.45	.076	7	21	1.15	144	.08	3	2.45	.01	.12	<1	1
L8N 8+50W	1	62	9	67	.1	24	31	1108	5.46	5	<5	<2	6	52	<.2	<2	<2	89	.60	.065	20	60	2.35	154	.07	3	2.99	.01	.16	<1	24
L8N 8+00W	<1	45	3	62	.1	9	13	511	3.60	<2	7	<2	3	48	<.2	3	<2	75	.42	.042	11	20	.94	84	.11	<2	1.88	.02	.13	<1	2
L8N 7+50W	<1	26	<2	109	.2	14	10	385	3.39	<2	<5	<2	3	26	<.2	5	<2	58	.29	.060	9	26	.71	83	.08	3	1.60	.01	.11	<1	2
L8N 7+00W	1	22	6	62	.1	9	9	412	3.20	3	5	<2	3	38	<.2	3	4	63	.45	.041	10	25	.80	58	.10	<2	1.34	.01	.11	<1	1
L8N 6+50W	<1	30	3	78	.2	11	10	510	3.21	5	6	<2	3	36	.2	5	8	59	.44	.055	12	25	.77	72	.08	2	1.64	.01	.10	<1	1
L8N 6+00W	<1	41	9	106	.2	14	17	759	4.40	8	7	<2	5	30	<.2	<2	<2	63	.35	.134	22	21	.94	157	.07	<2	2.19	.01	.09	<1	2
L8N 5+50W	1	25	3	55	.2	12	10	373	3.00	6	<5	<2	4	35	<.2	7	4	48	.36	.058	13	15	.64	61	.08	2	1.42	.02	.08	<1	3
L8N 5+00W	1	34	5	96	.1	16	10	473	3.42	5	5	<2	3	31	<.2	6	3	57	.39	.065	13	24	.87	88	.08	2	1.78	.01	.12	<1	1
STANDARD C/AU-S	19	57	38	141	6.8	68	32	1032	3.96	42	16	6	34	51	18.0	14	19	62	.51	.094	40	60	.91	190	.08	33	1.88	.07	.15	12	53

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

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
L8N 4+50W	1	47	13	103	<.1	19	15	1011	3.86	9	<5	<2	3	34	.5	<2	3	66	.41	.126	16	29	.92	119	.10	4	2.19	.01	.11	1	2
L8N 4+00W	<1	46	8	99	<.1	12	13	781	3.92	6	<5	<2	2	33	.4	<2	7	63	.39	.062	18	29	.98	96	.09	2	1.95	<.01	.13	<1	3
L8N 3+50W	2	26	6	56	<.1	5	12	494	3.02	4	<5	<2	5	43	<.2	5	<2	50	.34	.051	17	14	.73	69	.03	3	1.63	<.01	.10	<1	57
L8N 3+00W	1	33	10	98	.1	13	13	703	3.70	7	<5	<2	3	35	.3	3	2	66	.44	.071	11	31	1.07	96	.09	2	1.83	.01	.13	<1	4
L8N 2+50W	2	33	9	141	.4	15	12	895	3.50	3	<5	<2	3	54	.4	8	3	53	.74	.041	13	25	.85	150	.10	3	2.48	.03	.10	<1	2
RE L8N 2+50W	2	33	13	136	.2	17	12	888	3.58	2	<5	<2	<2	53	.7	4	<2	53	.74	.040	13	26	.86	138	.10	5	2.52	.02	.10	<1	7
L8N 2+00W	1	29	13	75	.1	12	12	564	3.75	7	<5	<2	2	38	.4	7	3	74	.49	.067	10	34	.84	53	.10	2	1.68	.02	.10	2	3
L8N 1+50W	3	63	17	96	.3	14	13	881	4.28	<2	<5	<2	2	61	.3	<2	<2	65	.83	.039	23	32	1.00	184	.08	<2	2.62	.02	.11	<1	4
L8N 1+00W	2	40	12	79	<.1	16	15	938	3.94	11	<5	<2	<2	54	.6	5	10	65	.74	.034	18	32	.96	150	.09	2	2.23	.01	.17	<1	3
L8N 0+50W	2	29	10	71	<.1	15	14	636	3.83	3	<5	<2	2	51	.5	<2	9	66	.70	.017	19	30	.98	161	.09	2	2.21	.02	.13	<1	6
L8N 0+00W	1	27	10	102	.1	16	15	672	3.70	8	<5	<2	2	29	.3	2	3	57	.39	.072	14	27	.92	118	.06	3	1.81	.01	.16	<1	1
STANDARD C/AU-S	22	62	42	128	7.5	72	32	1078	4.09	41	24	7	41	53	19.1	14	22	62	.51	.095	42	62	.92	190	.09	34	1.94	.07	.17	14	49

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

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	Pt** ppb	Pd** ppb
91618	<1	157	16	6	<.1	7	167	604	17.19	<2	<5	<2	5	43	.8	<2	7	51	.74	.119	9	4	2.75	7	.12	<2	2.29	<.01	.01	<1	11	<3	<3
91619	1	8	<2	9	<.1	25	9	434	3.99	6	<5	<2	3	73	.7	<2	<2	65	1.10	.154	10	29	2.96	7	.18	<2	2.56	.03	.03	<1	15	4	5
91620	4	4	2	<1	<.1	9	3	84	1.41	2	<5	<2	7	6	<.2	<2	<2	9	.04	.023	21	8	.46	10	<.01	<2	.57	.06	.10	<1	<1	<3	<3
91621	1	7	5	5	<.1	3	7	114	3.85	8	<5	<2	4	45	.3	2	<2	62	.73	.157	8	7	1.49	14	.28	<2	1.18	.05	.10	<1	<1	3	<3
91622	1	7	<2	<1	<.1	6	10	108	3.76	<2	<5	<2	4	41	.5	5	<2	57	.72	.156	7	8	1.54	10	.27	3	1.23	.04	.09	<1	3	<3	<3
RE 91622	1	7	<2	<1	<.1	8	12	112	3.80	<2	<5	<2	2	41	.3	<2	9	57	.71	.159	7	7	1.55	13	.26	3	1.26	.05	.10	<1	3	<3	<3
STANDARD C/FA-100S	19	59	38	123	7.0	71	31	1052	3.96	44	18	7	38	53	19.4	14	21	60	.49	.096	40	60	.93	184	.08	32	1.88	.07	.16	15	50	53	51

Sample type: ROCK. Samples beginning 'RE' are duplicate samples.
AU** PT** & PD** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

WHOLE ROCK ICP ANALYSIS

Tom Lisle PROJECT R-1 File # 94-4193 Page 12

145 W. Rockland Road, North Vancouver BC V7N 2V8

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Ni ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
91623	69.83	16.32	2.13	.69	.42	5.79	2.01	.67	.16	.02	<.002	273	<10	206	248	19	10	6	1.9	100.05
RE 91623	69.37	16.24	2.11	.70	.40	5.67	2.10	.67	.15	.01	<.002	271	11	204	251	20	11	6	2.0	99.53

.200 GRAM SAMPLES ARE FUSED WITH 1.2 GRAM OF LIBO2 AND ARE DISSOLVED IN 100 MLS 5% HNO3. Ba IS SUM AS BaSO4 AND OTHER METALS ARE SUM AS OXIDES.
- SAMPLE TYPE: P1-P10 SOIL P11-P12 ROCK Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: NOV 18 1994 **DATE REPORT MAILED:** Nov 25/94 **SIGNED BY**..........D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Tom Lisle File # 94-4562 Page 1

145 W. Rockland Road, North Vancouver BC V7N 2V8

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
L35N 10+00W	15	40	9	73	.2	22	19	960	4.67	<2	6	<2	3	23	<.2	3	<2	81	.21	.079	39	33	1.06	132	.07	2	3.34	.01	.09	1	4
L35N 9+50W	3	39	8	63	.2	26	11	641	4.03	3	<5	<2	2	46	.2	<2	<2	77	.53	.046	20	40	1.29	200	.08	<2	2.86	.02	.08	1	2
L35N 9+00W	1	31	6	88	.2	23	12	755	3.79	<2	<5	<2	<2	64	.2	2	<2	74	.72	.043	18	38	1.10	281	.07	2	3.12	.02	.08	2	1
L35N 8+50W	2	35	11	86	.1	23	13	578	4.42	3	<5	<2	2	25	.2	2	<2	83	.20	.037	19	32	1.13	187	.07	3	3.51	.02	.09	2	5
L33N 10+00W	<1	37	10	67	<.1	22	13	615	4.39	7	<5	<2	2	18	<.2	4	<2	83	.16	.092	13	34	1.25	99	.05	<2	3.54	.01	.10	1	6
L33N 9+50W	1	47	11	106	.2	24	15	783	4.48	8	<5	<2	2	25	.2	4	<2	86	.17	.059	20	38	.86	177	.08	<2	4.04	.02	.09	1	3
L33N 9+00W	5	58	12	70	.4	25	18	703	4.08	4	8	<2	3	45	.2	3	<2	80	.48	.041	56	37	1.02	199	.05	4	3.93	.02	.09	1	4
L33N 8+50W	<1	27	13	74	.1	17	11	312	3.81	4	5	<2	3	19	<.2	3	<2	77	.18	.048	28	30	.87	100	.06	3	3.81	.01	.06	1	2
L33N 8+00W	2	34	9	67	<.1	22	14	420	4.28	<2	<5	<2	3	20	<.2	4	<2	81	.17	.057	10	28	.86	115	.10	3	3.81	.02	.11	2	1
L33N 1+50W	1	53	15	147	.4	19	14	794	4.47	5	<5	<2	2	30	.3	3	<2	76	.51	.073	19	30	.91	271	.05	2	3.30	.02	.09	3	4
L33N 1+00W	<1	45	19	187	.2	17	14	722	4.35	9	<5	<2	2	24	.3	3	<2	75	.31	.127	13	23	.77	180	.06	2	3.26	.02	.10	2	3
L33N 0+50W	<1	37	12	132	.1	16	12	786	4.06	7	<5	<2	2	32	.2	<2	<2	69	.41	.069	17	22	1.04	114	.06	3	2.40	.01	.09	2	7
L33N 0+00W	1	40	11	116	.1	16	12	720	4.02	<2	<5	<2	2	35	.2	<2	<2	72	.40	.048	19	19	.97	135	.06	2	2.43	.02	.08	1	3
L31N 10+00W	2	37	11	92	.3	22	17	747	4.55	7	<5	<2	3	29	<.2	3	<2	83	.27	.069	19	30	1.07	145	.08	2	3.52	.01	.10	1	2
L31N 9+50W	3	37	12	82	.1	20	16	720	4.72	4	<5	<2	2	37	<.2	3	<2	80	.43	.073	20	30	1.22	137	.05	<2	3.05	.01	.10	1	1
L31N 9+00W	1	34	9	101	.2	20	13	607	4.45	<2	<5	<2	2	30	<.2	<2	<2	79	.34	.064	17	28	1.05	128	.05	3	3.10	.01	.10	2	4
L31N 8+50W	1	36	9	78	.2	24	17	939	4.66	9	<5	<2	2	38	<.2	<2	<2	83	.41	.063	16	42	1.41	108	.07	2	2.63	.01	.11	1	2
L31N 8+00W	<1	35	13	64	.1	20	15	960	4.14	3	<5	<2	2	35	.2	<2	<2	77	.40	.051	17	34	1.01	77	.09	3	1.91	.02	.07	1	6
L31N 1+50W	2	121	16	95	.3	18	16	749	4.48	8	5	<2	3	28	<.2	3	<2	74	.46	.046	35	21	1.00	190	.07	2	3.88	.02	.08	1	2
L31N 1+00W	2	44	15	107	.3	18	13	642	4.43	13	<5	<2	2	32	.2	<2	<2	74	.45	.034	17	29	.94	246	.05	2	2.88	.02	.08	2	5
L31N 0+50W	<1	50	8	114	.1	21	14	573	4.52	7	<5	<2	2	32	<.2	4	<2	72	.45	.051	15	26	.85	188	.05	3	2.57	.02	.08	2	8
RE L31N 0+50W	<1	48	9	106	<.1	20	14	566	4.46	7	<5	<2	2	31	<.2	2	<2	71	.44	.051	15	28	.84	186	.05	<2	2.53	.02	.08	1	5
L31N 0+00W	<1	38	11	127	.2	18	11	703	3.87	3	<5	<2	2	33	.2	<2	<2	73	.46	.054	17	21	.83	159	.06	2	2.91	.02	.08	2	2
L29N 7+50W	2	42	11	69	<.1	22	19	736	5.02	8	<5	<2	4	21	<.2	2	<2	75	.20	.118	13	21	1.09	98	.06	3	3.29	.01	.09	<1	5
L29N 7+00W	4	19	10	44	.2	22	22	297	7.34	8	6	<2	6	57	<.2	<2	<2	88	.31	.101	25	26	.82	138	.07	2	3.23	.02	.07	1	3
L29N 6+50W	1	28	12	61	.1	19	24	1122	4.89	6	5	<2	5	15	<.2	<2	<2	75	.14	.143	21	21	.90	85	.07	2	3.51	.01	.07	1	4
L29N 2+50W	6	67	16	88	.6	18	13	760	4.72	7	<5	<2	2	54	.4	<2	<2	75	.95	.031	30	25	.72	223	.05	3	3.48	.02	.08	2	7
L29N 2+00W	2	69	14	114	.2	14	11	367	2.68	5	<5	<2	<2	53	.5	<2	<2	51	1.15	.059	15	23	.87	96	.05	<2	2.12	.02	.06	1	5
L29N 1+50W	4	280	12	63	.7	24	10	463	3.86	<2	5	<2	<2	62	.3	<2	<2	60	1.25	.056	23	26	.69	109	.07	3	2.87	.02	.05	1	6
L29N 1+00W	3	96	14	68	.5	19	10	433	3.45	6	<5	<2	2	55	.2	<2	<2	58	.95	.043	25	26	.68	128	.08	2	2.93	.02	.06	<1	2
L27N 3+00W	1	59	12	103	.3	33	22	949	4.87	5	<5	<2	3	35	<.2	<2	4	84	.44	.110	16	32	1.04	105	.08	2	3.52	.02	.09	2	2
L27N 2+50W	<1	108	12	80	.4	21	24	677	4.77	5	<5	<2	2	32	<.2	3	<2	87	.34	.080	12	25	.98	112	.07	3	3.29	.02	.07	<1	1
L27N 2+00W	2	53	13	100	.5	19	16	796	4.46	12	<5	<2	2	30	<.2	<2	<2	73	.37	.087	18	20	.87	114	.06	<2	2.73	.02	.08	1	13
L25N 7+00W	1	35	10	88	.1	16	13	652	3.67	<2	<5	<2	2	33	<.2	<2	<2	67	.36	.066	21	23	.84	113	.06	2	2.52	.02	.08	1	4
L25N 6+50W	2	33	7	115	.1	18	15	767	3.93	4	<5	<2	3	23	<.2	<2	<2	68	.23	.093	19	22	.79	142	.07	4	3.05	.02	.09	<1	1
STANDARD C/AU-S	17	56	38	126	6.6	74	31	1031	3.96	44	18	7	35	49	17.2	14	18	60	.50	.093	40	61	.90	188	.08	33	1.88	.06	.15	10	47

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
- SAMPLE TYPE: SOIL AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: DEC 29 1994 **DATE REPORT MAILED:** Jan 9/95 **SIGNED BY**.........D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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Tom Lisle FILE # 94-4562

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
L25N 6+00W	1	38	10	100	<.1	15	17	1389	4.52	<2	<5	<2	2	30	.4	<2	2	74	.30	.114	13	21	.89	157	.06	7	3.39	.02	.13	1	2
L25N 5+50W	2	26	2	48	<.1	10	20	667	4.87	4	<5	<2	6	40	<.2	<2	7	76	.59	.125	75	12	.99	97	.01	5	2.17	.01	.10	<1	3
L25N 5+00W	2	35	9	67	.2	15	12	518	5.02	3	<5	<2	5	49	<.2	<2	<2	65	.17	.151	18	17	.90	102	.04	7	3.22	.02	.09	<1	2
L25N 4+50W	1	139	14	92	.1	32	41	594	5.62	<2	<5	<2	4	25	<.2	2	3	93	.19	.208	16	25	.98	113	.09	8	4.48	.01	.07	1	1
L25N 4+00W	5	44	11	69	.1	25	24	645	6.86	<2	<5	<2	4	36	<.2	<2	6	109	.20	.134	20	20	1.38	132	.13	10	3.86	.02	.08	<1	59
RE L25N 4+00W	5	45	9	68	<.1	26	24	649	6.88	2	<5	<2	3	36	<.2	<2	<2	112	.20	.133	20	20	1.40	140	.13	6	3.86	.02	.07	1	45
L23N 10+00W	1	44	4	85	.1	17	18	669	4.36	5	<5	<2	3	30	<.2	<2	<2	66	.31	.096	20	24	1.16	101	.06	6	2.65	.01	.08	<1	3
L23N 9+50W	2	53	6	76	.2	20	17	618	4.26	5	<5	<2	3	32	.4	<2	3	68	.33	.081	17	26	1.28	95	.06	3	2.62	.01	.08	<1	8
L23N 6+50W	1	35	8	80	.2	13	17	602	4.23	<2	<5	<2	3	33	<.2	<2	2	64	.35	.101	21	20	1.02	70	.05	3	2.21	.01	.08	<1	4
L23N 6+00W	2	54	13	106	<.1	18	24	934	5.22	11	<5	<2	4	29	<.2	<2	2	73	.27	.150	25	23	1.10	119	.07	<2	3.20	.01	.12	<1	2
L23N 5+50W	2	14	13	40	<.1	8	6	242	4.39	2	<5	<2	9	60	<.2	<2	<2	64	.20	.178	61	13	1.27	108	.01	7	2.51	.04	.11	<1	1
L23N 5+00W	2	61	14	99	.2	25	21	808	5.58	5	<5	<2	4	30	<.2	<2	4	72	.23	.182	19	23	1.15	148	.06	6	3.48	.02	.10	<1	2
L23N 4+50W	1	38	9	85	<.1	18	18	354	5.85	<2	<5	<2	2	49	<.2	<2	<2	130	.42	.143	28	20	1.30	129	.03	5	3.84	.02	.09	<1	2
L23N 4+00W	2	54	4	96	<.1	17	23	786	5.07	3	<5	<2	3	28	.2	<2	2	79	.20	.150	18	21	1.08	138	.11	<2	3.22	.01	.09	<1	3
L21N 4+50W	1	35	7	98	.2	16	17	650	5.62	10	<5	<2	4	35	<.2	<2	3	80	.31	.151	13	23	.91	129	.08	8	3.33	.01	.12	<1	27
L21N 4+00W	2	50	4	90	<.1	19	24	800	5.12	5	<5	<2	2	49	<.2	<2	5	85	.50	.134	17	20	1.17	129	.13	5	2.95	.01	.11	<1	4
L21N 3+50W	2	66	7	92	<.1	11	22	658	5.42	7	<5	<2	2	41	<.2	3	<2	86	.36	.135	18	21	1.13	133	.10	4	2.81	.01	.10	<1	10
L19N 4+00W	13	45	9	21	.1	7	21	464	7.24	<2	<5	<2	5	72	<.2	<2	7	89	.37	.184	27	9	1.07	76	.02	4	2.04	.01	.09	<1	11
L19N 3+50W	2	45	11	92	<.1	17	23	632	4.49	3	<5	<2	2	38	.3	2	<2	84	.33	.129	15	23	.90	106	.11	4	2.85	.02	.09	<1	2
L19N 3+00W	2	232	8	57	.1	20	18	874	5.48	5	<5	<2	2	100	<.2	<2	5	133	.88	.108	14	28	1.47	70	.06	6	2.70	.01	.11	<1	1
L19N 2+50W	1	49	14	93	.3	16	13	704	3.93	4	<5	<2	2	34	<.2	2	2	63	.46	.060	15	25	.98	80	.07	4	1.97	.01	.08	<1	2
L19N 2+00W	3	50	12	118	<.1	16	22	912	4.57	10	<5	<2	2	44	<.2	<2	<2	70	.34	.095	17	23	.90	133	.08	3	3.11	.01	.13	<1	1
L19N 1+50W	1	55	15	124	.2	17	17	1095	4.21	<2	<5	<2	2	30	<.2	<2	7	70	.39	.082	12	22	.87	145	.07	<2	3.33	.01	.11	<1	3
L19N 1+00W	2	208	6	104	<.1	16	16	853	4.41	9	<5	<2	2	34	.3	2	4	69	.58	.041	22	24	1.08	124	.06	6	2.89	.02	.09	<1	2
L19N 0+50W	1	84	16	132	.1	20	16	943	4.65	5	<5	<2	2	32	<.2	<2	4	72	.52	.061	18	28	1.10	123	.07	4	2.83	.01	.13	<1	2
L19N 0+00W	2	109	270	347	.1	24	17	1644	4.54	<2	<5	<2	2	24	.9	<2	3	70	.40	.121	24	36	1.68	177	.05	5	4.09	.01	.15	<1	1
L17N 10+00W	1	31	6	103	.1	17	15	561	3.71	10	<5	<2	<2	27	<.2	3	<2	61	.29	.058	11	20	.66	115	.08	<2	2.44	.01	.06	<1	1
L17N 9+50W	1	43	9	127	.1	13	15	643	3.90	7	<5	<2	2	31	.4	5	4	61	.33	.049	18	22	.75	111	.08	<2	2.18	.02	.06	<1	8
L17N 9+00W	1	38	11	99	.3	11	14	582	4.01	4	<5	<2	3	30	<.2	<2	<2	59	.29	.067	15	19	.79	109	.07	3	1.92	.01	.07	<1	2
L17N 8+50W	1	34	7	162	.1	15	25	523	4.06	6	<5	<2	2	22	<.2	3	<2	63	.20	.114	9	21	.61	115	.09	2	2.87	.02	.08	<1	3
L17N 8+00W	1	39	10	114	.2	20	15	888	3.94	11	<5	<2	2	30	.6	3	2	73	.29	.087	12	27	.69	143	.11	5	2.97	.02	.08	<1	1
L17N 7+50W	2	45	4	116	.2	15	18	777	4.36	12	<5	<2	2	36	<.2	4	3	73	.30	.107	13	23	.85	153	.10	4	2.85	.01	.09	<1	1
L17N 7+00W	3	39	10	125	.1	17	19	864	5.13	6	<5	<2	4	21	<.2	<2	<2	65	.18	.163	13	19	.56	136	.12	5	2.87	.02	.07	<1	18
L17N 4+00W	1	39	10	103	<.1	14	13	605	3.73	10	<5	<2	<2	38	.6	<2	<2	65	.52	.045	16	23	.83	113	.08	5	2.28	.02	.09	<1	240
L17N 3+50W	2	42	3	126	.1	16	13	614	3.75	4	<5	<2	2	37	<.2	<2	3	64	.45	.067	13	26	.84	119	.09	6	2.38	.02	.09	<1	2
STANDARD C/AU-S	19	62	40	128	7.0	71	31	1049	3.96	42	19	6	36	51	18.6	15	22	60	.51	.093	40	59	.91	190	.08	33	1.88	.06	.15	11	47

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

Tom Lisle FILE # 94-4562

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
L17N 3+00W	1	95	10	115	.5	22	14	1062	4.19	<2	<5	<2	2	49	.5	<2	<2	67	1.09	.046	31	34	1.02	163	.05	18	3.12	.02	.13	2	3
L17N 2+50W	1	69	12	126	.2	18	14	712	4.12	4	<5	<2	3	35	.2	2	<2	75	.42	.051	18	27	.95	143	.08	3	2.68	.02	.09	2	4
L17N 2+00W	2	49	11	134	.1	18	14	925	4.25	<2	<5	<2	2	39	.2	4	<2	78	.60	.053	17	32	.91	141	.08	2	3.09	.02	.10	2	11
L17N 1+50W	2	60	12	160	<.1	18	20	932	4.52	<2	<5	<2	2	35	.2	4	<2	76	.42	.080	14	32	1.30	108	.06	2	2.62	.01	.10	2	3
L17N 1+00W	2	122	13	122	.3	21	20	869	5.29	2	<5	<2	3	30	<.2	5	<2	90	.31	.089	22	30	1.13	186	.05	4	3.10	.01	.11	1	15
L17N 0+50W	1	63	13	118	<.1	41	20	731	4.77	7	<5	<2	2	27	<.2	2	<2	90	.27	.089	10	74	1.34	149	.06	2	3.45	.01	.11	1	2
L17N 0+00W	1	77	15	113	.2	17	15	726	4.53	<2	<5	<2	2	30	<.2	2	<2	85	.53	.066	22	35	.88	142	.04	3	2.60	.01	.09	2	2
L11N 10+00W	2	46	10	75	<.1	15	12	668	3.88	4	<5	<2	2	38	<.2	3	<2	67	.48	.043	21	30	1.07	55	.07	<2	1.84	.01	.10	1	3
RE L11N 10+00W	3	45	12	69	.1	15	12	637	3.69	7	<5	<2	2	36	<.2	3	<2	63	.46	.042	20	28	1.02	53	.06	2	1.73	.01	.10	1	2
L11N 9+50W	1	41	10	97	.1	16	12	719	3.56	2	<5	<2	<2	32	<.2	3	<2	66	.39	.078	21	29	.89	95	.07	<2	2.23	.02	.10	1	2
L11N 9+00W	1	26	8	83	.1	13	10	580	3.41	<2	<5	<2	2	37	.2	<2	<2	69	.48	.070	11	28	.85	85	.10	2	1.82	.02	.11	1	2
L11N 8+50W	2	36	17	55	<.1	15	14	519	4.26	5	<5	<2	2	32	<.2	2	<2	85	.41	.052	10	31	.97	55	.08	2	1.98	.01	.08	<1	2
L11N 8+00W	1	53	13	74	.1	15	15	959	3.92	4	<5	<2	2	41	<.2	2	<2	70	.53	.083	18	30	1.18	55	.07	3	1.94	.01	.12	1	2
L11N 7+50W	1	28	6	42	<.1	11	13	461	3.34	3	<5	<2	3	42	<.2	2	<2	62	.47	.054	15	21	.80	67	.06	2	1.52	.01	.09	<1	1
L11N 7+00W	1	55	19	130	.1	16	12	630	3.92	3	<5	<2	2	34	<.2	3	<2	64	.37	.079	18	27	.83	107	.07	3	2.08	.01	.14	1	8
L11N 6+50W	1	34	4	86	.1	15	11	745	3.54	<2	<5	<2	4	36	<.2	2	<2	61	.40	.065	18	22	1.03	76	.06	2	2.07	.01	.13	1	2
L11N 6+00W	1	45	10	67	<.1	16	11	527	3.67	<2	5	<2	2	36	.2	2	<2	70	.40	.043	14	31	.89	52	.09	<2	1.58	.01	.12	1	4
L11N 5+50W	1	38	10	85	<.1	14	12	520	3.65	2	<5	<2	2	30	<.2	2	<2	70	.35	.038	10	27	.86	79	.09	<2	1.75	.01	.08	1	2
L11N 5+00W	<1	44	11	98	<.1	16	12	545	3.77	8	<5	<2	2	33	<.2	2	<2	71	.33	.047	13	27	.90	83	.09	<2	1.92	.01	.09	1	3
L11N 4+50W	1	45	10	127	.1	17	14	667	3.94	<2	<5	<2	<2	36	.2	2	<2	74	.39	.059	12	29	1.04	99	.08	<2	2.05	.01	.10	2	3
L11N 4+00W	1	54	10	111	<.1	17	14	788	4.04	4	<5	<2	<2	36	<.2	2	<2	74	.41	.070	13	30	1.08	90	.08	<2	2.00	.01	.10	1	21
L11N 3+50W	1	41	10	123	.1	18	13	608	3.86	<2	<5	<2	2	33	.3	4	<2	73	.37	.061	12	30	.95	110	.09	<2	1.97	.01	.09	2	5
L11N 3+00W	<1	94	11	101	.2	18	15	1059	4.75	9	<5	<2	2	43	<.2	3	<2	80	.55	.097	25	36	1.19	89	.07	<2	2.21	.01	.12	1	5
L11N 2+50W	<1	39	11	134	.2	16	12	748	3.48	6	<5	<2	2	30	.2	<2	<2	67	.34	.099	12	24	.69	122	.08	2	1.97	.02	.11	2	3
L11N 2+00W	<1	48	14	181	.1	19	12	1138	3.53	4	<5	<2	2	21	.3	2	<2	66	.25	.216	12	22	.68	161	.09	2	2.64	.02	.09	2	3
L11N 1+50W	1	69	9	64	<.1	16	12	537	3.99	5	<5	<2	2	32	<.2	2	<2	76	.43	.093	13	27	.97	69	.08	<2	1.72	.01	.09	1	3
L11N 1+00W	1	34	9	159	<.1	14	10	1066	2.94	8	<5	<2	<2	23	.2	<2	<2	59	.31	.311	8	14	.53	209	.08	2	2.29	.02	.08	2	120
L11N 0+50W	<1	81	11	108	.1	17	14	642	4.01	11	<5	<2	2	30	<.2	3	<2	74	.32	.063	18	28	1.04	102	.07	3	2.24	.01	.11	1	4
L11N 0+00W	1	62	13	126	<.1	19	14	808	4.04	10	<5	<2	2	28	<.2	2	<2	77	.33	.083	13	35	1.09	118	.08	<2	2.12	.01	.11	1	3
STANDARD C/AU-S	17	57	39	128	6.7	75	31	1031	3.96	42	18	7	36	50	17.4	15	18	60	.51	.094	39	61	.91	189	.08	33	1.88	.06	.15	10	51

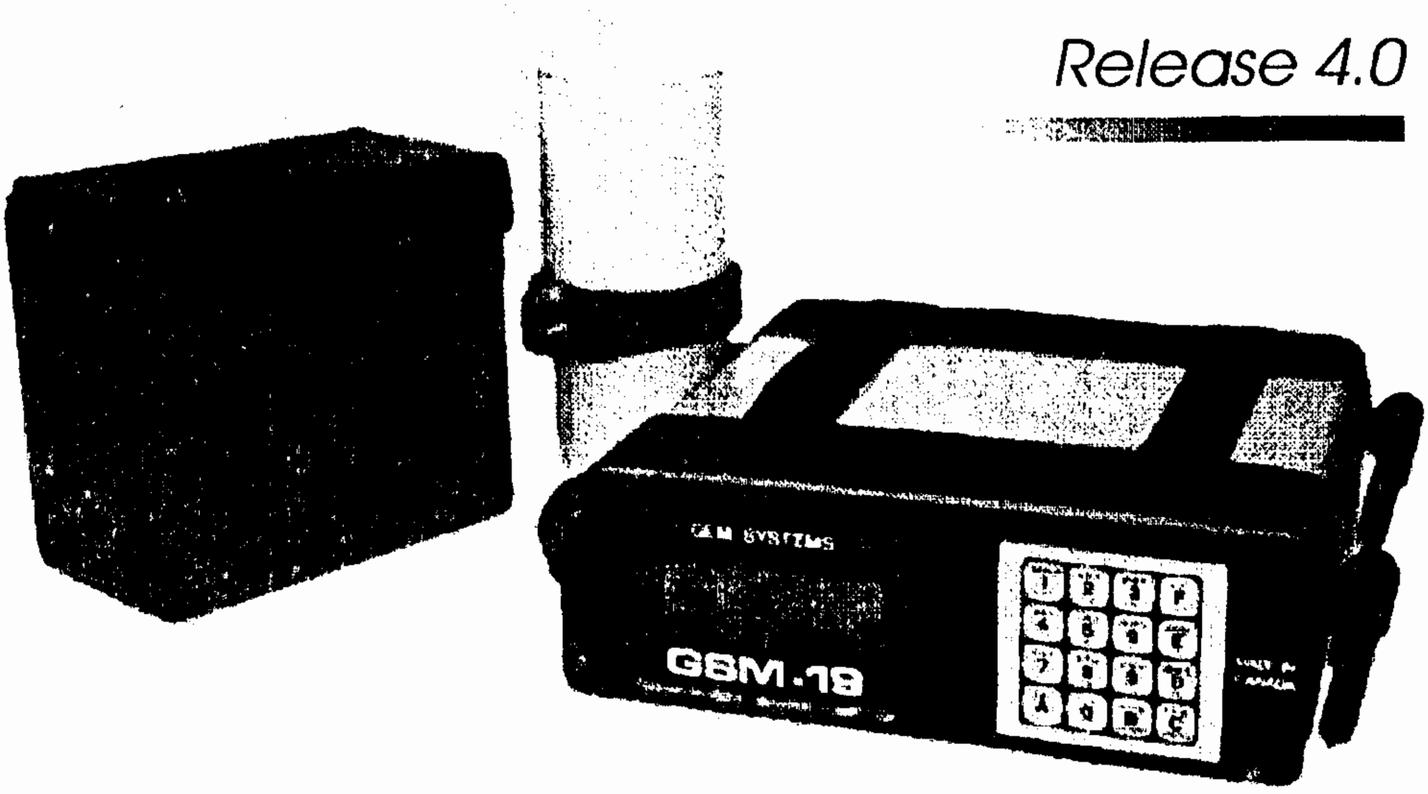
Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

GEM Systems
ADVANCED MAGNETOMETERS

GSM-19T

Instruction Manual

Release 4.0



terraplus

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1. THEORETICAL DESCRIPTION

1.1 Introduction

The GSM-19T is a portable standard proton magnetometer/gradiometer designed for hand-held or base station use for geophysical, geotechnical, or archaeological exploration, long term magnetic field monitoring at Magnetic Observatories, volcanological and seismic research, etc. The GSM-19T is a secondary standard for measurement of the Earth's magnetic field, having O.2 nT resolution, and 1 nT absolute accuracy over its full temperature range.

The GSM-19T is a microprocessor based instrument with storing capabilities. Large memory storage is available (up to 2 Mbytes). Synchronized operation between hand held and base station units is possible, and the corrections for diurnal variations of magnetic field are done automatically. The results of measurement are made available in serial form (RS-232-C interface) for collection by data acquisition systems, terminals or computers. Both on-line and post-operation transfers are possible.

The measurement of two magnetic fields for determination of gradient is done concurrently with strict control of measuring intervals. The result is a high quality gradient reading, independent of diurnal variations of magnetic field.

Optionally the addition of a VLF sensor for combined magnetometer/gradiometer-VLF measurement is available.

1.2 Magnetic Field Measurement

The magnetic field measuring process consists of the following steps:

a) **Polarization.** A strong DC current is passed through the sensor creating polarization of a proton-rich fluid in the sensor.

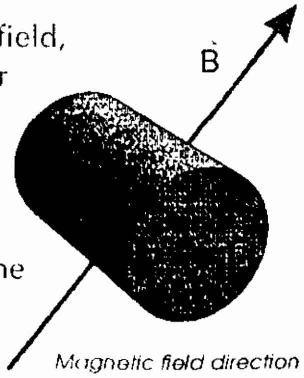
b) **Deflection.** A short pulse deflects the proton magnetization into the plane of precession.

c) **Pause.** The pause allows the electrical transients to die off, leaving a slowly decaying proton precession signal above the noise level.

d) **Counting.** The proton Precession frequency is measured and converted into magnetic field units.

e) **Storage.** The results are stored in memory together with date, time, and coordinates of measurement. In base station mode, only the time and total field are stored.

1.3 Earth's Magnetic Field



Magnetic field direction should ideally be perpendicular to sensor axis

Appendix B shows the nominal distribution of the Earth's magnetic field, with dotted lines separating the equatorial and polar regions. In polar regions *the inclination of the magnetic field vector is approximately* vertical, while in equatorial regions it is horizontal. To obtain the best precession signal the sensor must be aligned with the magnetic field. **In polar regions the sensor axis must be horizontal, in equatorial vertical.** Horizontal orientation of the sensor can be universal if the operator keeps the sensor oriented in an East-West direction (important only in equatorial regions).

Initially, the tuning of the instrument should agree with the nominal value of the magnetic field shown for the particular region in Appendix B. After each reading the instrument will tune itself automatically. If large changes in magnetic field are encountered between successive readings, a warning will be given to the operator and it may be necessary to repeat the reading to obtain an accurate result.

Local ferromagnetic objects like screws, pocket knives, wristwatches, tools etc. may impair the quality of measurement or in drastic cases even destroy the proton precession signal by creating excessive gradients. For best results, **ferromagnetic objects should be kept away from the sensor.** In normal applications, the magnetometer console does not produce appreciable effects on measurements provided that the sensor is installed on the staff and kept at least at arms length from the operator and the console.

2. INSTRUMENT SPECIFICATIONS

2.1 Magnetometer / Gradiometer

Sensitivity:	+/- 0.2 nT (gamma), magnetic field and gradient.
Accuracy:	+/- 1 nT over operating range.
Range:	18,000 to 120,000 nT, automatic tuning requiring initial set-up.
Gradient Tolerance:	Over 7,000 nT/m
Operating interval:	3 seconds minimum. Readings initiated from keyboard, external trigger, or carriage return via RS-232-C.
Input/Output:	6 pin weatherproof connector, RS-232C, and (optional) analog output.
Power Requirements:	12 V, 730 mA peak (during polarization), 30 mA standby. 1500mA peak in gradiometer mode.
Power Source:	Internal 12 V, 1.9 Ah sealed lead-acid battery standard, others optional. An External 12V power source can also be used.
Battery Charger:	**Input:** 110/220 VAC, 50/60 Hz and/or 12 VDC (optional). **Output:** 12V dual level charging.
Operating Ranges:	Temperature: **-40 °C to +60 °C.** Battery Voltage: **10.0 V minimum to 15V maximum.** Humidity: **up to 90% relative, non condensing.**
Storage Temperature:	-70°C to +65°C
Dimensions:	**Console:** 223 x 69 x 240mm. **Sensor staff:** 4 x 450mm sections. **Sensor:** 170 x 71mm dia. **Weight:** Console 2.1kg, Staff 0.9kg, Sensors 1.1kg each.

2.2 VLF

Frequency Range:	15 - 30.0 kHz.
Parameters Measured:	Vertical In-phase and Out-of-phase components as percentage of total field. 2 components of horizontal field. Absolute amplitude of total field.
Resolution:	0.1%.
Number of Stations:	Up to 3 at a time.
Storage:	Automatic with: time, coordinates, magnetic field/gradient, slope, EM field, frequency, in- and out-of-phase vertical, and both horizontal components for each selected station.
Terrain Slope Range:	0° - 90° (entered manually).
Sensor Dimensions:	14 x 15 x 9 cm. (5.5 x 6 x 3 inches).
Sensor Weight:	1.0 kg (2.2 lb).

3. INSTRUMENT DESCRIPTION

3.1 Physical Overview

The parts of the GSM-19T magnetometer/gradiometer are as follows.

- The sensor is a dual coil type designed to reduce noise and improve gradient tolerance. The coils are electrostatically shielded and contain a proton rich liquid in a pyrex bottle.
- The sensor cable is coaxial, typically RG-58/U, up to 100m long.
- The staff is made of strong aluminum tubing sections (plastic staff optional). This construction allows for a selection of sensor elevations above ground during surveys. For best precision the full staff length should be used. Recommended sensor separation in gradiometer mode is one staff section (56cm from sensor axis to sensor axis), although two or more sections are sometimes used for maximum sensitivity.
- The console contains all the electronic circuitry. It has a 16 key keyboard, a 4 x 20 character alphanumeric display, and sensor and power/input/output connectors. The keyboard also serves as an ON-OFF switch.
- The power/input/output connector also serves as RS232C input/output and optionally as analog output and/or contact closure triggering input.
- The keyboard, front panel, and connectors are sealed i. e. **the instrument can operate under rainy conditions.**
- The charger has 2 levels of charging, full and trickle, switching automatically from one to another. Input is normally 110V 50/60Hz. Optionally, 12 VDC input can be provided.
- The all-metal housing of the console guarantees excellent EMI protection.

3.2 Software Version 4.0

There are several major versions of software for the GSM-19. As of August 92, GEM Systems added a major software upgrade to its GSM-19 family, enhancing its capabilities. This new generation of software (version 4.0) has the following advantages.

1. Diurnal correction (reduction) with interpolation can be used in conjunction with other GSM-19 models with software version 4.0. This allows the base mag to run with longer cycle time. Previous software could do interpolation only with fast GSM-19 types.
2. Memory filing system. Now 50 files can be stored in a directory, and mode of operation can be changed without erasing memory. With the software previous to version 4.0, only 1 file could be retained in memory, and this would be lost when modes of operation were switched.
3. Line and station numbers have been enlarged. Lines can now be 5 digits as opposed to 4 digits in previous software. Station numbers are now 7 digits as opposed to 6 in the previous software.
4. Transmission time has been significantly shortened.

Determining your instrument's software version

There are several visible indications that can be checked to determine if the GSM-19 has Version 4.0 software installed. Upon turning on the unit, if Version 4.0 software is present the third line of the display will indicate **v4.0**. Otherwise just the date of the software will be shown. Furthermore, from the main menu, **B-diurn.cor** is displayed in version 4.0 units. **B-reduction** is displayed in previous software version units. Finally, the header for every RS-232C transmission will have a v4.0 indicator and a file name.

Files

A new file will be opened in the following cases:

1. New file programmed by user.
2. Survey on a new day will automatically create a new file.
3. A base restart will automatically create a new file.
4. After the erase function is performed.

Note: The walking mag or grad has further modifications. See section 4.5 under the Walking Mag Mode subheading.

SABRE ELECTRONIC
INSTRUMENTS LTD.

4245 EAST HASTINGS STREET • BURNABY, B.C. V5C 2J5 • TELEPHONE: 291-1617

SABRE MODEL 27 VLF-EM RECEIVER

The Model 27 EM unit was designed originally for a large Canadian mining company to overcome the deficiencies inherent in existing units.

The instrument is so stable and selective that completely reliable measurements can be made on distant stations without interference from nearby powerful transmitters. Stability and selectivity are especially important when making field-strength measurements, which are now being emphasized as a means of locating conductors.

This EM receiver is very compact, requires no earphones or loudspeakers and is housed in a heavy scotch saddle leather case. All of these features add up to make an ideal one-man EM unit of unexcelled electrical performance and mechanical ruggedness.

SPECIFICATIONS

Source of Primary Field - VLF radio stations (12 to 24 KHz.)
Number of Stations - 4, selected by switch; Cutler, Maine on 17.8 KHz. and Seattle, Washington on 18.6 KHz. are standard, leaving 2 other stations that can be selected by the user.

Types of Measurement

1. Dip angle in degrees, read on a meter-type inclinometer with a range of ±60° and an accuracy of ±½°.
2. Field strength, read on a meter and a precision digital dial with an accuracy exceeding 1%.
3. Out of phase component, read on the field strength meter as a residual reading when measuring the dip angle.

Dimensions and Weight

Approximately 9½" x 2½" x 8½"; Weighs 5 lbs.

Batteries

8 alkaline penlite cells. The instrument will run continuously on 1 set of batteries for over 200 hours; so that in normal on-off use, the batteries will last all season. The battery condition under load is shown by pushing a button and reading voltage on the field strength meter.

VLF-EM OPERATING INSTRUCTIONS

The equipment is operated in the usual way as follows:

1) With the instrument held horizontal in front of you, turn around until a null appears on the field strength meter. You should now be facing the station.

2) With the receiver still facing the station, lift it to the vertical position and rotate it slightly in the vertical plane to your right or left until the best null appears on the field strength meter. Record the angle on the inclinometer at which the null appears. This is the DIP ANGLE (Positive or Negative).

3) Return the instrument to the horizontal plane and turn around until the field strength meter is at its maximum reading. Set this maximum reading at 100 on the meter and record the reading on the gain control dial. This is the Field Strength Reading.

4. Repeat steps 1, 2, and 3 at each station.

5) To test the batteries turn the power switch on and push the test button. The field strength meter should read above the red mark. Battery life is approximately 200 hours and if the instrument is turned off between readings, the batteries should last for an entire season.

NOTE: An alternative way of measuring field strength is as follows:

Proceed as in step 3, setting the meter to 100. Now push the field strength button (marked FS) and the meter will read 50. (If it doesn't, adjust the gain control slightly). Leave the Gain Control setting where it is and take comparative Field Strength readings at each station by pressing the Field Strength button and recording the meter reading, which will vary from its Base Station Reading as you pass over the conductive zones.

This is the method used in Part 2 of this book entitled:

"DETAILED FIELD PROCEDURE".

SELECTION OF STATIONS:

The stations are selected by the switch on the control panel, with the following abbreviations being used:

C = Cutler, Maine	Frequency = 17.8 Khz.
S = Seattle, Wash.	Frequency = 18.6 Khz.
A = Annapolis, Md.	Frequency = 21.4 Khz.
H = Hawaii	Frequency = 23.4 Khz.

The two most useful stations are Cutler and Seattle and these will be used almost exclusively. Note that Seattle is off the air for several hours on Thursday for maintenance (between 10 A.M. and 2 P.M. usually). Cutler is off the air for the same length of time every Friday.

If Equipment fails to operate:

(a) Check that station is transmitting (see above). If one station appears to be dead, check another one to see if it is operating normally.

(b) Check batteries. If they are low or the reading begins to drop after the test button is held down for a few seconds, replace them. Note also that there are 8 batteries in the instrument and they cannot be individually checked by the test button. If the batteries have been in the unit for a long time it is possible that one is dead or very weak but that the total voltage indicated by the test button is near normal. It is cheap insurance to instal new batteries before starting a big survey.

(c) If unit still fails to operate check that battery connectors are tight, then check wiring of battery connectors for breaks or damage.

PART 2: DETAILED FIELD PROCEDURE

OPERATING INSTRUCTIONS

SABRE VLF-EM RECEIVER

INTRODUCTION:

The VLF-EM method utilizes electromagnetic fields transmitted from radio stations in the 15-25 KHz range. The signals are propagated with the magnetic component of the field being horizontal in undisturbed areas.

Conductivity contrasts in the earth create secondary fields, producing a vertical component and changes in the field strength or amplitude. These conductive areas may be located, and to a degree, evaluated by measuring the various parameters of this electromagnetic field.

The Sabre VLF-EM receiver is tuned to receive any 4 transmitter stations: usually C - Cutler, Maine; S - Seattle; H - Hawaii; and A - Annapolis.

The station used in the survey should be selected so that the direction of the signal is roughly perpendicular to the direction of the grid lines which, in turn, should be laid out perpendicular to the regional strike.

MEASUREMENTS:

The Sabre VLF-EM receiver can be used to measure the following characteristics of the VLF field:

(a) Tilt angle of resultant field;
(b) Field strength of (a) horizontal component of field;
(b) vertical component of field.

Field Procedure

The following procedure should be followed to measure the dip angle of null and the field strength of the horizontal component of the VLF field.

Initial Field Strength Adjustment

Adjust the gain control to provide a suitable relative field strength measurement, as follows:-

(a) hold receiver in horizontal position (meter face~~s~~ is horizontal) and rotate in a horizontal plane until a null is indicated on the F.S. meter; rotate 90° in this horizontal plane (F.S. meter reads maximum)

(b) adjust gain control so that the F.S. meter reads 100

(c) record gain control setting (000 to 999), and do not readjust unless a major field strength occurs.

The above procedure should be carried out at the beginning of each day's survey and checked during the day.

Dip Angle Measurement Procedure

1. Hold receiver in horizontal position and rotate in the horizontal plane until a null is observed. This aligns receiver in the field and the operator should be facing southerly or easterly depending on transmitter location.

2. Bring receiver up to the vertical positon (meter face~~s~~ is vertical) and rotate the receiver in the vertical plane perpendicular to the transmitter direction until a null or minimum reading is observed on the field strength meter.

3. Hold the receiver in this field strength null position and read the inclinometer in degrees. Record this dip angle of null along with sign (+ or -).

Horizontal Field Strength Measurement Procedure

1. Return receiver to the horizontal position.

2. Re-establish null bearing in horizontal plane.

3. Rotate receiver 90° in the horizontal plane.

4. Depress F.S. push button switch and observe field strength meter reading for sufficient time to obtain an average F.S. meter reading. (Depressed F.S. switch slows needle action and reduces meter reading

by half. The reading will normally range around 50).

5. Record F.S. reading.

Filtering Technique For VLF-EM Dip Angle Data

The standard profile method of presenting dip angle data may be difficult to interpret. A filtering technique, described by D.C. Fraser, 1969 (Geophysics, Vol. 34, No. 6, p. 958-967) enables the data to be presented on a plan map with conductive areas defined by contours.

The following explains the calculation:-

Line	Station	Null			Filter
8N	0 E	+3			
	1 E	+4	+3+4= +7		
	2 E	+4	+4+4= +8	+7-(+10)=	-3
	3 E	+6	+4+6= +10	+8-(+13)=	-5
	4 E	+7	+13	+10-(+16)=	-6
	5 E	+9	+16		-8
	6 E	+12	+21		-12
	7 E	+16	+28		+3
	8 E	+2	+18		+30
	9 E	-4	-2		+32
	10 E	-10	-14		+14
	11 E	-6	-16	-14-(-7)=	-7
	12 E	-1	-6-1= -7		

Figure 1 is an example of a field sheet showing null angle reading, filtered reading and relative field strength. Figure 2 shows the field sheet with filter card overlaid. The small window in the side of the card shows the four readings used to calculate the filtered reading, and an arrow showing that the filter reading is to be plotted between Station 8E and 9E as indicated in Figure 1. The card is moved down the field sheet, one reading at a time as a guide while carrying out the filter procedure. Throughout the survey care must be taken to ensure that the filtered data has the correct sign. The positive values only are plotted and contoured while for negative values, only the negative sign is plotted.

Crone suggests in instructions for the Radem VLF-EM, the use of N-S or E-W notation instead of (+ or -) signs, however, for filtering a sign must be substituted.

The following convention may be used to ensure the correct sign of filtered data and provide a consistent cross-over pattern when studying the profiled null angle data.

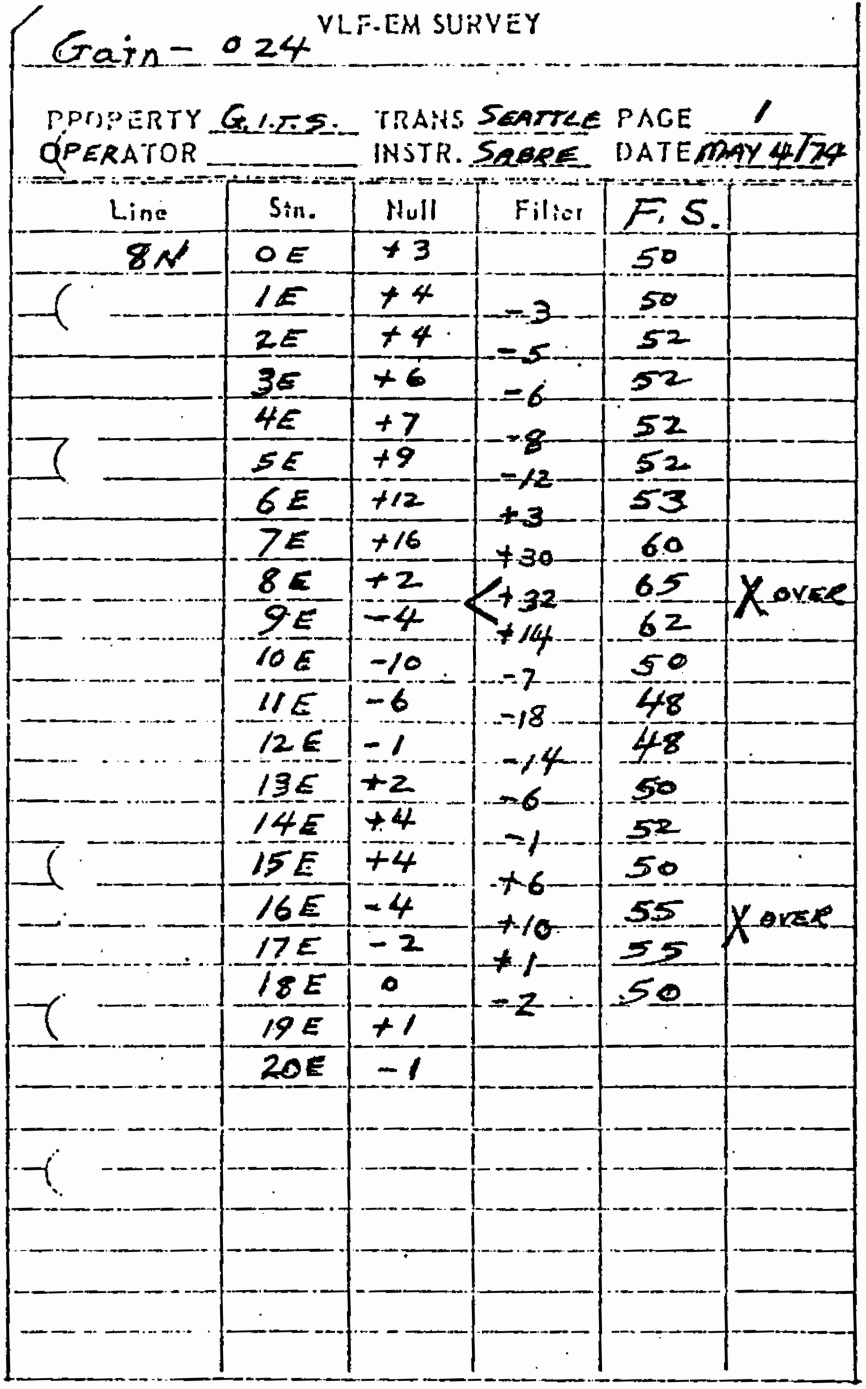
1. When taking a reading, always face southerly, on east-west lines, and always face easterly on north-south lines.

2. Record data on field sheets (top to bottom) as follows:

   on N-S lines record from south to north
   on E-W lines record from west to east.

3. Plot and profile dip angle data on plan maps facing map north or map west.

The above convention will provide correct data regardless of the property location relative to the transmitter being used.



Gain - 024

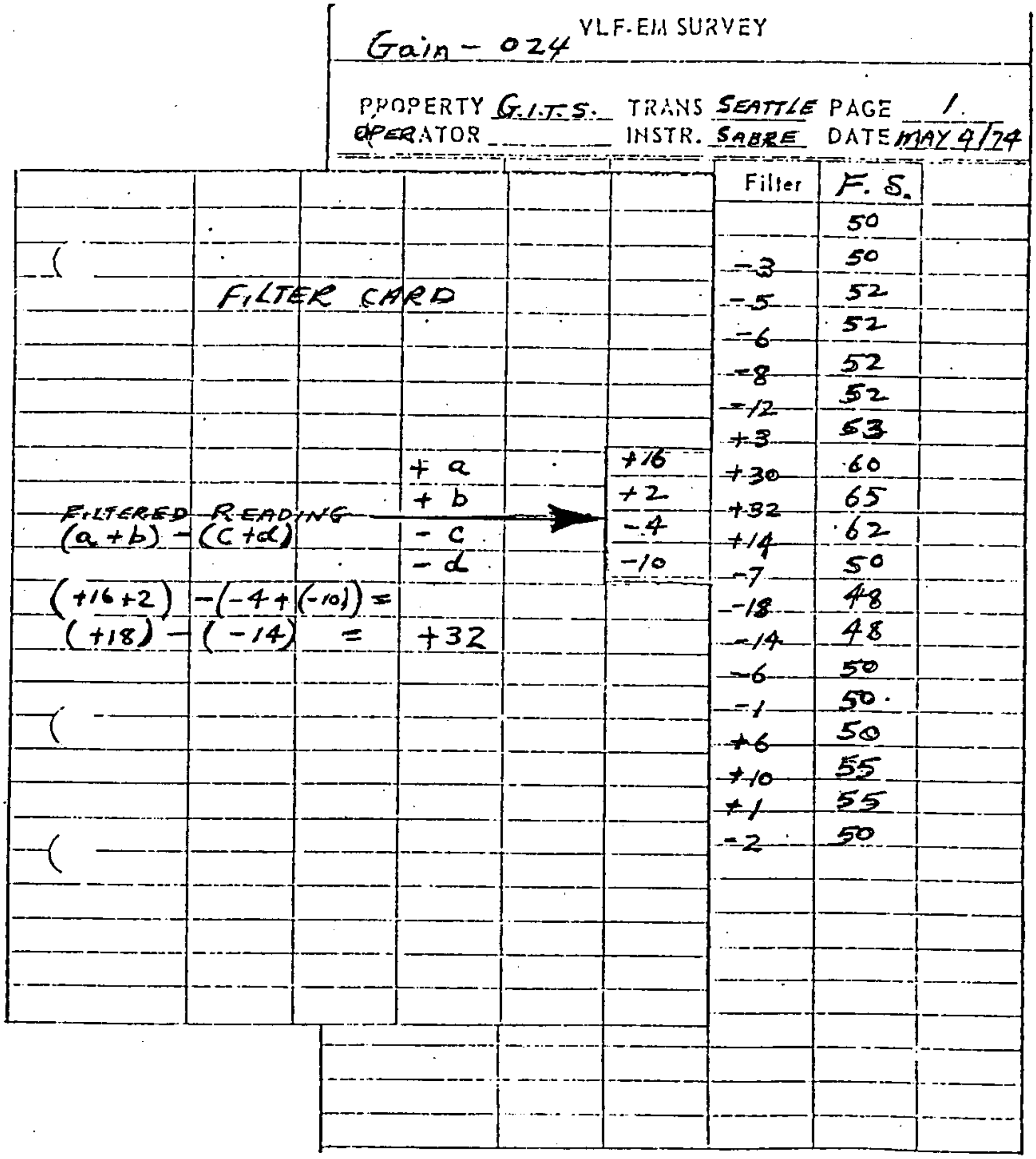
VLF-EM SURVEY

PROPERTY G.I.T.S. TRANS SEATTLE PAGE 1

OPERATOR ________ INSTR. SABRE DATE MAY 4/74

Line	Stn.	Null	Filter	F. S.	
8N	0E	+3		50	
	1E	+4	-3	50	
	2E	+4	-5	52	
	3E	+6	-6	52	
	4E	+7	-8	52	
	5E	+9	-12	52	
	6E	+12	+3	53	
	7E	+16	+30	60	
	8E	+2	<+32	65	X OVER
	9E	-4	+14	62	
	10E	-10	-7	50	
	11E	-6	-18	48	
	12E	-1	-14	48	
	13E	+2	-6	50	
	14E	+4	-1	52	
	15E	+4	+6	50	
	16E	-4	+10	55	X OVER
	17E	-2	+1	55	
	18E	0	-2	50	
	19E	+1			
	20E	-1			

Fig. 1 Example of Field Sheet



Gain - 024 VLF-EM SURVEY

PROPERTY G.I.T.S. TRANS SEATTLE PAGE 1.
OPERATOR ________ INSTR. SABRE DATE MAY 4/74

Filter	F. S.
	50
-3	50
-5	52
-6	52
-8	52
-12	52
+3	53
+30	60
+32	65
+14	62
-7	50
-18	48
-14	48
-6	50
-1	50
+6	50
+10	55
+1	55
-2	50

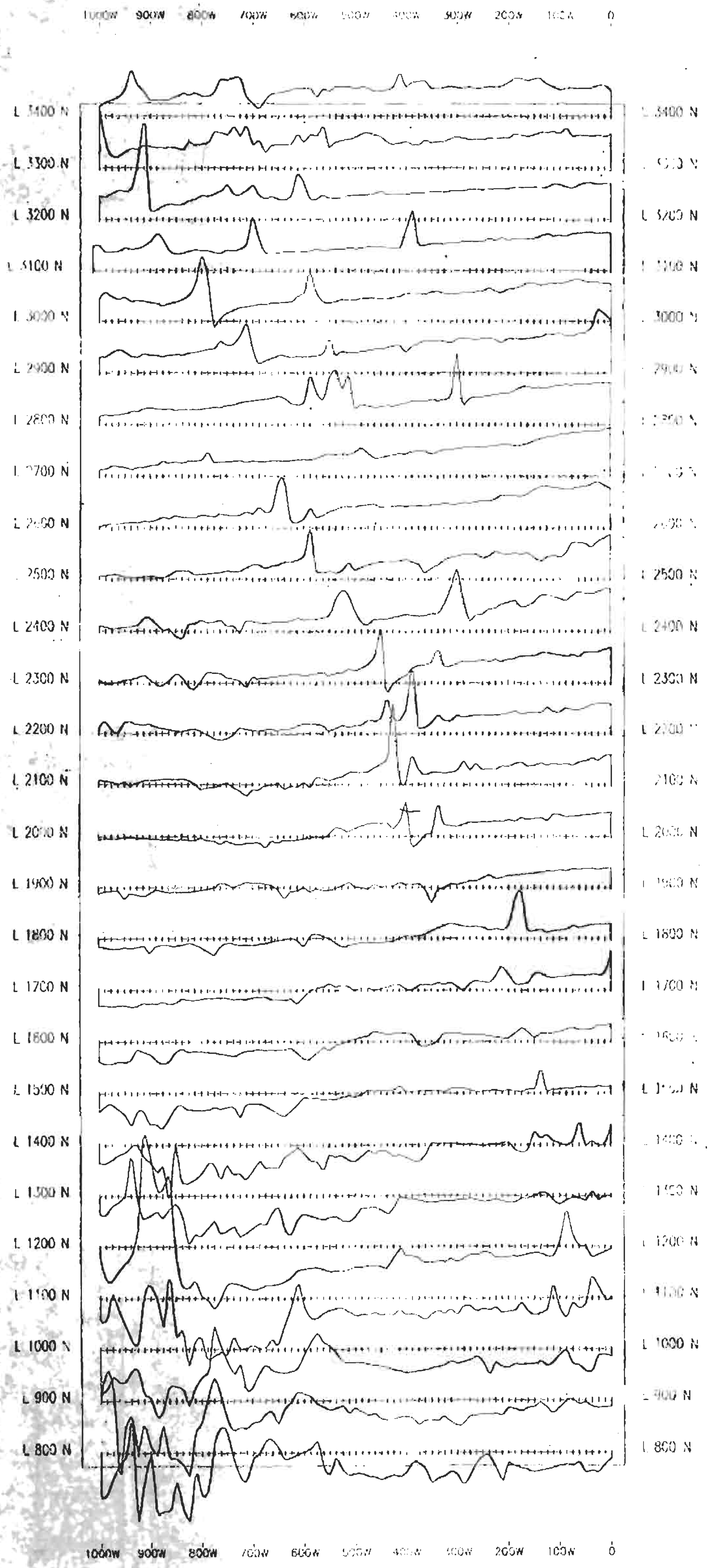
FILTER CARD

+ a	+16
+ b	+2
- c	-4
- d	-10

FILTERED READING
(a + b) - (c + d)

(+16 + 2) - (-4 + (-10)) =
(+18) - (-14) = +32

Fig. 2 Field Sheet with Filter Card Overlayed



GRID TO UTM CONVERSION

UTM LOCATION 4830000N 656000E
GRID LOCATION approx. 1700N 400W
Profile Scale : 1cm=200nT.
Line Trace : 58000nT.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,798

Scale 1:5000
100 0 100 200 300
(meters)

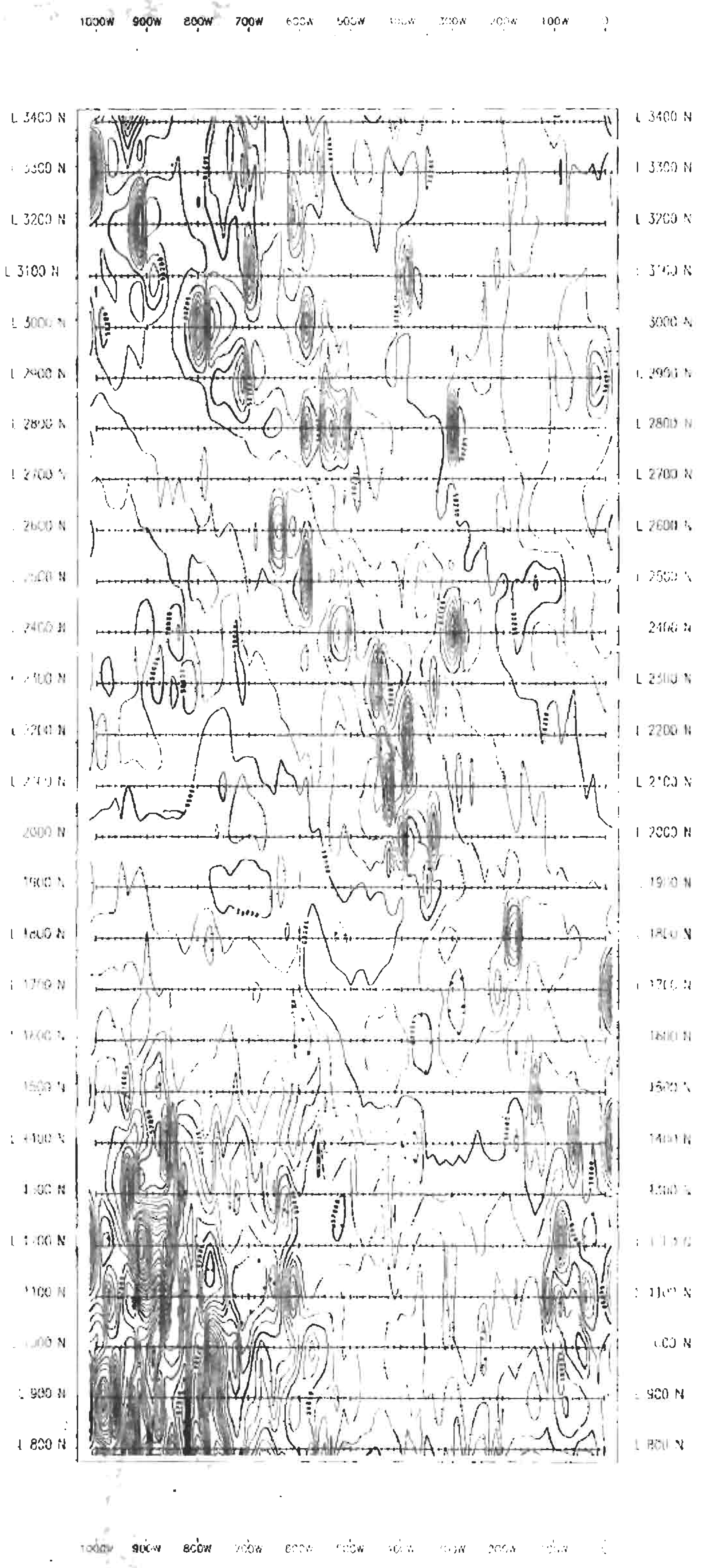
RAINBOW PROJECT

TULAMEEN DISTRICT
SIMILKAMEEN MINING DIVISION
BRITISH COLUMBIA

GROUND MAGNETOMETER SURVEY
PROFILE MAP

ZONE : 10 UTM :
NTS : 92H/10W DATE: NOVEMBER 1994

FIG. 4A



GRID TO UTM CONVERSION

UTM LOCATION : 4930000N 654000E
GRID LOCATION : approx. 1700N 400W

Contour interval : 50nt.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,798

Scale 1:5000

100 0 100 200 300

(metres)

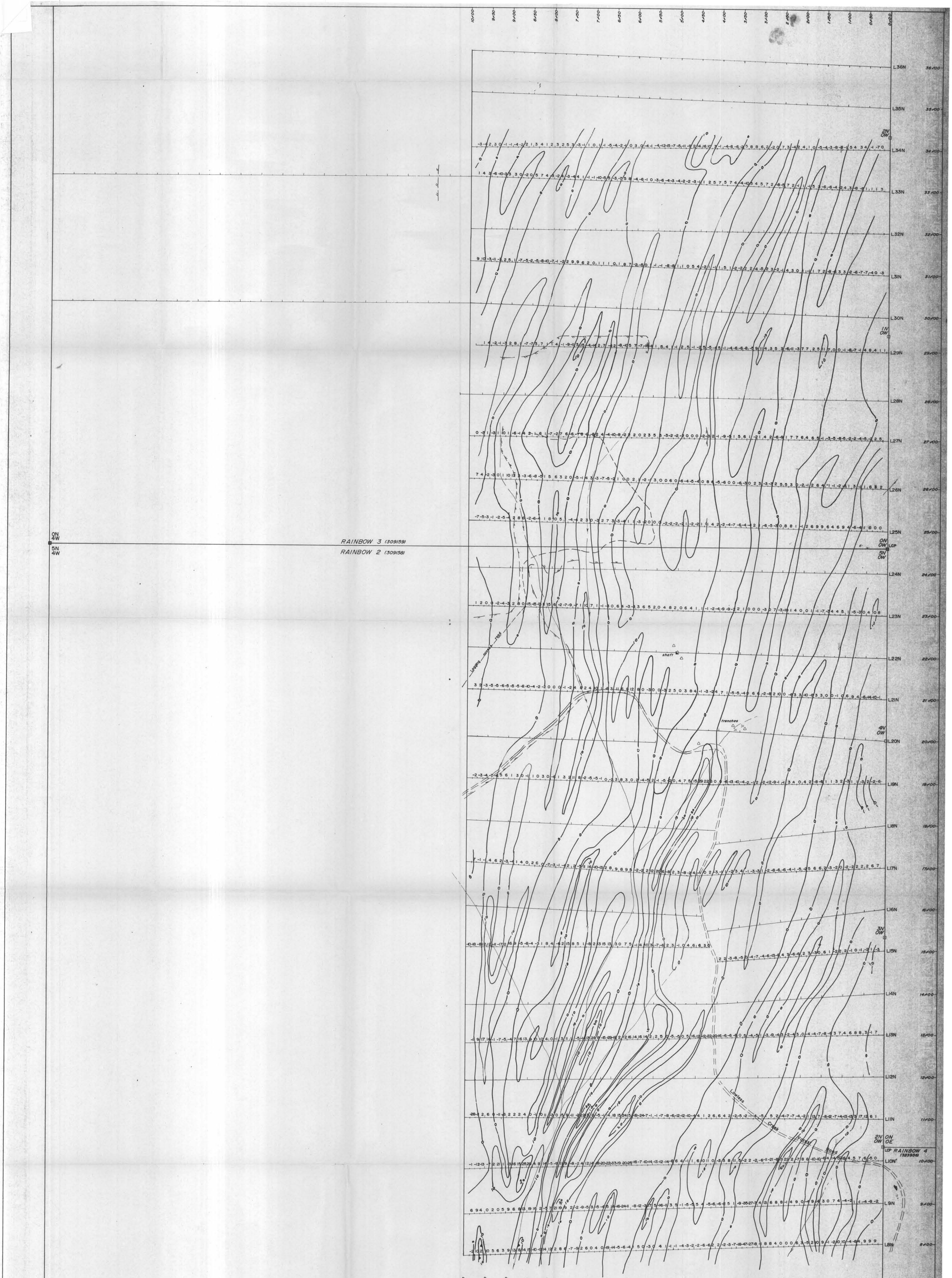
RAINBOW PROJECT

TULAMEEN DISTRICT
SIMILKAMEEN MINING DIVISION
BRITISH COLUMBIA

GROUND MAGNETOMETER SURVEY
CONTOUR MAP

ZONE : 10 UTM :
NTS : 92H/10W DATE: NOVEMBER 1994

FIG 4B



23,798

PRIMARY FIELD

Tilt Angle (degrees)

VLF-EM SURVEY
Fraser-Filtered Tilt Angle Data

Sabre Model 27 Receiver

Primary Field Transmitter — SEATTLE - 18.6 KHz

RAINBOW PROJECT
TULAMEEN DISTR - SIMILKAMEEN M.D.
BRITISH COLUMBIA
NTS 92H-10W

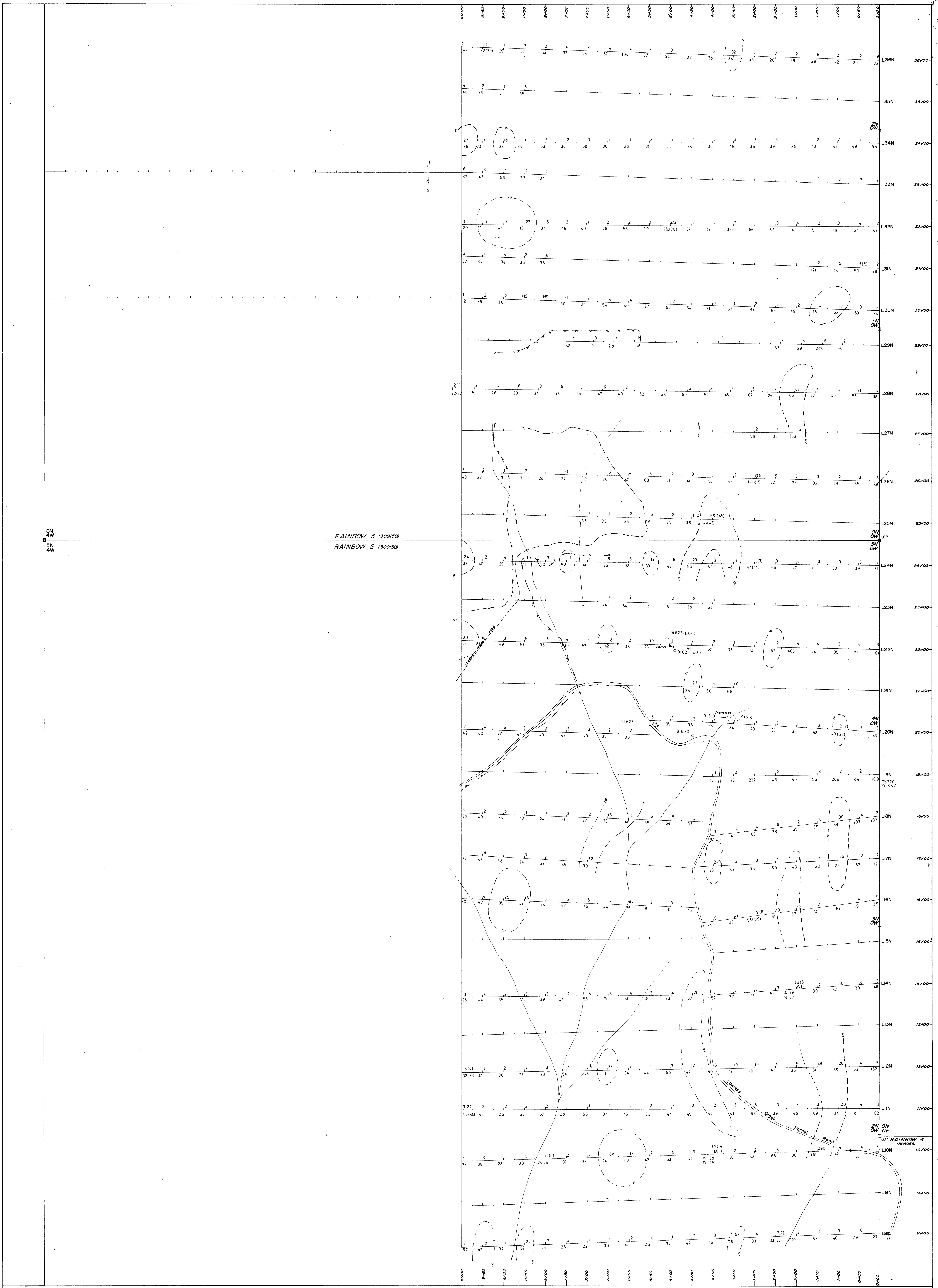
Scale 1:2500 November, 1994

Erik A. Ostensoe

E. A. OSTENSOE

Figure 5.

N



LEGEND

OLD PITS

LOGGING SLASH

CLAIM POST

CREEK

10 PPB GOLD CONTOUR

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,798

GEOCHEMICAL SURVEY

23 PPb gold

123 (135) PPM Copper

Duplicate sample

A B-Second sample same site

Δ 91621 LITHOGEOCHEMICAL SAMPLE
(See text for results)

PROFESSIONAL ENGINEER
T.E. LISLE

RAINBOW PROJECT

TULAMEEN DISTR - SIMILKAMEEN M.D.
BRITISH COLUMBIA
NTS 92H-10W

Scale 1:2500 November, 1994

Figure 6