ASSESSMENT REPORT

ON THE

TAM 90 GROUP

NTS 82E/2E&W

Lat: 49 05' N
Long: 118 44' W

Minnova Inc.
Vancouver, B.C.

Linda Lee
November, 1990

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1.0 SUMMARY

The Tam 90 Group, part of the Rainbow - Tam O'Shanter property, contains a total of 25 mineral claims (90 units), located about 5 kilometres northwest of Greenwood, B.C. This report describes the summer 1990 work program on the Tam 90 Group, covering geological mapping, rock and soil sampling, and geophysics of the Tam grid area.

The claims are underlain by volcanics and sediments of the Late Paleozoic Knob Hill Group, intruded by Cretaceous dykes and stocks, and covered in part by Tertiary (Eocene) sediments and volcanics. The Tertiary sediments form the eastern part of the Toroda Graben in this part of the property. A large northeast trending fault, the Deadwood Fault, runs diagonally through the Tam grid and forms the eastern boundary of the graben.

Alteration consists of intense clay alteration and silica flooding of the Tertiary sediments, with local pyrite mineralization and brecciation. This alteration is related to the Tertiary aged Deadwood Fault. Silicification and quartz veining also occurs in Knob Hill Group rocks, related to northwest and northeast trending faults of probable Tertiary age.

Rock sampling of the altered Tertiary sediments (the Bengal and 'Sinter' Zones) revealed a typical epithermal signature to the system, with anomalous As, Sb, and Mo. Precious metal values were low, however, to a maximum of 144 ppb Au and 3.7 ppm Ag. Values to 2070 ppm Au and 3.4 ppm Ag were obtained from altered Knob Hill Group rocks in a northeast trending fault zone, east of the main Deadwood Fault. Outcrop of this zone is restricted and follow-up by trenching should be done.

In the southeast corner of the grid, Knob Hill Group chert pebble conglomerate is silicified and cut by quartz veinlets. One sample of such rock returned values of 820 ppb Au and 15.1 ppm Ag. Rock exposure is poor in this area and trenching will be necessary to further test the zone.

Soil sampling revealed a large gold soil anomaly in the southeast corner of the grid, in the area underlain by the altered conglomerate. The soil anomaly remains open to the east. Grid lines should be extended and infill gridding done to further define the zone.

The geophysical survey was successful in identifying several strong northwest trending conductors in the southeastern part of the grid. These conductors may be important as controls of mineralization in the Knob Hill conglomerate and should be further explored.

2.0 INTRODUCTION

2.1 Location, Access and Terrain

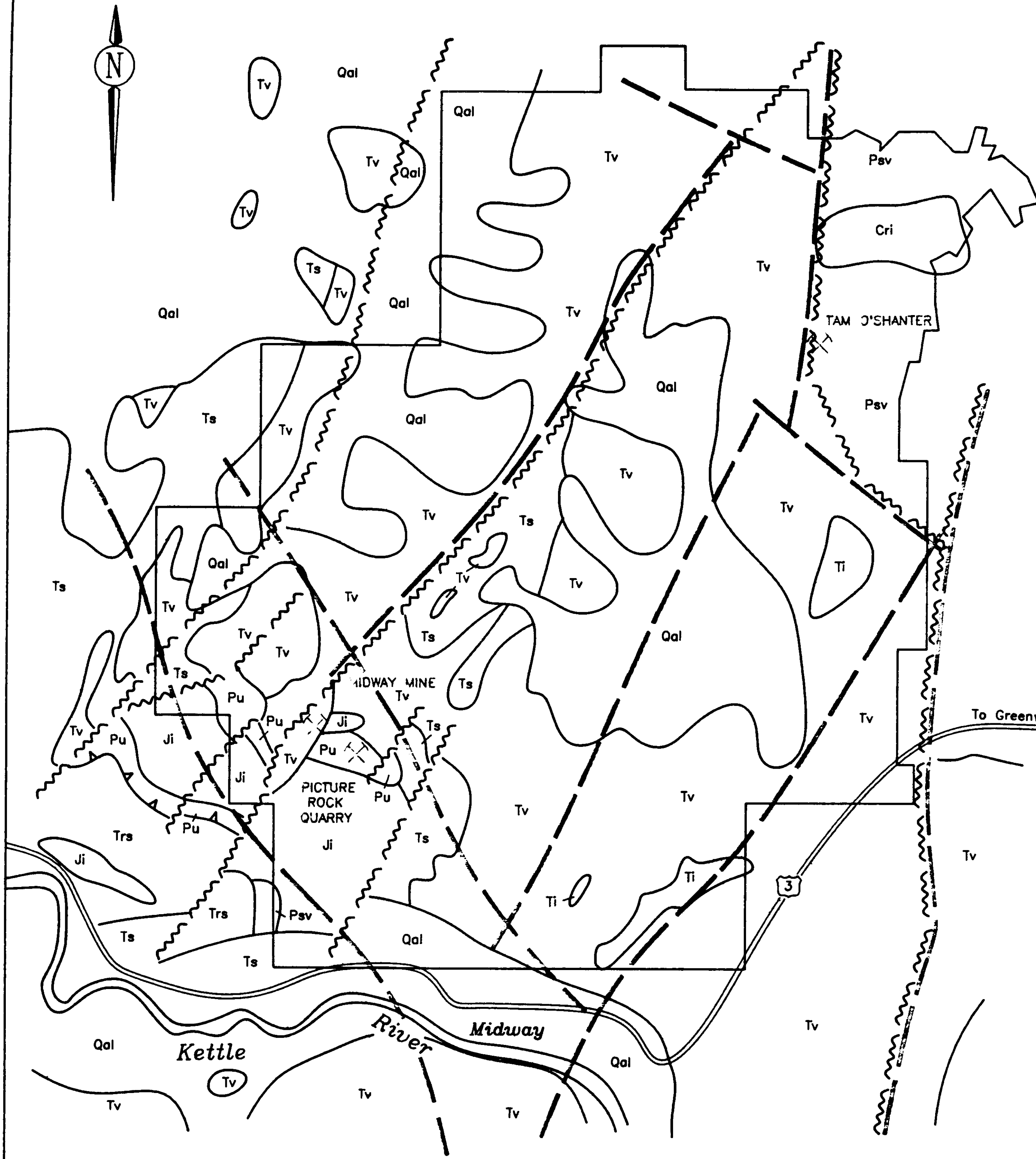
The Tam 90 Group is located about 5 kilometres northwest of Greenwood, B.C. (see Figure 1). Access to the property is from Greenwood, via the Motherlode Road. The claims can be reached either from a branch road heading west from the Motherlode Road, located just south of the Deadwood fields, or via an old logging road which heads south off the Motherlode road at about kilometre 6. Numerous ranching and logging roads provide reasonable access to the property.

The claims are situated on the north facing slope of the Motherlode Creek valley and on the ridge between Ingram and Motherlode Creeks. Elevations range from 1460 metres in the southern part of the claim group, to 915 metres in the eastern section. The terrain is hilly, with several steep cliffy sections. The forest cover is moderate with mature pine, larch and fir forest and minimal underbrush.

The climate is generally very dry, with hot summers and little rainfall. Snowfall is quite minimal, generally less than 0.75 metres. In the Tam grid area, water for drilling is usually available from an old drill collar (79-3). To the north and east of this, water can be obtained from Motherlode Creek.

2.2 Property and Ownership

The Tam 90 Group consists of 25 mineral claims (90 units), as shown in Figure 2. Details of the claims and claim ownership are listed below.



LEGEND

Qal	Quaternary Alluvium
Tv	Tertiary Volcanics
Ts	Tertiary Sediments
Cri	Cretaceous (Nelson) Intrusives
Ji	Jurassic Intrusives
Trs	Triassic Sediments (Brooklyn Formation)
Psv	Permian Sediments & Volcanics (Knob Hill Group)
Pu	Permian Ultramafics (Knob Hill Group)

Major Faults

Airomag Structures

FIGURE 3

0 1 2 3 4 5km

RAINBOW–TAM O'SHANTER

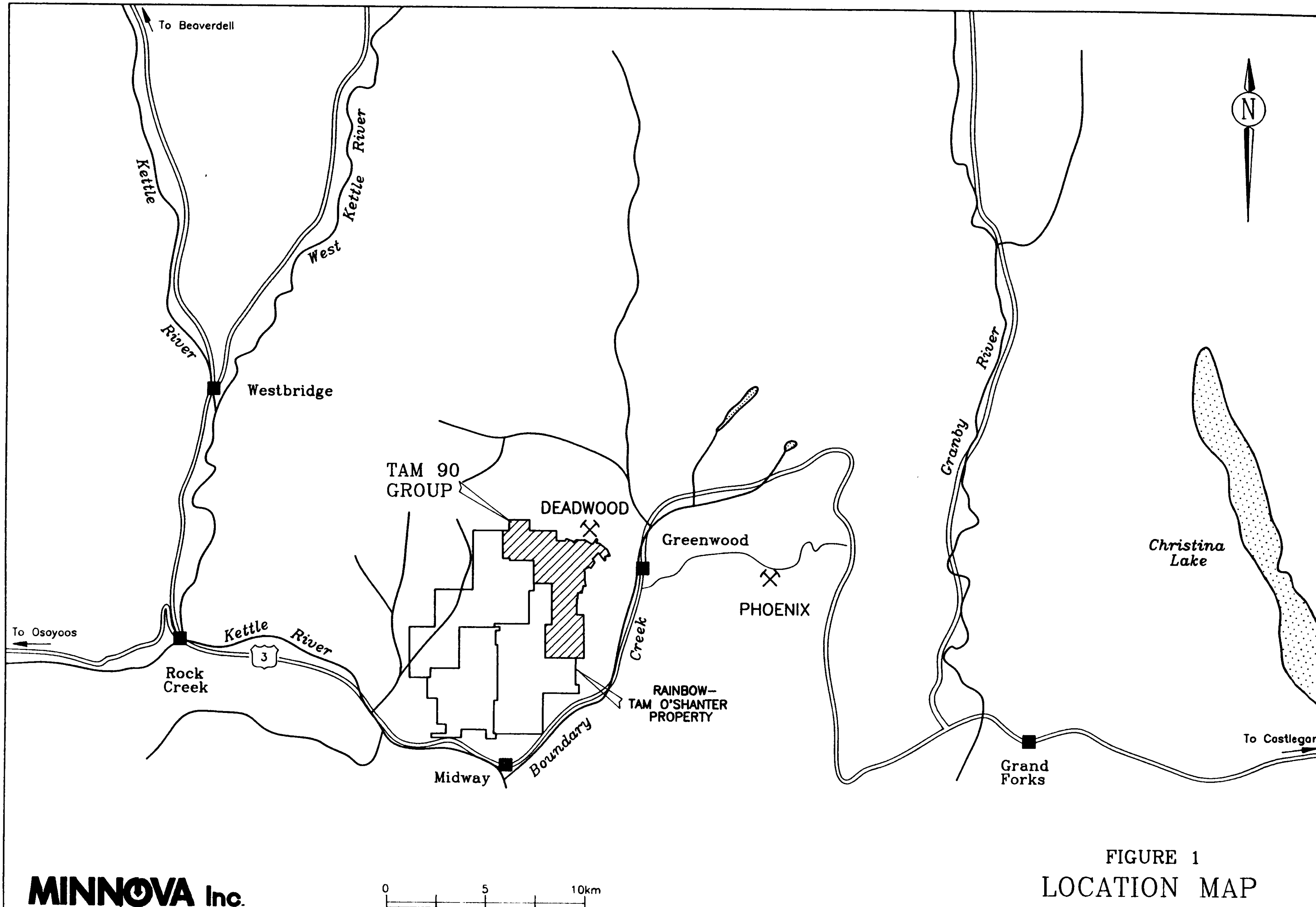
PROPERTY GEOLOGY

MINNOVA Inc.

FILE: D:\DWG\GEOTAMO

LL/sg

NOVEMBER 1990



MINNOVA Inc.

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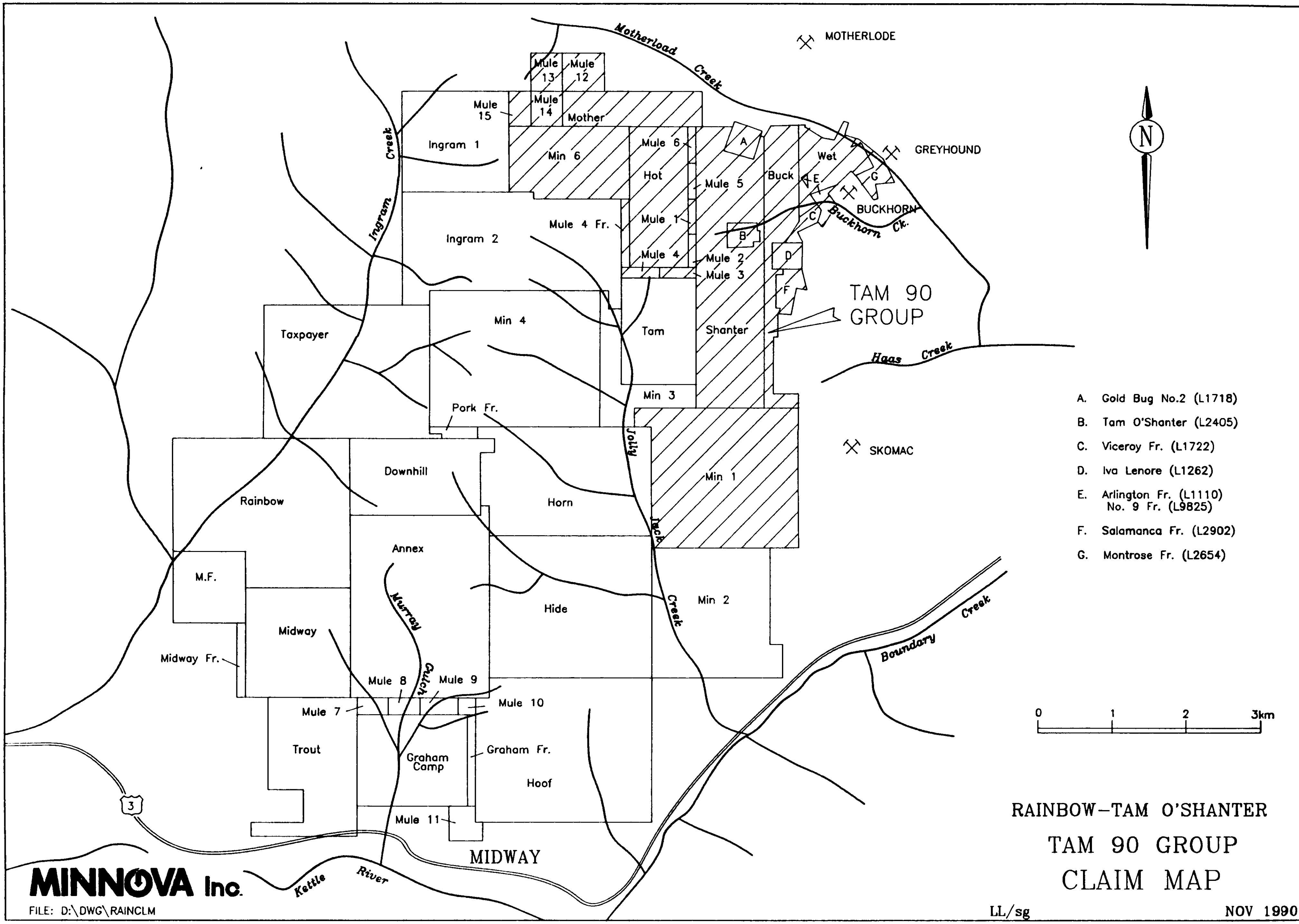
FIGURE 1

LOCATION MAP

LL/sg NOV 1990



RAINBOW–TAM O'SHANTER

TAM 90 GROUP

CLAIM MAP

MINNOVA Inc.

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LL/sg

NOV 1990

TAM 90 GROUP:

Claim Name	Units	Record #	Owner	Expiry Date *
Tam O'Shanter	1	161	Kettle Riv. Res.	20/11/94
Iva Lenore	1	162	Kettle Riv. Res.	20/11/94
Shanter	16	1176	Kettle Riv. Res.	07/07/93
Viceroy Fr.	1	1561	Kettle Riv. Res.	11/06/94
Arlington Fr., No.9	1	1562	Kettle Riv. Res.	11/06/94
Salamanca Fr.	1	1563	Kettle Riv. Res.	11/06/94
Buck	8	1613	Kettle Riv. Res.	28/06/94
Montrose Fr.	1	1644	Kettle Riv. Res.	09/07/94
Hot	8	1754	Kettle Riv. Res.	29/08/95
Mother	8	2146	Kettle Riv. Res.	29/04/93
Wet	6	2148	Kettle Riv. Res.	29/04/93
Gold Bug #2	1	2249	Kettle Riv. Res.	05/06/95
Min 1	20	5615	Dentonia Res.	22/12/92
Mule 1	1	5619	Kettle Riv. Res.	05/01/94
Mule 2	1	5620	Kettle Riv. Res.	05/01/94
Mule 3	1	5621	Kettle Riv. Res.	05/01/94
Mule 4	1	5622	Kettle Riv. Res.	05/01/94
Mule 5	1	5623	Kettle Riv. Res.	06/01/94
Mule 6	1	5624	Kettle Riv. Res.	06/01/94
Mule 12	1	5686	Minnova Inc.	14/03/94
Min 6	6	5687	Minnova Inc.	15/03/93
Mule 13	1	5688	Minnova Inc.	14/03/94
Mule 14	1	5689	Minnova Inc.	14/03/94
Mule 15	1	5690	Minnova Inc.	14/03/94
Mule 4 Fr.	1	5691	Minnova Inc.	15/03/94

* after acceptance of this report

All of the above claims which are owned by Kettle River Resources Ltd. or by Dentonia Resources Ltd. are currently under option to Minnova Inc.

2.3 History

A number of showings occur in the Tam 90 Group, and a significant amount of exploration has been done in the past, particularly in the eastern portion of the property. Exploration in the area dates back to 1891 with the discovery of the Motherlode, about 1 kilometre north of the Tam 90 Group, in the Deadwood Camp. In 1894, the first record of work is documented on the Buckhorn, immediately adjacent to the Tam 90 Group (Montrose

Fr. and Arlington Fr., No 9 claims). As a result of these discoveries, exploration on the Tam 90 Group has historically concentrated on copper prospects in the older rocks. Following is a brief summary of the exploration history of the Tam 90 Group.

1904 - Bengal Crown Grant issued, L2375 (BCDM Annual Report - 1904).

1921 - Work was recorded on the Tam O'Shanter. 2 old shafts (from the turn of the century?) and a recent cross-cut tunnel and an inclined shaft are documented. Work in 1921 included 300 feet of drifting and a 75 foot raise. (BCDM Annual Report - 1921)

1922 - Work continued on Tam O'Shanter. 208 feet of tunnel is driven as well as a 25 foot raise. The 'lead' is soft gangue and crushed country rock containing lenses of galena, chalcopyrite, and pyrite, with gold and silver values, in a quartz gangue. 3 tons were shipped averaging 0.4 oz/t Au and 0.66 oz/t Ag. (BCDM Annual Report - 1922)

1964 - Silver Dome Mines did extensive work on claims in the Iva Lenore and Tam O'Shanter area. 10 miles of road were built, 13,000 feet of stripping and 6,118 feet of diamond drilling done. Line cutting, magnetometry and soil sampling were also done. Assessment Report 562 covers the soil and magnetometer surveys. There is no record of drilling or trenching although a later report shows the locations.

1966-67 - Utah did a geophysical survey (IP, resistivity). Assessment Report 1067.

1966-67 - San Jacinto Exploration did an IP survey (see Assessment Report 881).

1969 - Consortium of companies including Silver Dome did aeromag survey (Assessment Report 1878).

1972 - Sun Oil did percussion drilling (Sun Oil, 1972).

1972 - Phelps Dodge did minor geological mapping and data compilation (Assessment Report 4125).

1973 - Mapletree Exploration had topo base of area surveyed and completed a geological mapping and percussion drilling program in the area (Dickinson and Simpson, 1973).

1973-74 - Mascot Mines drilled 27 percussion drill holes. Drill logs are available but no analytical results (Assessment Report 5023).

1975 - Oneida Resources acquired property.

1979 - Oneida drilled 3 diamond drill holes (1560 feet). Target was porphyry Cu-Mo mineralization. Discovered new zone of intense hydrothermal alteration (Assessment Report 8795).

1981 - G. Rayner completed detailed mapping around the Bengal Shaft area. Several old trenches elsewhere on the property were re-exposed using a backhoe (Rayner, 1982).

1982 - Oneida Resources amalgamated with three other companies to form New Frontier Petroleum.

1983 - 200 feet of backhoe trenching was done near the Bengal shaft and about 100 feet of trenching was done about 1.5 km north of this to test copper staining exposed by a recent logging road. New Frontier Petroleum went into receivership, giving the Reciever an interest in the propery. The remaining interest was transferred to a subsidiary of New Fronteir Petroleum, Bulkley Silver Resources Inc.

1984 - H. Shear prepared a compilation of data on the Tam O'Shanter property for Bulkley Silver Resources (Shear, 1984).

1984-85 - Geological mapping and interpretation was done in the Tam O'Shanter area for Kettle River Resources Ltd. by J. Fyles (Fyles, 1984-85).

1985-87 - Bulkley Silver Resources merged with several other companies to form Houston Metals. Houston Metals was rolled back to form Pacific Houston.

1987 - The property was examined by Echo Bay Mines and BP Selco. The 1979 drill core was relogged and a brief report was prepared (Fraser, 1987; Wong, 1987).

1988 - Pacific Houston had the present Tam grid established and an IP survey completed (Arnold, 1989a). Three diamond drill holes (2,645 feet) were drilled to test anomalies resulting from the above program (Arnold, 1989b).

1990 - Kettle River Resources Ltd. and Dentonia Resources Ltd. acquired the current Tam 90 Group by staking and by purchasing the interest held by the Receiver and by Pacific Houston. The claims were optioned to Minnova Inc. and the current work program completed.

2.4 Summary of Work Done, 1990

Work done on the Tam 90 Group during the summer of 1990 included re-establishing 11.8 kilometres of pre-cut line on the Tam grid. Geological mapping and rock sampling of the grid area were then done and a total of 45 rock samples was collected. 364 soil samples were collected from the grid and analyzed for 12 elements plus gold, and 8.8 line kilometres of magnetometry and VLF-EM was run over the grid. Geological mapping and rock chip sampling was done by L. Lee, with assistance from G. Duso. Soil sampling was done by G.Duso and M. Kirker, and geophysical data was collected by Quest Canada Exploration Services Inc. All work was done between July 1 and October 30, 1990. A total of 26 man days was spent on the property carrying out the above work program.

3.0 GEOLOGY

3.1 Regional Geology

The Greenwood area has been mapped on a regional basis by a number of people, most recently by Fyles (1990), and prior to this by Little (1983) and Church (1986). Although all these authors generally agree on the ages and distribution of the geological units, Fyles' work is the first to give an adequate interpretation explaining this distribution. His mapping shows that the pre Tertiary rocks form a series of thrust slices, which lie above a basement high grade metamorphic complex. A total of five thrust slices are recognized, all dipping gently to the north, and bounded in many places by lenses and bodies of serpentine. While earlier mapping has interpreted these serpentinite bodies as ultramafic intrusions, Fyles' shows them to belong to the Knob Hill Group of late Paleozoic age, and to represent part of a disrupted ophiolite suite. The common Fe-carbonate alteration of these serpentinites to listwanite is a result of the thrusting event.

The Knob Hill and Attwood Groups comprise the late Paleozoic rocks in the Greenwood Camp and consist of mainly chert, greenstone and serpentine, and argillite and limestone, respectively. Fyles' interprets all there rocks to represent part of a disrupted ophiolite suite. Rocks of the Knob Hill and Attwood Groups are unconformably overlain by the Triassic Brooklyn Formation, represented largely by limestone, clastic sediments and pyroclastics. The majority of the skarn deposits in the Greenwood area are hosted within this unit.

Two separate intrusive events cut the above sequence, the probable Jurassic aged Lexington porphyry, and the Cretaceous Nelson Intrusions. Tertiary sediments and volcanics unconformably overly the older rocks, their distribution largely controlled by a series of extension faults.

The Rainbow property covers a portion of the Toroda Creek graben and is largely underlain by mid Eocene volcanics and sediments (see Figure 3). In the southwest area of the property, a large intrusion shown regionally as the Lexington quartz-feldspar porphyry occurs, flanked on the north and south by roughly east-west trending, north dipping bodies of serpentine. A number of steep NE dipping Tertiary faults cut the above strata (Fyles, 1990).

3.2 Property Geology

The Tam grid was mapped at a scale of 1:2500, as shown in Figure 4. For the most part, rock exposure in the grid area is quite good, although in the northeast and southwest corners of the grid, outcrop is minimal.

3.2.1 Lithologies

During the course of mapping, four distinct geological units, and a number of sub-units, were recognized. A geological legend of the Tam grid area is shown below, listing these rock types. In keeping with the legend defined for the entire property, the rocks are assigned to Units 2, 4, 5 and 6.

TERTIARY - EOCENE
Unit 6 Marron Formation
6a - Marron volcanics

Unit 5 Kettle River Formation
5b - sandstone/tuff
5a - conglomerate

CRETACEOUS
Unit 4 Nelson Intrusives

LATE PALEOZOIC - CARBONIFEROUS OR PERMIAN
Unit 2 Knob Hill Group
2c - Chert
2b - Chert pebble conglomerate
2a - Cherty greenstone

The oldest rocks exposed on the grid belong to the Carboniferous or Permian Knob Hill Group (Unit 2). Large areas of Knob Hill Group rocks occur in the eastern portion of the grid, separated from the Tertiary rocks to the west by a major northeast trending fault.

Three separate rock types have been recognized within the Knob Hill Group. Unit 2a is a grey to green, fine grained to aphanitic, massive, cherty greenstone (and less commonly greenstone). These rocks form large hillsides in the eastern part of the Tam grid. Apparently overlying the greenstones in the grid area, is a chert pebble conglomerate (Unit 2b). Fine chert granules and pebbles are hosted in a grey siliceous matrix. The conglomerate tends to be quite recessive and exposure is limited. One bed, approximately 100 to 150 metres in thickness, was seen in the southeastern corner of the grid. Finally, large cliffs of aphanitic, grey chert (Unit 2c) occur in fault contact with greenstones of Unit 2a, and apparently overlying conglomerate of Unit 2b.

Fine to medium grained diorite of the Cretaceous Nelson intrusives occur in two places on the grid, intruding greenstone and cherty greenstone of the Knob Hill Group. The first location is at the Golden Fleece workings, in the northeastern portion of the grid. Regional mapping shows the intrusion to be of considerable size, extending about 4 km to the east and 0.5 km to the north. Low grade copper mineralization is known at a number of locations within the intrusion. The second area is a much smaller dyke in the southwest corner of the grid.

Sandstone and conglomerate of the Tertiary Kettle River Formation occur as a linear northeast trending belt, bounded on the east by the main northeast fault, and overlain by Marron volcanics to the west. The basal member of the Kettle River Formation is a fine pebble conglomerate with chert and cherty greenstone clasts in a fine tuffaceous matrix (Unit 5a). The conglomerate is exposed at the southern end of the belt of sediments, in the vicinity of the 'Sinter' Zone. Overlying the basal conglomerate is a beige to buff coloured, fine grained sandstone to sandy feldspar crystal tuff (Unit 5b). Commonly this unit is strongly altered (silicified, clay altered) where exposed on surface (the Bengal Zone). No evidence of bedding was seen within the grid area.

Tertiary volcanics of the Marron Formation (Unit 6a) form large cliffs to the west of the belt of Kettle River sediments. The volcanics are generally grey in colour with andesitic to trachyandesitic compositions. Three flows are recognized within the grid area. The lowermost flow is a fine grained, dark grey volcanic with minor coarse feldspar phenocrysts and rare fine mafics. Overlying this is a fine grained grey flow, with up to 10% coarse feldspars and rare pyroxene crystals, similar to the basal flow. Finally, an upper maroon to grey coloured flow with 10-20% coarse feldspars and 5% biotite and pyroxene crystals was observed.

3.2.2 Structure

The dominant structural feature of the grid area is a steep northeast trending Tertiary fault which runs diagonally through the grid. Regional mapping shows this fault to be the Deadwood Fault, and to form the eastern margin of the Toroda Graben. At the Sinter Zone, this fault splays into two parallel structures, between which altered Kettle River sediments are exposed. A number of smaller parallel structures were observed, to the east of the main fault zone, within rocks of the Knob Hill Group, to the west, in the Marron volcanics, as well as between the main fault structures, in the Kettle River sediments.

A number of northwest trending faults were observed within the Knob Hill Group rocks in the eastern portion of the grid. These faults are probably Tertiary in age but predate the last period of movement on the main northeast Tertiary structures.

3.2.3 Alteration and Mineralization

The most obvious area of alteration on the grid is a large, northeast trending belt of Kettle River sediments in the central part of the grid, which is strongly clay altered and locally silicified. The northern portion of this zone, the Bengal Zone, is exposed as a linear, resistive, silicified ridge of outcrops, and by a series of trenches and an old shaft (the Bengal shaft). Typically the sediments are buff coloured, very fine grained, and strongly altered to clay. Locally, as in the ridge of outcrops described above, the rocks are altered to a fine chalcedonic quartz, with up to 10% fine pyrite and often strongly brecciated.

Alteration is related to the major northeast trending Deadwood Fault zone, which marks the eastern boundary of the Toroda Graben. A series of parallel structures comprise the Deadwood Fault zone. In the Bengal area, it appears that mineralization is controlled by a small, steeply dipping, north to northeast trending fault, near the western edge of the zone, and not by the main westernmost structure. The most intensely silicified rocks occur immediately adjacent to this fault zone. Marron volcanic rocks are exposed in trenches at the western edge of the Bengal Zone and are unaltered, suggesting that the alteration event was Eocene in age, post-dating the Kettle River sediments but pre extrusion of the Marron volcanics.

About two hundred metres south of the Bengal Zone, a similar zone of alteration occurs in a fine conglomerate of the Kettle River Formation. Geological mapping suggests that the main Deadwood Fault splays into two sub-parallel structures at this point, between which the Bengal Zone, described above, is located. Several backhoe trenches have been dug at this point, exposing strongly clay altered conglomerate between and east of the main fault structures, and a zone of massive, fine grained, banded chalcedonic quartz to the west of the fault zone. Because of the laminated, flow-like texture to the chalcedony, this zone has been referred to as the 'Sinter' Zone in the past. This terminology is maintained in this report, although there is no good evidence that this is actually a sinter capping of the alteration system.

At the eastern edge of the grid, several old trenches and shafts expose an altered area of Nelson diorite and Knob Hill greenstone, at what is known as the Golden Fleece workings. The intrusion is cut by a northwest trending, shallow east dipping fault at this point, and is rusty, pyritic and moderately to strongly altered to clay. Locally, chlorite alteration or silicification predominate. Knob Hill Group greenstones in this area are very rusty and pyritic. Alteration and mineralization post-date the Cretaceous Nelson intrusives, and are possibly a result of early Tertiary extensional faulting related to the Toroda Graben.

A narrow, northeast trending fault zone cuts Knob Hill chert and greenstone in the east central part of the grid. Alteration associated with this faulting consists of bleaching, pyrite mineralization, silicification and brecciation. Exposures along the fault zone are poor, however it does not appears that alteration is very widespread. The similar orientation of this zone and the Deadwood Fault, suggests that this may also be a Tertiary mineralizing event.

Finally, a large area of chert pebble conglomerate (Knob Hill Group) occurs in the southeast corner of the grid. Exposures of this unit are poor, however, where seen the conglomerate is commonly bleached, silicified, rusty and cut by quartz veinlets. This alteration may be a result of structurally controlled (Tertiary) fluids seeping into a permeable horizon, such as what has occurred at the Bengal and 'Sinter' Zones. A conglomerate bed within the Late Paleozoic rocks would be an excellent target for alteration and mineralization related to Tertiary structures, since fluids would tend to migrate out at the first permeable horizon, depositing precious metals at this level and possibly explaining the low precious metal values higher in the system, in altered rocks of the Kettle River Formation.

In summary, all the alteration and mineralization discovered to date on the Tam grid appears to be related to Tertiary faulting. Alteration associated with these faults tends to be very restricted, except in permeable beds such as the chert pebble conglomerate of the Knob Hill Group or the sediments of the Kettle River Formation.

4.0 ROCK GEOCHEMISTRY

A total of 45 rock samples was collected from the Tam grid area during this program (see Figure 4). Sample descriptions and tabulated results are contained in Appendix I. Complete analytical results are included in Appendix II.

All rock samples were shipped to Min-En Laboratories in North Vancouver, for preparation and analysis. Samples were dried and crushed by a jaw crusher and then pulverized on a ring mill pulverizer. A 12 element ICP package (Ag, As, Sb, Cu, Pb, Zn, Mo, Ni, Cr, K, Na, Mn) was run on all samples, as well as analysis for gold. Whole rock analyses were done to characterize major rock and alteration types. For the 12 element ICP package, a 0.5 gram sample of pulverized material was digested for 2 hours in a hot aqua regia mixture, then diluted with water to obtain a standard volume. The solutions were then analyzed by either a Jarrall Ash 9000 ICAP or a Jobin Yvon 90 Type II Inductively Coupled Plasma Spectrometer. For whole rock analyses, a 0.5 gram sample was fused with lithium tetraborate and diluted to volume. Solutions were analyzed using the machines described above. For gold analyses, a 5 gram sample of the prepared material was cindered at 800 degrees C for 3 hours and then digested in aqua regia and treated with Methyl Iso-butyl Ketone (MIBK). The MIBK solutions were then analyzed on an atomic absorption spectrometer.

Detection limits for the above analytical procedures are as follows:

Ag	0.1 ppm
As, Sb, Cu, Pb, Zn, Mo, Ni, Cr, Mn	1 ppm
K, Na	10 ppm
Au	5 ppb

Seventeen chip samples were taken from outcrops and old trench exposures in the Bengal shaft area. Precious metal values were generally low (< 20 ppb Au and 1 ppm Ag) although highs to 144 ppb Au and 3.7 ppm Ag were obtained. Base metal values were also low throughout the altered zone. The Bengal Zone does have a typical epithermal signature, though, with anomalous As, Sb and Mo (to 111 ppm, 4 ppm and 413 ppm, respectively).

At the 'Sinter' Zone, the southern extension of the Bengal Zone, a further seven samples were collected. The following table compares the average results for samples collected from the two zones.

Average Value	Bengal Zone	'Sinter' Zone
Au (ppb)	24	34
Ag (ppm)	1.1	0.8
As (ppm)	30	46
Sb (ppm)	2	1
Cu (ppm)	8	179
Pb (ppm)	21	19
Zn (ppm)	12	35
Mo (ppm)	90	5
Ni (ppm)	1	16
Mn (ppm)	14*	223

* based on 16 samples, average with all 17 samples is 91 ppm Mn.

Gold values are slightly higher at the 'Sinter' Zone, as are arsenic and zinc values. The most notable difference between the two areas, however, is the much higher Cu, Ni and Mn values at the Sinter Zone (179 vs 8 ppm Cu, 16 vs 1 ppm Ni, and 223 vs 14 ppm Mn), and the higher Mo values at the Bengal Zone (90 vs 5 ppm Mo). The implications of these differences are unclear at present, although they would appear to be more a function of the change in underlying rock type from which fluids could scavenge metals, than being an indication of depth zoning in the alteration system. The marked difference on Cu and Ni content supports this hypothesis, as the values in the 'Sinter' Zone mimic those from nearby rock samples collected from altered zones within the Knob Hill Group rocks.

To the east of the main fault zone, a number of samples were collected from altered and mineralized zones within Knob Hill greenstone and Nelson diorite, at the Golden Fleece workings. Gold values reach a maximum of 822 ppb from a sample of very rusty, pyritic greenstone from an old shaft (BCS 13944). Copper and nickel values are also anomalous, reaching values of 1021 ppm and 1049 ppm, respectively, from rusty, clay altered diorite (?) near a shallow east dipping fault zone (BCS 13925).

In the southeast portion of the grid, twelve samples were collected from chert, greenstone and conglomerate of the Knob Hill Group. Samples collected of pyritic, brecciated chert and greenstone from a steep, northeast fault zone returned values up to 2070 ppb Au and 3.4 ppm Ag (samples BCS 13948 and 13957). Arsenic and copper values are elevated within this zone, averaging about 24 ppm and 180 ppm, respectively. Further south and east of this, values to 820 ppb Au and 15.1 ppm Ag were obtained from a sample of chert pebble conglomerate with minor quartz veining (BCS 13961). Arsenic values also tend to be high in this area, to 192 ppb.

In summary, although alteration is visually impressive at the Bengal and 'Sinter' Zones, precious metal values are very low. No obvious geochemical zonation was noted which could be used to establish a position in an idealized epithermal model. Further testing of the zone should concentrate on extending known alteration to the north and south, by geological mapping and trenching, and depth testing the zone in areas where precious metal values may be enriched, such as at fault intersections.

Several areas of mineralization were discovered within the Knob Hill rocks, in the eastern portion of the grid. The most significant of these are a northeast trending fault zone which returned values of 2070 ppb Au, and an area of chert pebble conglomerate which gave 820 ppb Au and 15.1 ppm Ag. Trenching is recommended to define the extent of mineralization at both these areas.

5.0 SOIL GEOCHEMISTRY

A total of 364 soil samples was collected from the Tam grid. Samples were collected at 25 metre intervals on lines spaced 100 metres apart.

After air drying in the field, samples were shipped to Min-En Laboratories in North Vancouver, for preparation and analysis. Samples were dried at 95 degrees C and then screened to -80 mesh. A 0.5 gram subsample of this -80 mesh material was digested for 2 hours in an aqua regia mixture and then diluted to a standard volume. This solution was then analyzed for 12 elements (Ag, As, Sb, Cu, Pb, Zn, Cr, Ni, Mo, K, Na, Mn) using a Jarrall Ash 9000 ICP or Jobin Yvon 70 Type II Inductively Coupled Plasma Spectrometer. For gold analyses, a 5 gram sample of -80 mesh material was cindered at 800 degrees C for 3 hours and then digested in aqua regia and treated with Methyl Iso-butyl Ketone (MIBK). The MIBK solutions were then analyzed on an atomic absorption spectrometer.

Detection limits for the above analyses are as follows:

Ag	0.1 ppm
As, Cr, Cu, Mo, Mn, Ni, Pb, Sb, Zn	1 ppm
K, Na	10 ppm
Au	5 ppb

Complete analytical results for the soil samples are contained in Appendix III. Of the 13 elements analyzed for, visual analysis showed 7 of these to be of interest. Histograms of the analytical data were prepared for these elements (Au, Ag, Zn, Pb, Cu, Ni, Cr) and basic statistical calculations were done (see Appendix IV). Anomalous levels were determined visually from the histograms, as indicated. Sample results for these seven elements are shown on Figures 6 - 12, respectively.

Ag (Figure 7)

Background silver levels are higher in the western portion of the grid, in the area underlain by Marron volcanic rocks. Anomalous values shown in this region reflect this higher base level and are not an indication of mineralization. To the east of this, in the Knob Hill Group rocks, a few spotty high silver values occur, to 1.7 ppm. Silver values are absent from the large gold soil anomaly in the southeast corner of the grid.

Zn (Figure 8)

A roughly linear, northeast trending zinc anomaly occurs in the northeastern portion of the grid. Values reach a high of 120 ppm Zn within this zone. A northeast trending fault zone is known at the southern end of the zinc anomaly, with associated Pb and Ni values in soils. Because of a lack of outcrop, this fault could not be traced to the north, although a continuation in the zinc values suggests that it may do so.

Pb (Figure 9)

Lead values tend to be slightly higher in the western portion of the grid, in the area underlain by Marron volcanics. A few spotty anomalies occur elsewhere on the grid, related to fault zones within the Knob Hill rocks. Generally lead values are very low.

Cu (Figure 10)

A large zone of anomalous copper occurs in the east and southeast portion of the grid. The zone measures about 800 metres by 250 metres at the widest point, and is open to the east and south. This zone largely reflects the high background copper levels in the Knob Hill Group and the Nelson diorite. Copper values reach highs of 280 ppm within this zone. A comparison of the geology and geochemistry maps suggest that regions of strongly anomalous copper within the main zone may be indications of enriched zones resulting from faulting.

Ni (Figure 11)

Nickel values are spotty within the grid area. Several small anomalous zones occur, correlating well with known areas of mineralization in the Knob Hill Group rocks (ie. Golden Fleece workings, fault zones at 4+00N, 3+50E and 3+00N, 2+00E).

Cr (Figure 12)

Chromium values are generally low throughout the grid area. A small anomalous zone, coincident with Cu and Ni soil anomalies, occurs at the Golden Fleece workings.

In summary, the most significant result from the soil survey is a large gold anomaly in the southeastern corner of the grid. The zone measures 400 metres by 200 metres at the widest point, and is open to the east. Values reach a maximum of 150 ppm Au within the zone; no other elements are significantly enriched within the anomaly. Grid lines should be extended to the east and infill gridding and sampling should be done to further define this zone.

6.0 GEOPHYSICS

A ground magnetometer survey was conducted on the grid to aid in geological mapping and to define any large areas of magnetite-poor alteration (silicification, clay alteration). A VLF survey was done in order to better define geological structures. The surveys were carried out by Quest Canada Exploration Services Inc., using a IGS-2. Readings were taken every 25 metres on E-W lines, spaced 100 metres apart. Stations at both Seattle and Annapolis were used for the VLF survey. Raw data for the surveys is contained in Appendix V.

The results of the magnetometer survey are shown on Figures 13 and 14. Both contour and profile maps for Total Field Mag are included. The most prominent feature of the magnetometer survey is the mag high in the northeastern portion of the grid. The Deadwood Fault is evident on the mag survey and its position confirms that inferred by geological mapping. The mag high at the north central edge of the grid appears to be related to Marron volcanic rocks. A second area of high magnetics is related to Nelson diorite at the eastern edge of the grid. The southeast corner of the grid, underlain by chert and chert pebble conglomerate, has a pronounced mag low response. No new large areas of alteration, characterized by a magnetic low signature were identified by the survey. The central part of the grid, where known clay alteration and silicification occurs in Kettle River sediments, did have a general magnetic low response, although no good trend was visible.

The results of the VLF-EM survey are shown on Figures 15 - 18. Both contour and profile maps are included for stations at Seattle and Annapolis. There is a reasonable correlation between results from the two stations, although northwest trending structures are much more evident using the Seattle station. The main Deadwood fault shows up well on all plots and its position correlates well with that determined by geological mapping. A very strong northwest trending conductor is apparent on VLF plots using the Seattle station (Figures 15 and 16). The main conductor runs from about 1+00N, 3+25E to about 6+00N, 0+25E. Two smaller conductors run parallel to this main structure, one to the north and one to the south. Geological mapping suggested the presence of northwest trending faults in the vicinity of the two smaller conductors. There was no evidence of the main central conductor, however, although outcrop is reasonably scarce in this area so such a structure may, in fact, be present. This structure should be tested by trenching and possibly drilling, especially where it intersects the main Deadwood Fault and in areas of favourable geology, such as the Knob Hill conglomerate.

7.0 SUMMARY AND CONCLUSIONS

1.0 The Tam 90 Group covers the eastern portion of the Toroda Graben. A major northeast trending fault, the Deadwood Fault, runs diagonally through the grid, separating Late Paleozoic Knob Hill Group rocks to the east from Tertiary sediments and volcanics to the west.

2.0 Alteration in the grid area is related to a series of northeast and northwest trending Tertiary faults. The main areas of alteration, the Bengal and 'Sinter' Zones, consist of clay alteration and silicification of Tertiary Kettle River sediments. This alteration is related to the Deadwood Fault. Narrow zones of alteration are also known related to Tertiary (?) faulting within Knob Hill Group sediments and volcanics. A large area of Knob Hill chert pebble conglomerate occurs in the southeast corner of the grid. Exposures are poor, however where seen, silicification and quartz veining are common. This alteration may be controlled by northwest Tertiary structures.

3.0 Rock sampling was completed in the grid area, testing all the above types of alteration. Precious metal values are low in the Bengal and 'Sinter' Zones. Values to 2070 ppb Au and 3.4 ppm Ag were returned from a fault zone in Knob Hill Group rocks, and values to 820 ppb Au and 15.1 ppm Ag were obtained from a sample of altered chert pebble conglomerate.

4.0 A large gold soil anomaly occurs in the southeast corner of the grid, in the area of the Knob Hill conglomerate. The zone measures about 400 metres north-south by 200 metres east-west at the widest point, and is open to the east.

5.0 The magnetometer survey supported conclusions drawn from geological mapping but did not identify any new areas of magnetite poor alteration. The VLF-EM survey was successful in identifying several major northwest trending conductors in the southeast portion of the grid which may be important controls of mineralization.

8.0 RECOMMENDATIONS

1.0 The present Tam grid should be extended to the east and infill gridding should be done in the southeast corner of the grid to better define the gold soil anomaly.

2.0 Backhoe trenching should be done to test this soil anomaly and to test conductors identified by the VLF-EM survey. Trenching should also be done to trace the Bengal Zone to the north and the 'Sinter' Zone to the south, and to test the northeast fault zone located at about 5+00N, 1+50E.

3.0 The best areas of alteration identified by the above program should be tested at depth by diamond drilling. Specific recommendations for the drill program will be dependant on the results of the trenching.

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APPENDIX I

ROCK SAMPLE DESCRIPTIONS AND RESULTS

TAM O'SHANTER AREA - ROCK SAMPLE DESCRIPTIONS

SAMPLE	TYPE	WIDTH	DESCRIPTION
BCS 13922	GEOCHEM	GRAB	v fng Nelson dior, 2-5% qtz stockwork vnlts
BCS 13923	GEOCHEM	2 m	chip across rusty, bleached, clay alt zone in trench
BCS 13924	GEOCHEM	GRAB	chl-carb alt of fng Nelson dior in fw of fault, min py
BCS 13925	GEOCHEM	GRAB	Golden Fleece workings - rusty, alt'd dior in hw of fault
BCS 13926	GEOCHEM	GRAB	silic'd rusty dior
BCS 13927	GEOCHEM	1 m	Bengal zone, grey, fng silic'd seds, 5% py, 10% chalc vning
BCS 13928	GEOCHEM	2 m	Bengal zone, grey-buff fng silic'd seds, min py, weak bx
BCS 13929	GEOCHEM	3 m	Bengal zone, 10-20% grey arg frags in fng cherty silic mtrx
BCS 13930	GEOCHEM	GRAB	Bengal zone, fng chery seds, mod bx, qtz vnlts
BCS 13931	GEOCHEM	2 m	Bengal zone, grey, bx silty arg, mod silic + qtz vnlts
BCS 13932	GEOCHEM	1 m	Bengal zone, white-grey, fng chalc flooding, massive
BCS 13933	GEOCHEM	1.5 m	Bengal zone, str silic'd zone E of fault trace
BCS 13934	GEOCHEM	2 m	Bengal zone, v str silic'd, white-grey, late chalc-qtz vnlts
BCS 13935	GEOCHEM	2 m	Bengal zone, grey, pyritic, str silic'd, cherty, mod bx
BCS 13936	GEOCHEM	2 m	Bengal zone, weak clay alt'd mudstone, min qtz vnlts
BCS 13937	GEOCHEM	2 m	Bengal zone, rusty o/b in fault zone
BCS 13938	GEOCHEM	GRAB	Bengal zone, shaft collar, buff clay alt'd tuff, min silic
BCS 13939	GEOCHEM	GRAB	Bengal zone, grey-white, str silic
BCS 13940	GEOCHEM	GRAB	str clay alt'd Kettle Riv seds, local weak silic
BCS 13941	GEOCHEM	GRAB	same as BCS 13940
BCS 13942	GEOCHEM	GRAB	str silic'd Kettle Riv sst, fng, grey, cherty
BCS 13943	GEOCHEM	1.5 m	grey-white, str silic'd cherty Kettle Riv seds
BCS 13944	GEOCHEM	GRAB	1.5 m deep shaft, rusty, pyritic gst - grab from dump
BCS 13945	GEOCHEM	GRAB	rusty white chert, 2-5% py, old pit at base of o/c
BCS 13946	GEOCHEM	0.15 m	py rich bx vein in back face of trench, 30% fine py
BCS 13947	GEOCHEM	0.3 m	rusty fault gouge from fault contact of vein in BCS 13946
BCS 13948	GEOCHEM	GRAB	rusty bleached bx py rich gst from trench dump
BCS 13949	GEOCHEM	GRAB	rusty mod str clay alt'd KR seds, 2-5% py, fine chert congl
BCS 13950	GEOCHEM	2 m	trench, yellow-rusty, silic'd KR seds, 5-10% py
BCS 13951	GEOCHEM	2 m	same as 13950
BCS 13952	GEOCHEM	2 m	same as 13950
BCS 13953	GEOCHEM	3 m	trench, fault zn, weak silic'n in congl, 5% py
BCS 13954	GEOCHEM	4 m	trench, rusty, fract'd, clay alt'd, silic'd zone, 5% py
BCS 13955	GEOCHEM	GRAB	White banded chalced, v. fine, massive. "Sinter zone"
BCS 13956	GEOCHEM	2 m	trench, fault zn, py rich gst
BCS 13957	GEOCHEM	GRAB	gst, 5-10% py, from dump of decline
BCS 13958	GEOCHEM	GRAB	5 m deep shaft, silic'd gst + qtz vnlts + py
BCS 13960	GEOCHEM	GRAB	white chert, 10% foamy py in vugs with qtz
BCS 13961	GEOCHEM	GRAB	rusty, bleached qtz rich sed, min qtz vnlts - Knob Hill
BCS 13962	GEOCHEM	GRAB	grey-purple rusty, silic'd qtz rich sed - Knob Hill
BCS 13963	GEOCHEM	GRAB	Massive fng sst/congl, silic'd - Knob Hill
BCS 13964	GEOCHEM	GRAB	fine silic chert pebble conglom - Knob Hill
BCS 13920	LITHO	GRAB	unalt'd maroon fng volc, 20% coarse fsp, 5% fine px/bi
BCS 13921	LITHO	GRAB	fng dark grey Marron volc, min fine fsp + px phenos
BCS 13959	LITHO	GRAB	fine grained volc\subvolc - Nelson?/Knob Hill??

TAM O'SHANTER GRID - ROCK SAMPLE RESULTS

GEOCHEMICAL RESULTS:

	AG	AS	CU	K	MN	MO	NA	NI	PB	SB	ZN	CR	AU
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPB
BCS 13922	1.2	29	145	1590	266	122	10	56	22	1	38	108	2
BCS 13923	0.6	18	477	1380	711	4	30	100	9	1	88	9	31
BCS 13924	3	1	574	560	758	1	250	123	5	1	52	261	1
BCS 13925	1.3	1	1021	270	2957	5	50	1049	5	1	166	767	12
BCS 13926	1.1	102	366	2150	1035	21	20	114	15	1	90	182	8
BCS 13927	0.4	26	21	1560	49	15	20	11	20	1	8	102	6
BCS 13928	1.5	17	12	1150	15	123	10	1	21	2	8	86	19
BCS 13929	0.6	21	10	1590	16	47	10	1	19	1	9	64	1
BCS 13930	3.4	28	5	1230	13	246	10	1	23	2	6	108	24
BCS 13931	1.2	20	11	1190	13	65	20	1	23	2	9	45	5
BCS 13932	0.8	19	5	1650	15	79	20	1	22	2	7	86	36
BCS 13933	1.6	28	5	1010	14	143	10	1	47	3	7	116	144
BCS 13934	0.8	24	5	950	11	86	10	1	18	1	6	95	9
BCS 13935	3.7	31	15	1030	15	413	20	1	29	4	9	78	65
BCS 13936	1.3	34	8	2220	10	60	30	1	25	3	7	36	51
BCS 13937	0.4	17	3	2950	11	11	30	1	17	1	9	73	1
BCS 13838	0.6	111	16	4930	1304	7	40	1	29	1	77	37	24
BCS 13939	0.8	38	4	660	11	170	10	1	9	2	7	80	2
BCS 13940	0.4	26	4	1850	17	14	30	1	16	1	7	138	1
BCS 13941	0.4	28	2	2160	8	11	20	1	17	1	6	84	2
BCS 13942	0.5	21	4	1210	15	21	10	1	13	2	9	99	11
BCS 13943	0.2	20	5	910	16	15	10	1	13	1	7	115	1
BCS 13944	1	42	339	1020	285	20	160	101	12	1	17	58	822
BCS 13945	0.9	10	18	660	10	48	30	4	15	2	7	94	168
BCS 13946	4.6	48	75	990	21	489	20	19	50	5	12	109	353
BCS 13947	1.5	47	209	5340	44	190	60	14	22	1	35	70	180
BCS 13948	2.7	38	152	4220	340	22	30	57	11	1	32	102	2070
BCS 13949	1.1	36	136	1540	102	5	140	12	12	1	22	120	5
BCS 13950	0.9	47	119	1990	195	6	50	20	18	1	39	80	53
BCS 13951	0.3	30	119	1610	247	5	30	17	32	1	42	80	37
BCS 13952	1	55	264	2590	194	2	90	19	16	1	32	110	39
BCS 13953	1.1	48	318	2230	343	2	40	12	13	1	37	83	35
BCS 13954	0.9	62	286	3050	449	5	50	31	29	1	65	112	48
BCS 13955	0.5	42	11	490	30	8	10	2	10	1	8	132	21
BCS 13956	0.2	1	215	1760	544	2	20	70	47	1	43	204	38
BCS 13957	3.4	1	409	840	790	1	220	35	18	1	40	148	1
BCS 13958	0.8	1	67	830	507	4	110	33	24	1	19	131	2
BCS 13960	2.3	105	100	350	28	4	20	2	37	2	10	185	79
BCS 13961	15.1	192	103	1640	44	11	30	14	15	4	15	220	820
BCS 13962	0.2	22	172	1580	11	1	20	6	16	1	9	188	74
BCS 13963	0.9	1	125	2600	290	1	140	41	11	1	25	153	46
BCS 13964	0.2	30	71	1440	39	1	10	22	15	1	13	181	11

' ITHO RESULTS:

	AL2O3	BAT	CAO	FE2O3	K2O	MGO	MNO2	NA2O	P2O5	SIO2	TIO2	S	TOTAL	LOI
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
BCS 13920	17.62	0.04	1.51	3.64	6.52	0.6	0.06	4.68	0.22	61.72	0.74	0.01	97.37	1.5
BCS 13921	16.93	0.175	4.64	7.88	4.77	3.08	0.12	3.46	0.48	53.11	1	0.01	95.66	3.2
BCS 13959	14.31	0.165	9.9	7.74	4.32	4.12	0.16	2.23	0.46	49.47	0.89	1.45	95.21	5

	AG	AS	BA	CU	PB	SB	ZN	AU
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPB
BCS 13920	1.6	40	75	248	31	1	52	5
BCS 13921	2.9	1	93	90	16	1	63	5
BCS 13959	1.6	1	128	204	11	1	254	5

APPENDIX II

ANALYTICAL RESULTS - ROCK SAMPLES

COMP: MINNOVA INC.
PROJ: 661-TAM O'SHANTER
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1269-RJ1
DATE: 90/09/04
* ROCK * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB
BCS 13920	1.6	40	75	248	31	1	52	5
BCS 13921	2.9	1	93	90	16	1	63	5

COMP: MINNOVA INC.
PROJ: 661-TAM O'SHANTER
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1269-RL1
DATE: 90/09/04
* ROCK * (ACT:FIRE)

SAMPLE NUMBER	AL2O3 %	BAT %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	P2O5 %	SIO2 %	TIO2 %	S %	TOT(%) %
BCS 13920	17.62	.040	1.51	3.64	6.52	.60	.06	4.68	.22	61.72	.74	.01	97.37
BCS 13921	16.93	.175	4.64	7.88	4.77	3.08	.12	3.46	.48	53.11	1.00	.01	95.66

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(DIVISION OF ASSAYERS CORP.)

SPECIALISTS IN MINERAL ENVIRONMENTS
[illegible]

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THUNDER BAY LAB.:
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FAX (807) 623-5931

SMITHERS LAB.:
TELEPHONE/FAX (604) 847-3004

Assay Certificate

0V-1269-RA1

Company: MINNOVA INC.
Project: [illegible]
Attn: [illegible]

Date: SEP-04-90
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., GREENWOOD, B.C.

We hereby certify the following Assay of 2 ROCK samples submitted AUG-25-90 by L.LEE.

Sample Number	LOI %
[illegible]	[illegible]
[illegible]	[illegible]

Certified by

MIN-EN LABORATORIES

COMP: MINNOVA INC.
PROJ: 661-TAM O'SHANTER
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1269-RJ2+3
DATE: 90/09/03
* ROCK * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
BCS13922	1.2	29	145	1590	266	122	10	56	22	1	38	108	2
BCS13923	.6	18	477	1380	711	4	30	100	9	1	88	9	31
BCS13924	3.0	1	574	560	758	1	250	125	5	1	52	261	1
BCS13925	1.3	1	1021	270	2957	5	50	1049	5	1	166	767	12
BCS13926	1.1	102	366	2150	1035	21	20	114	15	1	90	182	8
BCS13927	.4	26	21	1560	49	15	20	11	20	1	8	102	6
BCS13928	1.5	17	12	1150	15	123	10	1	21	2	8	86	19
BCS13929	.6	21	10	1590	16	47	10	1	19	1	9	64	1
BCS13930	3.4	28	5	1230	13	246	10	1	23	2	6	108	24
BCS13931	1.2	20	11	1190	13	65	20	1	23	2	9	45	5
BCS13932	.8	19	5	1650	15	79	20	1	22	2	7	86	36
BCS13933	1.6	28	5	1010	14	143	10	1	47	3	7	116	144
BCS13934	.8	24	5	950	11	86	10	1	18	1	6	95	9
BCS13935	3.7	31	15	1030	15	413	20	1	29	4	9	78	65
BCS13936	1.3	34	8	2220	10	60	30	1	25	3	7	36	51
BCS13937	.4	17	3	2950	11	11	30	1	17	1	9	73	1
BCS13938	.6	11	16	4930	1304	7	40	1	29	1	77	37	24
BCS13939	.8	38	4	660	11	170	10	1	9	2	7	80	2
BCS13940	.4	26	4	1850	17	14	30	1	16	1	7	138	1
BCS13941	.4	28	2	2160	8	11	20	1	17	1	6	84	2
BCS13942	.5	21	4	1210	15	21	10	1	13	2	9	99	11
BCS13943	.2	20	5	910	16	15	10	1	13	1	7	115	1
BCS13944	1.0	42	339	1020	285	20	160	101	12	1	17	58	82
BCS13945	.9	10	18	660	10	48	30	4	15	2	7	94	168
BCS13946	4.6	48	75	990	21	489	20	19	50	5	12	109	353
BCS13947	1.5	47	209	5340	44	190	60	14	22	1	35	70	180
BCS13948	2.7	38	152	4220	340	22	30	57	11	1	32	102	2070
BCS13949	1.1	36	136	1540	102	5	140	12	12	1	22	120	5
BCS13950	.9	47	119	1990	195	6	50	20	18	1	39	80	53
BCS13951	.3	30	119	1610	247	5	30	17	32	1	42	80	37
BCS13952	1.0	55	264	2590	194	2	90	19	16	1	32	110	39
BCS13953	1.1	48	318	2230	343	2	40	12	13	1	37	83	35
BCS13954	.9	62	286	3050	449	5	50	31	29	1	65	112	48
BCS13955	.5	42	11	490	30	8	10	2	10	1	8	132	21
BCS16990	1.1	79	519	1080	763	2	340	8	15	2	20	139	2

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(DIVISION OF ASSAYERS CORP.)

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VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
FAX (604) 980-9621

THUNDER BAY LAB.:
TELEPHONE (807) 622-8958
FAX (807) 623-5931

SMITHERS LAB.:
TELEPHONE/FAX (604) 847-3004

Assay Certificate

0V-1269-RA2

Company: MINNOVA INC.
Project: 661 TAM O'SHANTER
Attn: I.PIRIE/L.LEE

Date: SEP-03-90
Copy 1. MINNOVA INC., VANCOUVER, B.C.
2. MINNOVA INC., GREENWOOD, B.C.

We hereby certify the following Assay of 1 ROCK samples submitted AUG-25-90 by L.LEE.

Sample Number	AU g/tonne	AU oz/ton
[illegible]	2.32	.068

Certified by ______________________
MIN-EN LABORATORIES

COMP: MINNOVA INC.
PROJ: TAM O'SHANTER 661
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1457-RJ1
DATE: 90/09/26
* ROCK * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
BCS13956	.2	1	215	1760	544	2	20	70	47	1	43	204	38
BCS13957	3.4	1	409	840	790	1	220	35	18	1	40	148	1
BCS13958	.8	1	67	830	507	4	110	33	24	1	19	131	2
BCS13960	2.3	105	100	350	28	4	20	2	37	2	10	185	79
BCS13961	15.1	192	103	1640	44	11	30	14	15	4	15	220	820
BCS13962	.2	22	172	1580	11	1	20	6	16	1	9	188	74
BCS13963	.9	1	125	2600	290	1	140	41	11	1	25	153	46
BCS13964	.2	30	71	1440	39	1	10	22	15	1	13	181	11

APPENDIX III

ANALYTICAL RESULTS - SOIL SAMPLES

COMP: MINNOVA INC
PROJ: 661
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1076-SJ1+2
DATE: 90/08/20
* SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
L0+00N -0+25E	1.6	1	52	1250	933	2	970	17	41	1	60	9	10
L0+00N -0+50E	1.0	1	63	1070	632	1	570	42	22	1	48	10	5
L0+00N -0+75E	1.0	1	100	1290	1295	1	240	63	24	1	55	10	5
L0+00N -1+00E	.7	1	49	1590	1018	1	210	25	26	1	55	10	5
L0+00N -1+25E	.8	1	54	2370	945	1	760	25	26	1	64	11	5
L0+00N -1+50E	.8	1	44	2350	920	1	270	28	17	1	65	9	5
L0+00N -1+75E	.7	1	28	2480	1053	1	320	15	19	1	59	10	5
L0+00N -2+00E	1.0	1	32	2710	927	1	270	13	25	1	64	7	5
L0+00N -2+25E	1.1	1	39	2270	897	1	300	14	17	1	56	9	10
L0+00N -2+50E	.7	1	21	1810	684	1	310	8	18	1	51	8	5
L0+00N -2+75E	.8	1	18	1500	460	1	320	7	14	1	43	6	5
L0+00N -3+00E	.8	1	21	1800	528	1	1160	8	17	1	47	8	5
L0+00N -3+25E	.7	1	23	1630	469	1	360	7	13	1	45	6	10
L0+00N -3+50E	.9	1	16	1720	465	1	370	5	15	1	39	5	5
L0+00N -3+75E	.9	1	12	1830	511	1	360	4	18	1	39	6	5
L0+00N -4+00E	.9	1	14	1640	641	1	360	6	13	1	60	6	5
L0+00N 0+00E	.9	1	53	860	719	1	320	12	12	1	42	10	5
L0+00N 0+25E	.9	1	47	1120	623	1	1000	13	23	1	35	11	10
L0+00N 0+50E	1.2	1	49	1180	700	4	900	20	17	1	72	11	10
L0+00N 0+75E	.9	1	42	750	777	1	1090	13	15	1	44	7	5
L0+00N 1+00E	.9	1	53	830	579	1	890	14	12	1	41	10	5
L0+00N 1+25E	.8	1	16	660	496	1	1030	5	13	1	32	1	10
L0+00N 1+50E	1.3	1	42	1120	536	3	390	11	12	1	48	7	5
L0+00N 2+00E	.8	1	67	800	459	1	710	13	12	1	38	8	5
L0+00N 2+25E	1.2	1	68	910	615	1	710	20	16	1	35	9	10
L0+00N 2+50E	1.2	1	79	1110	722	1	1010	18	17	1	49	9	10
L0+00N 2+75E	.8	1	83	1050	1516	1	810	23	24	1	55	10	5
L0+00N 3+00E	.8	1	86	1230	1571	1	260	20	27	1	44	13	5
L0+00N 3+25E	.7	1	103	830	460	1	240	20	13	1	44	13	10
L0+00N 3+50E	1.0	1	76	1100	705	1	670	21	21	1	38	12	5
L0+00N 3+75E	.8	1	72	850	781	1	390	22	26	1	46	14	10
L0+00N 4+00E	.7	1	154	1450	686	1	250	35	15	1	48	26	45
L1+00N -0+25E	.6	1	45	1320	687	1	330	19	24	1	38	10	5
L1+00N -0+50E	.8	1	81	1600	312	1	180	19	18	1	43	16	5
L1+00N -0+75E	.9	1	28	1510	875	1	280	12	20	1	56	9	30
L1+00N -1+00E	.8	1	29	2010	836	1	350	12	17	1	55	9	5
L1+00N -1+25E	1.0	1	35	2160	819	1	270	15	19	1	70	9	5
L1+00N -1+50E	1.3	1	41	1810	1433	1	310	47	17	1	81	12	5
L1+00N -1+75E	1.0	1	31	1940	1215	1	320	34	13	1	72	8	10
L1+00N -2+00E	.9	1	47	1800	1096	1	360	33	16	1	71	9	5
L1+00N -2+25E	1.0	1	47	1920	878	1	340	47	13	1	57	13	5
L1+00N -2+50E	1.0	1	47	1910	513	1	300	46	14	1	53	14	5
L1+00N -2+75E	.9	1	34	2540	461	1	360	24	13	1	55	10	5
L1+00N -3+00E	.6	1	19	1330	881	1	390	9	17	1	52	4	5
L1+00N -3+25E	.9	1	35	1830	600	1	430	14	13	1	64	8	5
L1+00N -3+50E	.9	1	20	1610	558	1	370	5	17	1	52	8	10
L1+00N -3+75E	1.1	1	28	2510	407	1	390	9	13	1	64	8	5
L1+00N -4+00E	1.2	1	38	1760	641	1	460	12	14	1	55	11	5
L1+00N 0+00E	1.2	1	80	1750	1413	2	290	20	21	1	67	15	5
L1+00N 0+25E	1.1	1	49	1140	988	1	350	21	18	1	39	9	5
L1+00N 0+50E	.8	1	54	1250	688	1	310	16	17	1	31	14	5
L1+00N 0+75E	.9	1	44	1000	1334	1	320	13	26	1	45	16	10
L1+00N 1+00E	.7	1	41	1000	928	1	400	16	14	1	44	7	5
L1+00N 1+25E	1.0	1	71	1320	934	1	250	17	14	1	44	13	5
L1+00N 1+50E	1.2	1	50	890	655	1	300	7	16	1	47	11	5
L1+00N 1+75E	.9	1	91	1340	890	1	260	16	20	1	47	12	5
L1+00N 2+00E	.8	1	164	1520	1100	1	220	31	13	1	55	19	10
L1+00N 2+25E	1.3	1	259	1760	1197	1	260	52	14	1	54	20	30
L1+00N 2+50E	.8	1	75	1120	433	1	230	15	13	1	27	11	35
L1+00N 2+75E	.6	1	40	730	831	1	350	12	15	1	42	6	5

COMP: MINNOVA INC
PROJ: 661
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1076-SJ3+4
DATE: 90/08/20
* SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
L1+00N 3+00E	.8	1	63	790	757	1	270	13	14	1	41	8	45
L1+00N 3+25E	.6	1	33	550	450	1	380	7	13	1	35	5	10
L1+00N 3+50E	.8	1	72	850	579	1	350	15	13	1	36	6	20
L1+00N 3+75E	.5	1	78	820	568	1	300	11	13	1	34	7	5
L1+00N 4+00E	.8	1	129	1130	732	1	260	21	14	1	47	13	60
L2+00N -0+25E	.6	1	23	1540	569	1	330	15	13	1	42	6	5
L2+00N -0+50E	.7	1	56	1800	1018	1	350	65	16	1	45	6	5
L2+00N -0+75E	1.0	1	53	1340	695	1	270	36	13	1	57	11	5
L2+00N -1+00E	.8	1	56	1760	1223	1	270	32	19	1	57	9	10
L2+00N -1+25E	.7	1	33	1520	370	1	320	31	13	1	30	7	5
L2+00N -1+50E	.9	1	51	1840	552	1	390	48	15	1	49	7	5
L2+00N -1+75E	.9	1	29	1540	487	1	400	40	13	1	38	7	5
L2+00N -2+00E	.8	1	19	1480	509	1	330	11	13	1	42	6	5
L2+00N -2+25E	.9	1	21	1740	506	1	350	9	15	1	50	8	5
L2+00N -2+50E	.9	1	24	1630	470	1	330	10	16	1	45	7	5
L2+00N -2+75E	.9	1	37	1890	615	1	390	20	16	1	48	10	10
L2+00N -3+00E	1.1	1	21	1540	503	1	450	9	15	1	47	10	10
L2+00N -3+25E	1.0	1	20	1470	484	1	490	7	16	1	53	7	5
L2+00N -3+50E	1.0	1	15	830	371	1	480	4	16	1	46	4	5
L2+00N -3+75E	1.1	1	111	1830	407	1	510	54	14	1	42	13	5
L2+00N -4+00E	2.0	1	263	2450	485	1	310	108	19	1	61	24	5
L2+00N 0+00E	1.0	1	36	1690	455	1	360	14	15	1	43	9	5
L2+00N 0+25E	.7	1	31	1570	388	1	360	12	16	1	40	10	5
L2+00N 0+50E	.8	1	32	1510	437	1	350	12	16	1	42	12	10
L2+00N 0+75E	1.1	1	30	1620	325	1	350	7	15	1	39	8	5
L2+00N 1+00E	1.1	1	44	1440	374	1	320	14	16	1	64	8	5
L2+00N 1+25E	.9	1	44	1810	472	1	230	6	19	1	41	9	5
L2+00N 1+50E	1.0	1	33	1410	406	1	380	12	14	1	46	12	15
L2+00N 1+75E	.9	1	73	1440	629	1	280	16	13	1	48	9	5
L2+00N 2+00E	.9	1	59	1240	408	1	280	13	13	1	48	9	5
L2+00N 2+25E	.7	1	70	1380	621	1	310	15	18	1	40	9	5
L2+00N 2+50E	.7	1	32	1560	546	1	290	7	19	1	45	9	5
L2+00N 2+75E	.6	1	50	1580	465	1	250	7	17	1	39	10	5
L2+00N 3+00E	.8	1	56	1640	462	1	250	11	14	1	41	11	35
L2+00N 3+25E	.6	1	57	1350	446	1	350	12	14	1	37	8	10
L2+00N 3+50E	.7	1	79	1510	415	1	290	14	14	1	47	10	5
L2+00N 3+75E	.9	1	59	1510	800	1	400	12	16	1	66	8	100
L2+00N 4+00E	.9	1	83	1500	511	1	320	17	14	1	66	11	40
L3+00N -0+25E	.8	1	34	1450	372	1	370	17	15	1	47	7	5
L3+00N -0+50E	.7	1	34	1370	373	1	350	18	16	1	58	6	5
L3+00N -0+75E	.9	1	37	1160	434	1	330	19	14	1	66	6	5
L3+00N -1+00E	.9	1	28	1170	450	1	340	14	17	1	63	8	5
L3+00N -1+25E	.7	1	29	1550	478	1	370	20	15	1	43	6	5
L3+00N -1+50E	.4	1	34	1350	356	1	420	30	14	1	42	6	5
L3+00N -1+75E	.7	1	18	1300	505	1	270	8	16	1	42	8	5
L3+00N -2+00E	.7	1	23	1580	304	1	390	19	14	1	42	6	10
L3+00N -2+25E	1.0	1	72	1450	479	1	430	45	15	1	50	11	5
L3+00N -2+50E	1.1	1	27	1630	408	1	400	15	16	1	49	9	5
L3+00N -2+75E	1.3	1	22	2230	633	1	390	9	14	1	74	12	5
L3+00N -3+00E	1.0	1	25	1450	384	1	510	7	14	1	45	10	5
L3+00N -3+25E	1.0	1	20	2020	724	1	330	5	17	1	60	8	5
L3+00N -3+50E	.9	1	17	1780	429	1	430	3	14	1	37	8	5
L3+00N -3+75E	.8	1	23	1160	1079	1	540	3	19	1	74	6	5
L3+00N 0+00E	.9	1	24	1350	459	1	370	8	16	1	57	7	5
L3+00N 0+25E	.4	1	16	1320	365	1	270	6	14	1	47	7	5
L3+00N 0+50E	1.3	1	24	1450	272	1	240	6	17	1	35	10	5
L3+00N 0+75E	1.2	1	35	1260	466	1	390	13	14	1	55	8	10
L3+00N 1+00E	1.0	1	59	1590	388	1	370	33	15	1	53	12	5
L3+00N 1+25E	.8	1	20	1440	380	1	250	5	18	1	39	7	5
L3+00N 1+50E	.7	1	21	1540	372	1	270	5	16	1	40	9	5

COMP: MINNOVA INC
PROJ: 661
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1076-SJ5+6
DATE: 90/08/20
* SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
L3+00N 1+75E	.6	1	43	1460	659	1	300	20	20	1	75	8	5
L3+00N 2+00E	.9	1	280	1130	532	1	380	147	22	1	52	10	5
L3+00N 2+25E	.8	1	133	1500	634	1	390	47	16	1	81	9	10
L3+00N 2+50E	.8	1	64	1790	404	1	290	28	14	1	70	7	5
L3+00N 2+75E	.9	1	72	1420	492	1	370	57	14	1	61	12	5
L3+00N 3+00E	.7	1	42	1060	528	1	320	30	17	1	57	12	5
L3+00N 3+25E	1.2	1	142	1120	631	1	390	87	14	1	74	16	5
L3+00N 3+50E	.9	1	102	1650	1040	1	340	47	14	1	48	19	5
L3+00N 3+75E	.9	1	92	1670	1057	1	240	47	14	1	48	27	10
L3+00N 4+00E	.7	1	85	1340	566	1	370	16	16	1	45	6	35
L4+00N -0+25E	.6	1	16	1310	992	1	350	5	16	1	74	2	5
L4+00N -0+50E	.8	1	17	1720	747	1	340	7	15	1	54	4	5
L4+00N -0+75E	1.1	1	18	1670	593	1	330	5	15	1	60	4	5
L4+00N -1+00E	.9	1	15	1600	546	1	360	4	14	1	56	6	5
L4+00N -1+25E	1.1	1	16	1900	572	1	320	5	16	1	55	7	5
L4+00N -1+50E	1.1	1	21	2310	756	1	350	7	17	1	75	10	10
L4+00N -1+75E	1.1	1	34	1550	662	1	380	8	22	1	67	7	5
L4+00N -2+00E	.8	1	14	930	588	1	450	4	16	1	44	9	5
L4+00N -2+25E	.8	1	16	1910	515	1	420	8	17	1	39	23	5
L4+00N -2+50E	1.1	1	28	1470	885	1	490	15	19	1	53	64	10
L4+00N -2+75E	1.1	1	33	2030	1012	1	420	17	23	1	76	60	5
L4+00N -3+00E	1.2	1	30	1920	999	1	440	15	20	1	77	70	5
L4+00N -3+25E	1.4	1	30	2870	669	1	420	18	19	1	49	67	5
L4+00N -3+50E	1.2	1	15	2090	591	1	390	4	15	1	51	14	5
L4+00N -3+75E	1.0	1	13	2280	353	1	360	6	14	1	38	10	15
L4+00N -4+00E	.6	1	10	970	420	1	500	1	18	1	30	3	5
L4+00N 0+00E	.8	1	23	1680	405	1	350	12	15	1	72	5	5
L4+00N 0+25E	1.0	1	29	1640	416	1	390	67	14	1	91	5	5
L4+00N 0+50E	1.4	1	54	1080	441	1	350	120	15	1	74	7	5
L4+00N 0+75E	.9	1	41	1620	416	1	280	30	18	1	81	9	5
L4+00N 1+00E	.6	1	97	1580	802	1	230	52	17	1	85	19	10
L4+00N 1+25E	.6	1	60	1650	957	1	280	37	19	1	101	16	5
L4+00N 1+50E	.6	1	57	1510	938	1	230	28	17	1	63	21	5
L4+00N 1+75E	.6	1	57	2510	792	1	210	19	21	1	72	16	5
L4+00N 2+00E	.9	1	69	1730	838	1	230	23	18	1	64	15	5
L4+00N 2+25E	.7	1	53	850	484	1	220	14	20	1	33	11	5
L4+00N 2+50E	.7	1	91	1950	831	1	250	31	29	1	43	43	5
L4+00N 2+75E	.7	1	72	1290	611	1	240	14	14	1	34	15	10
L4+00N 3+00E	.7	1	58	1440	1098	1	260	8	21	1	63	4	5
L4+00N 3+25E	.1	1	83	1590	1824	1	230	27	14	1	51	10	5
L4+00N 3+50E	.3	1	119	1590	1440	1	240	23	17	1	49	8	5
L4+00N 3+75E	1.2	1	140	1160	1145	1	260	16	17	1	60	7	5
L4+00N 4+00E	.9	1	148	1540	1177	1	240	15	18	1	51	5	5
L5+00N -0+25E	.9	1	21	1880	770	1	340	3	21	1	50	6	5
L5+00N -0+50E	1.1	1	18	1820	1026	1	350	8	26	1	79	7	10
L5+00N -0+75E	1.1	1	39	1730	532	1	300	13	18	1	70	5	5
L5+00N -1+00E	1.7	1	129	2270	722	1	320	28	15	1	93	25	5
L5+00N -1+25E	1.2	1	20	2310	496	1	340	5	17	1	50	18	5
L5+00N -1+50E	1.2	1	28	2050	1120	1	320	11	29	1	68	30	5
L5+00N -1+75E	1.1	1	15	1330	928	1	340	6	26	1	63	13	5
L5+00N -2+00E	1.2	1	22	2170	1542	1	320	6	27	1	77	15	10
L5+00N -2+25E	1.2	1	11	1670	652	1	330	3	21	1	43	6	5
L5+00N -2+50E	1.1	1	13	1970	744	1	350	2	18	1	54	5	5
L5+00N -2+75E	1.2	1	13	2020	645	1	370	3	22	1	54	6	5
L5+00N -3+00E	1.1	1	11	2210	539	1	350	11	14	1	48	13	5
L5+00N -3+25E	1.0	1	12	1920	539	1	300	8	15	1	47	17	5
L5+00N -3+50E	1.1	1	12	1440	690	1	320	5	19	1	54	8	5
L5+00N -3+75E	1.1	1	9	1890	399	1	290	3	17	1	34	11	10
L5+00N -4+00E	1.0	1	13	2180	748	1	300	9	18	1	49	20	5
L5+00N 0+00E	1.1	1	23	1420	462	1	280	6	21	1	80	5	5

COMP: MINNOVA INC
PROJ: 661
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1076-SJ7+8
DATE: 90/08/20
* SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
L5+00N 0+25E	1.0	1	23	1450	437	1	300	11	28	1	83	4	5
L5+00N 0+50E	.7	1	16	1460	557	1	310	8	21	1	81	3	5
L5+00N 0+75E	.8	1	29	1590	694	1	340	14	20	1	104	4	5
L5+00N 1+00E	.9	1	32	1890	980	1	290	14	22	1	117	6	5
L5+00N 1+25E	.7	1	40	1070	1136	1	240	12	35	1	65	6	5
L5+00N 1+50E	1.3	1	99	1020	828	1	270	15	38	1	49	7	10
L5+00N 1+75E	.8	1	73	1050	1142	2	260	11	19	1	44	3	5
L5+00N 2+00E	1.3	1	97	730	554	1	220	10	13	1	38	4	5
L5+00N 2+25E	.9	1	126	720	703	1	200	15	14	1	46	11	5
L5+00N 2+50E	.9	1	184	1030	835	1	240	19	19	1	47	14	5
L5+00N 2+75E	1.1	1	102	1620	847	1	240	11	20	1	45	8	5
L5+00N 3+00E	1.0	1	68	940	827	1	270	10	20	1	36	6	5
L5+00N 3+25E	.8	1	99	1070	876	1	310	13	16	1	45	5	10
L5+00N 3+50E	.7	1	62	720	567	1	270	4	21	1	44	3	5
L5+00N 3+75E	1.0	1	104	1200	731	1	270	11	16	1	59	7	5
L5+00N 4+00E	1.0	1	97	1300	567	1	320	21	15	1	82	5	5
L6+00N 0+00E A	.7	1	16	2260	869	1	360	4	19	1	70	5	5
L6+00N -0+25E	.8	1	15	2110	411	1	280	3	20	1	48	5	5
L6+00N -0+50E	1.1	1	15	1520	368	1	390	6	18	1	52	9	5
L6+00N -0+75E	1.0	1	13	2270	550	1	360	3	15	1	52	9	5
L6+00N -1+00E	1.2	1	11	2470	574	1	300	2	24	1	45	8	10
L6+00N -1+25E	.8	1	20	810	1117	1	420	6	23	1	46	10	5
L6+00N -1+50E	1.1	1	20	1220	1329	1	320	5	24	1	71	5	5
L6+00N -1+75E	.8	1	19	2200	1042	1	310	16	16	1	41	22	5
L6+00N -2+00E	1.1	1	21	2100	1365	1	300	15	27	1	67	27	5
L6+00N -2+25E	1.0	1	15	2010	913	1	370	6	28	1	54	7	5
L6+00N -2+50E	1.2	1	17	2390	994	1	310	15	28	1	87	27	15
L6+00N -2+75E	1.2	1	23	1090	918	1	370	33	20	1	65	82	5
L6+00N -3+00E	1.4	1	11	1900	696	1	340	11	19	1	43	16	5
L6+00N -3+25E	1.4	1	19	840	810	1	340	47	21	1	83	84	5
L6+00N -3+50E	.1	1	6	770	328	1	410	1	17	1	23	1	5
L6+00N -3+75E	.7	1	15	1450	1100	1	260	4	17	1	56	6	5
L6+00N 0+00E BL	.6	1	16	1780	496	1	330	5	14	1	60	4	5
L6+00N 0+25E	.4	1	17	1750	797	1	280	5	17	1	62	4	5
L6+00N 0+50E	.7	1	19	1670	481	1	280	6	14	1	79	5	5
L6+00N 0+75E	.6	1	18	1830	522	1	200	5	23	1	54	6	5
L6+00N 1+00E	.6	1	23	1700	426	1	270	12	18	1	71	4	10
L6+00N 1+25E	.6	1	28	1490	420	1	380	8	15	1	76	4	5
L6+00N 1+50E	.8	1	25	1390	392	1	300	9	16	1	70	4	5
L6+00N 1+75E	.9	1	47	1480	465	1	330	51	18	1	82	4	5
L6+00N 2+00E	1.1	1	115	1230	610	1	330	70	16	1	113	12	5
L6+00N 2+25E	.8	1	70	1440	573	1	300	38	17	1	86	9	5
L6+00N 2+50E	1.0	1	52	1300	786	1	320	30	22	1	74	12	5
L6+00N 2+75E	1.1	1	61	1000	639	1	370	25	16	1	59	8	5
L6+00N 3+00E	1.2	1	134	990	630	1	250	64	14	1	41	27	5
L6+00N 3+25E	1.0	1	72	640	1012	1	330	18	21	1	40	10	5
L6+00N 3+50E	1.2	1	99	1080	526	1	290	20	16	1	46	11	10
L6+00N 3+75E	1.0	1	83	1090	684	1	310	15	14	1	44	10	5
L6+00N 4+00E	.9	1	56	980	491	1	300	10	16	1	42	6	5
L7+00N -0+00E	.6	1	15	1510	973	1	300	5	20	1	57	3	5
L7+00N -0+25E	1.1	1	17	1000	359	1	560	3	12	1	45	5	5
L7+00N -0+50E	1.2	1	13	1580	403	1	390	3	14	1	48	7	5
L7+00N -0+75E	.9	1	10	1190	305	1	430	3	12	1	43	5	5
L7+00N -1+00E	1.0	1	10	1400	347	1	390	2	12	1	36	5	5
L7+00N -1+25E	1.0	1	20	1320	1573	1	460	3	18	1	48	2	5
L7+00N -1+50E	.8	1	14	710	1177	1	500	4	17	1	25	1	5
L7+00N -2+75E	.9	1	10	1720	688	1	460	1	26	1	33	1	5
L7+00N -3+00E	1.0	1	13	1370	1639	1	510	2	30	1	34	1	5
L7+00N -3+25E	1.0	1	14	1780	1177	1	360	1	29	1	65	1	5
L7+00N -3+50E	1.1	1	18	1230	2703	1	380	6	53	1	48	1	5

COMP: MINNOVA INC
PROJ: 661
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1076-SJ9+10
DATE: 90/08/20
* SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
L7+00N -3+75E	.7	1	12	1100	759	1	520	2	28	1	57	1	5
L7+00N -4+00E	.9	1	17	1580	1606	1	440	4	33	1	66	1	5
L7+00N 0+25E	.7	1	14	1760	825	1	340	4	21	1	81	3	5
L7+00N 0+50E	.8	1	17	1610	885	1	340	4	20	1	65	4	85
L7+00N 0+75E	.9	1	18	1290	596	1	360	5	19	1	56	4	5
L7+00N 1+00E	.7	1	14	1520	417	1	240	3	17	1	46	8	5
L7+00N 1+25E	.7	1	19	1770	678	1	360	3	17	1	70	5	10
L7+00N 1+50E	.8	1	19	1490	447	1	400	6	17	1	120	3	5
L7+00N 1+75E	.9	1	19	1440	436	1	450	8	13	1	103	3	5
L7+00N 2+00E	.9	1	13	2070	486	1	240	4	24	1	72	3	5
L7+00N 2+25E	.8	1	15	1400	365	1	330	4	18	1	46	3	5
L7+00N 2+50E	.9	1	15	1760	649	1	370	5	19	1	74	2	5
L7+00N 2+75E	1.1	1	28	1340	1114	1	360	11	19	1	94	6	10
L7+00N 3+00E	1.0	1	24	920	1233	1	340	10	19	1	77	4	5
L7+00N 3+25E	.8	1	13	810	963	1	380	5	19	1	59	1	5
L7+00N 3+50E	1.2	1	102	1020	549	1	340	359	16	1	107	117	5
L7+00N 3+75E	.9	1	62	770	512	1	450	72	12	1	47	25	5
L7+00N 4+00E	1.3	1	93	840	308	1	480	88	14	1	46	13	5
L8+00N 0+25E	1.3	1	12	1790	140	8	120	4	25	1	29	6	5
L8+00N 0+50E	.9	1	13	1720	746	8	250	4	24	1	69	3	5
L8+00N 0+75E	.9	1	12	1790	724	3	270	2	23	1	64	3	5
L8+00N 1+00E	.8	1	13	1640	552	1	370	5	15	1	63	3	5
L8+00N 1+25E	1.0	1	21	1670	722	1	440	8	26	1	69	5	5
L8+00N 1+50E	1.1	1	40	1500	428	1	460	8	18	1	46	7	5
L8+00N 1+75E	1.0	1	28	1360	219	1	440	6	12	1	64	6	5
L8+00N 2+00E	1.0	1	15	1040	403	1	420	7	13	1	58	3	5
L8+00N 2+25E	1.2	1	15	1340	480	1	420	6	15	1	106	4	10
L8+00N 2+50E	.8	1	14	1430	478	1	420	5	16	1	64	3	5
L8+00N 2+75E	.9	1	15	1660	550	1	360	4	19	1	69	3	5
L8+00N 3+00E	1.2	1	15	1410	361	1	420	2	18	1	74	4	5
L8+00N -0+25E	.4	1	9	1320	604	1	320	3	14	1	43	1	5
L8+00N -0+50E	.5	1	11	880	847	1	340	3	21	1	50	1	5
L8+00N -0+75E	.7	1	9	2650	692	1	370	2	23	1	46	1	5
L8+00N -1+00E	.8	1	10	1310	681	1	410	2	16	1	33	1	5
L8+00N -1+25E	1.0	1	10	1400	803	1	360	3	12	1	47	2	10
L8+00N -1+50E	.5	1	7	650	278	1	450	1	14	1	22	3	5
L8+00N -1+75E	.7	1	9	1450	576	1	330	1	16	1	42	3	5
L8+00N -2+00E	.6	1	11	1200	661	1	390	1	14	1	40	2	5
L8+00N -2+25E	.8	1	15	1030	465	1	330	4	15	1	53	4	5
L8+00N -2+50E	.9	1	18	1220	358	1	420	8	16	1	38	6	10
L8+00N -2+75E	.8	1	26	910	481	1	370	6	12	1	65	5	5
L8+00N -3+00E	1.2	1	256	980	477	1	330	147	15	1	90	9	5
L8+00N -3+25E	1.0	1	28	750	437	1	400	8	12	1	44	4	5
L8+00N -3+50E	1.3	1	45	1210	412	1	350	6	14	1	47	6	5
L9+00N -0+00E	1.1	1	14	1340	551	1	360	5	19	1	44	5	5
L9+00N -0+25E	1.6	1	14	1370	366	1	440	3	12	1	37	5	5
L9+00N -0+50E	.9	1	9	820	345	1	480	1	15	1	21	1	5
L9+00N -0+75E	1.8	1	17	1810	1011	1	360	1	18	1	48	5	5
L9+00N -1+00E	1.6	1	17	1830	1045	1	360	1	17	1	47	10	10
L9+00N -1+25E	1.4	1	22	1250	2318	1	440	1	33	1	50	7	5
L9+00N -1+50E	1.5	1	21	3290	894	1	370	5	18	1	57	29	5
L9+00N -1+75E	1.7	1	20	1740	731	1	540	4	12	1	48	54	5
L9+00N -2+00E	1.1	1	15	2040	923	1	480	5	31	1	66	6	5
L9+00N -2+25E	1.4	1	14	1210	789	1	370	7	22	1	64	8	5
L9+00N -2+50E	.8	1	10	1280	399	1	440	1	17	1	41	4	5
L9+00N -2+75E	1.1	1	16	1100	922	1	370	6	25	1	69	3	5
L9+00N -3+00E	.9	1	12	1730	786	1	350	2	21	1	54	3	5
L9+00N -3+25E	1.4	1	18	1350	1281	1	330	5	22	1	59	7	5
L9+00N -3+50E	1.1	1	16	770	1179	1	350	5	21	1	49	3	5
L9+00N -3+75E	1.1	1	14	920	799	1	400	5	16	1	47	5	5

COMP: MINNOVA INC
PROJ: 661
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1076-SJ11+12
DATE: 90/08/20
* SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
L9+00N 0+25E	1.7	1	20	1900	985	1	410	7	49	1	80	5	5
L9+00N 0+50E	1.5	1	12	1400	441	1	400	7	31	3	48	5	5
L9+00N 0+75E	1.1	1	14	1680	454	1	450	4	23	1	50	4	5
L9+00N 1+00E	.9	1	11	1800	404	1	410	4	23	1	50	4	10
L9+00N 1+25E	.9	1	13	1350	455	1	420	6	20	1	63	4	5
L9+00N 1+50E	.9	1	18	1020	251	1	480	5	18	1	30	5	5
L9+00N 1+75E	.9	1	17	1100	415	1	360	7	18	1	70	6	5
L9+00N 2+00E	.8	1	19	1350	424	1	350	7	19	1	66	4	5
L9+00N 2+25E	.8	1	17	990	506	1	360	7	17	1	65	3	15
L9+00N 2+50E	.7	1	17	870	337	1	380	7	12	1	38	5	5
L9+00N 2+75E	1.0	1	39	1030	385	1	390	11	18	1	44	6	10
L9+00N 3+00E	1.0	1	35	1320	422	1	380	8	18	1	51	7	5
L9+00N 3+25E	.9	1	24	960	515	1	360	6	18	1	59	5	5
L9+00N 3+50E	.6	1	22	970	577	1	390	6	16	1	51	3	5
L9+00N 3+75E	.7	1	23	970	436	1	320	9	18	1	75	6	5
L9+00N 4+00E	1.2	1	41	1120	841	1	400	13	18	1	113	9	5
L10+00N -0+00E	1.0	1	17	1740	1050	1	440	8	26	1	59	10	5
L10+00N -0+25E	1.2	1	14	1810	677	1	380	9	18	1	55	13	5
L10+00N -0+50E	.9	1	10	1400	429	1	430	7	18	1	38	7	5
L10+00N -0+75E	.8	1	14	1790	1028	1	480	3	24	1	47	1	10
L10+00N -1+00E	1.1	1	14	1800	746	1	390	9	24	1	51	10	5
L10+00N -1+25E	1.0	1	16	1410	522	1	340	10	16	1	47	13	5
L10+00N -1+50E	1.3	1	24	1330	761	1	270	16	22	1	65	23	5
L10+00N -1+75E	.9	1	14	760	522	1	360	8	17	1	45	10	5
L10+00N -2+00E	.7	1	12	1750	780	1	360	5	18	1	66	4	5
L10+00N -2+25E	.7	1	16	1040	1243	1	1010	9	27	1	81	4	5
L10+00N -2+50E	.6	1	13	1340	958	1	420	4	19	1	61	1	5
L10+00N -2+75E	.9	1	20	1600	1271	1	680	8	32	1	70	5	10
L10+00N -3+00E	.8	1	15	1180	1053	1	310	7	28	1	66	3	5
L10+00N -3+25E	.1	1	26	920	2320	1	290	8	39	1	58	2	5
L10+00N -3+50E	1.0	1	15	740	655	1	430	4	22	1	54	5	5
L10+00N -3+75E	.8	1	26	1410	493	1	390	9	23	1	69	7	5
L10+00N -4+00E	1.1	1	22	910	454	1	410	6	21	1	64	4	5
L10+00N 0+25E	.9	1	12	1170	567	1	470	4	16	1	45	6	5
L10+00N 0+50E	1.0	1	13	1320	631	1	530	4	21	1	45	4	5
L10+00N 0+75E	.9	1	13	1420	767	1	510	4	22	1	44	5	5
L10+00N 1+00E	.7	1	11	910	425	1	550	2	16	1	27	3	5
L10+00N 1+25E	.9	1	18	1440	264	1	610	5	13	1	38	4	5
L10+00N 1+50E	1.0	1	15	1100	246	1	460	3	16	1	55	2	10
L10+00N 1+75E	1.0	1	19	810	173	1	630	6	13	1	36	3	5
L10+00N 2+00E	.8	1	17	960	324	1	440	4	16	1	47	2	5
L10+00N 2+25E	.9	1	14	950	585	1	410	6	19	1	65	3	5
L10+00N 2+50E	.8	1	21	1630	431	1	410	7	14	1	79	4	5
L10+00N 2+75E	.9	1	17	1260	372	1	380	6	13	1	66	5	5
L10+00N 3+00E	.9	1	19	1140	392	1	410	6	15	1	54	3	5
L10+00N 3+25E	1.1	1	22	1120	392	1	390	5	17	1	58	6	5
L10+00N 3+50E	.9	1	31	1080	453	1	350	5	14	1	65	5	5
T.L4+00E 0+25N	.8	1	83	1010	546	1	360	20	16	1	43	12	25
T.L4+00E 0+50N	.7	1	124	1080	630	1	300	25	16	1	46	15	45
T.L4+00E 0+75N	.8	1	99	870	456	1	690	17	20	1	37	12	20
T.L4+00E 1+25N	.9	1	76	1330	570	1	750	21	22	1	57	7	5
T.L4+00E 1+50N	1.2	1	79	1530	516	1	380	16	20	1	57	6	5
T.L4+00E 1+75N	1.0	1	73	1540	473	1	410	11	20	1	57	6	5
T.L4+00E 2+25N	1.1	1	51	1020	678	1	390	16	12	1	75	5	5
T.L4+00E 2+50N	.8	1	83	1140	454	1	720	53	21	1	45	10	150
T.L4+00E 2+75N	.6	1	87	1170	552	1	350	18	15	1	44	6	5
T.L4+00E 3+25N	.3	1	41	1530	1526	1	730	25	21	1	75	3	5
T.L4+00E 3+50N	.3	1	91	1370	1265	1	750	21	23	1	51	4	5
T.L4+00E 3+75N	.4	1	79	1410	738	1	810	10	19	1	48	3	5
T.L4+00E 4+25N	.7	1	68	1260	804	1	320	11	17	1	92	6	5

COMP: MINNOVA INC
PROJ: 661
ATTN: I.PIRIE/L.LEE

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-1076-SJ13+14
DATE: 90/08/20
* SOIL * (ACT:F31)

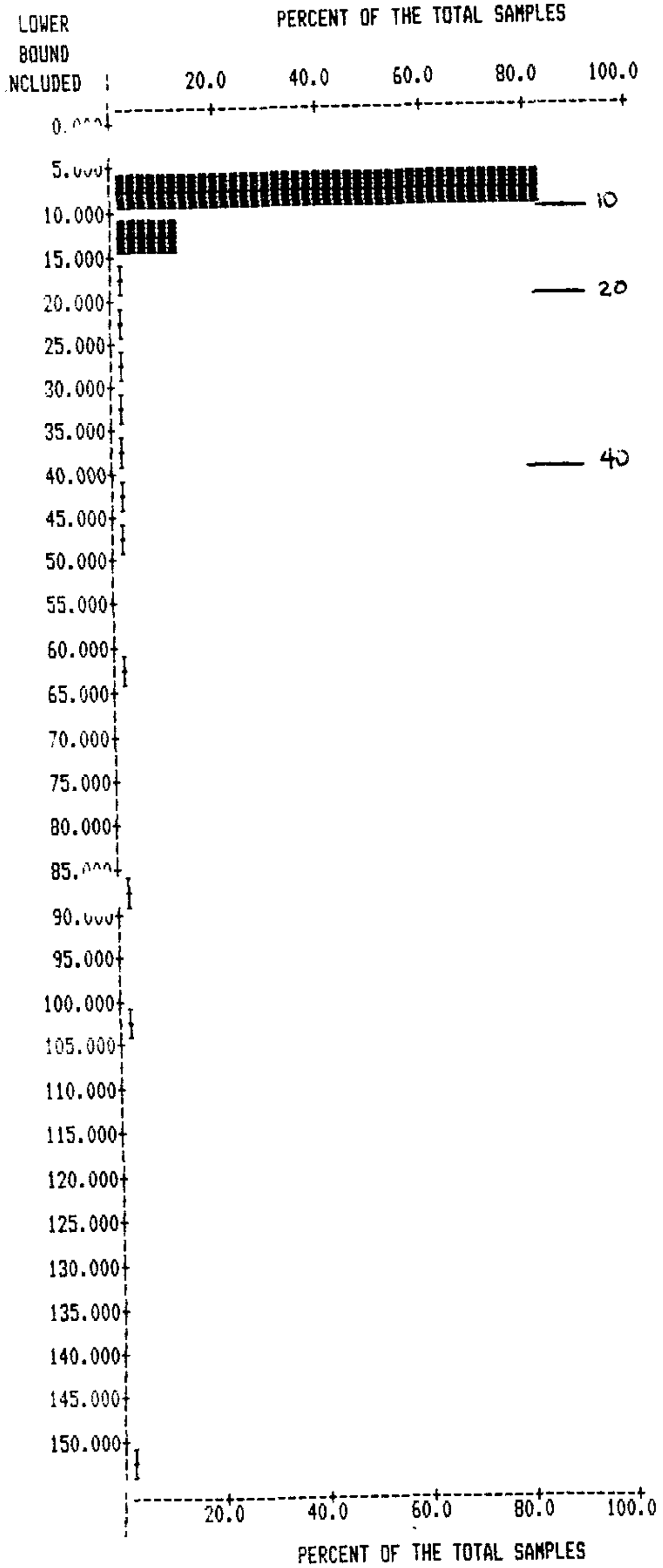
SAMPLE NUMBER	AG PPM	AS PPM	CU PPM	K PPM	MN PPM	MO PPM	NA PPM	NI PPM	PB PPM	SB PPM	ZN PPM	CR PPM	AU PPB
T.L4+00E 4+50N	1.7	1	79	1020	596	1	730	12	34	1	60	5	5
T.L4+00E 4+75N	1.6	1	79	1110	560	1	670	15	29	1	94	4	5
T.L4+00E 5+25N	1.3	1	72	1110	503	1	770	12	22	1	56	5	10
T.L4+00E 5+50N	1.0	1	69	1020	497	1	650	13	20	1	53	5	5
T.L4+00E 5+75N	.7	1	93	1050	609	1	590	11	23	1	55	4	5
T.L4+00E 6+25N	.6	1	42	840	663	1	740	13	19	1	47	3	5
T.L4+00E 6+50N	.9	1	103	780	372	1	780	18	20	1	46	11	5
T.L4+00E 6+75N	.9	1	96	940	442	1	410	78	16	1	92	32	5
T.L4+00E 7+25N	1.2	1	89	780	942	2	890	15	23	1	105	5	5
T.L4+00E 7+50N	1.0	1	90	840	613	1	850	21	20	1	54	6	10
T.L4+00E 7+75N	1.1	1	82	1060	531	1	730	34	17	1	78	9	5
T.L4+00E 8+25N	1.0	1	45	780	277	1	570	13	14	1	56	3	5
T.L4+00E 8+50N	1.1	1	33	1240	349	1	380	8	17	1	63	10	5
T.L4+00E 8+75N	1.1	1	33	920	306	1	520	6	13	1	39	4	5
T.L4+00E 9+25N	.7	1	20	1110	423	1	340	8	18	1	56	4	5
T.L4+00E 9+50N	.8	1	25	1010	538	1	410	7	18	1	78	5	10
T.L4+00E 9+75N	1.1	1	25	1360	502	1	890	9	21	1	66	6	5
T.L-4+00E 0+25N	1.1	1	12	1790	482	1	380	6	22	1	54	7	5
T.L-4+00E 0+50N	1.1	1	11	1720	502	1	430	5	19	1	51	7	5
T.L-4+00E 0+75N	1.2	1	16	2000	607	1	380	6	20	1	60	10	5
T.L-4+00E 1+25N	.9	1	16	1410	406	1	380	5	19	1	48	6	5
T.L-4+00E 1+50N	1.0	1	28	1430	551	1	860	10	21	1	58	10	5
T.L-4+00E 1+75N	.7	1	19	1420	1135	1	1060	8	18	1	90	7	5
T.L-4+00E 2+25N	.6	1	17	1800	1053	1	730	6	21	1	60	7	5
T.L-4+00E 2+50N	.9	1	17	1880	712	1	860	9	20	1	66	8	5
T.L-4+00E 2+75N	.9	1	17	1990	644	1	660	7	16	1	47	10	5
T.L-4+00E 4+25N	1.0	1	14	1590	424	1	720	11	20	1	41	16	5
T.L-4+00E 4+50N	.8	1	13	1290	898	1	940	5	24	1	67	6	10
T.L-4+00E 4+75N	.8	1	13	2380	625	1	750	13	21	1	57	19	5
T.L-4+00E 5+25N	.5	1	12	1940	724	1	870	7	32	1	50	8	5
T.L-4+00E 5+50N	.7	1	19	1660	1193	1	950	16	27	1	77	29	5
T.L-4+00E 5+75N	1.0	1	20	1660	515	1	870	25	21	1	50	27	5
T.L-4+00E 6+25N	1.0	1	14	1770	539	1	890	4	26	1	45	3	5
T.L-4+00E 6+50N	.8	1	14	1570	778	1	910	4	23	1	49	1	5
T.L-4+00E 6+75N	1.0	1	13	2230	602	1	910	5	21	1	52	1	5

APPENDIX IV

SOIL GEOCHEMISTRY - HISTOGRAMS AND ANOMALOUS THRESHOLDS

ATA TITLE : TAN GRID SOILS

VARIABLE : AU

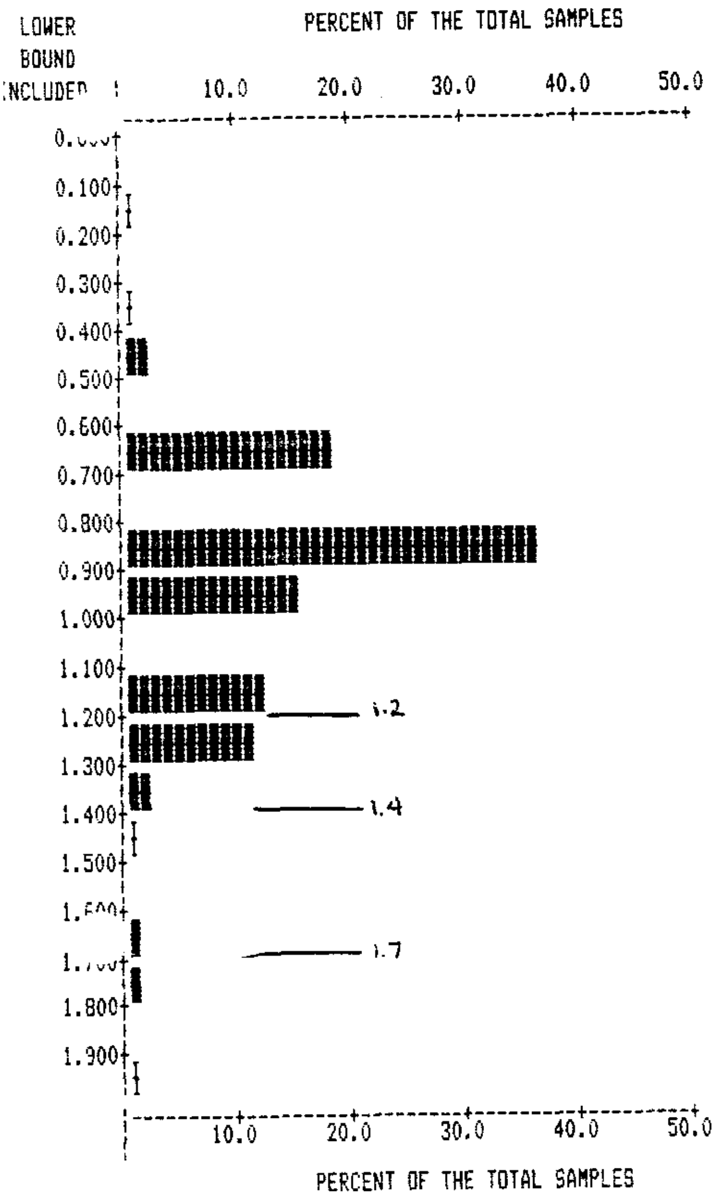


NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
		0.00	0.000
0	0.00		
		0.00	5.000
323	81.98		
		81.98	10.000
51	12.94		
		94.92	15.000
4	1.02		
		95.94	20.000
2	0.51		
		96.45	25.000
1	0.25		
		96.70	30.000
2	0.51		
		97.21	35.000
3	0.76		
		97.97	40.000
1	0.25		
		98.22	45.000
3	0.76		
		98.98	50.000
0	0.00		
		98.98	55.000
0	0.00		
		98.98	60.000
1	0.25		
		99.24	65.000
0	0.00		
		99.24	70.000
0	0.00		
		99.24	75.000
0	0.00		
		99.24	80.000
0	0.00		
		99.24	85.000
1	0.25		
		99.49	90.000
0	0.00		
		99.49	95.000
0	0.00		
		99.49	100.000
1	0.25		
		99.75	105.000
0	0.00		
		99.75	110.000
0	0.00		
		99.75	115.000
0	0.00		
		99.75	120.000
0	0.00		
		99.75	125.000
0	0.00		
		99.75	130.000
0	0.00		
		99.75	135.000
0	0.00		
		99.75	140.000
0	0.00		
		99.75	145.000
0	0.00		
		99.75	150.000
1	0.25		

VARIABLE:	AU
NUMBER OF OBSERVATIONS:	394
MINIMUM:	5.000
MAXIMUM:	150.000
MEAN:	7.576
STANDARD ERROR OF MEAN:	0.565
STANDARD DEVIATION:	11.207
COEFFICIENT OF VARIATION:	147.926
SKEWNESS:	8.237
KURTOSIS:	83.444

DATA TITLE : TAM GRID SOILS

VARIABLE : AG



NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
		0.00	0.000
0	0.00	0.00	0.100
3	0.76	0.76	0.200
0	0.00	0.76	0.300
3	0.76	1.52	0.400
9	2.28	3.81	0.500
0	0.00	3.81	0.600
71	18.02	21.83	0.700
0	0.00	21.83	0.800
140	35.53	57.36	0.900
58	14.72	72.08	1.000
0	0.00	72.08	1.100
48	12.18	84.26	1.200
43	10.91	95.18	1.300
7	1.78	96.95	1.400
2	0.51	97.46	1.500
0	0.00	97.46	1.600
4	1.02	98.48	1.700
5	1.27	99.75	1.800
0	0.00	99.75	1.900
1	0.25		

VARIABLE:	AG
NUMBER OF OBSERVATIONS:	394
MINIMUM:	0.100
MAXIMUM:	2.000
MEAN:	0.928
STANDARD ERROR OF MEAN:	0.013
STANDARD DEVIATION:	0.255
COEFFICIENT OF VARIATION:	27.474
SKEWNESS:	0.389
KURTOSIS:	1.796

****

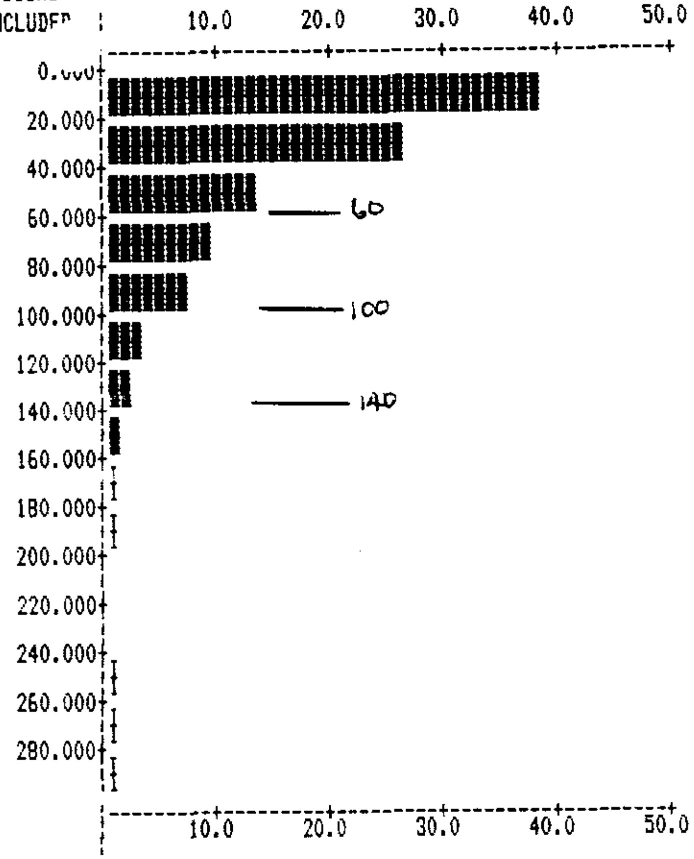
WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : TAM GRID SOILS

VARIABLE : CU

LOWER BOUND INCLUDED — PERCENT OF THE TOTAL SAMPLES



NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
		0.00	0.000
150	38.07		
		38.07	20.000
102	25.89		
		63.96	40.000
52	13.20		
		77.16	60.000
36	9.14		
		86.29	80.000
28	7.11		
		93.40	100.000
10	2.54		
		95.94	120.000
6	1.52		
		97.46	140.000
4	1.02		
		98.48	160.000
1	0.25		
		98.73	180.000
1	0.25		
		98.98	200.000
0	0.00		
		98.98	220.000
0	0.00		
		98.98	240.000
2	0.51		
		99.49	260.000
1	0.25		
		99.75	280.000
1	0.25		

VARIABLE:	CU
NUMBER OF OBSERVATIONS:	394
MINIMUM:	6.000
MAXIMUM:	280.000
MEAN:	41.480
STANDARD ERROR OF MEAN:	1.978
STANDARD DEVIATION:	39.268
COEFFICIENT OF VARIATION:	94.667
SKEWNESS:	2.585
KURTOSIS:	9.770

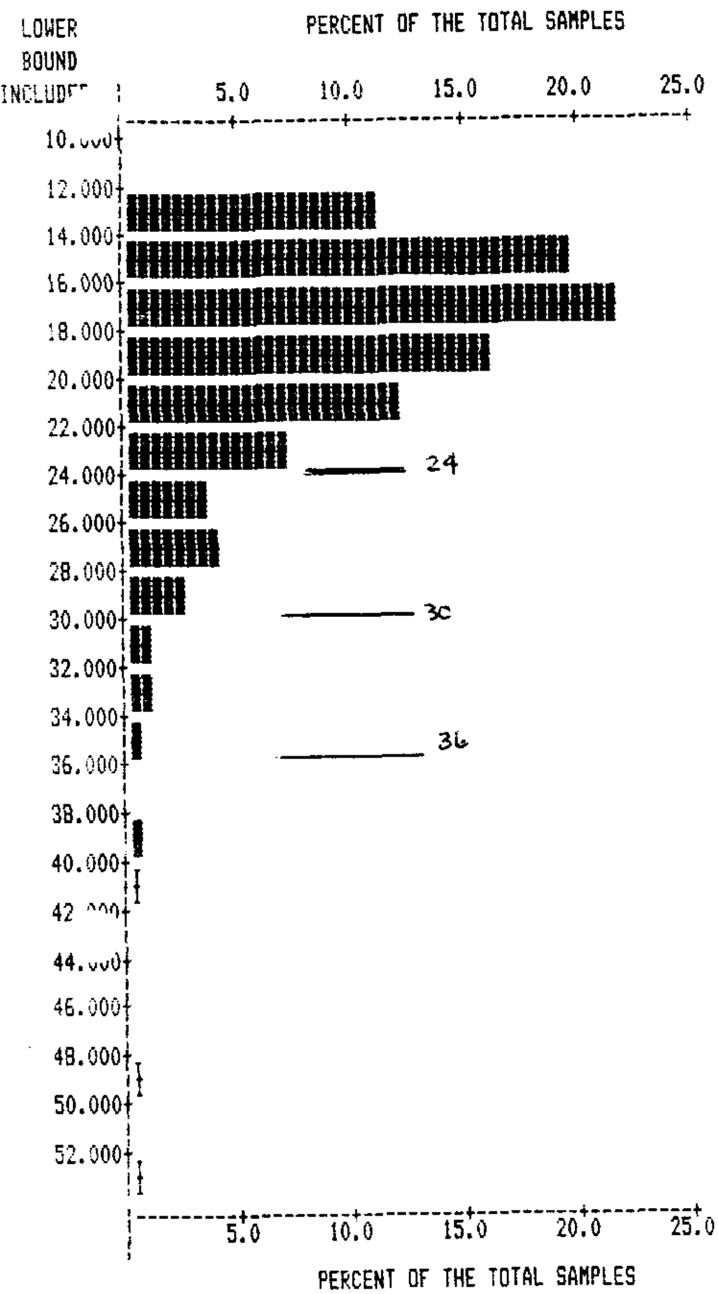
++

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : TAM GRID SOILS

VARIABLE : PB



NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
		0.00	10.000
0	0.00	0.00	12.000
44	11.17	11.17	14.000
77	19.54	30.71	16.000
85	21.57	52.28	18.000
63	15.99	68.27	20.000
47	11.93	80.20	22.000
27	6.85	87.06	24.000
13	3.30	90.36	26.000
15	3.81	94.16	28.000
9	2.28	96.45	30.000
3	0.76	97.21	32.000
4	1.02	98.22	34.000
2	0.51	98.73	36.000
0	0.00	98.73	38.000
2	0.51	99.24	40.000
1	0.25	99.49	42.000
0	0.00	99.49	44.000
0	0.00	99.49	46.000
0	0.00	99.49	48.000
1	0.25	99.75	50.000
0	0.00	99.75	52.000
1	0.25		

VARIABLE:	PB
NUMBER OF OBSERVATIONS:	394
MINIMUM:	12.000
MAXIMUM:	53.000
MEAN:	18.462
STANDARD ERROR OF MEAN:	0.270
STANDARD DEVIATION:	5.359
COEFFICIENT OF VARIATION:	29.029
SKEWNESS:	2.115
KURTOSIS:	7.713

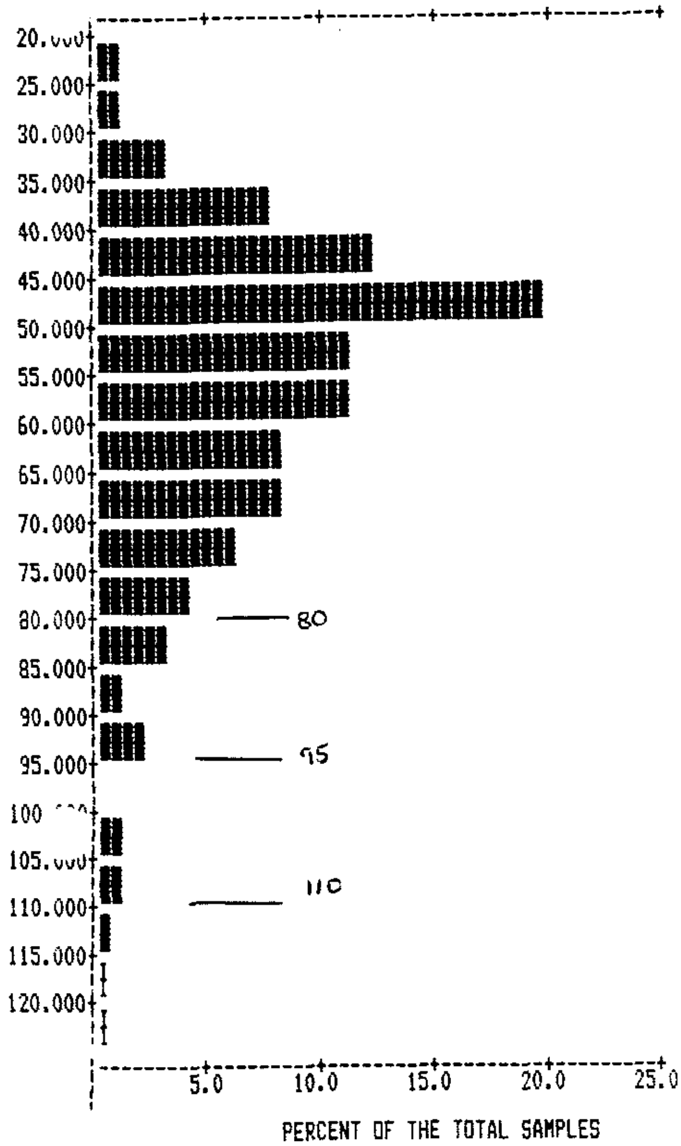
****** **

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

THE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : TAM GRID SOILS

VARIABLE : ZN



LOWER BOUND (category)	NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
20.000	3	0.76	0.00	20.000
25.000	4	1.02	0.76	25.000
30.000	12	3.05	1.78	30.000
35.000	30	7.61	4.82	35.000
40.000	48	12.18	12.44	40.000
45.000	76	19.29	24.62	45.000
50.000	43	10.91	43.91	50.000
55.000	44	11.17	54.82	55.000
60.000	31	7.87	65.99	60.000
65.000	31	7.87	73.86	65.000
70.000	23	5.84	81.73	70.000
75.000	16	4.06	87.56	75.000
80.000	12	3.05	91.62	80.000
85.000	3	0.76	94.67	85.000
90.000	8	2.03	95.43	90.000
95.000	0	0.00	97.46	95.000
100.000	3	0.76	97.46	100.000
105.000	3	0.76	98.22	105.000
110.000	2	0.51	98.98	110.000
115.000	1	0.25	99.49	115.000
120.000	1	0.25	99.75	120.000

VARIABLE:	ZN
NUMBER OF OBSERVATIONS:	394
MINIMUM:	21.000
MAXIMUM:	120.000
MEAN:	55.701
STANDARD ERROR OF MEAN:	0.831
STANDARD DEVIATION:	16.491
COEFFICIENT OF VARIATION:	29.607
SKEWNESS:	1.027
KURTOSIS:	1.454

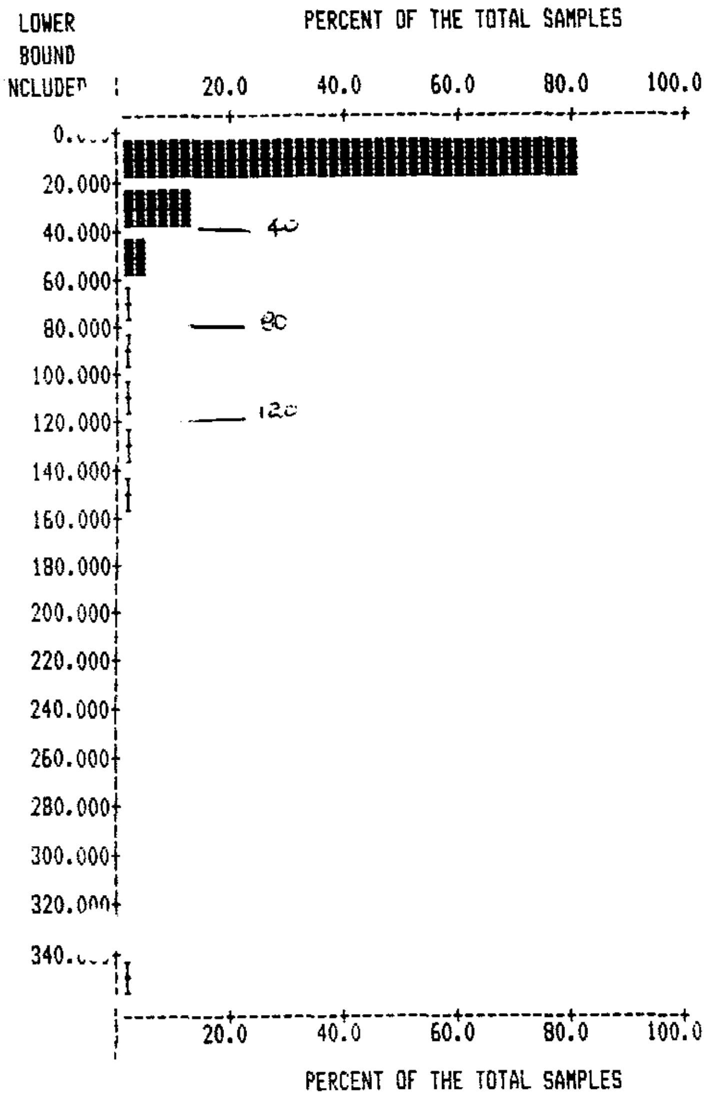
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SA. RANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : TAM GRID SOILS

VARIABLE : NI



NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
		0.00	0.000
313	79.44		
		79.44	20.000
50	12.69		
		92.13	40.000
17	4.31		
		96.45	60.000
7	1.78		
		98.22	80.000
2	0.51		
		98.73	100.000
1	0.25		
		98.98	120.000
1	0.25		
		99.24	140.000
2	0.51		
		99.75	160.000
0	0.00		
		99.75	180.000
0	0.00		
		99.75	200.000
0	0.00		
		99.75	220.000
0	0.00		
		99.75	240.000
0	0.00		
		99.75	260.000
0	0.00		
		99.75	280.000
0	0.00		
		99.75	300.000
0	0.00		
		99.75	320.000
0	0.00		
		99.75	340.000
1	0.25		

VARIABLE:	NI
NUMBER OF OBSERVATIONS:	394
MINIMUM:	1.000
MAXIMUM:	359.000
MEAN:	15.944
STANDARD ERROR OF MEAN:	1.273
STANDARD DEVIATION:	25.265
COEFFICIENT OF VARIATION:	158.461
SKEWNESS:	7.709
KURTOSIS:	88.960

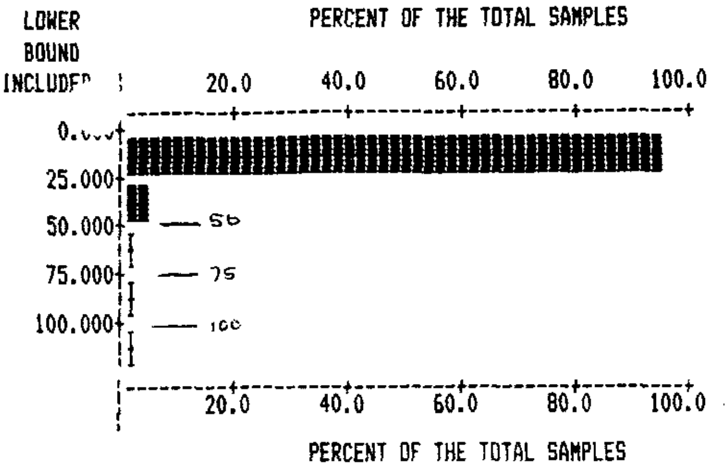
****

WE WILL NOW MAKE ANOTHER PASS THROUGH THE DATA.

HE SAME TRANSFORMATIONS AND SELECTIONS AS LAST RUN WILL BE USED IN THIS RUN.

DATA TITLE : TAM GRID SOILS

VARIABLE : CR



NUMBER OF SAMPLES IN CATEGORY	PERCENTAGE OF THE TOTAL SAMPLES	CUMULATIVE PERCENT BELOW LOWER BOUND	LOWER BOUND
		0.00	0.000
373	94.67	94.67	25.000
13	3.30	97.97	50.000
5	1.27	99.24	75.000
2	0.51	99.75	100.000
1	0.25		

VARIABLE:	CR
NUMBER OF OBSERVATIONS:	394
MINIMUM:	1.000
MAXIMUM:	117.000
MEAN:	9.505
STANDARD ERROR OF MEAN:	0.570
STANDARD DEVIATION:	11.310
COEFFICIENT OF VARIATION:	118.986
SKEWNESS:	5.129
KURTOSIS:	34.017

APPENDIX V

GEOPHYSICAL DATA

STATION	LINE	STATION	MAG TOTAL_FIELD_MAG
-400	0	-400	57064
-375	0	-375	57072.5
-350	0	-350	57060.3
-325	0	-325	57042.2
-300	0	-300	57058.4
-275	0	-275	57039.7
-250	0	-250	57026.2
-225	0	-225	57026.5
-200	0	-200	57021.6
-175	0	-175	57020.4
-150	0	-150	57017.6
-125	0	-125	57006.8
-100	0	-100	57001.1
-75	0	-75	56994.4
-50	0	-50	57001.2
-25	0	-25	56982.8
0	0	0	56965
25	0	25	56956.9
50	0	50	56940.8
75	0	75	56922
100	0	100	56946.9
125	0	125	56953.3
150	0	150	56878.6
175	0	175	56971.3
200	0	200	56896.2
225	0	225	56955.1
250	0	250	56853.2
275	0	275	57037.8
300	0	300	56996.1
325	0	325	56963
350	0	350	56967.6
375	0	375	56961.6
400	0	400	56834.5
-400	100	-400	57065.1
-375	100	-375	57052.7
-350	100	-350	57061.1
-325	100	-325	57038.6
-300	100	-300	57038.5
-275	100	-275	57028.8
-250	100	-250	57026.3
-225	100	-225	57010.7
-200	100	-200	57012
-175	100	-175	57045.2
-150	100	-150	56996.6
-125	100	-125	56991.7
-100	100	-100	56990.9
-75	100	-75	56976.5
-50	100	-50	57001.1
-25 .	100	-25	56983.1
0	100	0	56965.9
25	100	25	56965
50	100	50	56949.4
75	100	75	56918.5
100	100	100	56906.5
125	100	125	56872.3
150	100	150	56909.7
175	100	175	56891.4
200	100	200	56909.7
225	100	[illegible]	[illegible]

STATION	LINE	STATION	MAG TOTAL_FIELD_MAG
250	100	250	56799.8
275	100	275	57048.1
300	100	300	56709.8
325	100	325	57023.4
350	100	350	56737.7
375	100	375	56912.1
400	100	400	57035.4
-400	200	-400	57041.3
-375	200	-375	57024.5
-350	200	-350	57012
-325	200	-325	56993
-300	200	-300	57019
-275	200	-275	57060.1
-250	200	-250	57008.2
-225	200	-225	57031.1
-200	200	-200	56948.1
-175	200	-175	57030.4
-150	200	-150	56962.9
-125	200	-125	57021.8
-100	200	-100	56950.1
-75	200	-75	56935.3
-50	200	-50	56976.5
-25	200	-25	56929.5
0	200	0	56968.3
25	200	25	56965.4
50	200	50	56932.8
75	200	75	56897.1
100	200	100	56872.5
125	200	125	56934.2
150	200	150	56885.1
175	200	175	56865.3
200	200	200	56962.5
225	200	225	56963.6
250	200	250	56793.8
275	200	275	56726.2
300	200	300	56784.4
325	200	325	57046
350	200	350	56949.6
375	200	375	56790
400	200	400	57020.3
-400	300	-400	57154.6
-375	300	-375	57106.5
-350	300	-350	57038.2
-325	300	-325	56999.5
-300	300	-300	57037
-275	300	-275	56976.1
-250	300	-250	56973.8
-225	300	-225	57003
-200	300	-200	56958.8
-175	300	-175	56957.2
-150	300	-150	56966.5
-125	300	-125	56977.8
-100	300	-100	56984
-75	300	-75	57002.8
-50	300	-50	56939.6
-25	300	-25	56941.6
0	300	0	56946.4
25	300	25	57005.9
50	300	50	57069

			MAG
STATION	LINE	STATION	TOTAL_FIELD_MAG
75	300	75	57114.9
100	300	100	57050.9
125	300	125	57144
150	300	150	56946.6
175	300	175	57098.4
200	300	200	56913.5
225	300	225	56897.9
250	300	250	56961.1
275	300	275	56915.6
300	300	300	56622.6
325	300	325	56973.1
350	300	350	56802.9
375	300	375	56714
400	300	400	56840.1
-400	400	-400	57458.3
-375	400	-375	57435.1
-350	400	-350	57308.1
-325	400	-325	57210.3
-300	400	-300	57036.3
-275	400	-275	57112.5
-250	400	-250	57266.9
-225	400	-225	57195.4
-200	400	-200	57147.2
-175	400	-175	57315.2
-150	400	-150	57127.7
-125	400	-125	57116.3
-100	400	-100	57146.3
-75	400	-75	57069.2
-50	400	-50	56889.9
-25	400	-25	56851.2
0	400	0	56984.3
25	400	25	57027.1
50	400	50	56980.7
75	400	75	56986.8
100	400	100	56953.9
125	400	125	56798.6
150	400	150	56643.6
175	400	175	56604.7
200	400	200	56812
225	400	225	56927.4
250	400	250	57183.2
275	400	275	57104.2
300	400	300	57154.9
325	400	325	57126.1
350	400	350	57282.3
375	400	375	57168.1
400	400	400	57386
-400	500	-400	57052.6
-375.	500	-375	57045.8
-350	500	-350	57027.1
-325	500	-325	57079
-300	500	-300	57029.2
-275	500	-275	57020.4
-250	500	-250	57023.3
-225	500	-225	57007.2
-200	500	-200	56998
-175	500	-175	56990.2
-150	500	-150	56964.5

STATION	LINE	STATION	MAG TOTAL_FIELD_MAG
-125	500	-125	56975.1
-100	500	-100	56878.9
-75	500	-75	56905.5
-50	500	-50	56892.1
-25	500	-25	56898.8
0	500	0	56981.6
25	500	25	56895.5
50	500	50	56769
75	500	75	56683.8
100	500	100	56701.8
125	500	125	56591.7
150	500	150	56845.9
175	500	175	56939.6
200	500	200	56995.7
225	500	225	57193.3
250	500	250	57175.4
275	500	275	57407
300	500	300	57835.8
325	500	325	57459.3
350	500	350	57635.8
375	500	375	57172.5
400	500	400	57229
-400	600	-400	57009.9
-375	600	-375	57004.4
-350	600	-350	57028.6
-325	600	-325	56912
-300	600	-300	57030
-275	600	-275	56943.8
-250	600	-250	57038.7
-225	600	-225	57031.7
-200	600	-200	57263
-175	600	-175	57045.1
-150	600	-150	56926.2
-125	600	-125	56942.6
-100	600	-100	56838.8
-75	600	-75	56888.5
-50	600	-50	56943.7
-25	600	-25	56886.2
0	600	0	56884.9
25	600	25	56823
50	600	50	56698.6
75	600	75	56665
100	600	100	56544.5
125	600	125	56974.3
150	600	150	57050.9
175	600	175	56848.5
200	600	200	56799.6
225	600	225	57135.6
250.	600	250	56958
275	600	275	57181.2
300	600	300	57527.1
325	600	325	57624.2
350	600	350	57257.7
375	600	375	57350.5
400	600	400	57592.8
-400	700	-400	56843.5
-375	700	-375	56879

STATION	LINE	STATION	MAG TOTAL_FIELD_MAG
-350	700	-350	56883.8
-325	700	-325	56865
-300	700	-300	56865.4
-275	700	-275	56835.7
-250	700	-250	56889.5
-225	700	-225	56918.1
-200	700	-200	56915.8
-175	700	-175	56950.3
-150	700	-150	56888.5
-125	700	-125	56851.4
-100	700	-100	56950.9
-75	700	-75	56901.2
-50	700	-50	56821.7
-25	700	-25	56741.4
0	700	0	56728.7
25	700	25	56604.6
50	700	50	56652.8
75	700	75	56922.7
100	700	100	57126.1
125	700	125	57006
150	700	150	56906.7
175	700	175	56923.6
200	700	200	56967.5
225	700	225	57115.6
250	700	250	57130.8
275	700	275	57182.2
300	700	300	57162.3
325	700	325	57415.3
350	700	350	57352.1
375	700	375	57230.2
400	700	400	57301.2
-400	800	-400	57027.8
-375	800	-375	57001.1
-350	800	-350	57016.7
-325	800	-325	57064.5
-300	800	-300	56991.4
-275	800	-275	57024.1
-250	800	-250	56961.2
-225	800	-225	56951.7
-200	800	-200	56919.4
-175	800	-175	56869.6
-150	800	-150	56933.2
-125	800	-125	56912.3
-100	800	-100	56798.3
-75	800	-75	56785
-50	800	-50	56689.3
-25	800	-25	56547
0	800	0	56670.6
25.	800	25	56879.4
50	800	50	57029.6
75	800	75	57054.2
100	800	100	56935.9
125	800	125	56978.5
150	800	150	57111.6
175	800	175	57083.5
200	800	200	57292

STATION	LINE	STATION	MAG TOTAL_FIELD_MAG
225	800	225	57157.5
250	800	250	57209.6
275	800	275	57279.9
300	800	300	57070.9
325	800	325	57889.1
350	800	350	57737.5
-400	900	-400	57088.7
-375	900	-375	57101
-350	900	-350	57164.6
-325	900	-325	57152
-300	900	-300	57086.5
-275	900	-275	57006.1
-250	900	-250	56992.8
-225	900	-225	57021.2
-200	900	-200	56978.6
-175	900	-175	56964.2
-150	900	-150	56827.8
-125	900	-125	56778.2
-100	900	-100	56723.4
-75	900	-75	56508
-50	900	-50	56593.4
-25	900	-25	57025.5
0	900	0	56932.2
25	900	25	56911.2
50	900	50	57491.8
75	900	75	57703.1
100	900	100	58349.9
125	900	125	58082.9
150	900	150	57407.6
175	900	175	57247.5
200	900	200	57061.5
225	900	225	57208.8
250	900	250	57347.5
275	900	275	57580.6
300	900	300	57506.5
325	900	325	57602.4
350	900	350	57792.4
375	900	375	57647.6
-400	1000	-400	57165.2
-375	1000	-375	57108.5
-350	1000	-350	57159
-325	1000	-325	57047.6
-300	1000	-300	57040.2
-275	1000	-275	57023.3
-250	1000	-250	56965.8
-225	1000	-225	56948.8
-200	1000	-200	56802.7
-175	1000	-175	56824.1
-150	1000	-150	56683.3
-125	1000	-125	56436.4
-100	1000	-100	56588.5
-75	1000	-75	56517.7
-50	1000	-50	56826.6
-25	1000	-25	57216.4
0	1000	0	57811.3
25	1000	25	57703.7

STATION	LINE	STATION	MAG TOTAL_FIELD_MAG
50	1000	50	57354.4
75	1000	75	57739
100	1000	100	57643.8
125	1000	125	57541.5
150	1000	150	58113.8
175	1000	175	58236.7
200	1000	200	57424.5
225	1000	225	57670.9
250	1000	250	57532.9
275	1000	275	57976.7
300	1000	300	57701.2
325	1000	325	58029.6
350	1000	350	57621.1

STATION	LINE	STATION	SEATTLE IN_PHASE	QUAD	FIELD_STR
-400	0	-400	-13	20	109
-375	0	-375	-6	18	123
-350	0	-350	2	20	128
-325	0	-325	11	19	139
-300	0	-300	13	23	127
-275	0	-275	15	22	132
-250	0	-250	15	21	132
-225	0	-225	14	21	132
-200	0	-200	13	18	128
-175	0	-175	12	14	129
-150	0	-150	9	14	131
-125	0	-125	10	10	128
-100	0	-100	6	12	139
-75	0	-75	7	13	137
-50	0	-50	7	13	141
-25	0	-25	13	15	137
0	0	0	17	9	142
25	0	25	17	5	134
50	0	50	20	4	142
75	0	75	19	1	134
100	0	100	22	-1	136
125	0	125	23	-3	136
150	0	150	26	-3	131
175	0	175	23	-4	142
200	0	200	17	-7	138
225	0	225	12	-5	134
250	0	250	14	-3	130
275	0	275	13	-2	128
300	0	300	13	-3	131
325	0	325	17	-3	134
350	0	350	20	-1	125
375	0	375	31	0	117
400	0	400	29	-1	115
-400	100	-400	5	17	142
-375	100	-375	10	20	127
-350	100	-350	11	21	135
-325	100	-325	10	21	129
-300	100	-300	11	20	130
-275	100	-275	13	19	131
-250	100	-250	12	18	132
-225	100	-225	13	19	130
-200	100	-200	18	18	128
-175	100	-175	19	16	121
-150	100	-150	21	12	130
-125	100	-125	21	16	112
-100	100	-100	19	10	123
-75	100	-75	22	7	124
-50	100	-50	21	7	124
-25	100	-25	21	4	125
0	100	0	22	2	115
25	100	25	24	1	115
50	100	50	30	2	112
75	100	75	32	2	106
100	100	100	36	6	97.3
125	100	125	36	4	95.2
150	100	150	28	0	90.4
175	100	175	23	-1	91.3
200	100	200	20	1	92.1
225	100	225	13	0	88.1
250	100	250	20	-1	[illegible]

STATION	LINE	STATION	SEATTLE IN_PHASE	QUAD	FIELD_STR
275	100	275	34	-2	91.9
300	100	300	31	0	81.3
325	100	325	20	-6	74.6
350	100	350	10	-4	76.9
375	100	375	10	-3	74.4
400	100	400	9	-3	70.8
-400	200	-400	18	4	88.3
-375	200	-375	35	10	73.1
-350	200	-350	27	7	99
-325	200	-325	29	12	92
-300	200	-300	27	11	80.3
-275	200	-275	24	11	89.8
-250	200	-250	32	13	80.8
-225	200	-225	30	10	84.2
-200	200	-200	26	7	87.6
-175	200	-175	24	5	88
-150	200	-150	23	3	88.7
-125	200	-125	23	4	95.2
-100	200	-100	35	1	80.1
-75	200	-75	36	4	86.3
-50	200	-50	30	0	81.1
-25	200	-25	31	3	86.7
0	200	0	31	4	81.3
25	200	25	23	1	83.4
50	200	50	25	5	83.1
75	200	75	23	4	82.9
100	200	100	22	6	83.9
125	200	125	19	6	84.9
150	200	150	15	6	85.1
175	200	175	14	5	84.6
200	200	200	9	5	88.8
225	200	225	11	3	90.6
250	200	250	18	1	80.3
275	200	275	14	0	69.7
300	200	300	8	0	62.9
325	200	325	4	2	62
350	200	350	-3	2	60.3
375	200	375	-11	1	63
400	200	400	-17	2	56.7
-400	300	-400	15	3	105
-375	300	-375	30	0	88.3
-350	300	-350	25	-3	86.5
-325	300	-325	16	-1	88.6
-300	300	-300	17	0	88.5
-275	300	-275	16	-6	85.9
-250	300	-250	9	-5	96.6
-225	300	-225	21	-4	98.4
-200	300	-200	20	-5	97
-175	300	-175	21	-2	108
-150	300	-150	33	0	107
-125	300	-125	32	-1	104
-100	300	-100	26	-6	100
-75	300	-75	20	-3	96.4
-50	300	-50	19	0	93.4
-25	300	-25	15	0	92.9
0	300	0	6	0	92.2
25	300	25	2	0	92.2
50	300	50	0	0	93.3
75	300	75	-3	0	86.4

STATION	LINE	STATION	SEATTLE IN_PHASE	QUAD	FIELD_STR
100	300	100	-8	3	87.9
125	300	125	1	2	98.2
150	300	150	9	2	94
175	300	175	9	3	81.1
200	300	200	13	3	85.7
225	300	225	5	2	78.5
250	300	250	1	0	73.3
275	300	275	-11	0	74.5
300	300	300	-21	1	72.8
325	300	325	-28	-2	79.3
350	300	350	-33	-2	81.7
375	300	375	-34	-4	78.2
400	300	400	-32	-7	77.1
-400	400	-400	0	2	143
-375	400	-375	-1	-1	144
-350	400	-350	-7	-9	145
-325	400	-325	-6	-9	156
-300	400	-300	4	-5	153
-275	400	-275	7	-11	151
-250	400	-250	10	-12	144
-225	400	-225	6	-14	135
-200	400	-200	7	-13	128
-175	400	-175	8	-10	127
-150	400	-150	7	-8	119
-125	400	-125	11	-2	112
-100	400	-100	9	-4	106
-75	400	-75	5	-3	102
-50	400	-50	4	-1	108
-25	400	-25	7	-1	103
0	400	0	-1	-5	104
25	400	25	0	-4	70.7
50	400	50	1	-4	73.5
75	400	75	1	-3	72.2
100	400	100	3	-2	65.6
125	400	125	0	-1	61.8
150	400	150	-9	-2	56.5
175	400	175	-22	-2	56.5
200	400	200	-25	-6	59.2
225	400	225	-31	-8	63.7
250	400	250	-36	-8	66.8
275	400	275	-37	-3	72.9
300	400	300	-37	-4	76.9
325	400	325	-35	-4	82
350	400	350	-39	-8	86.8
375	400	375	-32	-4	91.1
400	400	400	-36	-9	88.5
-400	500	-400	2	4	156
-375	500	-375	11	5	147
-350	500	-350	13	3	150
-325	500	-325	16	4	147
-300	500	-300	15	2	140
-275	500	-275	16	2	135
-250	500	-250	13	0	130
-225	500	-225	14	1	123
-200	500	-200	12	2	122
-175	500	-175	8	3	121
-150	500	-150	8	6	119
-125	500	-125	6	7	115

STATION	LINE	STATION	SEATTLE IN_PHASE	QUAD	FIELD_STR
-100	500	-100	5	7	116
-75	500	-75	4	7	114
-50	500	-50	5	7	113
-25	500	-25	6	6	105
0	500	0	1	4	98.6
25	500	25	-5	0	97
50	500	50	-5	3	89
75	500	75	-3	9	88.2
100	500	100	-18	7	85.7
125	500	125	-26	1	89.4
150	500	150	-36	-5	82.3
175	500	175	-46	0	93.1
200	500	200	-50	2	98.3
225	500	225	-49	1	104
250	500	250	-49	0	104
275	500	275	-44	-2	112
300	500	300	-40	-4	108
325	500	325	-34	-3	110
350	500	350	-38	-8	108
375	500	375	-35	-5	109
400	500	400	-40	-8	109
-400	600	-400	24	7	124
-375	600	-375	22	5	119
-350	600	-350	17	5	122
-325	600	-325	16	6	118
-300	600	-300	15	6	116
-275	600	-275	10	7	111
-250	600	-250	7	4	110
-225	600	-225	-7	1	110
-200	600	-200	-10	3	116
-175	600	-175	-2	5	119
-150	600	-150	0	4	115
-125	600	-125	-1	2	101
-100	600	-100	-5	4	103
-75	600	-75	-18	-2	102
-50	600	-50	-16	1	108
-25	600	-25	-15	0	110
0	600	0	-23	-2	103
25	600	25	-7	0	103
50	600	50	-20	0	90.7
75	600	75	-29	0	93.8
100	600	100	-33	-3	93.6
125	600	125	-27	-3	91.7
150	600	150	-33	1	96.1
175	600	175	-37	1	101
200	600	200	-35	2	106
225	600	225	-29	0	104
250	600	250	-24	0	102
275	600	275	-26	0	102
300	600	300	-38	-1	96.6
325	600	325	-38	1	98.5
350	600	350	-51	-7	95.4
375	600	375	-39	-4	126
400	600	400	-33	-5	123
-400	700	-400	19	8	121
-375	700	-375	10	7	122
-350	700	-350	6	7	124

STATION	LINE	STATION	SEATTLE IN_PHASE	QUAD	FIELD_STR
-325	700	-325	10	12	121
-300	700	-300	11	11	119
-275	700	-275	13	9	115
-250	700	-250	11	8	114
-225	700	-225	14	5	119
-200	700	-200	12	2	113
-175	700	-175	7	1	115
-150	700	-150	2	2	115
-125	700	-125	-2	0	110
-100	700	-100	-5	2	116
-75	700	-75	-6	3	113
-50	700	-50	-10	2	114
-25	700	-25	-6	5	108
0	700	0	-19	6	106
25	700	25	-25	7	110
50	700	50	-29	5	114
75	700	75	-30	6	112
100	700	100	-30	8	115
125	700	125	-27	6	114
150	700	150	-30	4	104
175	700	175	-31	2	103
200	700	200	-40	0	109
225	700	225	-45	0	108
250	700	250	-48	-3	111
275	700	275	-53	-5	113
300	700	300	-52	-12	120
325	700	325	-47	-10	126
350	700	350	-29	-8	161
375	700	375	-19	-4	152
400	700	400	-16	-9	149
-400	800	-400	25	6	81.1
-375	800	-375	24	7	82.1
-350	800	-350	20	6	82.2
-325	800	-325	15	5	82.7
-300	800	-300	14	2	85
-275	800	-275	13	1	87.8
-250	800	-250	13	2	86.9
-225	800	-225	7	0	83.6
-200	800	-200	2	0	83.4
-175	800	-175	-1	-2	87.6
-150	800	-150	-4	-1	90
-125	800	-125	-4	0	93.2
-100	800	-100	-7	1	95.6
-75	800	-75	-11	0	94.3
-50	800	-50	-12	0	101
-25	800	-25	-21	-1	101
0	800	0	-23	-3	108
25	800	25	-18	-3	129
50	800	50	-26	-7	123
75	800	75	-36	-7	123
100	800	100	-37	-9	125
125	800	125	-34	-6	127
150	800	150	-35	-1	127
175	800	175	-36	0	140
200	800	200	-37	-2	136
225	800	225	-38	-5	143

STATION	LINE	STATION	SEATTLE IN_PHASE	QUAD	FIELD_STR
250	800	250	-40	-7	146
275	800	275	-39	-9	151
300	800	300	-32	-4	142
325	800	325	-11	9	125
350	800	350	-21	1	138
-400	900	-400	1	1	81.3
-375	900	-375	-4	0	80.8
-350	900	-350	0	1	85.6
-325	900	-325	1	2	84.6
-300	900	-300	0	1	86.7
-275	900	-275	0	1	87.5
-250	900	-250	0	1	87.3
-225	900	-225	-3	0	90.8
-200	900	-200	-4	0	90.2
-175	900	-175	-3	0	90.4
-150	900	-150	1	0	92.9
-125	900	-125	-4	0	90.3
-100	900	-100	-6	1	88.4
-75	900	-75	-9	0	97.5
-50	900	-50	-10	-2	94
-25	900	-25	-13	-8	92.9
0	900	0	-16	-8	93.4
25	900	25	-18	-8	90.1
50	900	50	-21	-9	95.2
75	900	75	-24	-9	97.1
100	900	100	-28	-10	96.1
125	900	125	-29	-11	98
150	900	150	-32	-11	101
175	900	175	-36	-8	97
200	900	200	-21	-7	104
225	900	225	-16	-5	102
250	900	250	-14	-4	92.2
275	900	275	-17	0	90.6
300	900	300	-18	-1	88.4
325	900	325	-18	-1	94.7
350	900	350	-17	0	96.6
375	900	375	-11	1	102
-400	1000	-400	5	3	112
-375	1000	-375	4	2	113
-350	1000	-350	8	3	113
-325	1000	-325	13	4	112
-300	1000	-300	10	2	108
-275	1000	-275	14	3	110
-250	1000	-250	13	1	102
-225	1000	-225	16	1	103
-200	1000	-200	18	1	99.5
-175	1000	-175	11	1	87.4
-150	1000	-150	2	1	92.8
-125	1000	-125	-4	0	96.2
-100	1000	-100	-5	-2	99.5
-75	1000	-75	-10	-5	96.9
-50	1000	-50	-17	-6	94.6
-25	1000	-25	-20	-6	94.7
0	1000	0	-25	-7	98.7
25	1000	25	-30	-8	94.1
50	1000	50	-29	-5	101

STATION	LINE	STATION	SEATTLE IN_PHASE	QUAD	FIELD_STR
75	1000	75	-29	-2	101
100	1000	100	-27	0	105
125	1000	125	-22	0	111
150	1000	150	-18	3	106
175	1000	175	-16	5	104
200	1000	200	-16	4	99.4
225	1000	225	-16	4	99.9
250	1000	250	-16	1	104
275	1000	275	-16	0	106
300	1000	300	-15	2	109
325	1000	325	-13	2	109
350	1000	350	-6	5	112

ANNAPOLIS

STATION	LINE	STATION	IN_PHASE	QUAD	FIELD_STR
-400	0	-400	13	-16	9.03
-375	0	-375	10	-17	8.9
-350	0	-350	7	-16	9.53
-325	0	-325	2	-19	9.68
-300	0	-300	3	-19	9.76
-275	0	-275	1	-19	9.71
-250	0	-250	4	-19	9.92
-225	0	-225	0	-18	10.2
-200	0	-200	2	-16	10.1
-175	0	-175	6	-15	9.62
-150	0	-150	6	-12	10.5
-125	0	-125	8	-10	10.3
-100	0	-100	7	-9	10.1
-75	0	-75	6	-9	10.3
-50	0	-50	5	-11	9.86
-25	0	-25	1	-12	10.1
0	0	0	0	-7	10.3
25	0	25	9	6	11.8
50	0	50	12	4	11.6
75	0	75	18	3	10.9
100	0	100	16	0	11.9
125	0	125	16	-2	10.6
150	0	150	18	0	9.65
175	0	175	17	-1	11.7
200	0	200	11	-3	10.1
225	0	225	10	-2	9.89
250	0	250	8	0	10.1
275	0	275	12	0	9.37
300	0	300	13	1	8.26
325	0	325	16	1	11
350	0	350	18	1	10.3
375	0	375	19	1	10.9
400	0	400	22	1	10.4
-400	100	-400	4	-17	10.5
-375	100	-375	8	-17	10.5
-350	100	-350	9	-19	9.65
-325	100	-325	7	-19	9.33
-300	100	-300	4	-18	9.4
-275	100	-275	5	-17	9.53
-250	100	-250	3	-16	9.51
-225	100	-225	1	-17	9.26
-200	100	-200	-3	-16	9.36
-175	100	-175	-4	-14	9.19
-150	100	-150	-6	-13	9.1
-125	100	-125	-6	-12	9.1
-100	100	-100	-6	-10	9.1
-75	100	-75	-6	-8	9.13
-50	100	-50	-4	-8	8.79
-25	100	-25	-4	-6	8.58
0	100	0	-5	-5	8.46
25	100	25	-4	-4	8.1
50	100	50	-8	-5	8.15
75	100	75	-12	-5	7.98
100	100	100	-16	-8	7.46
125	100	125	-6	-5	7.47
150	100	150	0	-1	7.42
175	100	175	0	-1	7.23
200	100	200	-3	-1	7.55
225	100	225	-2	0	7.14
250	100	250	2	2	7.4

ANNAPOLIS

STATION	LINE	STATION	IN_PHASE	QUAD	FIELD_STR
275	100	275	-1	0	7.1
300	100	300	0	0	6.81
325	100	325	1	3	6.89
350	100	350	2	2	6.79
375	100	375	5	3	6.67
400	100	400	12	3	6.36
-400	200	-400	-21	-5	9.18
-375	200	-375	-12	-5	9.56
-350	200	-350	-10	-5	10.4
-325	200	-325	-7	-9	9.87
-300	200	-300	-4	-8	9.61
-275	200	-275	-8	-10	9.37
-250	200	-250	-11	-13	8.86
-225	200	-225	-10	-10	9.13
-200	200	-200	-11	-9	8.78
-175	200	-175	-9	-5	8.79
-150	200	-150	-9	-8	7.4
-125	200	-125	-14	-9	8.65
-100	200	-100	-5	-4	8.37
-75	200	-75	-8	-7	7.89
-50	200	-50	-7	-5	7.56
-25	200	-25	-5	-5	7.62
0	200	0	-3	-4	7.43
25	200	25	-2	-4	7.54
50	200	50	-2	-4	7.57
75	200	75	-1	-4	7.44
100	200	100	-2	-5	7.56
125	200	125	-3	-4	7.5
150	200	150	-1	-5	7.71
175	200	175	0	-5	7.8
200	200	200	5	-6	7.98
225	200	225	9	-5	7.64
250	200	250	16	-3	7.19
275	200	275	18	-3	6.55
300	200	300	15	-4	6.43
325	200	325	12	-4	6.21
350	200	350	11	-4	6.37
375	200	375	16	0	6.44
400	200	400	20	-1	6.18
-400	300	-400	0	6	9.08
-375	300	-375	10	10	8.2
-350	300	-350	6	9	7.68
-325	300	-325	2	7	7.9
-300	300	-300	4	5	7.88
-275	300	-275	11	9	7.61
-250	300	-250	3	8	7.42
-225	300	-225	-4	5	7.42
-200	300	-200	-6	4	7.61
-175	300	-175	-12	-2	8.1
-150	300	-150	-9	-2	8.73
-125	300	-125	-8	-1	8.7
-100	300	-100	-4	-2	8.66
-75	300	-75	-1	-3	8.83
-50	300	-50	2	-4	8.48
-25	300	-25	4	-4	8.97
0	300	0	15	-3	8.51
25	300	25	15	-3	8.34
50	300	50	20	-2	7.71
75	300	75	22	-1	7.31

STATION	LINE	ANNAPOLIS STATION	IN_PHASE	QUAD	FIELD_STR
100	300	100	19	-1	7.65
125	300	125	11	0	8.01
150	300	150	9	-2	7.72
175	300	175	9	-3	7.83
200	300	200	6	-3	8.06
225	300	225	9	-4	8.21
250	300	250	18	-3	7.59
275	300	275	19	0	8.35
300	300	300	18	-3	8.28
325	300	325	25	-1	8.25
350	300	350	31	-1	8
375	300	375	30	0	7.15
400	300	400	34	0	7.36
-400	400	-400	-5	1	10.9
-375	400	-375	0	3	11.9
-350	400	-350	9	10	11.6
-325	400	-325	5	8	11.5
-300	400	-300	0	4	12.3
-275	400	-275	3	5	12.5
-250	400	-250	8	6	11.9
-225	400	-225	9	9	10.8
-200	400	-200	7	9	10.1
-175	400	-175	1	5	10.3
-150	400	-150	-4	2	10.5
-125	400	-125	-4	0	10.4
-100	400	-100	-2	0	10.5
-75	400	-75	-1	0	9.95
-50	400	-50	-3	-1	10.7
-25	400	-25	-6	-1	10.7
0	400	0	6	5	7.63
25	400	25	11	6	7.87
50	400	50	13	5	7.96
75	400	75	14	4	8.18
100	400	100	18	3	8.16
125	400	125	24	2	7.94
150	400	150	24	2	7.63
175	400	175	29	2	7.11
200	400	200	26	2	7.22
225	400	225	27	2	7.36
250	400	250	27	1	7.34
275	400	275	27	2	7.45
300	400	300	30	4	6.95
325	400	325	31	5	7.47
350	400	350	36	9	7.24
375	400	375	27	3	7.46
400	400	400	35	5	7.35
-400	500	-400	-20	-5	10.5
-375	500	-375	-16	-5	11.2
-350	500	-350	-12	-5	12
-325	500	-325	-10	-5	12.1
-300	500	-300	-7	-4	12.1
-275	500	-275	-7	-4	12
-250	500	-250	-9	-4	11.2
-225	500	-225	-3	-4	12
-200	500	-200	-4	-5	11.6
-175	500	-175	-1	-4	10.7
-150	500	-150	-1	-6	11.6
-125	500	-125	-3	-9	10.4

STATION	LINE	STATION	ANNAPOLIS IN_PHASE	QUAD	FIELD_STR
-100	500	-100	-3	-9	10.8
-75	500	-75	-7	-10	10.1
-50	500	-50	-1	-8	11
-25	500	-25	0	-6	10.9
0	500	0	6	-4	10.9
25	500	25	8	-2	10.6
50	500	50	5	-4	10.2
75	500	75	9	0	10.5
100	500	100	5	-2	11.5
125	500	125	11	-2	11.7
150	500	150	16	-1	11.5
175	500	175	17	-5	12.2
200	500	200	21	-4	12.1
225	500	225	27	-2	11.5
250	500	250	33	-1	11.1
275	500	275	33	0	10.1
300	500	300	31	1	10.5
325	500	325	25	1	10.3
350	500	350	26	3	11.5
375	500	375	26	3	11.2
400	500	400	25	2	11
-400	600	-400	-31	-12	11.5
-375	600	-375	-30	-11	10.8
-350	600	-350	-29	-9	10.8
-325	600	-325	-22	-7	12.9
-300	600	-300	-23	-6	11.3
-275	600	-275	-10	-5	13.2
-250	600	-250	0	-3	13.4
-225	600	-225	8	1	11.2
-200	600	-200	4	0	11.6
-175	600	-175	0	-3	11.9
-150	600	-150	0	-4	12.8
-125	600	-125	5	-4	13.5
-100	600	-100	3	-5	12.9
-75	600	-75	8	0	12
-50	600	-50	1	-2	11.2
-25	600	-25	3	-2	13.2
0	600	0	8	0	10.2
25	600	25	17	8	11.4
50	600	50	16	1	11.2
75	600	75	12	0	12.1
100	600	100	14	1	10.9
125	600	125	12	1	11.4
150	600	150	2	0	11.2
175	600	175	6	0	10.8
200	600	200	4	0	12.5
225	600	225	3	-2	12.8
250	600	250	5	-2	12.2
275	600	275	6	-2	12.4
300	600	300	16	-2	11.5
325	600	325	16	-4	11.8
350	600	350	30	0	10.1
375	600	375	26	0	10.6
400	600	400	20	2	11.5
-400	700	-400	-31	-10	12.4
-375	700	-375	-28	-9	11.1
-350	700	-350	-21	-7	12.2

		ANNAPOLIS			
STATION	LINE	STATION	IN_PHASE	QUAD	FIELD_STR
-325	700	-325	-28	-10	11.8
-300	700	-300	-20	-6	13.2
-275	700	-275	-22	-4	12.3
-250	700	-250	-18	-3	11.6
-225	700	-225	-14	-2	12.7
-200	700	-200	-8	0	12.6
-175	700	-175	-7	0	12.8
-150	700	-150	-10	-1	11.6
-125	700	-125	0	0	12.8
-100	700	-100	-6	-2	13.1
-75	700	-75	-7	-1	12.6
-50	700	-50	-4	-1	12.5
-25	700	-25	-1	-3	12.8
0	700	0	-1	-2	12.1
25	700	25	6	-3	12.4
50	700	50	8	-6	12.5
75	700	75	11	-7	11.9
100	700	100	10	-8	12
125	700	125	8	-6	12.3
150	700	150	5	-5	12
175	700	175	9	-3	12
200	700	200	12	-1	11.9
225	700	225	16	-1	11.8
250	700	250	14	-2	11.3
275	700	275	19	-2	11.3
300	700	300	22	0	11.2
325	700	325	21	4	8.03
350	700	350	18	4	11.4
375	700	375	17	6	10
400	700	400	23	6	10.4
-400	800	-400	-21	-3	9.08
-375	800	-375	-19	-3	10.1
-350	800	-350	-15	-4	9.59
-325	800	-325	-13	-3	10.3
-300	800	-300	-7	-1	10.4
-275	800	-275	-1	0	9.71
-250	800	-250	-1	0	10.6
-225	800	-225	2	1	10.6
-200	800	-200	8	2	9.73
-175	800	-175	7	2	10.7
-150	800	-150	8	2	10.3
-125	800	-125	8	1	9.9
-100	800	-100	7	0	9.6
-75	800	-75	7	0	10.6
-50	800	-50	12	0	9.19
-25	800	-25	13	3	10
0	800	0	15	4	9.96
25	800	25	1	3	11.4
50	800	50	3	5	11.4
75	800	75	8	7	11.3
100	800	100	16	8	10.5
125	800	125	13	5	10
150	800	150	5	1	10.3
175	800	175	4	1	10.5
200	800	200	5	1	10.9
225	800	225	9	1	11.3

STATION	LINE	STATION	ANNAPOLIS IN_PHASE	QUAD	FIELD_STR
250	800	250	7	3	9.37
275	800	275	11	2	10.9
300	800	300	10	-1	10.4
325	800	325	4	-2	10.7
350	800	350	10	0	10
-400	900	-400	-3	2	9.35
-375	900	-375	-3	3	9.97
-350	900	-350	-2	1	9.74
-325	900	-325	-2	1	9.63
-300	900	-300	0	0	9.61
-275	900	-275	2	0	9.95
-250	900	-250	4	0	10.1
-225	900	-225	10	2	8.55
-200	900	-200	6	2	10.5
-175	900	-175	7	2	10.6
-150	900	-150	8	2	9.69
-125	900	-125	4	1	10.3
-100	900	-100	1	0	11.6
-75	900	-75	5	0	9.83
-50	900	-50	1	0	11.6
-25	900	-25	3	2	11.2
0	900	0	10	6	9.45
25	900	25	9	6	11.2
50	900	50	10	6	10.6
75	900	75	13	7	11.4
100	900	100	13	9	11.7
125	900	125	17	11	11
150	900	150	19	13	11.2
175	900	175	20	12	11.1
200	900	200	15	5	10.7
225	900	225	11	0	10.4
250	900	250	16	-1	10.6
275	900	275	24	0	10.1
300	900	300	26	2	10.4
325	900	325	25	4	10.6
350	900	350	24	4	10.6
375	900	375	22	2	10.3
-400	1000	-400	-13	3	9.87
-375	1000	-375	-16	1	9.4
-350	1000	-350	-13	2	9.97
-325	1000	-325	-14	0	9.98
-300	1000	-300	-15	0	9.74
-275	1000	-275	-14	0	10.1
-250	1000	-250	-12	0	9.53
-225	1000	-225	-12	1	10.2
-200	1000	-200	-10	2	10
-175	1000	-175	-11	3	10.4
-150	1000	-150	-10	3	10.7
-125	1000	-125	-7	4	10.1
-100	1000	-100	-7	2	9.94
-75	1000	-75	-6	1	9.52
-50	1000	-50	-2	1	10.9
-25	1000	-25	1	3	10.8
0	1000	0	8	5	10.9
25	1000	25	10	6	10.8
50	1000	50	14	7	10.3

ANNAPOLIS

STATION	LINE	STATION	IN_PHASE	QUAD	FIELD_STR
75	1000	75	13	4	9.88
100	1000	100	10	3	9.87
125	1000	125	8	2	10.1
150	1000	150	10	0	9.82
175	1000	175	9	-1	10.9
200	1000	200	9	-3	10.9
225	1000	225	4	-7	11
250	1000	250	7	-4	11.1
275	1000	275	12	-3	11.2
300	1000	300	23	1	10.7
325	1000	325	27	3	9.09
350	1000	350	25	1	10.1

APPENDIX VI

COST STATEMENT

COST STATEMENT - TAM 90 GROUP

1.0 Fees and Wages

L. Lee, Geologist	11	days @ $250/day	$2,750.00
G. Duso, Assistant	8	days @ $150/day	1,200.00
M. Kirker, Assistant	8	days @ $150/day	1,200.00
			$5,150.00

2.0 Analytical Costs

Rock Samples:		
	42 geochem samples @ $20/sample	$840.00
	3 litho samples @ $30/sample	90.00
Soil Samples:	364 samples @ $15/sample	5,460.00
		$6,390.00

3.0 Geophysical Survey

Quest Canada Ltd.,	8.8 km @ $180/km	$1,584.00

4.0 Transportation and Accommodation

Truck rental:		
	1 Toyota 4-Runner 11 days @ $40/day	$440.00
	1 Toyota 4-Runner 9 days @ $40/day	360.00
Fuel and Supplies		800.00
Room and Board	27 man days @ $40/day	1,080.00
		$2,680.00

TOTAL: $15,804.00

APPENDIX VII

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Linda J. Lee certify that:

1.0 I am an exploration geologist residing at Lind Creek Road (Box 248), Greenwood, B.C.

2.0 I obtained a B.A.Sc. in Geological Engineering (Honours) in the Mineral Exploration Option, from the University of British Columbia (1985).

3.0 I graduated with an M.Sc. in Geology and Geophysics from the University of Calgary (1988).

4.0 I have practised my profession continually since 1987 and have worked in the mineral exploration industry since 1980.

5.0 I am employed by Minnova Inc. and have personally carried out or supervised the work covered in this report.

Date: Nov 28/90

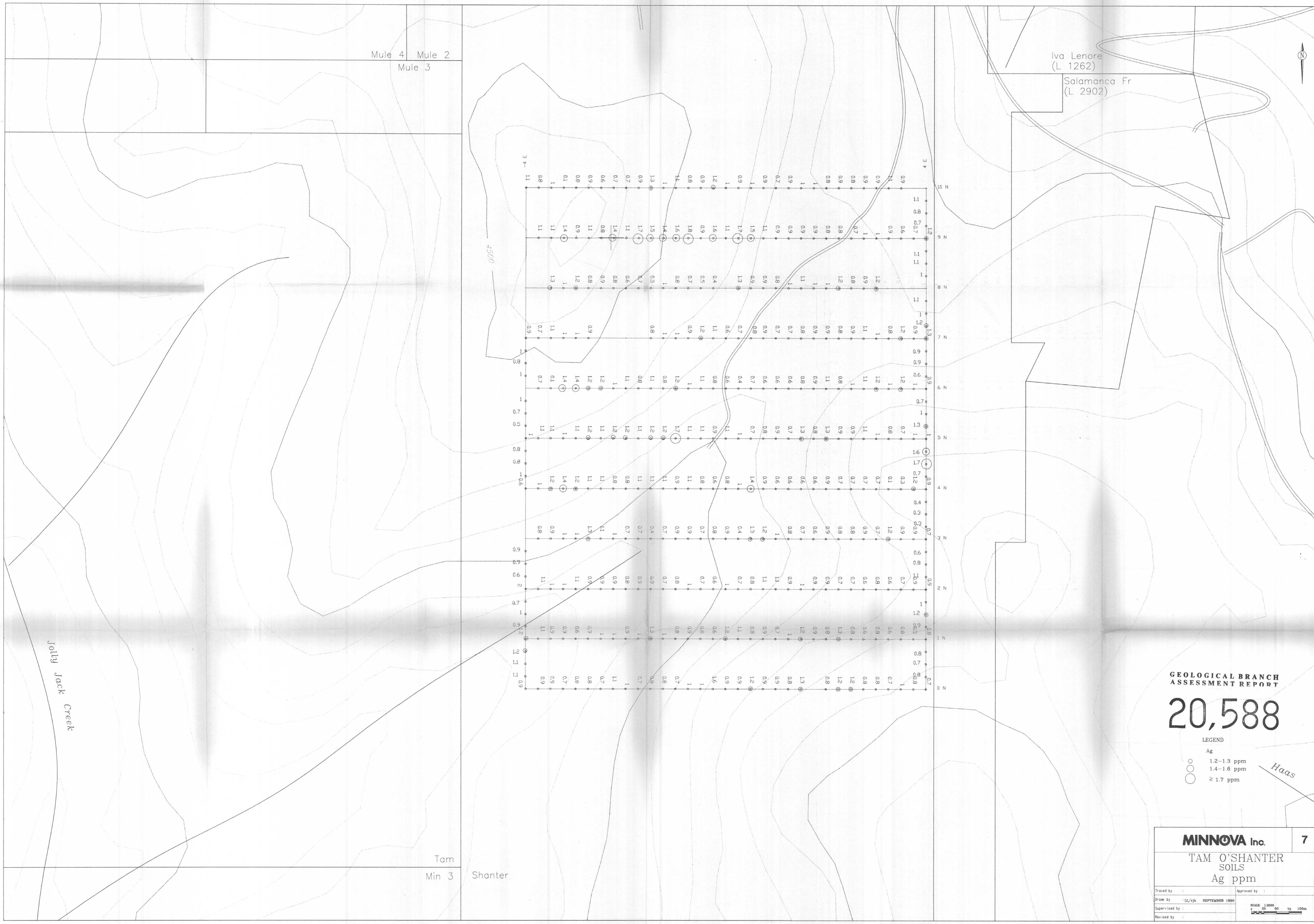
L. Lee

Linda Lee

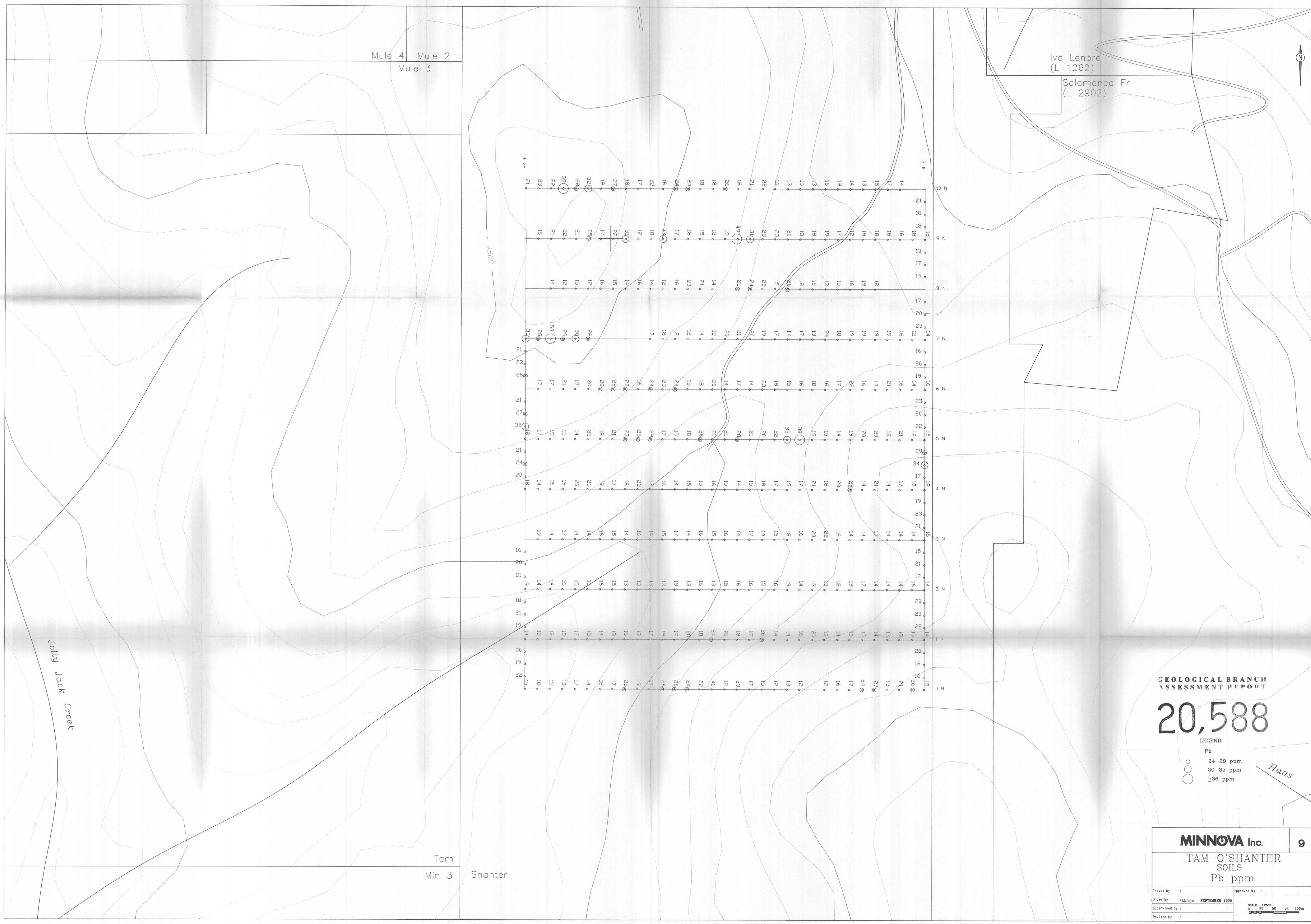

Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
BENGAL ZONE
SINTER ZONE
GOLDEN FLEECE WORKINGS
TO TAM O'SHANTER ACCESS ROAD
TO KERR CREEK ROAD
Jolly Jack Creek
Haas
Tam
Min 3
Shanter
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
LEGEND
TERTIARY
6 MARRON FORMATION
6a Volcanics Generally Grey, Andesite-Trachyandesite
6a1 Lower Flow; fgr, drk grey, minor coarse fsp phenos and rare fine mafics
6a2 Middle Flow; fgr, grey with locally up to 10% coarse fsp and rear px, very similar to 6a1
6a3 Upper flow; maroon to grey with 10%-20% coarse fsp phenos and 5% biotite+pyroxene xtals
5 KETTLE RIVER FORMATION
5b Sandstone/tuff;fine sandstone to sandy fsp xtal tuff, strongly silicified or clay altered where exposed on surface
5a Conglomerate; finne pebble conglomerate, dominantly chert and chert gst clasts in tuffaceous matrix
CRETACEOUS
4 NELSON INTRUSIVES
Fine to medium grained diorite intrusive
LATE PALEOZOIC-PERMIAN OR CARBONIFEROUS
2 KNOB HILL GROUP
2c Chert; aphanitic, grey, may be rextallized and pyritic
2b Chert Pebble Conglomerate; Fine Chert granules to pebble in grey siliceous matrix
2a Chert Greenstone; grey-green, fine grained-aphanitic, massive; lesser greenstone
FAULT
GEOLOGICAL CONTACT
STRIKE/DIP OF FRACTURE/FOLIATION
STRIKE/DIP OF VEINING
STRIKE/DIP OF CONTACT
ADIT LOCATION
TRENCH LOCATION
SHAFT/DECLINE
PIT LOCATION
ROCK SAMPLE LOCATION
OUTCROP
TALUS
DRILL HOLE LOCATION
ROAD
CREEK
ARGILLIC ALTERATION
SILICIFICATION
MINNOVA Inc.
MAP No. 4
RAINBOW-TAM O'SHANTER PROPERTY
TAM GRID
GEOLOGY &
ROCK SAMPLE LOCATIONS
FILE: TAM10SL.DWG
Drawn by : LL/sg
Date : NOVEMBER 1990
SCALE: 1:2500
0 25 50 75 100m

Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
4 E
4 E
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
0 N
Jolly Jack Creek
Haas
Tam
Min 3
Shanter
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
SAMPLE LOCATION X Au ppb, Ag ppm, Cu ppm
MINNOVA Inc.
MAP No.
5
RAINBOW–TAM O'SHANTER PROPERTY
TAM GRID
ROCK SAMPLE RESULTS
(Au, Ag, Cu)
FILE: TAM10SL.DWG
Drawn by : LL/sg
Date : NOVEMBER 1990
SCALE: 1:2500
0 25 50 75 100m

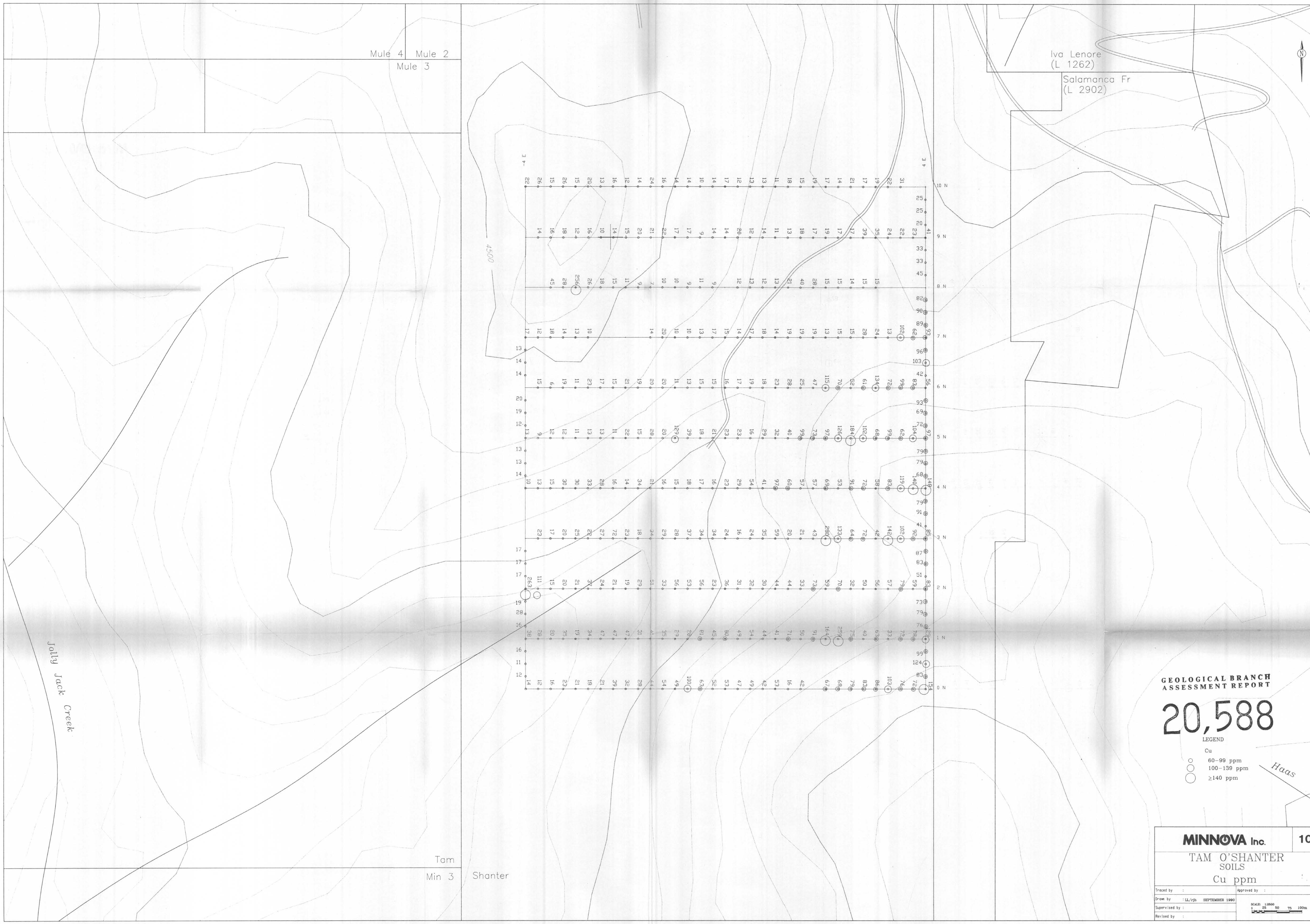

Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
N
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
0 N
Jolly Jack Creek
Haas
Tam
Min 3
Shanter
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
LEGEND
Au
10-19 ppb
20-39 ppb
≥40 ppb
MINNOVA Inc.
6
RAINBOW-TAM O'SHANTER PROPERTY
TAM GRID
SOILS
Au ppb
Traced by :
Approved by :
Drawn by : LL/rjb SEPTEMBER 1990
Supervised by :
Revised by :
SCALE: 1:2500


Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
Jolly Jack Creek
Tam
Min 3
Shanter
Haas
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
0 N
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
LEGEND
Ag
1.2–1.3 ppm
1.4–1.6 ppm
≥ 1.7 ppm
MINNOVA Inc.
7
TAM O'SHANTER
SOILS
Ag ppm
Drawn by : LL/vjh SEPTEMBER 1990
SCALE 1:2500

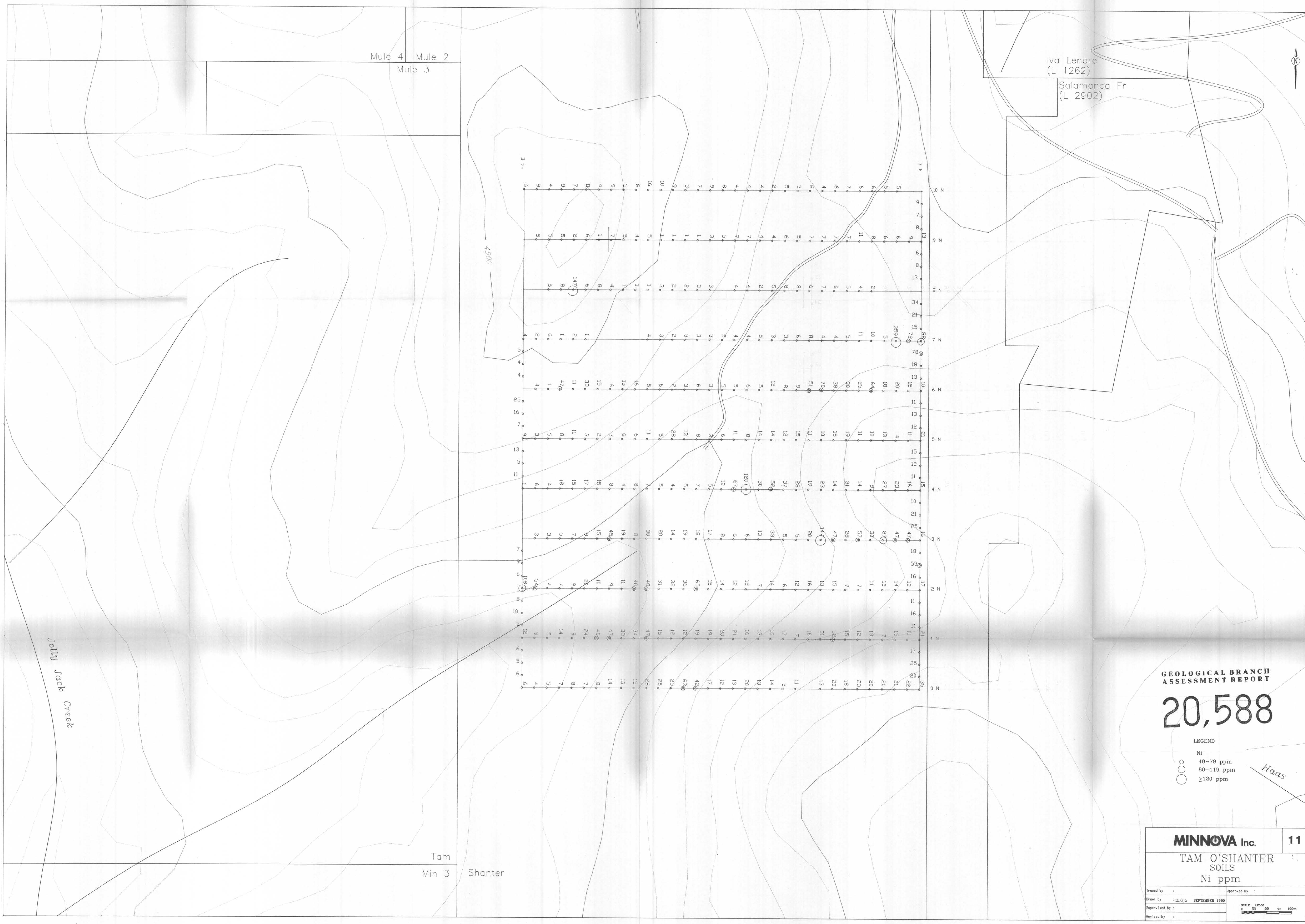
Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
4500
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
0 N
Jolly Jack Creek
Haas
Tam
Min 3
Shanter
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
LEGEND
Zn
80–94 ppm
95–109 ppm
≥100 ppm
MINNOVA Inc.
8
TAM O'SHANTER
SOILS
Zn ppm
Traced by
Approved by
Drawn by LL/rjh SEPTEMBER 1990
Supervised by
Revised by



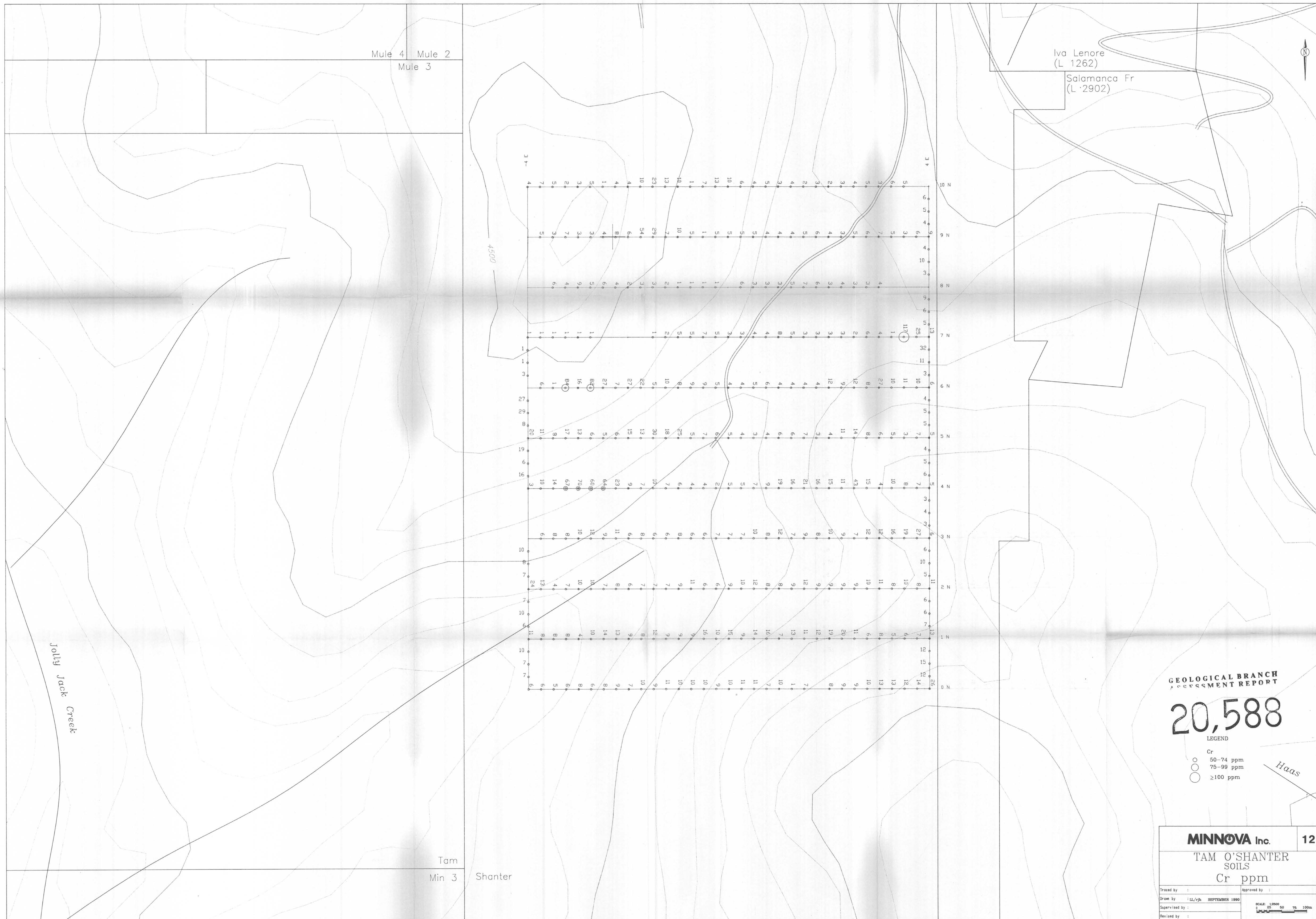
Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
N
4500
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
0 N
Jolly Jack Creek
Haas
Tam
Min 3
Shanter
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
LEGEND
Pb
24-29 ppm
30-35 ppm
≥36 ppm
MINNOVA Inc.
9
TAM O'SHANTER
SOILS
Pb ppm
Traced by
Approved by
Drawn by : LL/rjh SEPTEMBER 1990
Supervised by
Revised by
SCALE: 1:2500

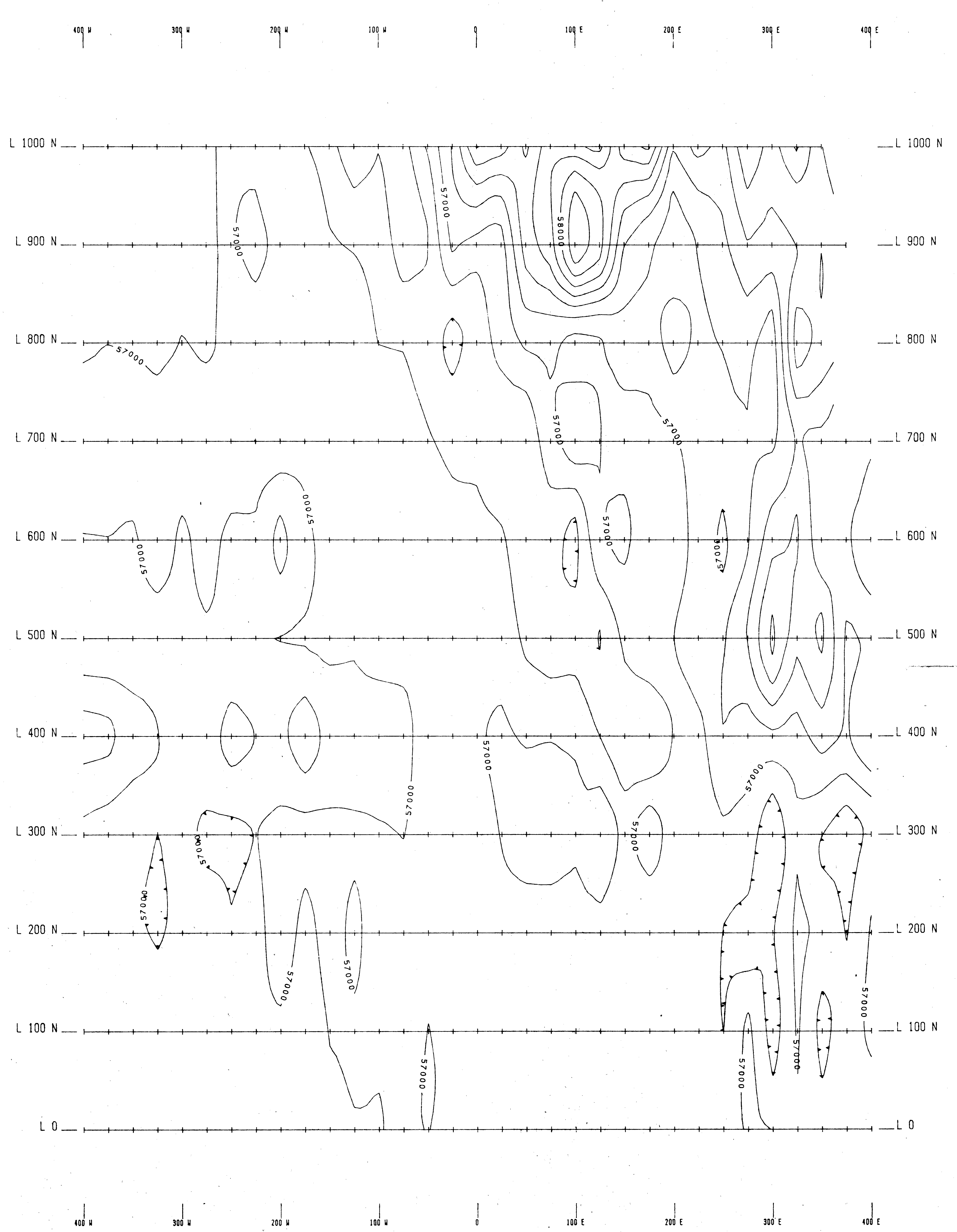


Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
4500
Jolly Jack Creek
Haas
Tam
Min 3
Shanter
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
0 N
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
LEGEND
Cu
60-99 ppm
100-139 ppm
≥140 ppm
MINNOVA Inc.
10
TAM O'SHANTER
SOILS
Cu ppm
Traced by :
Approved by :
Drawn by : LL/rjh SEPTEMBER 1990
Supervised by :
Revised by :
SCALE: 1:2500



Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
4500
Jolly Jack Creek
Haas
Tam
Min 3
Shanter
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
0 N
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
LEGEND
Ni
40–79 ppm
80–119 ppm
≥120 ppm
MINNOVA Inc.
11
TAM O'SHANTER
SOILS
Ni ppm
Drawn by : LL/rjb SEPTEMBER 1990


Mule 4
Mule 2
Mule 3
Iva Lenore
(L 1262)
Salamanca Fr
(L 2902)
4500
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
0 N
Jolly Jack Creek
Haas
Tam
Min 3
Shanter
GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,588
LEGEND
Cr
50-74 ppm
75-99 ppm
≥100 ppm
MINNOVA Inc.
12
TAM O'SHANTER
SOILS
Cr ppm
Traced by :
Approved by :
Drawn by : LL/rjh SEPTEMBER 1990
Supervised by :
Revised by :
SCALE 1:2500



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,588

INSTRUMENT : IGS - 2 MAG

Contour Interval : 200 nt.

SCALE 1:2500

0 50 100 150 200
meters

MINNOVA Inc.

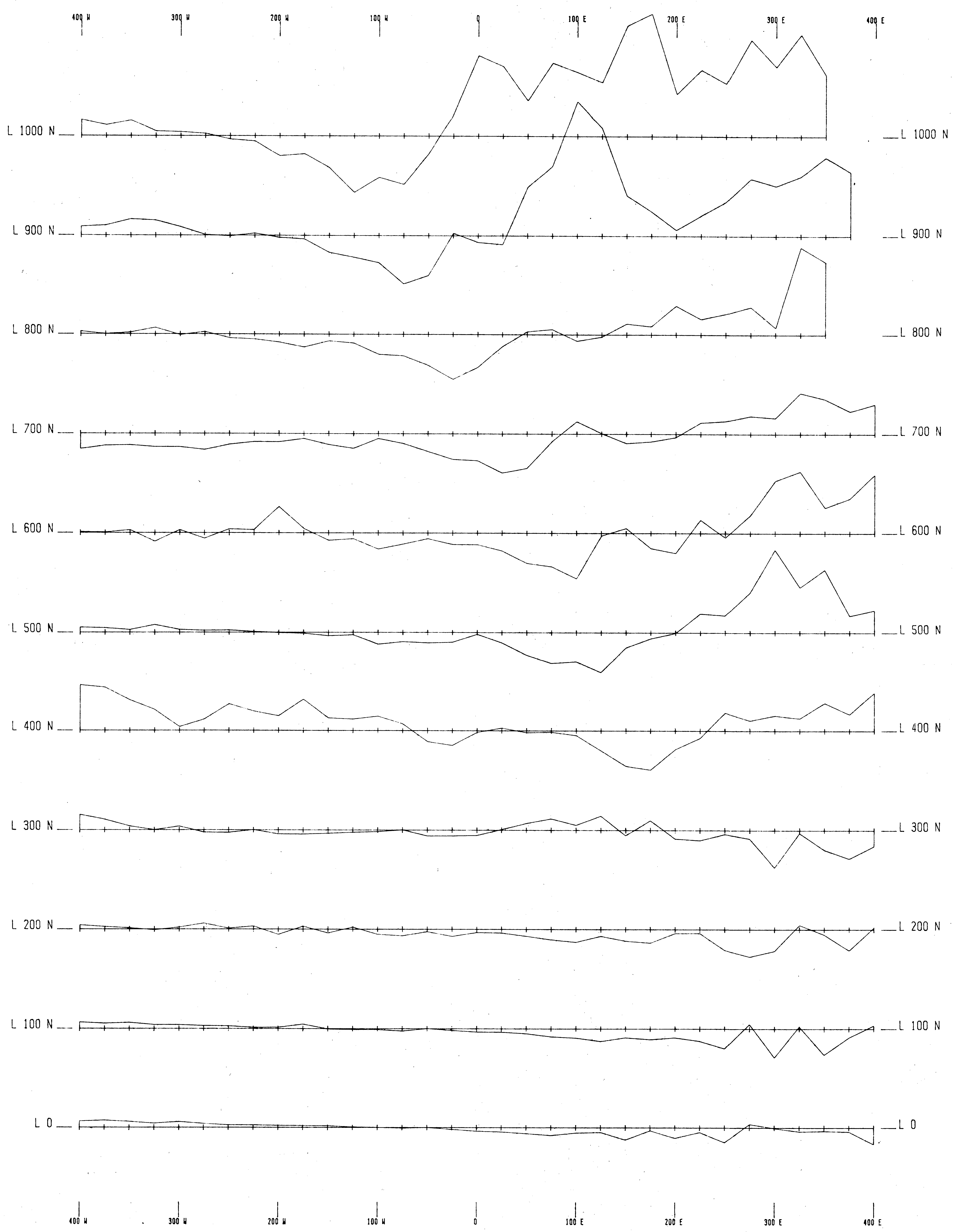
RAINBOW TAM O'SHANTER

TAM GRID

Total Field Mag
Contour Map

N.T.S. 82E/2	SCALE: 1:2,500	FIG. No. 13	
DATE: Nov./90	REVISED:		
DRAWN BY:			

Quest Canada Exploration Services Inc.



INSTRUMENT : IGS - 2 MAG

Profile Scale : 1cm = 250nt

Line Trace = 57000nt

SCALE 1:2500

0 50 100 150 200
meters

MINNOVA Inc.

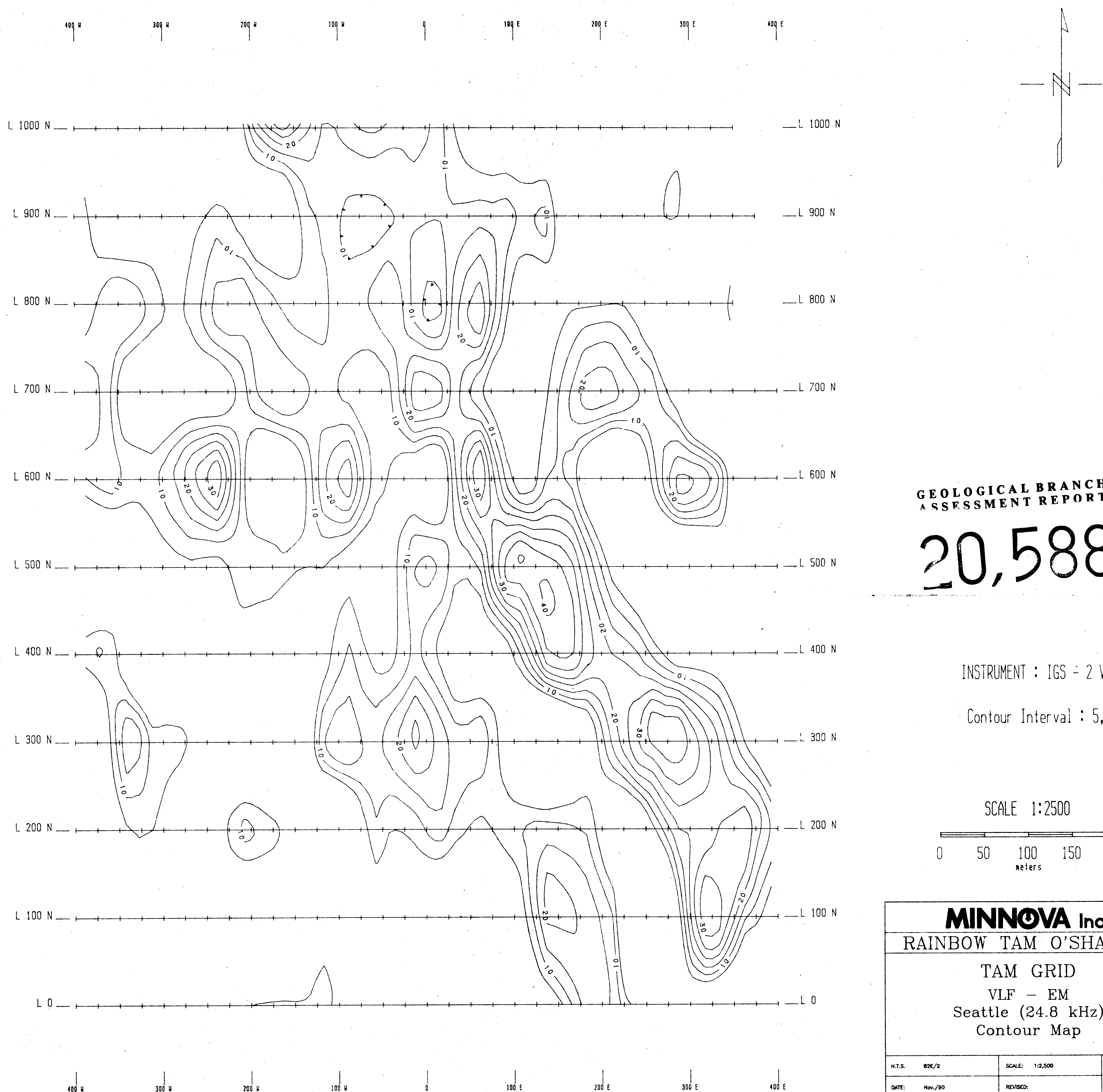
RAINBOW TAM O'SHANTER

TAM GRID

Total Field Mag
Profile Map

N.T.S. 82E/2	SCALE: 1:2,500	FIG. No. 14	
DATE: Nov./90	REVISED:		
DRAWN BY:			

Quest Canada Exploration Services Inc.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,588

INSTRUMENT : IGS - 2 VLF

Contour Interval : 5,10

SCALE 1:2500

0 50 100 150 200
meters

MINNOVA Inc.

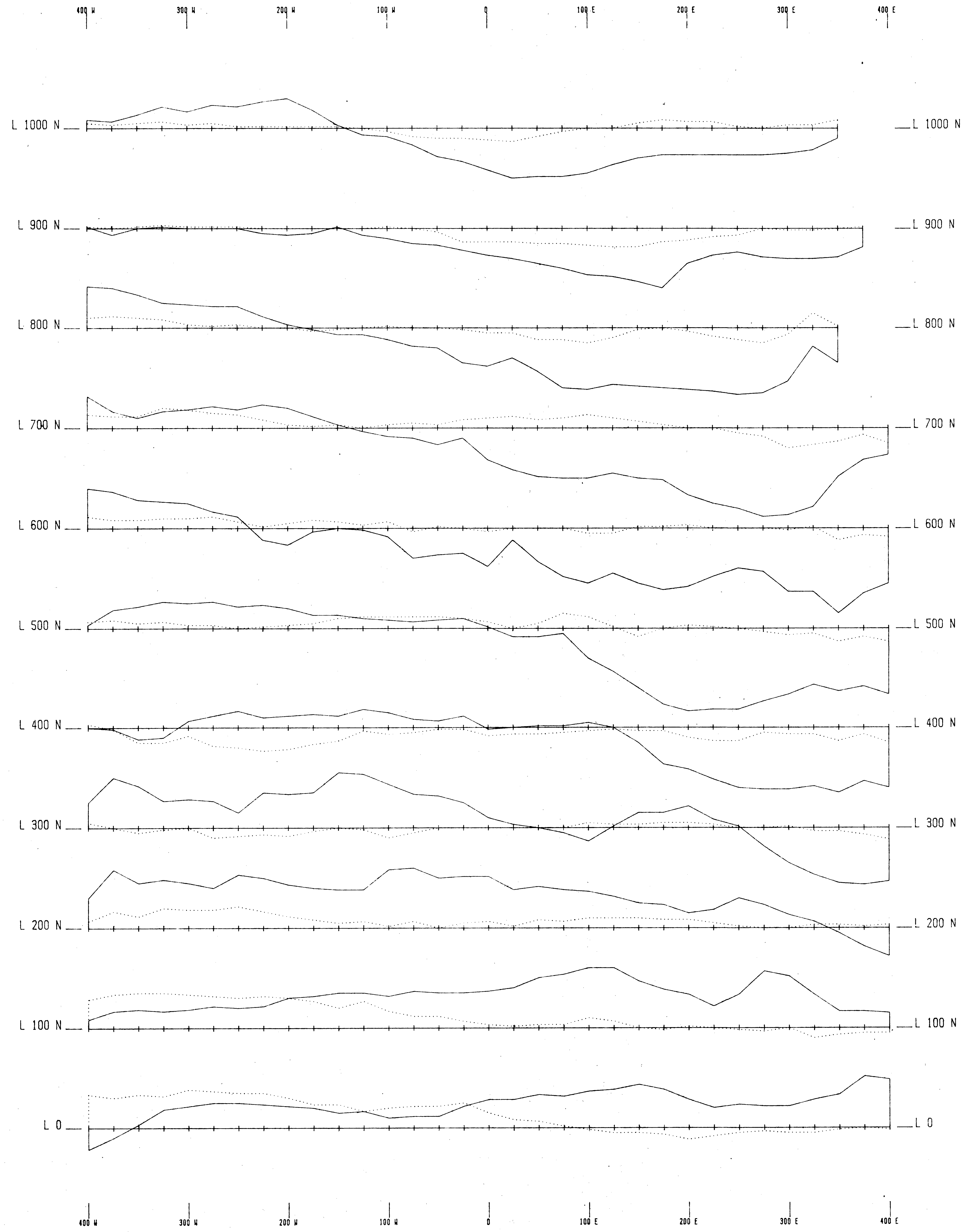
RAINBOW TAM O'SHANTER

TAM GRID

VLF - EM
Seattle (24.8 kHz)
Contour Map

N.T.S. 82E/2	SCALE: 1:2,500	FIG. No. 15
DATE: Nov./90	REVISED:	
DRAWN BY:		

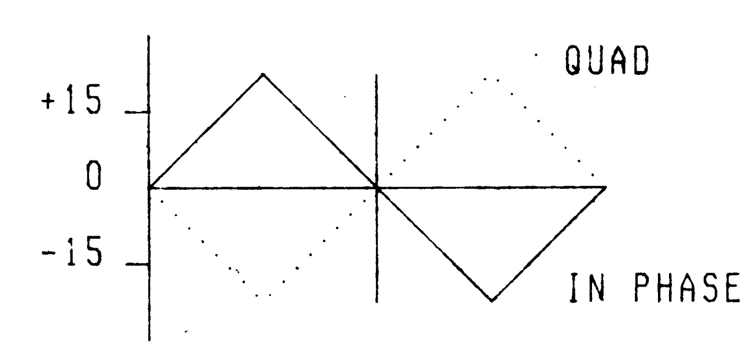
Quest Canada Exploration Services Inc.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,588

INSTRUMENT : IGS - 2 VLF



SCALE 1:2500

0 50 100 150 200
meters

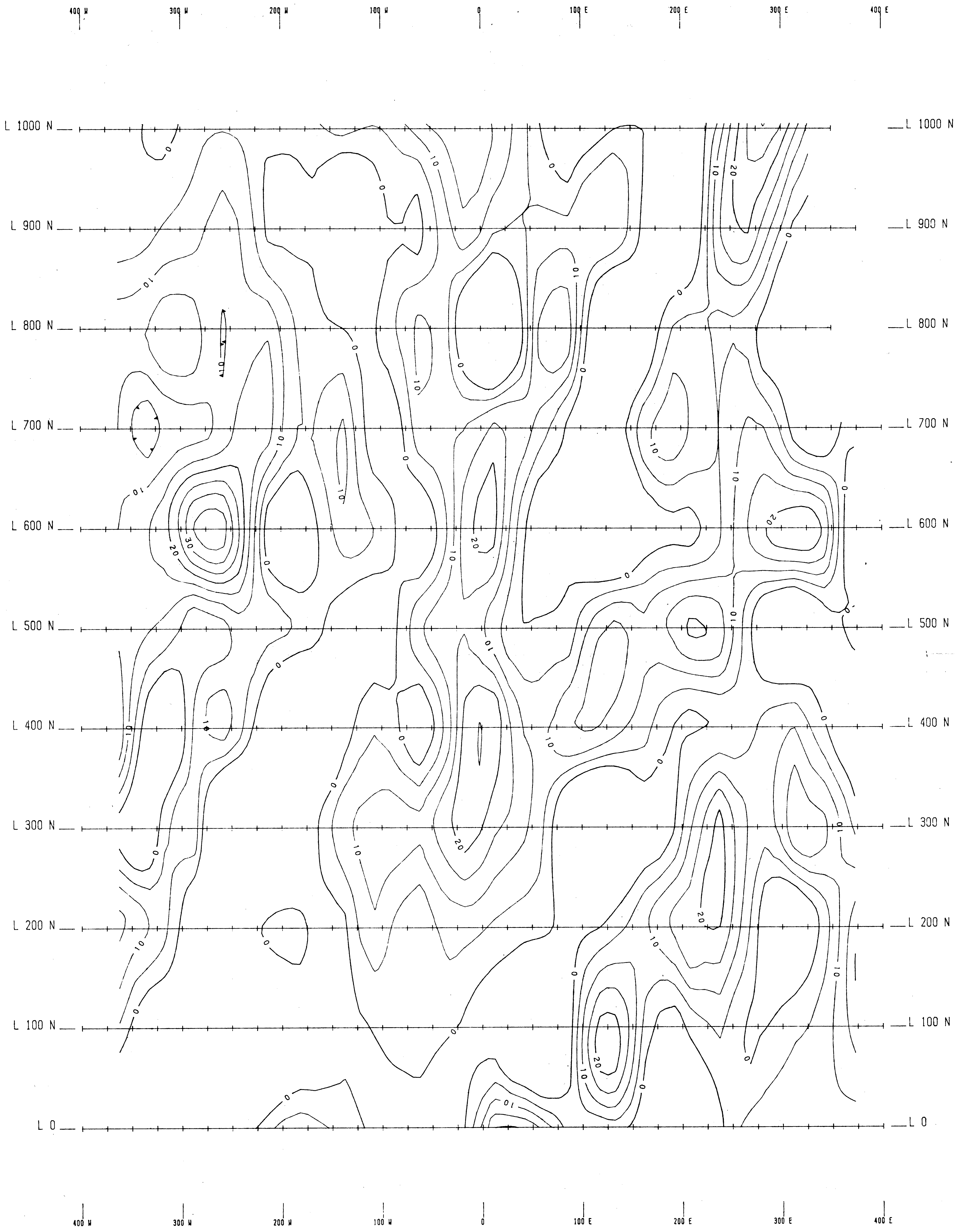
MINNOVA Inc.

RAINBOW TAM O'SHANTER

TAM GRID
VLF - EM
Seattle (24.8 kHz)
Profile Map

N.T.S. 82E/2	SCALE: 1:2,500	FIG. No. 16
DATE: Nov./90	REVISED:	
DRAWN BY:		

Quest Canada Exploration Services Inc.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,588

INSTRUMENT : IGS - 2 VLF

Contour Interval : 5,10

SCALE 1:2500

0 50 100 150 200
meters

MINNOVA Inc.

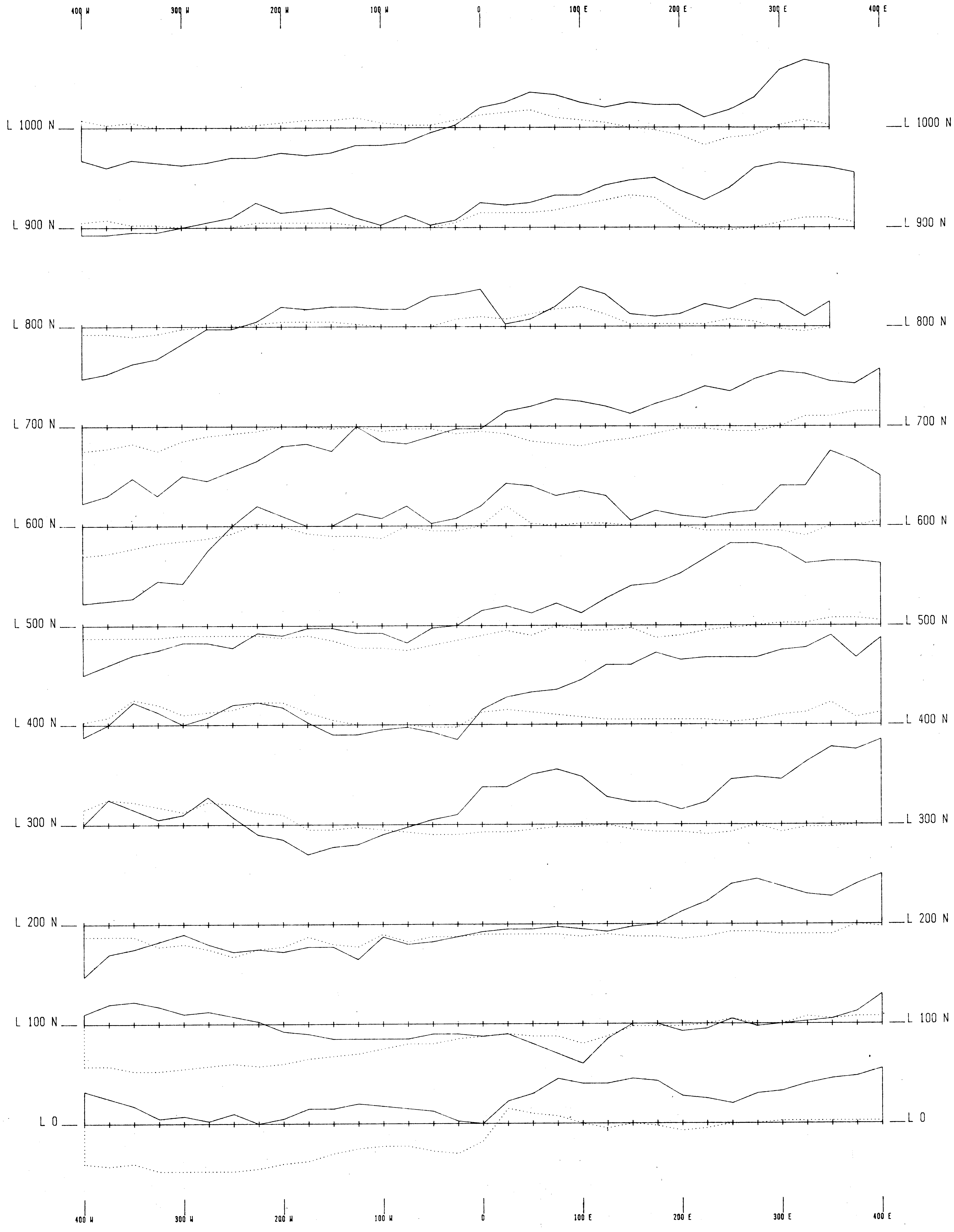
RAINBOW TAM O'SHANTER

TAM GRID

VLF - EM
Annapolis (21.4 kHz)
Contour Map

N.T.S. 82E/2	SCALE: 1:2,500	FIG. No.
DATE: Nov./90	REVISED:	17
DRAWN BY:		

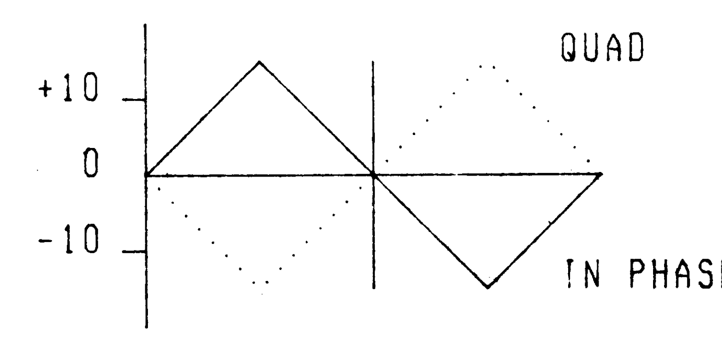
Quest Canada Exploration Services Inc.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,588

INSTRUMENT : IGS - 2 VLF



SCALE 1:2500

0 50 100 150 200
meters

MINNOVA Inc.

RAINBOW TAM O'SHANTER

TAM GRID
VLF – EM
Annapolis (21.4 kHz)
Profile Map

N.T.S.	82E/2	SCALE:	1:2,500	FIG. No. 18
DATE:	Nov./90	REVISED:		
DRAWN BY:				

Quest Canada Exploration Services Inc.