GEOLOGICAL, GEOCHEMICAL &
GEOPHYSICAL ASSESSMENT REPORT
MODEL CLAIM GROUP
KAMLOOPS MINING DIVISION

Nov. 30/88 M. Morrison, B.Sc.

18455

ASSESSMENT REPORT

ON

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL SURVEYS

ON THE

MODEL CLAIM GROUP

TUNKWA LAKE AREA

KAMLOOPS MINING DIVISION

by

MURRAY MORRISON, B.Sc.

Claims:	Model 1-3, Anne 1-6 (65 units)
Location:	The Model property is situated 2 km east of Tunkwa Lake, or 13 km due north of Logan Lake, B.C. Latitude: 50° 37'; Longitude 120° 49' N.T.S. Map 92-I-10 W
Owner:	Mad River Resources Inc.
Operator:	Mad River Resources Inc.
Date Started:	May 7, 1988
Date Completed:	August 9, 1988

Kelowna, B.C. November 30, 1988

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SUMMARY

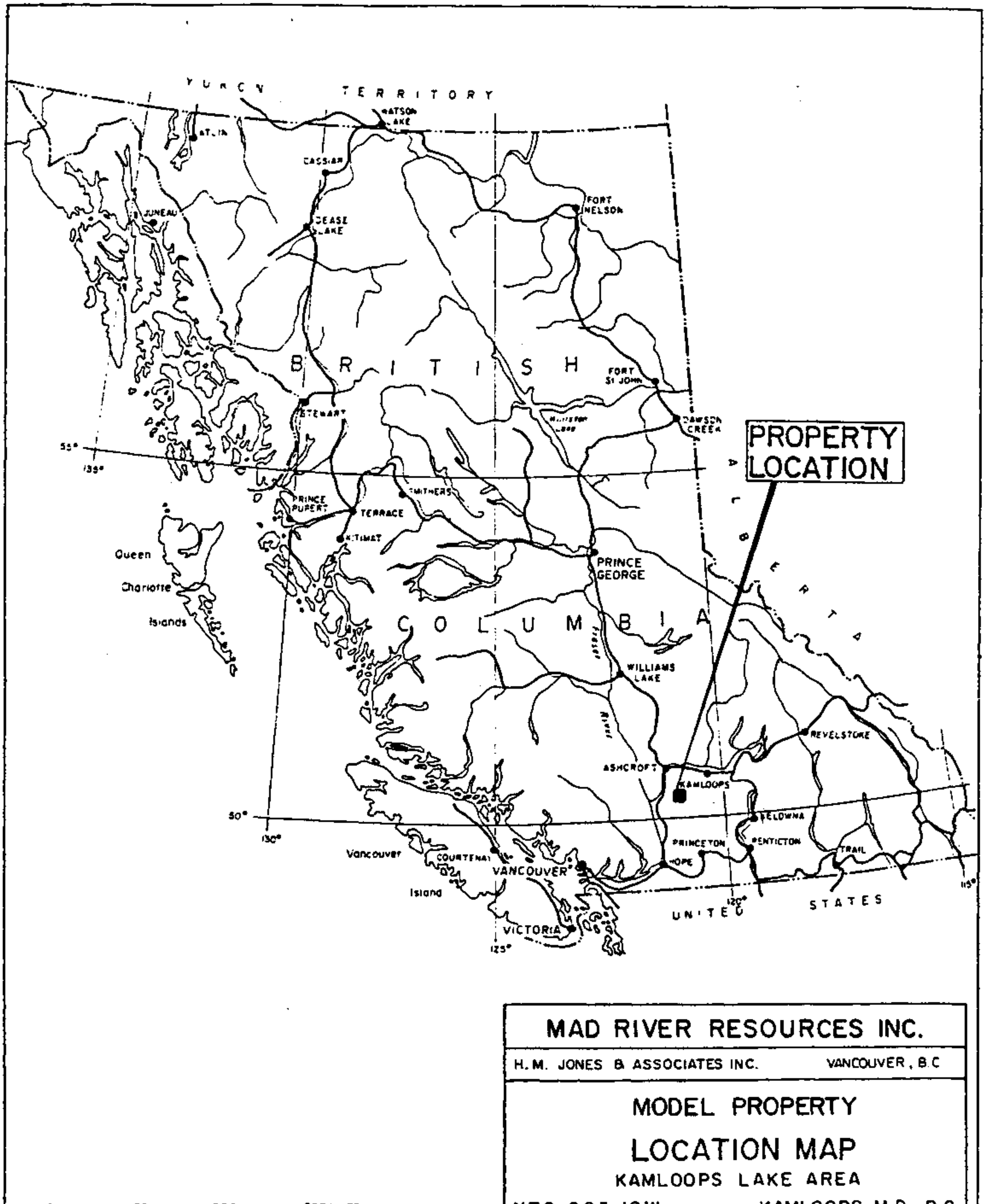
The Tunkwa Lake area, Model property, comprised of 65 mineral claim units, is situated 13 km due north of the village of Logan Lake, B.C. The property is centered over the old Tunkwa mercury prospect - a cinnabar occurrence associated with highly faulted, and carbonate-replaced Upper Triassic Nicola Group metasediments and metavolcanics. The mercury prospect is thought to represent the upper, low-temperature horizon of a sizeable epithermal system that could carry precious metal values at depth.

The property, staked by the writer in 1981, was first optioned to Placer Development Limited in 1981, and then to Lacana Mining Corporation in 1984, as a potential precious metal prospect. Placer Development conducted soil geochemical studies over the Model 1-3 mineral claims in 1981, and Lacana drilled five diamond drill holes, totalling 405 metres, during 1984 in the vicinity of the old mercury prospect. Neither company encountered precious metals, and each terminated their option.

The property was subsequently taken on by Mad River Resources Inc. of Calgary this year (1988) as a precious metal prospect, and several surveys were carried out. The work was concentrated upon the eastern halves of the Model 1-3 mineral claims, over an area of 1.5 km^2, and included VLF-EM 16 and magnetometer ground surveys as well as detailed geological and geochemical surveys. Regional geological mapping of the entire 65 unit property at a scale of 1:10,000 was also completed.

The results of all of the recent surveys indicate that the old Tunkwa mercury prospect falls within an area identified as the Model Fault Zone - a strong zone of faulting and alteration trending 2 km northeast across the property that could well extend to considerable depth.

It appears that the 1984 diamond drilling programme by Lacana only superficially tested what may be a strong epithermal system associated with the Model Fault



MAD RIVER RESOURCES INC.

H. M. JONES & ASSOCIATES INC. VANCOUVER, B.C.

MODEL PROPERTY

LOCATION MAP

KAMLOOPS LAKE AREA

N.T.S. 92 I -10 W KAMLOOPS M.D., B.C.

SCALE · AS SHOWN	NOV. 1988	FIG. 1
DRAWN BY: M.M.		

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Zone. Therefore, a Phase I programme of deeper drilling by a reverse circulation drill is recommended for the old Tunkwa mercury prospect, and the Model Fault Zone at large.

Reconnaissance drilling of two short reverse circulation drill holes is also recommended for an arsenic soil anomaly outlined on the Model 2 mineral claim.

It is further recommended that a Phase II diamond drilling programme await the results of the reverse circulation drilling programme.

INTRODUCTION

The Model property, comprised of nine mineral claims (65 units), covers 17 square kilometres of ground centred over the old Tunkwa mercury prospect, located 2 kilometres east of Tunkwa Lake, or 13 kilometres due north of the village of Logan Lake, B.C. The original Model 1-3 mineral claims were staked by the writer in March, 1981 to cover the old mercury showing which was considered to have potential as an epithermal gold prospect. The property was subsequently optioned to Placer Development Ltd. (1981-1984), and later, to Lacana Mining Corporation (1984-1985).

Placer Development Ltd. conducted a widely spaced soil geochemical survey across the Model 1-3 mineral claims in 1981. Based on the results of the survey, Placer decided that the property was not worthy of further exploration and returned it to the vendor. In 1984, Lacana Mining Corporation expanded the property to 64 units. The company then conducted geological and geophysical surveys over the immediate area of the old Tunkwa mercury prospect, and selected targets for five diamond drill holes. The drilling, totalling 405 metres, failed to encounter gold values and Lacana terminated their option on the property.

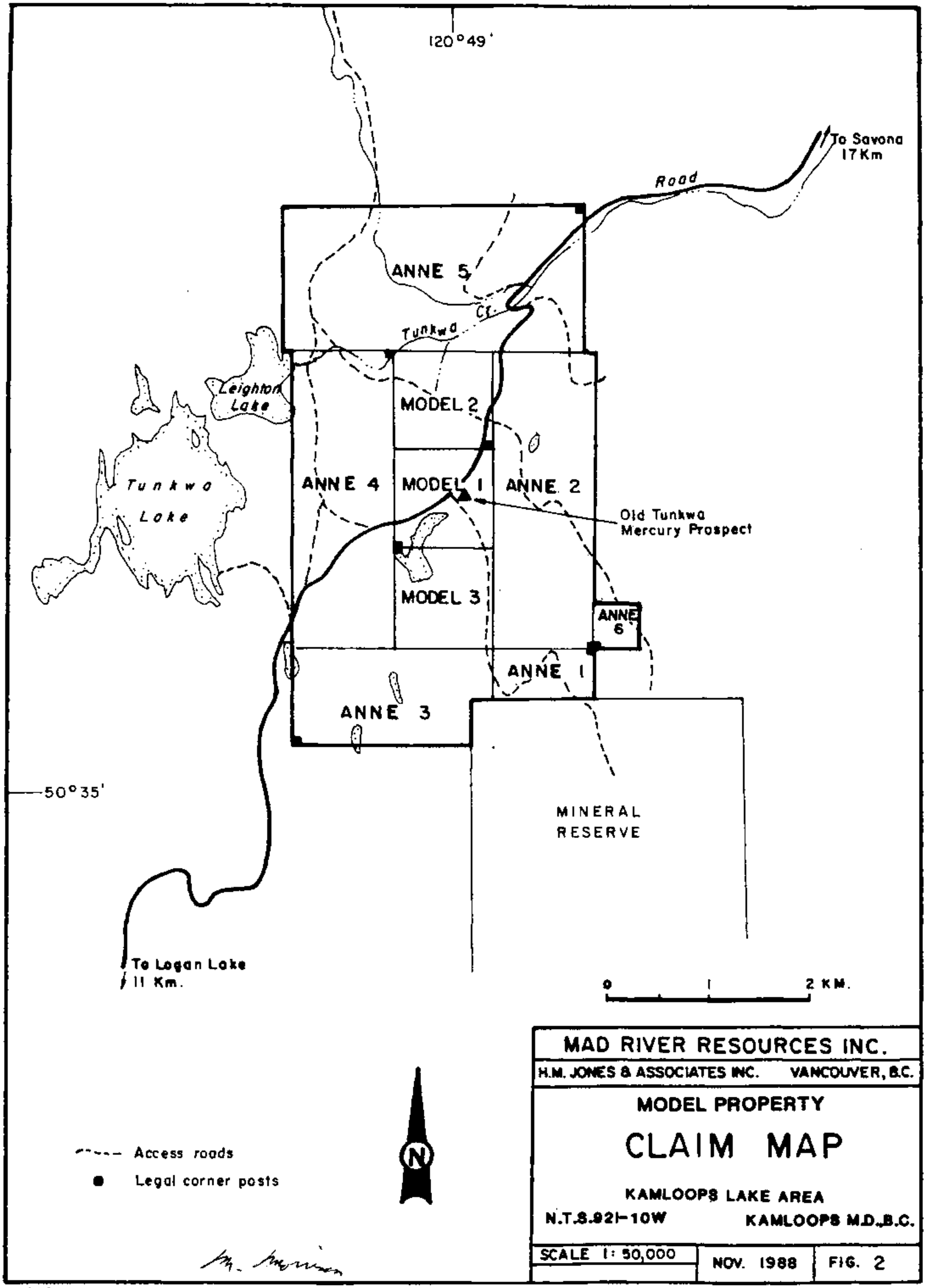
In May of this year (1988) the Model 1-3 mineral claims were optioned to Mad River Resources Inc. of Calgary, and the Model 4-8 perimeter claims, first staked for Lacana in 1984, were restaked as the ANNE 1-5 mineral claims and purchased by Mad River Resources Inc.

During May-August, 1988, an extensive exploration programme was conducted over the eastern half of the Model 1-3 mineral claims - an area broadly outlined by Placer Development Ltd.'s 1981 soil geochemical surveys, and centred over the old Tunkwa mercury prospect. The work included geological mapping, magnetometer and VLF-EM 16 geophysical surveys, and a detailed soil geochemical survey. Geological mapping at a scale of 1:10,000 was also carried out over the full 17 square kilometres of the Model property.

This report, with accompanying diagrams, includes the results of all of this year's surveys; incorporates some of the geochemical data collected by Placer Development Ltd. in 1981; and draws heavily on the results of the 1984 diamond drill programme by Lacana Mining Corporation.

LOCATION AND ACCESS

The Model property lies 1 to 3 km east of Tunkwa Lake, or 13 km due north of Logan Lake, B.C. The Logan Lake - Savona all-season gravel road transects the property from southwest to northeast at a point 18 km from Logan Lake or 21 km from the TransCanada Highway at Savona. The property can be reached in one hour's driving time from Kamloops via either the TransCanada Highway - Savona route or the Coquihalla Highway - Logan Lake route. Several dirt or gravel roads extend to most parts of the Model property from the Logan Lake - Savona Road (please see Figure 2).



120°49'
To Savona
17 Km
Road
ANNE 5
Cr.
Tunkwa
Leighton Lake
MODEL 2
Tunkwa Lake
ANNE 4
MODEL 1
ANNE 2
Old Tunkwa Mercury Prospect
MODEL 3
ANNE 6
ANNE 1
ANNE 3
50°35'
MINERAL RESERVE
To Logan Lake
11 Km.
0
1
2 KM.
Access roads
Legal corner posts
N
MAD RIVER RESOURCES INC.
H.M. JONES & ASSOCIATES INC.
VANCOUVER, B.C.
MODEL PROPERTY
CLAIM MAP
KAMLOOPS LAKE AREA
N.T.S.92I-10W
KAMLOOPS M.D.,B.C.
SCALE 1: 50,000
NOV. 1988
FIG. 2

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PHYSICAL FEATURES AND CLIMATE

The Model property lies on the Thompson Plateau midway between the Uplands of Highland Valley, 20 km to the southwest, and Kamloops Lake, 20 km to the northeast. Kamloops Lake occupies a portion of the arid Thompson Valley which falls within the rain shadow of the British Columbia Coast Mountains.

The property at an average elevation of 1,150 metres features very gentle relief with glacial moraines and drumlins forming long ridges 10 to 40 metres above the surrounding countryside. Drainage from the property follows a course to the north via Tunkwa and Durand Creeks to the Thompson River (Kamloops Lake) at 340 metres.

Glacial deposits are extensive, greatly limiting the bedrock exposures on the property.

The climate on the Thompson Plateau is moderate with winter minimums seldom lower than -30^{o}C, and summer maximums rarely exceeding +30^{o}C. The spring and summer temperatures on the Model property are often five degrees cooler than those at Kamloops.

Annual precipitation on the property amounts to approximately 30 cms - half of it in the form of winter snow. The snow begins to accumulate in November and can equal up to 1 metre some years. Most of the snow melts from the property in early April.

Large open grassland areas, interrupted by shallow ponds or marshes, make up 30% of the region covered by the Model property. Lodgepole pine cover level portions of the property, while Douglas fir are dominant on the rolling hills. Some of the forest has been recently stripped by logging and replanted. Cattle graze on the open grasslands from May until October.

CLAIM STATUS

The property is made up of the Model 1-3 and ANNE 1-5 metric grid mineral claims, totalling 64 units and the ANNE #6, 2-post mineral claim.

The Model 1-3 mineral claims were staked by the writer, M. Morrison, of Kelowna, B.C., in March 1981. The ANNE #6 mineral claim was staked by the writer in August 1988.

The Model 1-3 mineral claims have been optioned to Mad River Resources Inc. of Calgary which can earn a 100% interest in the property subject to payments and conditions outlined in an agreement dated May 3, 1988. The ANNE #6 mineral claim is included within the terms of the same option agreement. The ANNE 1-5 mineral claims, staked during April, 1988, have been purchased by Mad River Resources Inc.

Particulars on the Model property mineral claims are listed below:

Claim Name	Units	Date of Recording	Record No.	Mining Division	Expiry Date*
Model 1	4	Mar 16/81	3325	Kamloops	Mar 16/89
Model 2	4	Mar 16/81	3326	"	Mar 16/89
Model 3	4	Mar 16/81	3327	"	Mar 16/89
ANNE 1	2	Apr 13/88	7589	"	Apr 13/89
ANNE 2	12	Apr 13/88	7590	"	Apr 13/89
ANNE 3	8	Apr 13/88	7591	"	Apr 13/89
ANNE 4	12	Apr 13/88	7592	"	Apr 13/89
ANNE 5	18	Apr 13/88	7593	"	Apr 13/89
ANNE 6	1	Aug 9/88	7951	"	Aug 9/89
	65				

* The Exipry Date does not take into account the assessment work conducted on the property this year (1988).

It should be noted that the southeast corner of mineral claim ANNE #3 overlaps a Mineral Reserve, and that the area covered by this claim is thus reduced by approximately one-half unit (12.5 hectares).

HISTORY

The mercury occurrence located on the Model 1 mineral claim is first referred to in the Geological Survey of Canada Summary Report for 1918 (part B, p. 20) under the name of the "Summit Group". The occurrence has been restaked over the years as the Mercury, OK, Cinnabar Ridge, Bull Horn, RR, and the Tunkwa mineral claims.

The original workings consisted of a 5 metre vertical shaft and a 6 metre inclined shaft located at the north end of a knoll next to the Logan Lake - Savona Road. The remains of a small concrete retort are also located at this site, 550 metres north and 650 metres east of the Legal Corner Post of the Mode 1 mineral claim. The knoll has been explored by several small cuts and the production of mercury (amounting to less than 50 kg) apparently came from these shallow cuts and the shafts. There are also several shallow cuts into low rusty ridges fringing a pond east and southeast of the old retort. The work was designed to find mercury within the carbonate altered rocks and no mention of gold is made in any of the literature referring to the old mercury prospect.

The Model 1-3 mineral claims were staked over the old Tunkwa mercury prospect by the writer in March 1981 and Placer Development optioned the property in April 1981 as a gold prospect.

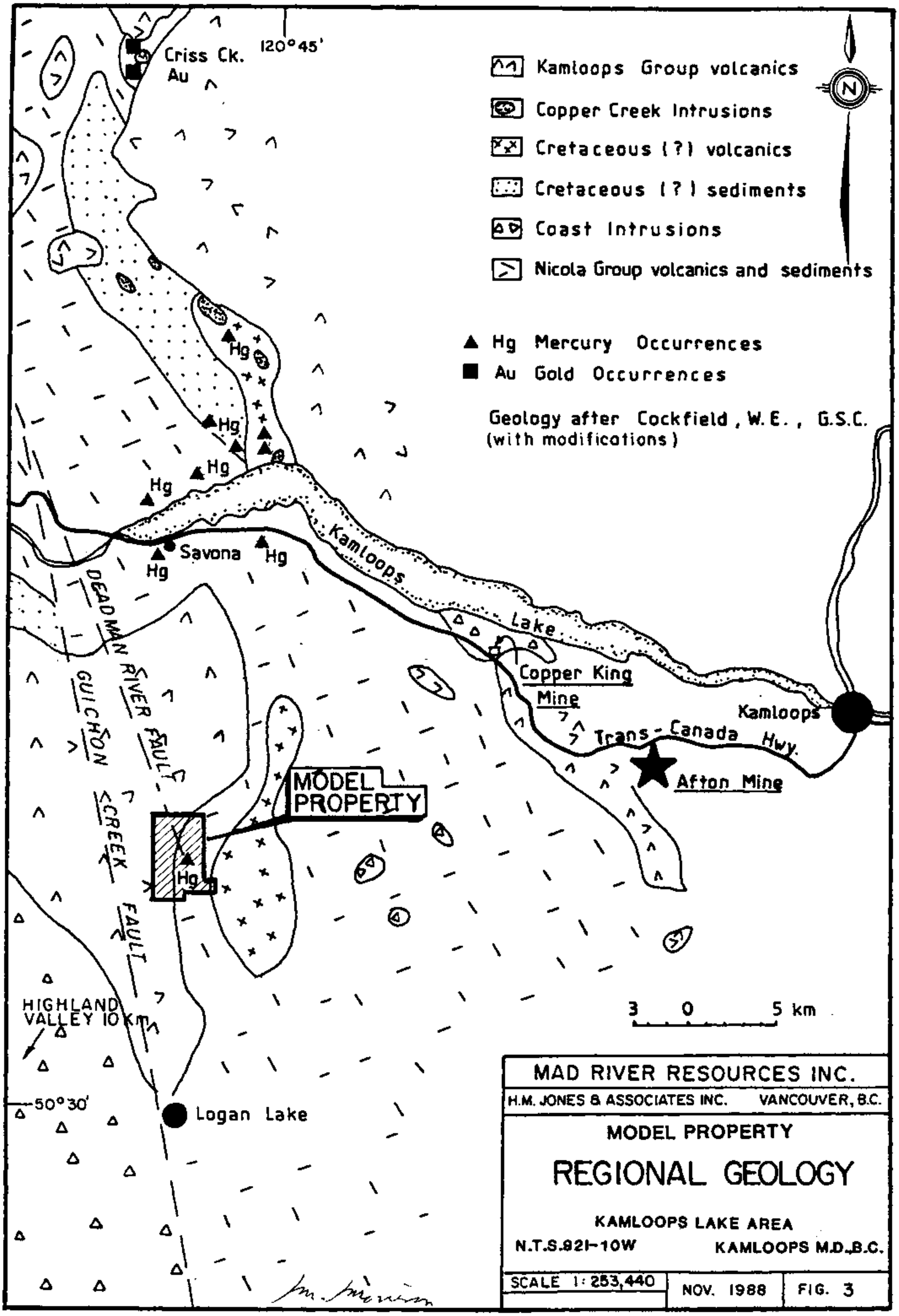
During 1981, Placer Development conducted a widely spaced (25 by 250 metre) soil geochemical program over the Model 1-3 mineral claims, and had 471 samples analyzed for mercury, gold, silver, arsenic, antimony, molybdenum, copper and zinc. Large mercury, arsenic and antimony soil anomalies were outlined, but gold and silver values were low and Placer Development Ltd. elected to return the property to the vendor in 1984.

Lacana Mining Corporation optioned the property in March 1984 as a potential epithermal gold occurrence, and had the Model 4-8 mineral claims staked around the perimeter of the Model 1-3 mineral claims. Lacana conducted VLF-EM and magnetometer surveys over the immediate area of the old Tunkwa mercury prospect, and followed-up on the preliminary surveys with a diamond drilling programme. Five inclined drill holes, totalling 405 metres, were drilled from four sites. The longest drill hole was drilled to 124 metres at an inclination of minus 45 degrees, or to a depth of 95 metres below surface. The sludge of each 10 foot (3.28 m) intercept, as well as selected core intervals, were analyzed for 31 elements including gold, silver, mercury, antimony and arsenic. Although some carbonate/silica replaced drill intercepts yielded high mercury, antimony and arsenic values the precious metal values were negligible, and Lacana dropped their option on the property.

The property received no further attention until May of this year (1988) when Mad River Resources Inc. of Calgary, optioned the Model 1-3 mineral claims. The old Model 4-8 mineral claims were restaked as the ANNE 1-5 mineral claims in April, 1988, and were purchased by Mad River Resources Inc. The ANNE 6, 2-post mineral claim was added to the property during surveys in August, 1988.

REGIONAL GEOLOGY

Figure 3 illustrates the regional geology of the Kamloops Lake area. The geology has been traced with some modifications from Map 886A, entitled "Nicola" by W.E. Cockfield of the Geological Survey of Canada. The oldest rocks in the region are the metasediments and metavolcanics of the Upper Triassic Nicola Group which form a broad belt, widening to the south, and extending from 30 km northwest of Savona to 40 km southeast of Savona on Figure 3. The Nicola Rocks are intruded by the Guichon Batholith to the southwest and the Iron Mask Stock to the northeast - both Intrusives are related to the Jurassic-Cretaceous(?) Coast Intrusions. Jurassic sediments and volcanics overlie the Nicola rocks over narrow bands up to 25 km north and south of Savona, and these rocks, along with the Nicola Group rocks, have been intruded by small Tertiary(?) plugs of the Copper Creek Intrusions. Large areas to the southwest and to the northeast of Savona are covered by Kamloops Group Tertiary volcanic flows and intercalated sediments.



Kamloops Group volcanics
Copper Creek Intrusions
Cretaceous (?) volcanics
Cretaceous (?) sediments
Coast Intrusions
Nicola Group volcanics and sediments
Hg Mercury Occurrences
Au Gold Occurrences
Geology after Cockfield, W. E., G.S.C.
(with modifications)
N
120°45'
Criss Ck.
Au
Hg
Savona
Kamloops Lake
Copper King Mine
Kamloops
Trans - Canada Hwy.
Afton Mine
DEADMAN RIVER FAULT
GUICHON CREEK FAULT
MODEL PROPERTY
HIGHLAND VALLEY 10 Km
50°30'
Logan Lake
3 0 5 km
MAD RIVER RESOURCES INC.
H.M. JONES & ASSOCIATES INC. VANCOUVER, B.C.
MODEL PROPERTY
REGIONAL GEOLOGY
KAMLOOPS LAKE AREA
N.T.S.92I-10W
KAMLOOPS M.D.,B.C.
SCALE 1: 253,440
NOV. 1988
FIG. 3

Finally, deep deposits of Pleistocene glacial drift are widespread throughout the map area and cover much of the Model property.

In the Savona district, the geology has a distinct northwesterly trend, with probable major faults aligning with Deadman River, Sabiston Creek, Carabine Creek, and Durand Creek. Open File Map 980 of the Ashcroft area by J.W.H. Monger et. al. of the Geological Survey of Canada indicates that the Deadman River Fault extends south at least as far as the Tunkwa mercury prospect. A splay from the Deadman River Fault continues south as the Guichon Creek Fault.

Several northwest and northeast lineaments of lesser order of magnitude, not shown on Map 980, also dissect the Nicola Group Rocks. Early Tertiary(?) intrusives with related carbonate and siliceous alteration zones appear to align with some of these lesser order lineaments.

REGIONAL MINERALIZATION

The Model property lies between two highly productive mining camps in south-central British Columbia. The world-renowned Highland Valley copper-molybdenum mines lie 20 km to the southwest of the property, while the rich Afton copper-gold mine lies 25 km to the northeast. The large copper mines are associated with plutonic rocks of Jurassic-Cretaceous(?) age, and apparently predate the mercury occurrences of the Savona Mercury Belt.

Mercury prospects of the Savona Mercury Belt occur associated with faulted, ankeritic and/or siliceous alteration zones within Triassic or Jurassic metasediments or metavolcanics. North of Kamloops Lake there is a clear spatial relationship between Tertiary(?) Copper Creek Intrusions and mercury occurrences. South of Kamloops Lake the Copper Creek Intrusions are believed to underlie many of the faulted alteration zones associated with the mercury prospects, although at most, the Tertiary intrusives have not yet been exposed by erosion. The alteration zone at the old Tunkwa mercury prospect (now covered by the Model 1 mineral claim) is believed to cap one such Tertiary intrusion.

It is suspected that the mercury prospects associated with high-level intrusive plugs of Tertiary age may represent the upper horizons of potential epithermal gold-bearing systems. Gold has been found associated with a Copper Creek intrusion at Criss Creek 30 km north of Savona. Also, gold, silver, antimony, lead, zinc and copper mineralization have all been found associated with ankeritic carbonate alteration zones south of Kamloops Lake on other properties examined by the writer. The Brussels property, 17 km to the northeast of the Model property, has yielded samples with 1750 parts per billion (ppb) gold, and the Sprout property, 15 km to the northeast of the Model property, has yielded samples with 1650 ppb gold, 316 ppm silver, up to 10% antimony, 1.5% lead and 1.5% zinc.

It appears that in addition to mercury, the alteration zones associated with Copper Creek Intrusions also have the potential to carry both precious and base metal values.

1988 - SURVEYS

Grid

During May, 1988, a flagged grid was established over the eastern half of the Model 1-3 mineral claims. A baseline of 2.9 km was lightly cut through the underbrush in a north-south direction and grid lines at 100 metre intervals were then flagged for 250 metres due west and east of the baseline. Stations were numbered on flagging every 25 metres along each grid line. In total, 14.7 km of flagged grid line was established. A Topolite belt chain and Silva Ranger compass were used to establish the grid lines which are illustrated on maps accompanying this report. The grid was tied-in to the Model 1&2 Legal Corner Posts. A total of 7 man days were required to establish the baseline and grid.

Geological Mapping

Geological mapping was conducted over the grid area on the east side of the Model 1-3 mineral claims at a scale of 1:2,500, as illustrated on Maps M-88-1A&B. Mapping at a scale of 1:10,000 was also carried out over the property at large and is illustrated on Map M-88-9. Control for the smaller scale mapping was obtained by measuring from features such as roads, creeks, and power lines illustrated on the government 1:50,000 scale topographic map. An altimeter was also used in conjunction with contour lines on the government map.

Large areas of the property are mantled by glacial till and/or are covered by thin flows of Plateau Basalt. There are very few rock exposures within the grid area and most of these are in the immediate vicinity of Lacana's 1984 drill area. Glacial drift is believed to exceed 30 metres in depth over large portions of the property. Moraines and drumlins have been outlined on Maps M-88-1A&B as they are believed to have greatly hampered the effectiveness of the geochemical and geophysical surveys carried out this year.

Relogging of the 1984 Drill Core

The 405 metres of core obtained from five diamond drill holes by Lacana Mining Corporation in 1984 was re-examined in detail by the writer in order to draw up the cross-sections of Figure M-88-10. Copies of Lacana's drill logs were used in conjunction with the new study, and were depended upon entirely in cases where the core had been disturbed or dumped from some of the boxes over the years.

VLF-EM 16 Surveys

A Geonics VLF-EM 16 model instrument rented from Geolease of Mississauga, Ontario, was used to survey the 14.7 km of grid line on the Model 1-3 mineral claims. The Annapolis, Maryland signal at 21.4 kHz was selected for the survey. The signal was received from a direction of 102 degrees azimuth, and all readings were taken perpendicular to the station, or at 12 degrees azimuth (facing northeast). The Basic VLF-EM data and Line Profiles are displayed on Maps M-88-2A&B, while the Fraser Filtered In-Phase values have been plotted and contoured on Maps M-88-3A&B. Several weak conductors have been identified on the property and these will be discussed later. Five field days were required for the survey.

The Fraser filtering of VLF-EM data has had widespread use for several years, and a full explanation of the technique is given in the geophysical papers by Fraser, Peterson and Ronka that are listed with references at the end of this report.

The Fraser filtering technique may be briefly summarized as follows: by means of simple mathematical operations the tilt data can be transformed into contourable form, and the effects of noise and topography can be filtered from data. By averaging pairs of stations and taking differences between pairs separated by the appropriate distances, values may be plotted and contoured in plan that transform cross-overs into peaks and a low-pass smoothing mathematical operator reduces noise.

Ground Magnetometer Survey

The Scintrex MF-2 Portable Fluxgate Magnetometer owned by the writer was used to survey the grid area on the Model 1-3 mineral claims. The magnetometer with a resolution of 5 gammas was considered suitable for the survey.

Baseline station values were established by making a double traverse along the baseline on a day of slight diurnal variation. The baseline stations were corrected for diurnal variations, and the corrected values were used during the survey.

Looped traverses were made along pairs of grid lines, starting and ending at baseline stations (usually within 10 to 15 minutes), and corrections were made to all values for diurnal variation. In regions of moderate magnetic gradients intermediate readings were measured between flagged grid stations. All of the corrected readings are plotted on the contoured magnetometer maps M-88-4A&B

accompanying this report. A constant 50,000 gammas has been subtracted from all of the values for ease of plotting and clarity.

The survey, including both baseline control and grid lines, required four days to complete.

Geochemical Soil Survey

A geochemical soil survey consisting of 490 samples was conducted over the grid on the Model 1-3 mineral claims. Seven man days were required to collect the samples over a grid spacing of 25x100 to 25x200 metres.

The Placer Development Ltd. soil survey of 1981 provided a guide for this year's survey. The 1981 survey indicated that the western half of the Model 1-3 property was more or less "flat" from a geochemical point of interest, and not worthy of further attention. On the other hand, the survey identified large soil anomalies for mercury, antimony and arsenic on the eastern half of the Model 1-3 mineral claims that needed better definition by means of a more detailed survey. The 1981 survey also pointed out that neither gold nor silver show up well in the soil. Gold was therefore eliminated from this year's survey as a cost saving measure. Four of the grid lines on the Model 3 mineral claim were also eliminated from this year's coverage, as it was recognized that this portion of the property is covered by extensive glacial drift, and the effectiveness of the geochemical soil survey under such conditions was in doubt.

A mattock was used to obtain B-horizon soil samples wherever possible. Two hundred grams of soil were placed in 10x25 cm kraft sample bags at each site. Matters notated during the survey included: the soil type and composition, the depth to the B-horizon, the slope direction, and the possibility of contamination of the sample by exploration trenching or road building.

Most samples were made up of light brown soil of the B-horizon found at a depth of 30 cm below the black loam of the grasslands or the lightly forested country.

The samples were shipped to Acme Laboratories in Vancouver for ICP analysis (30 elements), and for mercury analysis by flameless AA. The results of the analysis and the laboratory procedures are listed in Appendix B.

Out of the 31 elements analyzed only mercury, arsenic, barium and iron appear to give meaningful results when compared with the geology of the property. The values obtained for arsenic, iron, barium and mercury have been plotted and contoured on Maps M-88-5, 6, 7 and 8 A&B, respectively, which accompany this report.

PROPERTY GEOLOGY

Summary

Upper Triassic Nicola Group metavolcanics and metasediments underlie the eastern half of the Model 1-3 property as illustrated on Map M-88-9 accompanying this report. The Nicola Group rocks are believed to strike north to northwest and dip moderately east to northeast, although the attitudes have been affected by faulting at several localities.

The Nicola Group is made up of volcanic rocks predominantly of andesitic composition. Sedimentary rocks of clastic and chemical deposition are intercalated within the thick sequence of volcanic rocks and possibly account for 5% of the total rock volume.

The Nicola Group rocks are locally cut by dioritic dykes of possible Late Cretaceous age and by aplite dykes of possible Early Tertiary age.

Tertiary Kamloops Group volcanics and sediments unconformably overlie the Nicola Group rocks on the western side of the property. The Kamloops Group is made up of andesitic and basaltic flows with intercalated conglomerates and breccias. The Tertiary volcanics are nearly flat-lying on the western side of the property (ANNE 4 mineral claim), but dip steeply to the northwest, north of Tunkwa Creek (on the ANNE 5 mineral claim).

Deep Pleistocene till and gravel cover much of the property.

Several strong faults are believed to pass through the Model property. The Deadman River Fault is thought to cut southeasterly through the centre of the claim group, while three northeast striking faults (the Model Fault, and the M1 and M2 Faults) have been inferred from this year's property work.

Wide zones of brecciated rock and gouge mark the trace of the larger faults, as well as pervasive carbonate alteration and some silica replacement. Weak zones of carbonate alteration and slickenside surfaces are also widespread within Nicola Group rocks on the property.

The cinnabar of the old Tunkwa mercury prospect occurs within highly faulted and carbonate/silica replaced metavolcanics and metasediments of the Nicola Group. The Lacana Mining Corporation diamond drilling at the old mercury prospect proved that elevated antimony and arsenic values also occur within the altered rocks. There is, therefore, strong evidence that the old Tunkwa mercury prospect defines the upper horizons of a strong epithermal system.

Unit 1: Metasediments and Metavolcanics - Upper Triassic Nicola Group

Rock exposures are scarce on the Model property, but it appears that the Nicola Group rocks generally strike north to northwest and dip moderately to steeply east to northeast. The lowermost unit exposed on the property appears to be made up of andesitic agglomerate that is in excess of 300 metres thick. The agglomerate is overlain by a 300 metre sequence of thin andesitic flows. The flows are in turn overlain by 70 metres(?) of clastic and chemical sediments that are best exposed at the old Tunkwa mercury prospect. East of the prospect, and on towards the eastern border of the property, there appears to be another 700 metre sequence of thin andesitic volcanic flows. Within the andesitic flow sequences across the property there are small lenses of intercalated sediments.

Unit 1a: Andesite Agglomerate

The andesite agglomerate, Unit 1a, is exposed over a width of up to 400 metres on the western side of the Model 1 & 2 mineral claims, and is best exposed at the northeast corner of the Model 2 mineral claim. The true thickness of the agglomerate sequence is unknown as the western limit is covered by Tertiary volcanics on the property. The agglomerate is massive to blocky and green in outcrop. Volcanic bombs and debris range from 2 to 30 cm and equal up to 80% of the well indurated rock. The matrix is made up of the same composition as the ejecta.

In hand specimen, the rock is distinctly porphyritic with 15 to 25% plagioclase phenocrysts (2-5 mm), 5 to 10% augite phenocrysts (1-3 mm) and 2% biotite, all in a very fine-grained groundmass. The rock varies from moderately fresh to moderately altered. Chlorite and zoisite are the common products of alteration.

Unit 1b: Amygdaloidal Andesite Flows

The predominant rock of the Nicola Group on the property is made up of thick sequences of thin (1 to 2 metre) amygdaloidal andesite flows. A 300 metre sequence of these rocks (Unit 1b) underlies the sedimentary sequence on the Model 1 and 2 mineral claims, and overlies the sedimentary sequence for at least 700 metres to the east on the ANNE 1 and 2 mineral claims.

The flow rocks are green to purple in colour and blocky in outcrop. They exhibit breccia zones (30 cm) at the base and vesicular or amygdaloidal zones (30 cm) at the top. The crystal size is variable within the flows ranging from fine to medium-grained. Some flows contain 10% augite phenocrysts.

Unit 1c: Feldspar Porphyry Andesite Flows

Feldspar porphyry andesite flows occur as a variation within the 1b andesite flows, much like the augite porphyries, and they have not been mapped as a separate unit at the scale of this year's mapping.

Unit 1d: Limestone / Dolomite

The limestone / dolomite, Unit 1d, make up a large part (25 metres) of the main sedimentary sequence at the old Tunkwa mercury prospect. The rock encountered in Lacana's diamond drilling (DDH 283) is generally very fine-grained and grey to buff in colour. The original limestone has been largely altered to dolomite.

Units 1e, f and g: Sandstone, Siltstone and Argillite

Thin-bedded sandstones (1e), siltstones (1f), and argillites (1g) make up one-third of the main sedimentary sequence at the old Tunkwa mercury prospect, and also occur as minor intercalated lenses within volcanic flow rocks elsewhere on the property. In most instances the sandstones and siltstones (derived from andesites) are rusty, carbonate-altered rocks. The argillites are black, highly indurated rocks.

Unit 2a: Diorite Dykes/Sills - Late Cretaceous(?) Intrusives

Diorite dykes or sills (Unit 2a) up to 8 metres thick were encountered in Lacana's drilling (DDH 3, 4 and 5) at the old Tunkwa mercury prospect. The dykes/sills are fine-grained and equigranular and are composed of 15% mafics and 60% plagioclase feldspar. The dykes are moderately to strongly altered to chlorite and zoisite as are the intruded andesite flow rocks.

Unit 2b: Aplite Dyke Early Tertiary(?) Intrusive

A foliated pink to white aplite dyke (Unit 2b) made up of fine-grained quartz and feldspar intrudes Nicola metavolcanics on the ANNE 6 mineral claim. The dyke strikes slightly north of west and is parallel to the M2 Fault zone. It is exposed over a 50x150 metre area.

Unit 3: Volcanics and Sediments - Tertiary Kamloops Group

Unit 3a: Conglomerate and Breccia

Unit 3a conglomerate and breccia, composed of Kamloops Group basaltic and andesitic clasts occurs intercalated within the Kamloops Group flow rocks on the western side of the property.

These rocks are particularly well exposed near the north border of the ANNE 5 mineral claim in the valley of the northwest branch of Tunkwa Creek.

The red hematitic conglomerate and breccia are made up of poorly sorted clasts ranging from 2 to 60 cm in size set in a matrix (20%) of hematitic sand. The rock is poorly indurated.

Unit 3b: Andesite and Scoria

Brick red scoria and brown to red fine to medium-grained andesite make up approximately 30% of the Kamloops Group rock on the western half of the Model property. These flow rocks (Unit 3b) are thickly interbedded with olivine basalts. They appear to be most prevalent near the northern border of the ANNE 5 mineral claim where they dip steeply to the northwest.

Unit 3c: Olivine Basalt

Olivine basalt (Unit 3c) is believed to underlie much of the ANNE 3 and 4 mineral claims on the western half of the property. Most of the basalt is horizontal or gently dipping and it is believed to be seldom greater than 30 metres thick.

The basalt is massive to blocky and black in outcrop and it locally exhibits columnar jointing.

In hand specimen the basalt is a dense black, fine-grained rock with up to 2% olivine crystals of 2 mm.

Structural Geology and Faulting

The sequence of Upper Triassic Nicola Group metavolcanics and metasediments underlying the eastern half of the Model property are believed to strike north to northwest and dip moderately to steeply east to northeast. The sequence presumably forms the limb of a syncline, the axis of which lies to the east, off of the property.

Local variations in the attitudes of the Nicola Group mapped on parts of the property possibly reflect drag-folding associated with major faulting.

The Nicola Group rocks are unconformably overlain by Tertiary Kamloops Group volcanics and sediments. Attitudes of the Kamloops Group rocks range from horizontal to gently dipping on the western side of the property to moderately dipping (to the northwest) near the northern border of the ANNE 5 mineral claim.

At least four major Tertiary aged vertical or near vertical faults are inferred to cross the Model property and these have been named the Deadman River Fault, the Model Fault and the M1 and M2 Faults.

The Deadman River Fault has been projected south to the Tunkwa mercury prospect from the Deadman River area on Monger's (1984) Ashcroft Map #980. Evidence of strong faulting has been noted by the writer along the valley of the north branch of Tunkwa Creek 1 to 3 km north of the Model property; near the northwest corner of the Model 2 mineral claim at a point where the power line crosses the logging road; and on the south shore of the lake 300 metres to the southwest of the Tunkwa mercury prospect. The fault has a strike of 170 degrees, and it may continue to the southeast, across the Model 3 and ANNE 3 mineral claims, along a chain of lakes and marshes, although evidence in this area is concealed by heavy drift cover.

The Model Fault should more properly be called the Model Fault Zone. It passes through the old Tunkwa mercury prospect at 050 degrees and is marked by a chain of lakes and marshes, and carbonate altered bedrock for a distance of 2 km to the northeast corner of the ANNE 2 mineral claim. The fault zone is at least 100 metres wide at the old Tunkwa mercury prospect and it may be as much as 150 metres wide overall. Attitudes of slickenslide surfaces within the Model Fault zone are highly variably, but the dominant attitude appears to be 050/90. Much of the rock encountered by Lacana's 1984 diamond drilling at the old Tunkwa mercury prospect was highly faulted.

The M1 fault is subparallel to the Model Fault zone and lies 500 to 1,000 metres to the south (see Map M-88-9). The fault at 062 degrees has been entirely inferred from a study of topography and magnetic data. This year's magnetometer survey indicates some drag-folding of magnetite-rich rock units in the vicinity of the fault.

The M2 Fault, or M2 Fault zone, crosses the southern end of the ANNE 2 mineral claim and cuts through the middle of the ANNE 6 mineral claim with a strike of 095 degrees. Rock along the trace of the fault is highly fractured and carbonate altered over a width of up to 100 metres. The foliated aplite dyke on the ANNE 6 mineral claim is warped and drag-folded into several different attitudes. The fault zone is believed to be near vertical.

Alteration and Mineralization

Alteration and mineralization are intimately associated with faulting on the Model property. The extent of carbonate alteration (ankerite and dolomite replacement and veining) is seen to be directly proportional to the degree to which the Nicola Group rocks have been fractured by faulting. The rock unit involved in the fracturing seems to be of lesser importance.

Carbonate alteration is widespread across the property and ranges from weak to intense. The rock at the old Tunkwa mercury prospect represents the most altered rock of all.

Many zones of weak carbonate alteration occur on the property and those exposed by road cuts on the ANNE 1 & 2 mineral claims are typical of most. Andesite flows at these sites are rusty-weathering and moderately fractured. Ankerite replacement equals 5 to 10% of the rock and ankerite and dolomite veins equal 1 to 2%. Zones of alteration within the andesite range from 0.3 to 10 metres in width.

Moderately carbonate replaced (10 to 30% ankerite) Nicola Group metasediments are poorly exposed near the baseline on the northern half of the Model 2 mineral claim and near the southern border of the Anne 3 mineral claim. The natural porosity of the sediments has apparently allowed the easy passage of the hydrothermal solutions believed to have brought about the alteration.

The most intense carbonate alteration on the property occurs at the old Tunkwa mercury prospect where both the metavolcanics and metasediments of the Nicola Group have been highly fractured and brecciated by the Model Fault Zone. At this location ankerite replacement of the rock equals 50 to 70% over widths of more than 20 metres in Lacana's diamond drill core, while ankerite and dolomite veinlets equal up to 5% within these same zones. Zones of low temperature silica replacement occur up to 5 metres in width, and several 0.5 to 2 metre zones of silicified breccia, mended with late chalcedony, are exposed in both outcrop and drill core.

The cross sections on Figure M-88-10 illustrate that the strongest carbonate replacement zones occur within the sedimentary rocks within the upper sections of DDH 1, 2 & 3, and within the upper half of DDH 4, which was drilled entirely within volcanic rocks. Therefore, it appears that the main criteria for intense carbonate replacement is not so much the type of rock, but rather, faulting, and nearness to certain major fault planes.

Silica replacement and silica breccia zones are not as widespread as carbonate replacement zones within the drill core, but they too are believed to be directly related to the degree of faulting. The silica breccia zones are indeed evidence of faulting.

The silica replacement zones are weakly represented in DDH 4; are more apparent in DDH's 1&2; widen considerably down-dip within the sediments of DDH 3, and possibly provide the best key to finding the "roots" of the main epithermal system.

Mercury, antimony and arsenic values from sludge samples collected during Lacana's 1984 diamond drilling programme are shown in tables opposite the cross sections illustrated on Figure M-88-10. The better values recorded for each element shows a distinct relationship with the silicified zones logged in the drill core. The best mercury (2,900 parts per million (ppm) or 0.29%) occurs within the highly carbonate-altered upper levels of DDH 4 where late cross-cutting quartz veinlets carry blebs of cinnabar.

Some of the better arsenic values (310 to 428 ppm) encountered in DDH 2 occur within, and below, a 1.5 metre wide silicified zone at the 16 metre depth. The best arsenic values of DDH 3 (49 to 85 ppm) occur in those sections of core that are the most silicified (ie. at the 20 and 35 metre depths).

Elsewhere, Nicola metavolcanic rocks cut by the Deadman River Fault on the Model 1&2 mineral claims contain 5% epidote, calcite and quartz veinlets, but ankerite veining is noteably lacking.

DISCUSSION

VLF-EM 16 Survey

It was believed that the VLF-EM 16 survey would be useful in defining the trace of several large faults that are thought to cross the Model property. However, in practise the survey proved to be of little use. A fact possibly due to the very heavy glacial drift covering the grid area on the eastern side of the Model 1-3 mineral claims. Many of the weak to moderate VLF-EM conductors are entirely coincident with morainal deposits and no distinct fault structures were outlined by the survey.

The Line Profiles, illustrated on Map M-88-2A8B, give an indication of the weak magnitude of the VLF-EM conductors. The quadrature values are low in all cases and usually have a positive correlation with the In-Phase values. Weak to moderate near-surface conductors are indicated.

The seven conductors, A to G, on the Fraser Filtered VLF-EM Maps M-88-3 A & B are described below:

Conductor A extends only 100 metres from L7N to L8N near the southwest corner of the grid area. The conductor is weak and coincides with two small moraines.

Conductor B is a weak to moderate conductor that is almost entirely coincident with the crest of a moraine extending from L10N to L19N on the western side of the baseline.

Conductor C occurs within the vicinity of the 1984 drilling by Lacana in an area of little or no glacial drift. This weak conductor, which extends just 100 metres between L21N and L22N may mark the trace of a north-south fault that is elsewhere concealed by heavy drift.

Conductor D, like B, is a weak to moderate conductor that is largely coincident with the crest of a moraine which crosses the eastern side of the grid area for 1,000 metres from L17N to L27N.

Conductor E strikes northeasterly for just 100 metres from L23N to L24N just east of the Baseline, and it may represent a portion of a northeasterly striking fault that is elsewhere masked by heavy drift cover.

Conductor F crosses the northwestern corner of the grid area discontinuously for 700 metres from L28N to L35N. Much of the area is covered by drift. However, near L29N the drift cover is light and the conductor is coincident with a weak magnetic dipole. The conductor at this point could represent a magnetite-rich dyke, sill, or flow that strikes in a northerly direction.

Conductor G extends for 250 metres between L29N and L32N. Like conductor F, conductor G could represent a magnetite-rich dyke, sill or flow striking due north.

Ground Magnetometer Survey

The magnetometer survey was conducted over the grid area on the Model 1-3 mineral claims to aid in the interpretation of bedrock geology in an area that is largely drift covered. First, it was considered that some of the Nicola Group rock units might display a distinct magnetic character that would allow for the definition of fault displacements and geological structure in general. Second, it was thought that dioritic dykes might be distinguished as magnetic "highs" and that carbonate altered rocks might be distinguished as magnetic "lows", thus permitting the possible mapping of some sub-surface geology. Third, the magnetic survey was also considered to be of use in outlining the extent to which the highly magnetic basalts of the Kamloops Group might overlie the less magnetic Nicola Group rocks.

In practice, the heavy drift cover that is known to exceed 30 metres on much of the property has hampered the effectiveness of the magnetometer survey. The magnetic relief is generally low in the survey area, and only the larger magnetic features show up through the overburden.

The magnetic survey, and subsequent geological mapping, indicate that the Kamloops Group basalts possibly overlie a small portion of the Nicola Group rocks within the grid area. The eastern limit of the basalt cover may be outlined by the elevated magnetic values of the western ends of grid lines 6N to 10N on Map M-88-4B.

The main feature of the magnetic survey is the lineal magnetic high, parallel the eastern border of the Model 3 mineral claim, and called the "Border Zone" on Map M-88-4B. This feature is interpreted to be a magnetite-rich volcanic flow or series of flows within the Nicola Group sequence that strikes north and dips moderately east. The interruption and slight displacement of the magnetic high at L9N may mark cross-faulting (the M2 Fault on Map M-88-9). The magnetic high also bends northeast, off of the grid, at L16N which would indicate drag-folding and cross-faulting (the M1 Fault on Map M-88-9).

A weaker, parallel magnetic high, 150 metres to the west of the "Border Zone", or 50 to 75 metres east of the baseline extends from L10N to L16N. It also appears to represent a Nicola Group flow rock with elevated magnetite content that strikes north and dips moderately to the east.

A broad, weak, magnetic high with a sharp western contact lying between grid 11W and 12W and extending from L15N to L20N probably represents yet another magnetite-rich sequence of flows within the Nicola Group which strike north and dip moderately east.

The magnetic relief on Map M-88-4A is low in general, and apparently even the magnetite-rich flow rocks of the Nicola Group do not show well through the extensive cover of glacial drift. A weak magnetic high on L30N at 8+50W, and a weak magnetic dipole on L29N at 11+25W may represent magnetite-rich dykes, sills or flows within the Nicola Group. In both cases the features have a northerly strike, and they are coincident with weak VLF-EM conductors.

A series of magnetic lows, east of the baseline on lines 22N, 23N and 24N, and aligning in a northeasterly direction, may mark the trace of the Model Fault zone, and may be coincident with carbonate altered Nicola Group metasediments and metavolcanics.

In summary, a liberal application of the very subtle magnetic data, used in conjunction with geological mapping has allowed for much of the geological interpretation illustrated on Map M-88-9. First of all, the Model Fault zone is expressed as a series of magnetic lows trending northeasterly as mentioned earlier. Secondly, the M1 Fault is marked by the apparent bending and drag-folding of the magnetite-rich horizon within the Nicola Group referred to as the "Border Zone". Thirdly, the M2 Fault is also marked by an apparent displacement of the "Border Zone" magnetic high.

Geochemical Soil Surveys

Mercury in Soil

The mercury content in the B horizon soil samples collected from the Model grid has been plotted on Maps M-88-8A&B accompanying this report. Values of the survey range from 20 to 15000 parts per billion (ppb) mercury. A threshold value of 120 ppb was selected after analyzing the data visually, and the mercury has been contoured at 120, 240, 480 and 960 ppb intervals on the maps.

A large mercury anomaly, Anomaly A, of up to 200 metres wide by 900 metres long has been outlined by the survey. The strongest portion of the anomaly (2400 to 15000 ppb mercury) occurs on L21N west of the baseline and is coincident with the old Tunkwa mercury prospect. The anomaly cuts-off abruptly to the northwest, but trails off the southeast at least as far as L15N. The distribution of the mercury has clearly been influenced by glacial dispersion, and the source of all of the mercury of Anomaly A is thought to be the Model Fault Zone.

Mercury Anomaly B, at the eastern end of L17N, has a peak value of 780 ppb and supporting values of 360 and 480 ppb. The anomaly occurs in a drift covered area.

Mercury Anomaly C, at the east end of L12N, falls along the projected extension of Anomaly A, but reaches values of 500 to 1200 ppb, and may represent another source of mercury on the property. The area is one of deep glacial drift.

Mercury Anomaly D, on the east half of L9N, has a peak value of 5000 ppb, and some supporting values of 220 to 420 ppb. It too is in an area of deep overburden, but it may possibly be related to the M2 Fault Zone.

Mercury Anomaly E is at the eastern end of the L7N. It has a peak of 730 ppb, and supporting values of 150 ppb. It is open to the south and it is supported by some of the other elements tested during the survey (see following sections).

North of the old Tunkwa mercury prospect (in the opposite direction of ice movement) there is a total lack of anomalous mercury in soil (except for a single 1200 ppb on L27N West of the baseline). Mercury is also low in soil west of grid 11+50W throughout the survey area with the exception of Anomaly A.

Arsenic in Soils

The arsenic content in B horizon soil samples collected during the survey is plotted on Maps M-88-5A&B and has been contoured at the 10 and 20 parts per million (ppm) levels. Values of the survey range from 2 to 199 ppm. The threshold value of 10 ppm was selected after visually analyzing the data. No statistical calculations have been applied to the data.

The 10 ppm contour outlines two large areas of elevated arsenic values in soil. Arsenic Anomaly A, like Mercury Anomaly A, is centered over the old Tunkwa mercury prospect on L21N. The peak value of 199 ppm arsenic comes from the same sample that yielded 15000 ppb mercury. Arsenic Anomaly B, located near the baseline on the Model 2 mineral claim, on the other hand, is supported with anomalous iron and barium values, but no mercury values.

Arsenic Anomaly A measures 200 metres by 600 metres, and like the mercury anomaly in the area, it appears to originate with the carbonate altered rocks of the Model Fault zone. Like the mercury anomaly, glaciation appears to have dispersed the arsenic to the south at least as far as L17N. The eastern half of Anomaly A coincides with the western flank of a high morainal ridge, and much of the arsenic in soils in this region is believed to have been transported to its present position.

Arsenic Anomaly B averages 200 metres in width and extends 900 metres in length from L25N to L34N. The highest values of the anomaly (34 and 72 ppm) occur at the northern end where carbonate altered metasedimentary rocks outcrop. The arsenic values average 15 ppm over the southern two-thirds of the anomaly where the glacial drift is thought to be 3 to 4 metres deep. The southern portion of the anomaly strikes 165 degrees, coincident with the glacial direction on the property, and it is thought to represent arsenic transported well to the southeast of the mapped metasedimentary rocks.

South of Anomaly A, on the Model 2 and 3 mineral claims, slightly elevated arsenic concentrations (11 to 15 ppm) on lines 12N, 9N and 7N correlate with mercury anomalies C, D, and E on these lines respectively.

Arsenic is clearly a useful pathfinder element for locating epithermal systems on the Model property. In general it gives a slightly more focused target than mercury.

Iron in Soil

The iron content in B horizon soil samples collected from the Model property has been plotted on Maps M-88-6A&B. The 3.70% and 4.50% levels of iron were selected for contouring after a visual examination of the data.

Iron values of the survey range from 1.61 to 6.43%. The 3.70% level of iron was selected for contouring as it closely correlates with the arsenic and mercury anomalies on Maps M-88-5A&B and 8A&B respectively, and they in turn correlate with known mineralization on at least one portion of the property.

Iron Anomaly A correlates roughly with mercury and arsenic Anomaly A, but is more diffuse. The peak value of 6.43% iron is from the same sample which yielded the peak mercury and arsenic values, and which came from the vicinity of the old Tunkwa mercury prospect. Three zones of greater than 4.50% iron lie immediately southeast of the Model Fault zone. The iron is believed to have been derived from the ankeritic rocks of the Model Fault zone. The iron has been dispersed to the southeast by glaciation (just as the mercury and arsenic has been). The southeastern tail of iron Anomaly A coincides with a high morainal ridge.

Iron Anomaly B, centered just east of the baseline on the Model 2 mineral claim, is 200 metres wide and 750 metres long and extends from L27N to L34N. The iron anomaly correlates well with arsenic Anomaly B except for a slight rotation of the axis. The axis of the iron anomaly strikes due south, while that of the arsenic anomaly is 165 degrees as mentioned earlier. The iron anomaly, like the arsenic anomaly, is believed to be related to the carbonate-altered metasedimentary sequence crossing this portion of the property.

Iron Anomalies C, and D-E on the Model 3 mineral claim correlate well with mercury anomalies in the same area, supporting the premise that the mercury anomalies represent material derived from local ankerite replacement zones possibly associated with the M2 Fault zone.

Iron Anomaly c, at the east end of Lines 12N and 13N, is centered slightly to the north of mercury Anomaly C.

Iron Anomaly D-E, located east of the baseline between Lines 9N and 7N, measures 100 by 200 metres, and it is open to the south. The strong iron anomaly covers much of same area that is covered by mercury anomalies D and E.

Fifty to 75 metres west of the baseline iron Anomaly F extends for 400 metres between Lines 13N and 9N. This area is also weakly anomalous with mercury, and again, ankerite altered rock may be represented.

Barium in Soils

Barium was selected for plotting and contouring from the list of 31 elements analyzed, because it appeared to show a good correlation with arsenic and iron in certain samples. Maps M-88-7A&B show the distribution of barium in soils in the grid area. Barium at the 200 ppm level was selected for contouring after studying the data visually.

Barium does not correlate well with any of the other three elements selected for plotting, and most noteably fails in the vicinity of the old Tunkwa mercury prospect where the mercury, arsenic and iron values were all high. Areas of elevated barium lie well to the east and southeast of the old mercury prospect within an area of deep glacial drift for no apparent reason.

A second area of slightly elevated barium values, identified as "B" on Map M-88-7A, averages 125 metres in width, and extends 600 metres from L28N to L34N. The barium zone strikes slightly to the east of the north and it is believed to approximate the strike of the bedrock geology in the area. Unlike the iron and arsenic anomalies the barium anomaly, for some reason, has not been offset to the east or southeast by glaciation.

Another weak zone of elevated barium values, "C" on Map M-88-7A, extends northwesterly 600 metres from L24N to L29N on the western edge of the grid area. The zone occurs in a region of deep glacial drift, and it is not known what it may represent.

Barium Anomaly D extends for 800 metres along the eastern side of the Model 3 mineral claim. The anomaly runs off the grid area to the east and south, but reaches a width of 300 metres on L9N. The strong anomaly, with values up to 413 ppm barium, encompasses mercury and iron anomalies C, D and E, and adds credence to those anomalies.

Other Elements in Soil

A study of the soil analysis for each element listed in Appendix B reveals that copper (63-160 ppm) and vanadium (102-127 ppm) values are elevated on L7N from 7+50W to 8+75W coincident with mercury Anomaly E. Copper is also anomalous (90-145 ppm) from 8+50W to 9+00W on L9N, 200 metres to the north.

Summary of All Surveys

Out of all of the data gathered and examined during this year's work programme the drill results of Lacana's 1984 diamond drilling programme proved to be the most useful. Deep glacial overburden over much of the property greatly hampered the effectiveness of all of this year's surveys. The VLF-EM survey yielded no conductors that could clearly be equated with faulting or mineralization. The magnetometer survey was of no value in locating local features, but it did aid with the understanding of the geology on a regional scale. Geological mapping on a regional scale also proved more useful than mapping within the grid area where the overburden is consistently deep. Even the geochemical survey was greatly hampered by deep overburden and glacial dispersion of anomalous values. The geochemical survey did, however, work well in the area of the old Tunkwa mercury prospect where the overburden is shallow and high values were obtained for the elements mercury, arsenic and iron.

In summary, most of the data obtained this year identifies the old Tunkwa mercury prospect as being the best exploration target on the property. The geochemistry obtained from the sludge samples of Lacana's drilling, and a study of the core, strongly suggests that the old mercury prospect does represent the upper horizons of an epithermal system. The Lacana drilling has tested only the upper, low-temperature, levels of the system, and there is a need for deeper drilling to test for a possible precious metal horizon in the system.

CONCLUSIONS AND RECOMMENDATIONS

It has been concluded from the results of all of the surveys outlined in the foregoing discussion that the old Tunkwa mercury prospect, surrounding the dry pond on the Model 1 mineral claim, and centered over grid 21+50N and 11+00W, does represent the upper, low-temperature, level of a sizeable epithermal system. The epithermal system falls within the Model Fault zone, a zone that appears to be traceable for at least 2 kilometres northeasterly across the Model property.

Only 100 metres of strike length of the fault zone have been tested by drilling and most of this at shallow depths. Although some of the Lacana 1984 diamond drill holes were drilled to depths of up to 124 metres the design of the drill holes was such that only 70 vertical metres of the epithermal system was tested. Some of the holes drilled through the fault zone and well into footwall rocks, and DDH 5 was drilled away from the Model Fault zone, as it is now understood. The drill holes penetrated only the low temperature (chalcedony, cinnabar, stibnite, orpiment and realgar) levels of a very strong epithermal system.

Deeper drilling from sites located to the east of Lacana's drilling is highly recommended to test the down-dip levels of the altered metasediments. Deeper levels of drill penetration are also recommended for the Model Fault zone.

The two tests might be accomplished from the same drill sites, with a vertical hole drilled at each site to test the down-dip metasediments, and an inclined drill hole of minus 60 degrees drilled at 320 degrees azimuth across the Model Fault zone (please see the list of proposed drill holes). The holes should be drilled with a reverse circulation drill to the 120 metre depth. All drill cuttings should be analyzed for mercury, antimony, arsenic, silver and gold at 3 metre intervals. The geochemistry of each drill hole should be carefully recorded.

The reverse circulation drill should be used to drill two shallow (60 m) test holes into the "B" arsenic soil anomaly in the Model 2 mineral claim.

All of the proposed drilling sites are very accessible from the Logan Lake - Savona Road, and drill water is readily available from lakes in the immediate area.

TABLE OF PROPOSED REVERSE CIRCULATION DRILL HOLES

TARGET 1 - OLD TUNKWA MERCURY PROSPECT

RC DH #	North	West	Azimuth	Inclination	Depth
1	21+30	11+00	-	-90°	120 m
2	21+30	11+00	320°	-60°	120 m
3	21+55	10+72	-	-90°	120 m
4	21+55	10+72	320°	-60°	120 m
5	21+05	11+32	320°	-60°	120 m
6	20+76	11+65	320°	-60°	120 m
7	21+10	10+73	-	-90°	120 m
Contingent upon favourable results from RCDH 1-4:					
8	22+34	10+77	140°	-60°	120 m
9	22+60	10+45	140°	-60°	120 m

TARGET 2 - OLD TUNKWA MERCURY PROSPECT

RC DH #	North	West	Azimuth	Inclination	Depth
10	30+75	9+50	270°	-60°	60 m
11	31+75	9+50	270°	-60°	60 m

November 30, 1988
Kelowna, B.C.

Murray Morrison
MURRAY MORRISON, B.Sc.

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APPENDIX A

LACANA MINING CORPORATION'S 1984 DIAMOND
DRILL PROGRAMME SLUDGE SAMPLE ICP ANALYSIS

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

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SLUDGE AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: SEPT 9 1984 DATE REPORT MAILED: Sept 18/84 ASSAYER.. D.Toye .DEAN TOYE. CERTIFIED B.C. ASSAYER

LACANA MINING CORP PROJECT # 6907 FILE # 84-2552A PAGE 1

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB	HG PPB
84DDH-1 7-17	1	70	4	67	.1	47	18	888	4.50	79	5	ND	5	174	1	11	2	128	9.72	.03	3	63	4.24	49	.01	9	.58	.05	.02	28	5	9.5
84DDH-1 17-27	2	129	12	124	.2	46	15	930	4.59	35	5	ND	2	114	1	11	2	134	4.88	.04	4	27	2.41	134	.01	7	.94	.04	.04	156	5	6.5
84DDH-1 27-37	2	79	6	77	.2	56	10	930	4.25	28	5	ND	4	131	1	13	2	83	4.90	.06	7	29	2.54	107	.01	12	.78	.04	.06	82	5	15.5
84DDH-1 37-47	1	60	13	75	.1	26	13	909	4.31	29	5	ND	6	130	1	13	2	111	7.46	.06	5	11	3.04	272	.01	10	.75	.04	.04	31	5	9.0
84DDH-1 47-57	2	36	8	96	.1	27	11	964	4.00	21	5	ND	6	146	1	16	2	118	11.07	.02	2	19	4.26	87	.01	5	.61	.05	.02	20	5	14.0
84DDH-1 57-67	1	58	7	95	.2	54	14	1009	4.52	38	5	ND	3	116	1	7	2	69	4.44	.06	5	33	2.49	90	.01	8	.60	.04	.07	64	5	6.0
84DDH-1 67-77	2	62	1	79	1.3	73	15	1029	4.06	19	5	ND	5	91	1	8	6	80	6.20	.09	6	51	2.31	120	.01	10	.95	.07	.12	37	5	5.5
84DDH-1 77-87	1	70	9	79	.2	65	18	1028	4.04	14	5	ND	6	95	1	7	6	92	6.43	.09	5	64	2.34	210	.01	8	1.38	.08	.09	26	5	10.5
84DDH-1 87-97	3	72	9	62	.1	65	19	1033	5.49	16	5	ND	6	112	1	4	2	89	6.15	.09	10	66	2.70	263	.01	3	1.54	.07	.08	7	5	7.0
84DDH-1 97-107	1	63	9	71	.1	66	19	968	5.09	14	5	ND	2	198	1	2	3	109	4.93	.08	5	92	2.33	99	.10	17	2.75	.08	.08	19	5	12.5
84DDH-1 107-117	2	60	7	63	.5	64	17	925	5.17	29	5	ND	5	93	1	11	5	68	5.06	.08	7	66	2.12	241	.01	12	2.11	.09	.13	16	5	2.5
84DDH-1 117-127	1	47	8	62	.1	65	17	881	4.64	18	5	ND	3	104	1	10	2	87	4.25	.09	6	96	2.17	155	.01	8	2.31	.10	.13	4	5	17.5
84DDH-1 127-137	1	48	7	60	.1	54	16	913	4.60	18	5	ND	5	113	1	6	2	84	4.81	.09	6	51	2.34	128	.01	8	1.96	.09	.13	4	5	5.0
84DDH-1 137-147	1	67	13	63	.1	32	13	826	4.69	12	5	ND	3	100	1	5	6	119	4.49	.09	6	30	1.53	183	.09	11	2.31	.09	.11	19	5	10.0
84DDH-1 147-157	1	75	8	80	.5	65	19	1039	5.16	9	5	ND	3	146	1	2	2	102	4.71	.10	8	83	2.30	792	.10	5	2.02	.09	.11	12	5	1.5
STD C/AU-0.5	20	58	41	128	7.3	70	27	1049	3.81	40	20	8	38	49	18	15	21	58	.48	.13	37	57	.88	179	.06	38	1.72	.06	.13	13	480	1.2

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

ASSAY CERTIFICATE

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SLUDGES AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: SEPT 12 1984 DATE REPORT MAILED: Sept 19/84 ASSAYER. ...DEAN TOYE. CERTIFIED B.C. ASSAYER

LACANA MINING CORP PROJECT # 6907 FILE # 84-2603 PAGE 1

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB	HG PPB
84-2 0-10	1	72	16	87	.3	29	14	932	5.08	22	5	ND	2	102	1	20	2	123	5.50	.07	4	28	2.18	190	.01	9	.67	.04	.03	42	5	6.0
84-2 10-17	1	59	8	67	.2	23	11	1029	4.98	30	5	ND	2	118	1	17	2	99	5.79	.05	2	15	2.56	196	.01	10	.49	.03	.03	34	5	19.0
84-2 17-27	2	79	11	84	.2	44	11	1000	4.76	33	5	ND	2	103	1	17	2	97	5.04	.06	5	21	2.53	124	.01	10	.56	.03	.03	60	5	16.0
84-2 27-37	1	85	5	84	.2	30	16	856	5.92	21	5	ND	2	92	1	21	2	154	5.52	.05	2	32	2.60	191	.02	8	.76	.04	.03	26	5	21.5
84-2 37-47	2	65	6	88	.1	26	16	863	5.61	14	5	ND	2	95	1	21	3	141	8.52	.03	3	23	3.49	200	.01	10	.47	.04	.01	30	5	8.0
84-2 47-57	1	92	7	85	1.1	32	15	852	4.89	60	5	ND	2	146	1	19	2	119	9.22	.02	2	56	4.02	205	.01	10	.50	.04	.02	51	5	7.5
84-2 57-67	2	70	9	92	.1	84	17	957	5.39	310	5	ND	2	105	1	16	2	86	6.40	.07	5	70	2.91	97	.01	10	.50	.04	.04	51	5	6.0
84-2 67-77	2	102	5	103	2.6	87	18	954	5.74	403	5	ND	2	87	1	20	2	90	4.95	.09	4	54	2.47	118	.01	10	.53	.05	.07	87	5	12.0
84-2 77-87	2	88	2	71	.2	54	16	903	5.60	428	10	ND	2	76	1	13	2	83	4.44	.10	10	40	1.88	102	.02	12	.80	.08	.07	42	5	3.5
84-2 87-97	2	87	3	63	1.1	51	15	795	4.96	121	6	ND	2	112	1	8	2	70	5.01	.09	7	57	1.09	264	.01	13	1.50	.07	.08	34	5	5.0
84-2 97-107	3	92	8	76	.1	56	16	944	6.04	88	6	ND	2	107	1	10	2	79	6.14	.08	3	63	2.38	179	.01	15	1.65	.08	.08	60	5	6.5
84-2 107-117	3	142	4	112	.1	65	15	839	5.15	96	5	ND	2	116	1	7	8	74	6.25	.07	5	71	2.50	186	.01	2	1.34	.06	.07	132	5	8.0
84-2 117-127	2	66	7	85	.1	52	16	911	5.14	60	5	ND	2	102	1	11	2	74	6.30	.10	7	38	1.93	417	.01	10	.85	.06	.11	14	5	6.5
84-2 127-137	1	58	6	72	.4	35	15	858	5.23	39	5	ND	2	93	1	11	2	91	5.93	.09	4	29	2.12	551	.01	9	1.20	.06	.11	10	5	9.5
84-2 137-147	1	64	7	69	.1	24	15	878	5.50	51	4	ND	2	122	1	9	2	99	4.64	.09	6	21	1.77	596	.01	11	1.77	.07	.12	4	5	7.5
84-2 147-157	1	75	4	75	.1	25	15	860	5.43	30	8	ND	2	150	1	5	2	121	3.74	.12	7	22	2.02	203	.14	20	2.73	.06	.10	5	5	7.5
84-2 157-167	1	103	1	91	.1	43	15	926	5.73	24	5	ND	2	129	1	2	2	120	3.39	.12	6	37	2.36	293	.29	24	3.19	.06	.09	17	5	4.5
84-2 167-177	2	79	2	107	2.1	88	22	1067	6.31	27	5	ND	2	95	1	3	2	121	3.60	.14	5	99	2.83	90	.24	26	3.14	.07	.08	12	5	4.0
84-2 177-187	2	103	3	82	.1	74	18	955	5.78	53	5	ND	2	100	1	6	2	126	4.04	.09	4	78	3.29	101	.28	24	2.42	.07	.06	10	5	6.0
84-2 187-197	2	107	1	89	.1	88	18	1017	5.85	37	10	ND	2	78	1	2	3	115	2.39	.12	3	102	3.47	164	.35	23	2.79	.06	.05	32	5	6.0
84-2 197-207	2	109	5	102	.1	100	20	990	6.15	24	5	ND	2	86	1	3	2	112	2.56	.11	6	100	3.44	96	.26	23	2.86	.07	.07	35	5	3.5
84-2 207-217	2	88	7	88	.2	94	20	884	5.87	35	10	ND	2	95	1	6	2	92	2.93	.10	4	79	2.77	160	.15	19	2.26	.07	.08	13	5	4.0
84-2 217-227	3	110	4	92	.1	70	21	996	6.76	96	7	ND	2	111	1	11	2	105	4.23	.09	2	74	2.01	244	.12	13	1.70	.07	.07	22	5	12.0
84-2 227-237	4	301	26	103	.2	76	20	1033	6.56	79	5	ND	2	103	1	12	2	90	5.30	.08	6	69	3.13	343	.05	15	1.66	.06	.07	17	5	5.5
84-2 237-247	3	140	2	106	.2	66	17	953	6.26	53	7	ND	2	100	1	10	2	110	4.66	.09	4	56	2.74	420	.08	12	1.60	.07	.08	57	5	7.5
84-2 247-250	2	94	3	69	.1	47	14	936	5.72	30	10	ND	2	133	1	9	2	129	4.37	.11	8	45	2.80	271	.20	15	2.31	.13	.10	11	5	5.0
84-3 11-17	1	94	4	97	.1	28	14	1168	5.13	18	5	ND	2	166	1	22	2	129	6.15	.05	4	14	2.66	56	.01	10	.61	.03	.02	74	5	28.0
84-3 17-27	2	53	12	74	.1	29	17	1322	5.74	54	5	ND	2	74	1	15	2	109	2.91	.07	5	15	1.57	60	.01	10	.01	.05	.06	10	5	22.0
84-3 27-37	1	75	7	90	2.0	20	17	1246	5.93	44	7	ND	2	84	1	17	2	117	2.97	.07	4	18	1.63	55	.01	9	.05	.04	.06	26	5	23.0
84-3 37-47	1	72	7	82	.2	19	19	1101	6.06	38	5	ND	2	73	1	27	2	107	4.20	.06	3	20	2.21	29	.01	12	.01	.04	.04	4	5	31.0
84-3 47-57	1	57	5	61	.1	19	15	1141	6.08	30	5	ND	2	80	1	23	2	141	4.53	.06	4	17	2.17	26	.01	12	.63	.04	.06	12	5	34.0
84-3 57-67	2	49	7	63	4.0	22	14	914	5.05	65	5	ND	2	73	2	26	2	116	4.92	.04	5	25	2.25	93	.01	9	.51	.03	.02	12	5	11.0
84-3 67-77	3	52	5	61	.2	22	15	898	5.04	54	5	ND	2	60	1	24	2	115	3.87	.04	2	21	1.09	65	.01	6	.50	.03	.02	12	5	10.5
84-3 77-87	3	60	4	75	.5	28	18	977	5.03	49	5	ND	2	50	1	21	2	133	3.80	.05	2	24	2.02	53	.01	7	.51	.03	.02	11	5	6.5
84-3 87-97	3	59	7	83	.5	32	18	1122	6.61	43	5	ND	2	60	1	22	2	156	4.46	.04	3	31	2.46	37	.01	10	.50	.03	.01	9	5	10.0
84-3 97-107	4	53	6	69	.6	30	16	821	4.95	71	5	ND	2	53	1	27	2	111	3.76	.03	3	27	1.00	101	.01	7	.36	.03	.01	22	5	4.5
84-3 107-117	2	75	3	73	.5	47	17	801	5.47	85	5	ND	2	96	1	27	2	137	5.59	.02	2	66	2.08	164	.01	9	.34	.02	.01	33	5	11.5
STD C/AU 0.5	20	58	40	125	7.0	70	27	1063	4.37	40	19	8	35	49	17	16	19	59	.44	.15	40	57	.08	180	.07	40	1.64	.06	.13	14	505	-

SAMPLE#	MO	CU	PB	ZN	AG	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AU*	HG
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB	PPM
84-3 117-127	2	69	9	71	1.2	80	17	884	5.08	69	5	ND	2	92	1	21	2	104	5.41	.02	2	70	2.67	119	.01	6	.33	.03	.02	56	5	9.0
84-3 127-137	1	63	6	67	1.3	66	16	903	4.78	36	6	ND	2	103	1	17	2	89	5.40	.05	2	57	2.44	75	.01	3	.32	.02	.02	49	5	7.5
84-3 137-147	3	61	6	67	.4	57	16	980	5.63	40	7	ND	2	96	1	15	2	87	5.21	.06	3	46	2.25	143	.01	5	.47	.04	.03	34	5	6.0
84-3 147-157	3	73	6	73	.4	60	16	1060	6.31	38	8	ND	2	96	1	17	2	88	5.33	.06	5	49	2.27	246	.01	5	.40	.03	.03	44	5	7.0
84-3 157-167	3	73	7	74	.5	57	16	1029	6.04	41	8	ND	2	106	1	16	2	92	5.21	.07	4	42	2.27	184	.01	4	.41	.03	.03	52	5	12.5
84-3 167-177	2	62	7	71	.5	53	17	980	5.11	46	7	ND	2	96	1	20	2	95	4.72	.06	5	40	2.21	226	.01	6	.39	.03	.03	41	5	9.0
84-3 177-187	2	86	7	87	.3	67	18	1063	5.97	74	7	ND	2	101	1	22	2	100	4.46	.07	5	52	2.29	206	.01	6	.41	.03	.03	47	5	9.5
84-3 187-197	2	85	7	70	2.0	52	16	1063	5.65	47	5	ND	2	93	1	24	2	91	4.52	.06	3	43	2.04	334	.01	5	.43	.03	.05	49	5	13.0
84-3 197-207	2	81	6	75	.4	39	15	1012	5.46	36	7	ND	2	103	1	20	2	84	3.96	.06	4	31	1.80	567	.01	3	.43	.04	.05	40	5	11.5
84-3 207-217	1	52	5	70	.2	32	13	915	4.70	21	8	ND	2	108	1	15	2	67	3.67	.07	7	31	1.51	1133	.01	4	.33	.04	.05	27	5	8.0
84-3 217-227	2	70	8	80	.3	50	17	1091	5.72	30	8	ND	2	143	1	18	2	93	4.69	.07	4	48	2.17	771	.01	6	.52	.04	.06	21	5	9.0
84-3 227-237	1	69	6	62	.2	42	15	953	4.91	27	7	ND	2	110	1	14	2	81	4.95	.06	2	45	2.00	707	.01	6	.45	.03	.06	10	5	6.5
84-3 237-247	2	86	8	60	.2	52	17	1059	5.40	23	7	ND	2	106	1	13	2	88	4.05	.07	6	61	2.36	716	.01	6	1.04	.04	.07	7	5	6.0
84-3 247-257	2	91	6	70	.2	67	18	979	5.70	23	9	ND	2	83	1	12	2	91	3.82	.08	3	74	2.43	562	.01	7	1.47	.05	.06	9	5	4.0
84-3 257-267	2	115	7	71	.3	72	18	925	5.50	21	9	ND	2	96	1	9	2	92	3.51	.10	5	85	2.60	415	.07	12	2.09	.05	.06	12	5	3.5
84-3 267-277	2	95	6	65	.1	59	17	973	5.58	20	10	ND	2	103	1	9	2	76	3.92	.10	8	77	2.36	770	.03	8	1.53	.06	.05	10	5	3.5
84-3 277-287	2	99	10	76	.2	66	18	1019	5.80	26	9	ND	2	118	1	13	2	88	4.67	.08	4	70	2.52	321	.01	7	1.21	.05	.05	11	5	13.0
84-3 287-297	2	89	6	82	3.1	60	19	1036	6.22	23	8	ND	2	91	1	12	2	99	4.33	.09	6	68	2.44	341	.02	8	1.36	.06	.09	9	5	12.5
84-3 297-307	1	135	7	84	.2	59	18	1096	5.66	20	6	ND	2	117	1	9	2	81	4.97	.09	5	63	2.49	372	.02	7	1.74	.06	.08	6	5	5.0
84-3 307-317	1	121	5	82	.2	39	17	1052	5.52	12	10	ND	2	80	1	6	2	92	3.80	.09	9	47	2.20	360	.01	8	1.90	.08	.07	5	5	2.0
84-3 317-327	1	103	6	76	.3	45	17	1094	5.56	16	11	ND	2	96	1	9	2	91	4.73	.08	2	54	2.09	616	.01	6	1.53	.05	.08	8	5	3.5
84-3 327-328.5	1	144	7	76	.3	40	18	1062	5.94	12	10	ND	2	69	1	7	2	113	4.34	.09	2	49	2.10	222	.01	7	2.01	.05	.09	4	5	3.0
84-4 17-27	3	79	6	80	.1	51	10	709	3.97	67	5	ND	2	85	1	118	2	99	5.45	.01	2	47	2.07	73	.01	3	.30	.02	.01	87	5	60.0
84-4 27-37	1	36	6	86	.2	101	15	1020	4.67	75	7	ND	2	92	1	140	2	98	6.05	.05	2	59	2.32	38	.01	6	.37	.03	.04	25	5	2900.0
84-4 37-47	1	35	5	64	.2	61	17	967	4.90	39	12	ND	2	93	1	47	2	94	5.67	.12	8	65	2.65	58	.01	3	.50	.03	.03	9	5	155.0
84-4 47-57	1	34	6	64	.3	52	15	994	4.71	16	9	ND	2	87	1	31	2	98	4.58	.11	7	52	2.16	674	.01	8	.73	.06	.09	8	5	60.0
84-4 57-67	1	27	7	60	.2	53	16	1002	4.76	47	11	ND	2	95	1	23	2	90	4.79	.11	10	46	2.24	357	.01	6	.60	.06	.10	4	5	28.0
84-4 67-77	1	30	6	63	.1	55	16	1040	4.62	55	10	ND	2	107	1	20	2	88	6.66	.09	7	42	2.53	114	.01	6	.51	.03	.05	5	5	45.0
84-4 77-87	1	40	4	66	.2	63	18	1069	4.77	49	9	ND	2	105	1	24	2	94	5.43	.09	6	47	2.56	247	.01	6	.54	.04	.06	7	5	40.0
84-4 87-97	1	33	7	62	.1	40	16	909	4.69	15	13	ND	2	106	1	17	2	86	4.20	.10	10	44	2.34	663	.01	7	.84	.06	.11	6	5	14.0
84-4 97-107	1	35	7	75	.2	76	21	990	5.43	89	8	ND	2	93	1	35	2	106	4.97	.09	6	44	2.10	177	.01	5	.52	.03	.09	10	5	41.0
84-4 107-117	1	32	7	81	.2	61	19	1149	5.54	28	10	ND	2	105	1	20	2	93	4.60	.09	9	48	2.33	497	.01	6	.59	.05	.10	10	5	35.0
84-4 117-127	1	60	6	81	.1	55	19	1118	5.66	8	10	ND	2	146	1	14	2	77	4.09	.09	8	57	2.57	794	.01	8	.85	.05	.09	4	5	7.5
84-4 127-137	1	64	5	112	.3	102	29	1307	6.54	64	11	ND	2	122	1	28	2	113	4.96	.08	4	73	2.73	238	.01	7	.62	.04	.06	3	5	37.0
84-4 137-147	1	102	4	79	.2	64	19	1039	5.54	24	15	ND	2	90	1	30	2	93	3.87	.11	10	66	2.06	384	.01	8	1.09	.07	.09	5	5	16.0
84-4 147-157	1	80	7	86	.1	90	25	1125	6.12	58	13	ND	2	84	1	27	2	115	4.70	.11	10	62	2.40	245	.01	7	.75	.06	.06	7	5	24.5
84-4 157-167	1	129	6	71	.2	76	19	930	5.64	16	14	ND	2	76	1	10	2	96	4.93	.10	4	81	2.13	219	.04	10	2.44	.07	.08	2	5	6.0
84-4 167-177	1	119	7	60	.2	77	18	973	5.65	10	9	ND	2	82	1	5	2	103	4.09	.11	5	80	2.32	134	.07	14	2.69	.08	.07	2	5	6.0
84-4 177-187	2	98	8	83	.2	75	20	1121	6.11	23	13	ND	2	96	1	10	2	100	4.50	.10	8	77	2.76	337	.02	9	1.90	.09	.10	3	5	7.5
STD C/AU 0.5	17	58	39	124	6.8	69	27	1009	4.35	37	18	8	37	48	16	16	18	58	.44	.14	39	57	.08	179	.06	37	1.64	.06	.12	13	510	-

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

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SLUDGES AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: SEPT 13 1984 DATE REPORT MAILED: Sept 18/84 ASSAYER. D. Toye DEAN TOYE. CERTIFIED B.C. ASSAYER

LACANA MINING CORP PROJECT # 6907 FILE # 84-2610 PAGE 1

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AU* PPB	HG PPB
84-5 47-57	1	54	12	65	1.1	33	11	659	3.36	11	5	ND	3	73	1	2	2	91	2.60	.11	7	25	1.50	455	.16	10	1.67	.08	.10	33	5	460
84-5 57-67	2	61	10	70	.6	49	11	844	3.55	14	5	ND	3	122	1	2	2	92	2.76	.13	6	33	1.56	357	.13	14	1.59	.10	.12	28	5	390
84-5 67-77	2	51	8	79	.3	34	11	1127	3.93	19	5	ND	2	218	1	2	2	97	2.66	.14	8	30	1.53	496	.09	13	1.22	.09	.13	13	5	320
84-5 77-87	2	91	5	57	.2	23	12	1419	4.15	28	5	ND	2	465	1	2	2	121	3.21	.17	9	22	1.66	314	.02	10	.88	.08	.18	2	5	150
84-5 87-93	2	74	6	54	.1	23	11	1447	4.06	22	5	ND	2	429	1	2	2	112	3.24	.16	6	22	1.57	281	.02	16	.73	.07	.16	3	5	110
84-5 127-137	5	82	6	66	.2	30	12	1229	3.31	15	5	ND	2	179	1	3	2	73	3.40	.08	7	27	1.07	628	.01	8	.57	.10	.13	32	5	720
84-5 137-147	3	167	7	155	.3	50	12	949	4.48	13	5	ND	2	172	1	2	7	67	3.03	.08	7	18	1.54	208	.01	2	.92	.12	.13	121	5	440
84-5 147-157	3	71	8	60	.1	22	12	1097	4.50	17	5	ND	2	194	1	3	2	79	3.87	.08	10	15	1.77	341	.05	9	.78	.12	.13	14	5	1800
84-5 157-167	6	86	8	70	1.7	44	16	1137	5.77	34	5	ND	2	143	1	9	3	98	4.25	.06	9	38	2.18	227	.01	9	.52	.07	.09	30	5	6400
84-5 167-177	5	90	10	60	.7	50	17	1256	6.55	23	5	ND	2	143	1	6	2	89	4.04	.07	3	59	2.12	506	.01	10	.62	.09	.11	8	5	2700
84-5 177-187	8	116	9	62	.7	55	17	1221	6.84	22	5	ND	2	144	1	2	2	81	5.35	.07	2	60	2.04	614	.01	8	.81	.08	.11	10	5	3100
84-5 187-197	6	117	5	79	.1	50	17	1168	6.35	23	5	ND	2	136	1	3	2	88	5.22	.08	9	66	2.06	470	.01	8	1.00	.09	.11	17	5	2000
84-5 197-207	6	106	6	65	.1	61	20	1059	6.27	21	5	ND	2	127	1	3	2	73	5.43	.07	9	77	2.02	108	.01	8	1.18	.08	.10	14	5	2200
84-5 207-217	5	103	6	68	.2	55	19	1026	5.76	25	5	ND	2	146	1	5	2	84	4.79	.07	5	60	2.00	239	.01	10	1.04	.08	.10	21	5	2700
84-5 217-227	6	108	9	87	1.3	66	19	1167	6.53	25	5	ND	2	151	2	7	2	86	5.49	.07	11	62	2.52	550	.01	12	.67	.07	.09	24	5	4800
84-5 227-237	7	120	9	69	.2	61	17	1172	6.73	27	5	ND	2	147	1	5	2	78	4.68	.07	7	64	1.97	529	.01	7	.87	.09	.11	20	5	2100
84-5 237-247	6	95	5	81	.3	70	19	1083	6.54	19	5	ND	2	124	1	3	2	75	4.12	.08	7	77	2.29	637	.01	10	1.32	.08	.10	16	5	2200
84-5 247-257	5	87	6	88	.1	75	19	1096	6.21	19	5	ND	2	123	1	2	2	91	3.85	.10	7	86	2.33	415	.04	12	1.07	.07	.09	14	5	1000
84-5 257-267	6	121	8	99	1.0	85	20	1125	7.11	20	5	ND	2	108	1	2	2	102	3.32	.09	11	93	2.63	486	.09	15	1.96	.07	.09	21	5	1800
84-5 267-277	5	82	8	102	.2	79	20	1027	6.57	16	5	ND	2	97	1	2	2	81	3.22	.09	10	82	2.43	340	.03	11	1.74	.07	.10	18	5	1000
84-5 277-287	5	91	5	92	.3	71	20	1004	6.34	14	5	ND	2	94	1	2	2	77	3.19	.10	7	86	2.22	539	.03	8	1.73	.07	.09	31	5	1500
84-5 287-297	5	101	5	92	.1	69	20	1165	6.45	16	5	ND	2	102	1	2	2	78	3.65	.08	7	67	2.23	1078	.04	8	1.73	.07	.10	16	5	1400
84-5 297-307	5	96	8	82	.1	60	20	1186	6.51	19	5	ND	2	142	1	2	2	87	4.10	.08	11	64	2.32	1072	.02	11	1.43	.08	.12	11	5	2000
84-5 307-317	5	94	8	87	.1	62	20	1107	6.61	17	5	ND	2	142	1	2	4	92	4.50	.08	6	59	2.41	1073	.01	9	1.22	.08	.12	22	5	2400
84-5 317-327	3	60	3	87	.1	66	19	1047	5.08	15	5	ND	2	106	1	2	2	90	3.89	.10	6	71	2.28	489	.02	9	1.66	.09	.14	8	5	1400
84-5 327-337	3	61	3	81	.1	50	20	1086	5.94	16	5	ND	2	143	1	3	2	101	4.08	.09	6	63	2.36	546	.01	10	1.29	.10	.14	11	5	1600
84-5 337-347	3	131	3	139	.3	83	22	1129	5.40	26	5	ND	2	153	1	10	2	103	4.52	.08	8	56	2.53	759	.01	8	.82	.08	.11	92	5	4500
84-5 347-357	4	161	2	158	.1	95	21	1092	5.30	25	5	ND	2	166	1	8	9	101	4.53	.08	5	53	2.43	612	.01	2	.83	.08	.11	181	5	6000
84-5 357-367	3	94	7	111	.1	70	21	1177	5.66	19	5	ND	2	145	1	7	2	105	4.27	.08	5	56	2.47	582	.01	8	.85	.08	.11	37	5	8500
84-5 367-377	4	103	6	100	.1	67	19	1111	5.74	20	5	ND	2	132	1	7	2	98	4.35	.09	9	66	2.25	696	.01	8	1.27	.09	.12	32	5	3500
84-5 377-387	3	78	6	77	1.4	52	16	934	4.90	15	5	ND	2	126	1	4	3	87	3.35	.10	8	44	2.07	687	.06	10	1.35	.10	.09	24	5	2600
84-5 387-397	3	100	6	100	.1	65	20	1004	5.66	17	5	ND	2	160	1	3	2	103	4.08	.09	9	55	2.40	714	.01	13	1.28	.11	.14	45	5	1800
84-5 397-400	3	84	6	92	.1	59	20	1114	5.46	16	5	ND	2	158	1	4	2	96	4.33	.07	4	54	2.60	647	.02	8	.94	.08	.10	20	5	2600
STD C/AU 0.5	19	58	39	124	6.3	69	27	1066	3.82	40	18	7	35	49	16	15	20	59	.48	.15	37	58	.88	181	.07	37	1.66	.06	.13	14	510	1200

APPENDIX B

1988 SOIL GEOCHEMICAL ICP ANALYSIS

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

GEOCHEMICAL ANALYSIS CERTIFICATE

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

DATE RECEIVED: NOV 17 1988 DATE REPORT MAILED: Nov 24/88 SIGNED BY. C. Leong ...D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

M.S. MORRISON File # 88-1837R Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L34N 12+50W	1	23	7	57	.1	20	10	718	2.82	5	5	ND	1	40	1	2	4	56	.48	.030	9	34	.46	125	.11	6	1.65	.02	.19	1	30
L34N 12+25W	1	32	6	44	.2	18	7	285	1.99	3	5	ND	1	253	1	2	3	39	9.58	.071	10	26	2.79	147	.07	12	1.46	.04	.18	1	50
L34N 12+00W	1	31	4	54	.1	33	12	622	3.58	4	5	ND	3	40	1	4	6	68	.57	.030	17	51	.67	142	.13	4	2.11	.03	.24	1	50
L34N 11+75W	1	20	6	58	.1	21	10	534	2.99	4	5	ND	2	33	1	2	2	57	.41	.027	11	42	.43	132	.14	4	1.88	.03	.17	1	30
L34N 11+50W	1	16	4	62	.1	18	8	577	2.71	2	5	ND	1	32	1	2	2	50	.45	.026	8	34	.34	147	.13	3	1.67	.02	.19	1	20
L34N 11+25W	1	17	8	59	.1	20	9	577	2.80	3	5	ND	3	31	1	2	3	54	.48	.030	12	34	.36	131	.13	4	1.77	.02	.20	1	20
L34N 11+00W	1	29	4	75	.1	36	12	1054	3.59	8	5	ND	2	38	1	2	2	62	.57	.034	15	57	.52	222	.11	5	2.07	.02	.21	1	30
L34N 10+75W	1	32	4	64	.1	26	11	628	3.59	7	5	ND	3	39	1	2	3	61	.48	.054	15	37	.53	182	.10	3	2.01	.02	.21	1	60
L34N 10+50W	1	43	4	74	.1	27	14	1088	3.63	7	5	ND	3	51	1	2	2	60	1.22	.036	16	34	.76	194	.10	8	2.21	.03	.27	1	70
L34N 10+25W	1	39	3	119	.1	26	12	974	3.92	36	5	ND	1	41	1	2	3	60	.66	.049	14	37	.46	231	.08	3	2.17	.02	.21	1	40
L34N 10+00W	1	56	8	102	.1	23	13	1005	4.54	72	5	ND	2	39	1	5	2	59	.67	.051	14	27	.45	265	.07	8	2.31	.02	.26	1	50
L34N 9+75W	1	48	7	107	.1	24	16	1227	4.52	10	5	ND	2	48	1	2	3	68	.89	.046	18	32	.55	198	.07	8	2.64	.02	.22	1	40
L34N 9+50W	1	42	6	91	.1	22	14	916	4.33	9	5	ND	3	43	1	4	6	68	.85	.033	21	33	.62	177	.10	5	3.29	.02	.21	1	40
L34N 9+25W	1	34	8	66	.1	28	15	1076	3.98	5	5	ND	2	45	1	2	4	64	.89	.029	16	43	.68	169	.11	3	2.32	.02	.19	1	30
L34N 9+00W	1	33	5	68	.3	24	12	933	3.53	7	5	ND	4	47	1	2	4	57	.68	.034	15	37	.74	170	.10	5	2.15	.03	.27	1	30
L34N 8+75W	1	50	7	101	.1	19	16	883	4.64	9	5	ND	3	47	1	6	2	85	.83	.065	15	30	1.12	161	.10	4	3.70	.02	.37	1	20
L34N 8+50W	1	46	9	83	.1	28	15	839	4.03	7	5	ND	3	51	1	3	2	66	.66	.047	18	37	.73	162	.11	8	2.64	.03	.33	1	40
L34N 8+25W	1	31	9	63	.1	19	10	831	2.75	2	5	ND	1	47	1	2	2	47	.42	.040	11	30	.49	138	.09	3	1.59	.02	.24	1	40
L34N 8+00W	1	41	5	70	.1	24	11	647	3.10	3	5	ND	1	73	1	2	4	50	.89	.034	14	34	.82	117	.10	11	1.94	.03	.31	1	50
L34N 7+75W	1	42	10	82	.2	26	13	698	3.92	5	5	ND	2	45	1	4	2	73	.66	.055	19	38	.69	102	.12	4	2.74	.03	.31	1	100
L34N 7+50W	1	45	7	75	.1	34	19	861	4.20	6	5	ND	3	60	1	2	3	86	.74	.049	22	47	.92	101	.13	4	2.46	.03	.32	1	150
L33N 12+50W	1	26	4	70	.1	22	11	840	2.94	2	5	ND	3	35	1	2	2	55	.40	.025	10	33	.45	159	.11	2	1.64	.02	.20	1	40
L33N 12+25W	1	43	10	83	.1	28	11	854	3.48	4	5	ND	3	45	1	2	2	55	.49	.031	21	40	.65	220	.13	8	2.96	.02	.27	1	50
L33N 12+00W	1	27	12	71	.2	21	8	415	3.04	5	5	ND	3	30	1	2	3	62	.34	.030	9	35	.41	166	.13	3	1.77	.02	.15	1	50
L33N 11+75W	1	34	7	81	.1	22	10	688	3.24	12	5	ND	2	37	1	2	2	59	.54	.037	12	35	.39	246	.12	5	2.00	.02	.18	1	40
L33N 11+50W	1	28	7	62	.1	26	10	604	3.26	4	5	ND	3	37	1	2	3	62	.54	.032	14	46	.45	182	.13	5	2.02	.02	.25	1	40
L33N 11+25W	1	28	7	75	.1	22	10	636	3.05	2	6	ND	4	36	1	2	3	56	.49	.040	16	37	.39	185	.13	4	2.12	.02	.22	1	30
L33N 11+00W	1	33	6	74	.1	28	11	906	3.43	6	5	ND	3	42	1	2	4	62	.81	.038	14	41	.45	227	.11	4	2.03	.03	.21	2	100
L33N 10+75W	1	37	8	93	.1	22	11	1038	3.39	11	5	ND	1	42	1	2	2	51	.77	.052	14	36	.39	282	.08	7	2.33	.02	.23	1	50
L33N 10+50W	1	41	11	84	.1	25	13	976	3.90	10	5	ND	1	43	1	2	2	64	.75	.044	15	37	.54	269	.11	7	2.83	.02	.18	1	60
L33N 10+25W	1	35	16	102	.3	22	12	1182	3.71	24	5	ND	3	46	1	4	2	57	.78	.032	15	35	.48	216	.10	5	2.59	.02	.20	1	50
L33N 10+00W	1	44	10	114	.1	26	12	772	4.21	18	5	ND	4	44	1	2	2	64	.64	.060	17	38	.49	227	.10	3	2.48	.02	.23	2	40
L33N 9+75W	1	38	9	88	.1	23	10	914	3.33	16	5	ND	1	63	1	2	2	46	.64	.052	13	27	.48	188	.07	3	1.73	.02	.22	1	30
L33N 9+50W	1	43	11	84	.2	29	14	1123	4.04	27	5	ND	1	49	1	2	2	55	.75	.053	16	35	.50	263	.07	6	2.41	.02	.20	1	20
L33N 9+25W	1	53	9	95	.1	28	17	895	4.74	7	5	ND	2	42	1	2	2	70	.81	.059	16	38	.67	235	.05	6	2.61	.02	.23	1	20
L33N 9+00W	1	40	10	75	.1	26	13	780	3.83	13	5	ND	3	47	1	2	2	63	.72	.031	18	38	.57	180	.10	4	2.60	.02	.28	1	30
STD C	19	63	39	132	7.1	74	31	1103	4.22	40	20	8	39	51	19	16	20	61	.49	.090	40	61	.89	181	.07	34	2.02	.07	.14	14	1400

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L33N 8+75W	1	42	2	65	.3	29	13	774	4.24	3	5	ND	3	50	1	3	2	63	.77	.027	18	39	.70	176	.09	2	2.65	.02	.27	1	40
L33N 8+50W	1	47	2	88	.2	22	13	927	4.09	7	5	ND	3	45	1	2	5	65	.59	.056	14	35	.64	180	.10	5	2.77	.02	.28	1	30
L33N 8+25W	1	38	5	70	.2	26	11	982	3.67	2	5	ND	4	59	1	2	4	61	.66	.031	17	34	.78	158	.11	5	2.24	.03	.31	1	60
L33N 8+00W	1	35	7	92	.3	22	9	1122	3.21	3	5	ND	3	53	1	2	4	49	.55	.054	13	32	.50	213	.11	2	2.50	.02	.24	1	40
L33N 7+75W	1	40	2	56	.1	21	8	774	3.07	3	5	ND	3	96	1	2	2	47	.55	.024	14	32	.76	317	.10	8	2.04	.03	.31	1	30
L33N 7+50W	1	36	8	51	.4	19	6	406	2.27	2	7	ND	1	433	1	4	2	42	7.34	.069	11	23	2.06	152	.07	15	1.58	.09	.30	1	50
L32N 12+50W	1	34	5	93	.2	25	11	957	3.64	4	5	ND	3	43	1	2	2	65	.73	.028	16	37	.61	215	.11	3	2.34	.02	.20	1	40
L32N 12+25W	1	23	2	68	.1	17	5	548	2.74	2	5	ND	2	34	1	2	2	46	.49	.027	9	29	.40	142	.12	5	1.80	.02	.28	1	30
L32N 12+00W	1	28	4	68	.1	19	8	546	3.27	2	5	ND	3	41	1	2	4	59	.67	.033	12	37	.46	155	.14	7	2.17	.02	.25	1	30
L32N 11+75W	1	28	4	67	.1	27	10	524	3.59	3	5	ND	3	44	1	3	2	61	.64	.036	12	47	.56	166	.14	10	2.61	.03	.26	1	40
L32N 11+50W	1	52	8	90	.3	70	20	796	5.41	12	5	ND	3	68	1	2	4	94	1.31	.071	11	106	1.41	171	.19	9	4.85	.06	.25	1	40
L32N 11+25W	1	56	6	106	.1	79	21	1229	5.36	24	5	ND	2	41	1	2	3	85	.94	.060	17	112	.84	381	.07	5	3.10	.02	.23	1	50
L32N 11+00W	1	34	4	79	.2	32	10	671	3.86	35	5	ND	3	36	1	2	3	61	.53	.027	13	47	.47	198	.11	8	2.50	.02	.18	1	70
L32N 10+75W	1	34	4	87	.1	26	9	885	3.63	9	5	ND	3	37	1	2	2	59	.60	.055	14	44	.41	258	.11	4	2.47	.02	.27	1	40
L32N 10+50W	1	34	11	73	.2	28	11	740	3.63	12	5	ND	3	44	1	2	3	60	.68	.041	14	37	.46	212	.12	4	2.19	.03	.22	1	50
L32N 10+25W	1	34	7	104	.4	24	9	861	3.21	9	5	ND	3	47	1	4	4	50	.59	.042	14	33	.37	268	.10	5	2.14	.02	.22	1	40
L32N 10+00W	1	31	6	91	.2	21	9	1002	2.96	6	5	ND	2	46	1	2	5	43	.63	.042	12	29	.44	202	.09	2	2.17	.02	.19	1	40
L32N 9+75W	1	44	2	83	.1	25	12	1098	3.79	13	5	ND	2	58	1	2	2	56	.79	.043	15	32	.56	211	.09	6	2.36	.02	.29	1	50
L32N 9+50W	1	45	5	79	.1	24	8	327	3.75	10	5	ND	2	92	1	2	2	52	.88	.086	16	37	.92	119	.09	5	2.71	.03	.34	1	40
L32N 9+25W	1	61	5	82	.2	31	17	939	4.73	18	5	ND	4	57	1	2	4	79	.82	.069	22	45	.73	215	.12	3	3.52	.02	.33	1	40
L32N 9+00W	1	52	2	82	.1	30	17	993	4.53	11	5	ND	3	52	1	2	4	75	.97	.065	18	42	.82	233	.09	7	3.32	.02	.24	1	20
L32N 8+75W	1	54	4	80	.1	29	18	846	4.75	6	5	ND	3	51	1	2	4	77	.75	.054	20	44	.89	177	.11	3	3.32	.02	.38	1	30
L32N 8+50W	1	41	9	67	.1	32	15	885	4.01	5	5	ND	3	61	1	2	2	67	.78	.043	20	46	.74	185	.10	5	2.48	.03	.30	1	40
L32N 8+25W	1	47	3	70	.1	23	11	975	3.61	6	5	ND	2	89	1	2	2	57	.64	.059	16	33	.79	160	.09	9	2.43	.03	.36	1	30
L32N 8+00W	1	34	9	68	.2	24	11	964	3.36	5	5	ND	2	59	1	2	5	59	.78	.054	15	34	.56	166	.10	3	2.18	.03	.33	1	50
L32N 7+75W	1	34	2	65	.1	23	13	891	3.47	5	5	ND	3	51	1	2	4	61	.73	.038	15	35	.60	143	.11	7	2.21	.03	.31	1	80
L32N 7+50W	1	31	8	85	.2	22	10	996	3.14	3	5	ND	3	51	1	2	4	54	.61	.047	14	34	.48	207	.12	3	2.28	.02	.28	1	30
L31N 12+50W	1	35	4	71	.1	29	12	770	3.85	7	5	ND	2	43	1	2	2	72	.66	.045	15	44	.65	187	.14	2	2.71	.02	.24	1	40
L31N 12+25W	1	30	2	84	.1	27	10	796	3.37	7	5	ND	3	43	1	2	2	66	.67	.027	13	41	.57	192	.14	4	2.45	.03	.21	1	30
L31N 12+00W	1	29	7	58	.1	23	9	530	3.42	6	5	ND	2	43	1	2	2	66	.61	.028	13	38	.52	147	.14	5	2.33	.02	.21	1	30
L31N 11+75W	1	27	5	60	.1	28	10	635	3.43	3	5	ND	3	40	1	2	2	62	.57	.033	13	44	.51	167	.15	2	2.49	.02	.21	1	40
L31N 11+50W	1	30	5	57	.1	27	10	594	3.34	2	5	ND	3	49	1	3	2	62	.56	.033	12	42	.60	148	.14	6	2.39	.03	.22	1	30
L31N 11+25W	1	35	9	64	.1	30	11	704	3.67	8	5	ND	3	52	1	2	5	69	.72	.037	15	46	.60	183	.14	5	2.48	.03	.25	1	40
L31N 11+00W	1	37	11	68	.2	31	11	878	3.33	6	5	ND	3	53	1	2	3	57	.71	.047	14	44	.57	221	.11	6	2.37	.03	.29	1	50
L31N 10+75W	1	40	4	76	.3	37	16	899	4.27	16	5	ND	3	39	1	4	5	72	.68	.047	16	54	.63	246	.09	8	2.57	.02	.26	2	40
L31N 10+50W	1	44	6	84	.1	33	13	943	4.31	18	5	ND	3	41	1	2	3	65	.67	.049	15	46	.53	244	.08	8	2.42	.02	.28	1	50
STD C	19	63	37	132	7.0	73	31	1116	4.28	44	18	7	39	51	19	15	19	61	.50	.091	40	63	.90	180	.07	32	2.02	.08	.14	13	1400

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L31N 10+25W	1	35	5	75	.3	26	12	720	3.83	17	5	ND	3	41	1	2	2	65	.57	.042	16	39	.56	154	.11	4	2.23	.03	.28	1	50
L32N 10+00W	1	35	5	88	.2	25	11	844	3.74	20	5	ND	3	46	1	2	2	60	.58	.045	17	37	.56	175	.10	2	2.23	.03	.33	1	50
L31N 9+75W	1	45	2	86	.4	27	16	944	4.36	34	5	ND	3	49	1	3	2	66	.71	.046	17	36	.70	175	.09	3	2.29	.03	.32	1	60
L31N 9+50W	1	54	5	80	.2	29	19	991	4.86	8	5	ND	2	50	1	2	2	83	.72	.048	18	41	.86	174	.08	4	2.99	.02	.29	1	30
L31N 9+25W	1	50	2	65	.1	21	9	696	3.16	8	5	ND	1	159	1	2	3	48	1.23	.066	13	23	1.60	99	.05	15	2.02	.05	.29	1	50
L31N 9+00W	1	44	5	74	.1	25	12	779	3.45	7	5	ND	2	97	1	2	2	55	.90	.074	14	31	.60	144	.08	8	2.23	.02	.44	1	30
L31N 8+75W	1	48	3	73	.3	28	13	890	3.86	6	5	ND	4	57	1	2	3	66	.94	.069	20	38	.75	225	.10	2	3.06	.02	.33	2	40
L31N 8+50W	1	49	2	72	.2	30	18	930	4.40	7	5	ND	4	58	1	3	2	79	.77	.056	22	45	.94	172	.11	2	3.20	.02	.34	1	30
L31N 8+25W	1	47	4	65	.1	27	12	1050	3.72	4	5	ND	2	63	1	2	3	63	.95	.061	19	31	.85	180	.08	5	2.34	.03	.33	1	50
L31N 8+00W	1	35	2	71	.1	22	11	930	3.37	2	5	ND	2	99	1	2	2	58	.75	.067	16	32	.87	151	.08	6	2.24	.03	.36	1	30
L31N 7+75W	1	41	4	69	.2	23	10	629	2.99	5	5	ND	2	174	1	2	2	50	1.28	.067	13	27	1.12	86	.07	13	1.90	.05	.30	1	50
L31N 7+50W	1	52	5	70	.1	20	8	586	3.04	3	5	ND	1	151	1	2	2	44	.98	.060	15	27	1.12	86	.08	8	2.39	.06	.25	1	40
L29N 12+50W	1	48	10	74	.3	35	15	624	4.31	8	5	ND	3	52	1	3	2	87	.83	.044	16	50	.89	253	.16	4	3.70	.02	.24	2	50
L29N 12+25W	1	57	8	72	.2	28	15	756	4.15	6	5	ND	3	54	1	3	2	88	.93	.058	14	40	.90	225	.14	4	3.09	.02	.27	1	40
L29N 12+00W	1	44	5	72	.1	31	14	722	4.08	10	5	ND	3	44	1	2	2	81	.68	.063	15	42	.75	206	.13	5	3.08	.02	.26	1	50
L29N 11+75W	1	36	6	60	.1	21	10	666	3.06	2	5	ND	3	77	1	3	2	57	.71	.034	13	31	.77	147	.12	4	2.34	.03	.30	1	30
L29N 11+50W	1	43	7	59	.1	26	11	647	3.00	4	5	ND	1	90	1	2	3	64	2.08	.098	12	31	1.17	150	.09	11	1.81	.03	.24	1	60
L29N 11+25W	1	39	2	111	.1	20	9	400	3.12	5	5	ND	3	57	1	2	3	43	.65	.091	15	38	.65	259	.12	5	3.00	.02	.29	1	30
L29N 11+00W	1	39	4	77	.4	29	12	805	3.56	10	5	ND	3	54	1	2	4	61	.76	.077	16	45	.65	263	.13	4	3.05	.03	.31	1	40
L29N 10+75W	1	30	8	67	.3	28	12	761	3.42	7	5	ND	4	57	1	2	2	64	.63	.052	18	41	.63	193	.14	2	2.47	.03	.34	1	30
L29N 10+50W	1	36	5	71	.2	32	12	859	3.60	10	5	ND	3	55	1	2	2	63	.70	.054	18	44	.62	213	.12	3	2.54	.03	.28	1	40
L29N 10+25W	1	41	4	74	.1	33	13	735	3.99	14	5	ND	4	43	1	2	3	70	.61	.061	17	50	.70	155	.12	4	2.64	.03	.35	1	50
L29N 10+00W	1	46	5	76	.1	36	17	1083	4.54	17	5	ND	2	44	1	2	6	69	.70	.049	16	47	.78	188	.07	2	2.31	.02	.35	1	60
L29N 9+75W	1	44	7	85	.3	23	9	381	3.83	5	5	ND	3	70	1	2	2	50	.65	.043	15	40	1.22	115	.10	5	2.64	.04	.38	1	50
L29N 9+50W	1	44	3	75	.2	25	10	660	3.54	10	5	ND	1	77	1	2	2	50	.66	.053	14	30	.86	130	.08	9	2.26	.03	.39	1	40
L29N 9+25W	1	61	2	75	.1	27	16	887	4.57	20	5	ND	2	68	1	2	6	76	.81	.049	17	32	1.09	145	.09	5	2.51	.03	.32	1	120
L29N 9+00W	1	41	6	74	.1	24	10	1098	3.69	10	5	ND	2	60	1	2	3	58	.97	.059	16	31	.65	206	.08	4	2.49	.02	.25	1	60
L29N 8+75W	1	43	5	75	.2	30	14	675	4.55	16	5	ND	4	53	1	2	3	80	.55	.062	18	44	.73	206	.12	2	3.14	.01	.19	1	110
L29N 8+50W	1	41	3	64	.1	22	8	312	2.98	5	5	ND	1	209	1	2	4	46	1.12	.078	12	31	1.47	70	.06	16	2.07	.05	.31	1	40
L29N 8+25W	1	36	6	58	.2	19	9	755	3.13	4	5	ND	2	122	1	2	3	51	.86	.048	14	30	.94	112	.08	9	2.16	.04	.37	1	30
L29N 8+00W	1	44	8	59	.1	20	11	979	3.54	4	5	ND	2	79	1	2	3	56	.80	.059	16	30	.85	237	.07	6	2.27	.02	.29	1	40
L29N 7+75W	1	44	8	67	.1	22	13	987	3.68	8	5	ND	2	56	1	2	2	61	.75	.072	17	32	.77	164	.09	5	2.32	.02	.27	1	50
L29N 7+50W	1	35	6	76	.2	18	11	1104	3.49	3	5	ND	2	46	1	2	3	56	.66	.055	15	31	.62	182	.09	9	2.36	.02	.25	1	40
L28N 12+50W	1	36	9	76	.1	20	14	872	3.78	8	5	ND	1	51	1	2	3	74	.84	.144	12	34	.72	279	.14	8	3.07	.02	.41	1	30
L28N 12+25W	1	39	5	72	.2	22	10	1189	3.09	5	5	ND	2	53	1	4	2	58	.96	.061	11	30	.61	259	.11	3	2.40	.02	.26	1	40
L28N 12+00W	1	45	8	72	.3	27	12	844	3.66	6	5	ND	3	49	1	2	4	68	.83	.070	14	37	.73	249	.12	6	2.99	.02	.27	1	50
STD C	19	61	41	132	7.2	72	30	1120	4.29	40	18	8	39	51	19	17	24	61	.50	.091	40	61	.88	181	.07	34	2.08	.08	.15	15	1300

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L28N 11+75W	1	48	10	67	.1	33	13	712	3.70	5	5	ND	3	82	1	2	2	70	.86	.040	15	45	1.08	179	.12	8	2.68	.02	.38	2	60
L28N 11+50W	1	38	7	67	.1	23	10	573	3.47	4	5	ND	2	65	1	3	6	63	.73	.053	14	37	.92	181	.12	4	2.56	.03	.30	1	40
L28N 11+25W	1	49	6	81	.1	24	8	370	2.91	2	5	ND	1	94	1	2	2	49	1.30	.053	12	30	1.47	155	.09	16	2.04	.03	.26	1	40
L28N 11+00W	1	32	4	74	.1	23	10	447	3.23	2	5	ND	3	55	1	2	5	55	.65	.049	17	42	.70	157	.12	5	2.36	.03	.32	1	40
L28N 10+75W	1	35	5	66	.1	31	12	930	3.45	4	5	ND	2	58	1	2	7	66	.91	.048	14	45	.69	181	.12	2	2.41	.03	.28	1	60
L28N 10+50W	1	42	8	71	.1	34	13	553	3.85	9	5	ND	4	61	1	2	7	70	.76	.053	19	49	.92	141	.14	9	2.67	.03	.32	1	70
L28N 10+25W	1	36	9	66	.1	29	11	729	3.26	8	5	ND	3	62	1	2	2	56	.61	.048	15	43	.83	148	.10	4	2.11	.03	.29	1	50
L28N 10+00W	1	42	8	91	.1	35	15	988	4.10	15	5	ND	3	43	1	2	2	67	.68	.057	14	45	.58	189	.08	4	2.19	.02	.26	1	70
L28N 9+75W	1	44	9	84	.1	30	15	1056	4.22	11	5	ND	2	61	1	2	2	70	.83	.050	15	38	.75	215	.07	8	2.44	.02	.33	1	50
L28N 9+50W	1	45	9	73	.2	23	11	730	3.62	3	5	ND	2	94	1	2	5	57	.75	.064	15	30	.79	141	.07	4	2.33	.03	.33	1	40
L28N 9+25W	1	45	11	85	.1	25	12	945	4.01	12	5	ND	2	77	1	2	2	69	.90	.054	16	33	.75	153	.09	7	2.41	.04	.35	1	50
L28N 9+00W	1	51	2	83	.1	28	13	931	3.69	14	5	ND	1	103	1	2	2	64	1.59	.087	14	33	.85	137	.08	12	1.93	.03	.36	1	90
L28N 8+75W	1	52	7	74	.1	19	7	228	3.08	3	5	ND	1	117	1	2	2	40	1.10	.075	14	28	1.00	118	.08	7	2.27	.03	.41	1	50
L28N 8+50W	1	48	6	78	.1	28	14	1029	4.04	12	5	ND	1	68	1	2	2	73	.93	.069	18	41	.75	207	.10	9	2.54	.02	.36	1	60
L28N 8+25W	1	43	5	63	.1	25	9	531	3.13	2	5	ND	1	349	1	2	2	55	2.56	.049	13	39	1.34	76	.08	25	1.87	.03	.32	1	30
L28N 8+00W	1	48	7	71	.1	26	15	964	3.96	8	5	ND	2	65	1	2	2	75	1.35	.063	17	38	.88	170	.09	4	2.30	.03	.30	1	50
L28N 7+75W	1	39	7	62	.1	23	12	1015	3.62	5	5	ND	2	55	1	2	2	64	.74	.057	16	35	.73	170	.09	5	2.22	.02	.31	1	30
L28N 7+50W	1	38	7	70	.1	21	11	843	3.64	3	5	ND	3	54	1	2	2	60	.82	.066	16	32	.66	203	.10	4	2.43	.02	.27	1	20
L27N 12+50W	1	39	8	61	.1	23	12	967	3.40	2	5	ND	3	56	1	2	6	70	.85	.058	12	32	.72	222	.13	5	2.42	.02	.31	1	30
L27N 12+25W	1	48	2	67	.1	26	12	893	3.65	3	5	ND	2	52	1	2	2	80	1.13	.070	14	35	.80	213	.14	4	2.40	.02	.28	1	50
L27N 12+00W	1	51	7	74	.1	28	17	985	3.93	2	5	ND	2	59	1	2	2	85	1.08	.089	15	38	.83	261	.14	5	3.07	.02	.34	1	40
L27N 11+75W	1	48	9	83	.2	33	15	825	4.07	4	5	ND	4	43	1	2	2	79	.80	.086	16	43	.74	268	.15	4	3.18	.02	.28	1	50
L27N 11+50W	1	43	6	84	.1	25	10	836	3.25	2	5	ND	2	44	1	2	2	60	.83	.058	13	35	.65	258	.12	5	2.58	.02	.27	1	40
L27N 11+25W	1	59	2	75	.1	30	12	729	3.56	2	5	ND	1	54	1	2	2	66	1.02	.043	15	38	.78	256	.11	10	2.59	.02	.26	1	80
L27N 11+00W	1	44	7	68	.1	24	12	735	3.36	4	5	ND	3	62	1	2	2	62	.91	.053	14	34	.73	185	.10	4	2.14	.02	.27	1	60
L27N 10+75W	1	42	5	59	.2	21	7	215	2.83	4	5	ND	2	80	1	2	2	43	1.10	.056	13	31	.87	134	.09	9	2.14	.02	.29	1	1200
L27N 10+50W	1	38	7	68	.1	34	12	923	3.60	6	5	ND	2	53	1	2	2	68	.94	.048	14	43	.73	178	.10	7	2.24	.02	.30	1	50
L27N 10+25W	1	42	5	78	.3	26	7	352	2.95	2	5	ND	2	71	1	2	2	45	.92	.056	36	37	.70	154	.10	7	2.39	.03	.34	1	40
L27N 10+00W	1	42	10	71	.2	37	12	680	3.38	6	5	ND	3	74	1	2	2	61	1.27	.070	18	39	.82	169	.11	10	2.06	.04	.28	1	80
L27N 9+75W	1	44	5	84	.2	32	13	899	3.86	17	5	ND	2	58	1	2	4	62	.82	.061	15	41	.69	173	.08	7	2.05	.02	.30	1	50
L27N 9+50W	1	46	3	94	.4	30	13	819	3.91	15	5	ND	2	58	1	2	2	64	1.02	.073	13	37	.71	179	.08	9	2.15	.03	.42	1	60
L27N 9+25W	1	43	10	74	.1	27	12	851	3.88	10	5	ND	3	53	1	2	2	64	.77	.052	15	35	.71	173	.08	3	2.25	.03	.31	1	50
L27N 9+00W	1	45	8	73	.1	28	11	924	3.58	10	5	ND	2	63	1	2	2	64	.73	.064	16	36	.64	176	.10	2	2.04	.03	.27	1	70
L27N 8+75W	1	38	5	73	.3	25	11	876	3.53	10	5	ND	3	57	1	2	2	64	.66	.064	15	35	.59	175	.10	5	1.93	.03	.31	1	60
L27N 8+50W	1	40	7	77	.1	25	12	850	3.43	15	5	ND	2	58	1	2	2	59	.77	.060	15	34	.55	171	.10	2	1.96	.02	.29	1	50
L27N 8+25W	1	54	5	69	.1	27	14	1010	3.76	11	5	ND	1	62	1	2	4	70	1.46	.083	15	33	1.04	156	.07	10	1.99	.03	.23	1	110
STD C	19	64	36	133	7.0	73	30	1104	4.23	42	16	8	40	50	18	17	19	61	.49	.088	40	61	.91	182	.07	34	1.98	.07	.14	13	1350

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L27N 8+00W	1	39	4	62	.1	25	11	802	3.57	5	5	ND	2	90	1	2	2	62	.69	.030	15	33	.74	112	.10	7	2.34	.03	.19	2	60
L27N 7+75W	1	45	4	74	.1	26	17	948	4.15	4	5	ND	3	61	1	2	2	75	.80	.057	21	49	.85	159	.11	12	2.58	.03	.32	1	60
L27N 7+50W	1	47	2	79	.1	29	15	938	4.05	5	5	ND	4	56	1	2	4	70	.75	.076	21	54	.69	197	.11	3	2.97	.03	.33	1	40
L25N 12+50W	1	49	6	65	.1	24	10	606	3.04	2	5	ND	2	66	1	4	3	60	.97	.072	12	29	.69	199	.12	5	2.33	.02	.32	1	40
L25N 12+25W	1	39	5	65	.1	25	11	830	3.28	2	5	ND	2	59	1	2	2	68	.91	.061	13	34	.62	186	.13	6	2.39	.02	.32	1	70
L25N 12+00W	1	40	5	70	.1	24	11	822	3.61	3	5	ND	1	57	1	2	3	69	.95	.081	14	38	.56	331	.12	7	2.85	.02	.30	1	40
L25N 11+75W	1	40	7	63	.1	23	11	819	3.34	3	5	ND	3	57	1	2	5	66	.95	.060	14	32	.60	219	.12	5	2.69	.02	.30	2	30
L25N 11+50W	1	44	6	58	.1	28	14	761	4.00	7	5	ND	1	58	1	2	2	102	1.16	.069	15	40	.87	151	.18	9	2.76	.03	.26	2	60
L25N 11+25W	1	63	4	65	.1	29	14	963	3.80	5	5	ND	2	73	1	2	3	90	1.40	.110	16	42	.84	205	.15	7	2.77	.03	.31	1	60
L25N 11+00W	1	44	4	60	.1	26	10	773	3.72	3	5	ND	1	50	1	2	2	80	.96	.058	15	40	.73	166	.13	3	2.54	.02	.26	1	40
L25N 10+75W	1	39	5	64	.2	25	11	807	3.42	7	5	ND	3	65	1	3	2	69	1.04	.072	13	38	.63	169	.12	8	2.30	.02	.31	1	50
L25N 10+50W	1	40	4	61	.1	23	9	437	3.03	6	5	ND	1	75	1	2	2	57	1.05	.049	12	32	.68	132	.11	8	2.17	.03	.25	1	40
L25N 10+25W	1	38	2	64	.1	24	8	291	3.32	4	5	ND	2	73	1	2	4	62	.96	.053	14	36	.86	130	.12	9	2.33	.03	.32	2	40
L25N 10+00W	1	34	2	63	.1	25	8	349	3.25	3	5	ND	2	64	1	2	2	61	.80	.055	14	40	.68	143	.12	7	2.38	.03	.34	1	50
L25N 9+75W	1	40	5	72	.2	29	11	906	3.52	5	5	ND	2	57	1	2	3	65	.90	.070	16	44	.60	225	.11	8	2.37	.03	.29	1	50
L25N 9+50W	1	36	3	67	.3	26	10	700	3.58	10	5	ND	3	53	1	2	2	68	.73	.066	16	38	.55	181	.12	5	2.32	.03	.29	1	30
L25N 9+25W	1	33	2	66	.1	27	11	781	3.24	4	5	ND	2	53	1	2	2	58	.69	.051	16	38	.49	171	.12	2	2.08	.03	.25	1	60
L25N 9+00W	1	35	8	73	.2	22	8	339	2.85	5	5	ND	2	58	1	2	3	41	.66	.054	12	30	.54	157	.09	5	2.17	.03	.27	1	50
L25N 8+75W	1	42	2	85	.1	27	14	944	4.12	11	5	ND	2	43	1	2	2	69	.66	.060	14	38	.61	170	.09	4	2.31	.03	.29	1	40
L25N 8+50W	1	43	2	81	.1	27	12	978	3.94	9	5	ND	1	50	1	2	2	65	.74	.065	15	38	.57	205	.10	6	2.44	.02	.35	1	40
L25N 8+25W	1	41	2	80	.1	24	12	766	4.20	11	5	ND	2	44	1	2	2	72	.72	.047	17	34	.59	170	.12	2	2.50	.03	.26	1	50
L25N 8+00W	1	44	5	78	.1	24	13	979	3.96	13	5	ND	2	55	1	2	3	65	.92	.063	15	34	.61	163	.09	4	2.09	.03	.29	1	60
L25N 7+75W	1	42	7	77	.1	25	13	983	3.93	5	5	ND	2	77	1	2	2	71	.81	.056	15	34	.65	164	.11	5	2.52	.03	.34	1	60
L25N 7+50W	1	56	6	69	.1	25	13	909	3.88	7	5	ND	2	91	1	2	4	72	1.45	.063	15	34	.74	157	.11	8	2.31	.03	.26	2	80
L24N 12+50W	1	50	5	66	.1	31	18	882	4.30	4	5	ND	3	73	1	2	2	111	1.34	.084	15	40	1.08	170	.22	7	3.49	.03	.36	1	30
L24N 12+25W	1	45	3	59	.1	29	17	828	4.17	2	5	ND	3	63	1	2	3	103	1.06	.056	15	43	.89	168	.22	3	3.11	.03	.30	1	40
L24N 12+00W	1	46	6	59	.1	25	13	828	3.65	2	5	ND	2	70	1	2	2	87	1.15	.072	14	36	.81	165	.19	5	2.88	.03	.39	1	40
L24N 11+75W	1	43	5	68	.1	25	12	765	3.73	3	5	ND	3	53	1	2	4	70	.94	.066	17	40	.66	252	.13	2	3.01	.03	.30	1	30
L24N 11+50W	1	52	2	67	.2	28	10	466	3.52	2	5	ND	3	50	1	2	6	59	1.08	.057	15	40	.76	246	.11	9	2.45	.03	.30	2	120
L24N 11+25W	1	39	2	59	.1	22	10	642	3.28	2	5	ND	2	69	1	2	2	69	1.14	.057	12	35	.81	156	.14	7	2.37	.03	.39	1	30
L24N 11+00W	1	41	3	62	.1	24	11	741	3.63	3	5	ND	4	73	1	2	7	80	1.15	.061	15	41	.75	159	.16	9	2.92	.03	.36	1	40
L24N 10+75W	1	43	4	66	.2	28	14	764	3.92	4	5	ND	3	63	1	2	2	84	1.02	.071	15	43	.81	163	.14	4	3.01	.03	.35	1	30
L24N 10+50W	1	51	10	72	.1	28	14	809	4.04	6	5	ND	3	60	1	2	2	84	.95	.079	16	43	.80	185	.12	4	2.99	.02	.32	1	50
L24N 10+25W	1	56	5	72	.3	32	13	833	3.83	6	5	ND	3	60	1	2	2	80	1.17	.096	15	42	.76	219	.11	7	2.36	.03	.31	1	100
L24N 10+00W	1	42	5	70	.1	27	13	880	3.80	5	5	ND	3	53	1	2	2	75	.90	.074	15	41	.64	212	.12	6	2.61	.02	.34	1	50
L24N 9+75W	1	34	2	66	.2	25	13	782	3.72	6	5	ND	4	43	1	2	2	71	.69	.075	15	42	.52	218	.14	3	2.71	.03	.26	1	60
STD C	18	63	41	132	7.2	73	31	1113	4.28	39	18	8	40	51	19	17	21	61	.49	.090	40	64	.89	181	.07	34	2.01	.08	.14	13	1400

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L24N 9+50W	1	33	4	64	.1	26	10	763	3.68	7	5	ND	2	44	1	2	2	67	.68	.055	13	47	.54	185	.14	2	2.57	.03	.26	1	30
L24N 9+25W	1	34	9	63	.1	30	10	811	3.36	4	5	ND	2	54	1	2	2	60	.70	.050	14	45	.52	187	.13	2	2.19	.03	.34	1	40
L24N 9+00W	1	37	7	70	.1	29	11	843	3.60	11	5	ND	2	58	1	2	2	64	.69	.071	14	42	.72	169	.11	2	2.00	.03	.31	1	70
L24N 8+75W	1	38	11	77	.1	28	14	1202	3.78	10	5	ND	1	60	1	2	2	62	.79	.052	13	44	.94	170	.10	3	2.22	.03	.36	1	80
L24N 8+50W	1	33	2	77	.1	23	10	706	3.28	2	5	ND	1	127	1	3	2	42	1.84	.074	10	34	2.14	122	.07	13	1.95	.08	.58	1	60
L24N 8+25W	1	48	8	91	.2	19	8	632	2.91	2	5	ND	1	151	1	2	3	34	1.61	.077	10	28	3.35	115	.06	16	2.11	.13	.56	1	70
L24N 8+00W	1	41	7	72	.1	27	13	1175	3.84	6	5	ND	1	82	1	2	2	69	.82	.056	13	34	1.06	152	.09	4	2.21	.03	.36	1	60
L24N 7+75W	1	44	5	69	.1	23	11	903	3.87	9	5	ND	2	60	1	2	2	64	.72	.048	13	32	.65	133	.10	2	2.09	.03	.26	1	80
L24N 7+50W	1	39	5	67	.1	23	12	657	4.02	8	5	ND	3	66	1	2	6	71	.73	.053	13	36	.73	152	.12	2	2.49	.03	.28	1	80
L22N 12+50W	1	74	2	57	.2	52	18	718	4.12	3	5	ND	1	151	1	2	2	96	4.27	.079	13	45	1.59	137	.18	3	2.73	.10	.15	1	220
L22N 12+25W	1	52	11	65	.1	36	15	825	4.01	4	5	ND	1	72	1	2	4	92	1.31	.082	13	41	1.04	160	.18	3	2.95	.03	.33	1	40
L22N 12+00W	1	42	5	59	.1	26	10	636	3.47	5	5	ND	2	57	1	2	2	78	.98	.078	14	40	.70	147	.15	2	2.41	.03	.27	1	50
L22N 11+75W	1	43	9	66	.2	25	12	859	3.32	3	5	ND	2	88	1	2	3	80	2.20	.077	11	33	.88	174	.16	2	2.27	.03	.23	1	120
L22N 11+50W	1	42	6	58	.1	25	9	696	3.43	3	5	ND	2	66	1	3	3	73	.98	.077	13	33	.77	168	.15	14	2.85	.03	.32	1	40
L22N 11+25W	1	49	3	56	.1	26	13	656	3.04	5	5	ND	1	323	1	2	4	70	3.40	.056	10	29	5.00	117	.13	5	2.19	.09	.30	1	150
L22N 11+00W	1	36	2	70	.1	33	16	624	4.14	5	5	ND	1	109	1	2	5	89	2.33	.074	9	40	2.19	69	.14	7	2.34	.11	.42	1	250
L22N 10+75W	1	63	5	78	.1	29	19	831	4.71	10	5	ND	1	100	1	2	2	89	1.59	.066	12	38	1.16	126	.06	5	2.14	.03	.30	1	260
L22N 10+50W	1	64	2	86	.1	37	21	1064	5.46	27	5	ND	2	51	1	2	3	96	.64	.058	15	47	.82	183	.06	2	2.61	.02	.21	1	3200
L22N 10+25W	1	56	7	90	.1	35	17	750	5.08	20	5	ND	3	61	1	3	2	87	.62	.054	19	50	.67	287	.12	2	3.97	.02	.21	1	200
L22N 10+00W	1	59	8	78	.1	42	18	711	5.08	17	5	ND	3	49	1	2	2	90	.71	.045	16	47	.87	244	.10	2	3.22	.02	.21	1	190
L22N 9+75W	1	38	3	81	.1	28	11	732	3.91	8	5	ND	3	43	1	2	2	64	.68	.051	12	40	.62	222	.10	2	2.74	.02	.35	1	70
L22N 9+50W	1	35	2	66	.1	28	13	566	4.33	6	5	ND	4	40	1	2	2	85	.63	.027	13	42	.67	155	.14	2	2.82	.02	.24	1	80
L22N 9+25W	1	48	2	97	.1	30	14	1056	4.06	4	5	ND	3	45	1	2	5	65	.69	.049	12	41	.68	246	.10	2	2.72	.02	.30	1	50
L22N 9+00W	1	64	2	77	.1	40	20	873	5.17	14	5	ND	3	45	1	2	2	101	.81	.057	15	53	1.02	170	.10	2	3.11	.02	.22	1	180
L22N 8+75W	1	52	2	91	.2	30	14	844	4.40	8	5	ND	3	51	1	3	2	77	.81	.056	14	44	.72	211	.11	2	2.89	.02	.31	1	60
L22N 8+50W	1	44	3	82	.1	28	14	706	4.07	3	5	ND	4	45	1	2	2	72	.73	.048	14	41	.66	278	.11	3	2.79	.02	.29	1	580
L22N 8+25W	1	36	4	73	.1	27	11	936	3.59	3	5	ND	3	50	1	3	2	64	.73	.049	13	39	.57	202	.11	2	2.32	.02	.26	1	60
L22N 8+00W	1	50	2	79	.1	29	12	944	3.71	9	5	ND	2	58	1	2	2	64	.87	.051	13	37	.68	188	.10	2	2.23	.02	.29	1	70
L22N 7+75W	1	44	4	79	.1	32	15	870	4.23	8	5	ND	2	51	1	2	3	78	.72	.072	14	40	.69	203	.12	2	2.59	.02	.25	1	80
L22N 7+50W	1	49	6	78	.2	30	14	807	4.38	9	5	ND	3	53	1	2	4	81	.78	.062	14	41	.69	201	.13	2	2.71	.02	.29	1	230
L20N 12+50W	1	28	7	63	.2	27	15	669	3.33	2	5	ND	2	68	1	2	5	78	1.03	.081	11	30	2.58	93	.18	10	2.34	.10	.36	1	30
L20N 12+25W	1	25	2	54	.2	25	11	553	2.69	2	5	ND	1	276	1	2	2	57	3.71	.066	9	26	3.34	84	.11	16	2.02	.13	.33	2	80
L20N 12+00W	1	49	7	58	.1	27	13	629	2.92	3	5	ND	1	274	1	2	2	69	3.93	.066	9	34	2.78	110	.12	12	2.32	.16	.40	1	50
L20N 11+75W	1	55	4	60	.2	38	16	875	3.20	2	5	ND	1	134	1	2	2	71	3.65	.089	9	35	1.69	138	.13	7	2.38	.05	.32	1	70
L20N 11+50W	1	61	6	86	.1	33	19	743	4.51	9	5	ND	1	120	1	3	2	88	1.81	.076	9	37	1.43	124	.10	6	3.02	.18	.42	1	820
L20N 11+25W	1	62	4	102	.4	36	20	1247	4.85	32	5	ND	2	63	1	2	2	94	1.12	.089	13	42	.74	224	.06	2	2.63	.02	.26	1	1100
STD C	19	63	42	132	7.3	73	30	1119	4.29	40	19	8	40	52	19	17	23	61	.50	.091	39	61	.90	181	.07	31	2.05	.08	.14	13	1300

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L20N 11+00W	1	57	10	88	.2	26	12	596	3.49	6	5	ND	2	148	1	4	4	64	1.46	.068	12	29	1.87	123	.10	9	2.21	.03	.42	1	70
L20N 10+75W	1	44	8	77	.1	29	16	860	4.26	21	5	ND	3	46	1	2	5	85	.77	.047	15	39	.77	168	.10	5	2.59	.02	.31	1	210
L20N 10+50W	1	46	3	83	.1	31	12	800	3.75	16	5	ND	1	47	1	2	2	66	.69	.055	12	42	.69	183	.07	9	2.04	.02	.35	1	60
L20N 10+25W	1	53	6	84	.1	27	11	1098	3.42	5	5	ND	1	63	1	2	2	65	1.13	.092	12	36	.68	247	.09	5	2.23	.02	.37	1	100
L20N 10+00W	1	70	5	73	.1	39	18	857	4.52	18	5	ND	2	66	1	2	5	97	1.09	.077	15	48	.96	193	.09	8	2.38	.02	.26	1	310
L20N 9+75W	1	64	2	81	.2	40	16	836	4.56	15	5	ND	2	59	1	2	6	88	.78	.076	16	47	.94	200	.08	5	2.72	.02	.38	1	120
L20N 9+50W	1	62	11	82	.1	39	18	879	4.70	22	5	ND	2	54	1	2	2	90	.83	.090	15	49	1.07	175	.06	6	2.57	.01	.33	1	180
L20N 9+25W	1	54	4	91	.2	31	13	997	3.90	10	5	ND	1	57	1	2	2	68	.93	.088	16	38	.66	279	.08	4	2.72	.02	.34	1	200
L20N 9+00W	1	50	4	75	.1	34	16	799	4.42	13	5	ND	2	46	1	2	3	85	.72	.059	16	45	.91	167	.11	2	2.64	.02	.36	1	80
L20N 8+75W	1	67	6	113	.1	22	11	1189	3.32	3	5	ND	2	73	1	2	3	60	1.29	.069	13	30	.67	334	.09	10	2.04	.02	.38	1	90
L20N 8+50W	1	40	5	106	.1	22	11	902	3.59	4	5	ND	2	45	1	2	2	61	.56	.079	13	37	.58	261	.13	2	3.04	.02	.28	1	70
L20N 8+25W	1	38	3	83	.1	25	11	615	3.89	5	5	ND	2	41	1	2	2	74	.54	.059	15	42	.58	215	.13	2	2.70	.02	.23	1	60
L20N 8+00W	1	34	4	74	.1	21	11	759	3.57	5	5	ND	3	40	1	2	2	67	.58	.034	14	39	.56	195	.12	2	2.48	.02	.23	1	260
L20N 7+75W	1	41	9	75	.1	25	11	703	3.89	3	5	ND	3	51	1	2	4	75	.69	.049	19	53	.61	175	.13	2	2.69	.02	.26	1	100
L20N 7+50W	1	44	10	70	.2	27	12	845	3.87	7	5	ND	3	44	1	2	2	73	.68	.050	17	39	.65	205	.12	2	2.75	.02	.26	1	80
L18N 12+50W	1	34	2	61	.2	25	12	642	2.84	2	5	ND	2	274	1	2	3	49	4.27	.065	11	27	6.06	116	.09	8	2.15	.10	.39	1	30
L18N 12+25W	1	51	7	67	.1	38	19	842	4.26	5	5	ND	2	66	1	2	4	97	1.16	.075	15	45	1.25	150	.14	4	2.78	.03	.32	1	50
L18N 12+00W	1	46	7	70	.1	32	17	867	4.10	2	5	ND	1	66	1	2	3	93	1.03	.086	15	47	1.11	184	.14	5	3.25	.02	.37	1	40
L18N 11+75W	1	56	12	71	.1	35	17	879	4.39	4	5	ND	2	70	1	2	2	102	1.17	.080	16	46	1.24	169	.15	9	3.37	.02	.35	1	60
L18N 11+50W	1	44	9	62	.1	34	17	834	4.03	4	5	ND	1	71	1	2	2	94	1.25	.077	15	46	1.08	166	.17	7	3.34	.02	.37	1	40
L18N 11+25W	1	60	4	70	.1	38	18	968	4.16	8	5	ND	1	83	1	2	2	95	1.32	.115	17	41	1.03	215	.14	2	2.97	.03	.33	1	120
L18N 11+00W	1	40	8	62	.2	33	17	882	3.82	5	5	ND	3	74	1	2	2	89	.97	.064	14	45	1.04	167	.18	10	3.20	.03	.43	1	50
L18N 10+75W	1	47	3	69	.1	31	16	826	4.17	15	5	ND	2	66	1	2	2	97	.91	.068	15	40	1.04	170	.15	6	2.94	.03	.34	1	560
L18N 10+50W	1	51	5	71	.1	35	19	930	4.41	18	5	ND	3	56	1	2	2	99	.90	.052	14	40	.88	190	.13	2	2.48	.02	.23	1	380
L18N 10+25W	1	42	3	81	.1	24	9	550	3.20	7	5	ND	1	68	1	2	2	54	.94	.059	11	28	.63	233	.09	4	2.26	.02	.30	1	160
L18N 10+00W	1	46	3	67	.1	31	15	1119	3.89	17	5	ND	2	62	1	2	2	74	.88	.060	14	37	.68	242	.10	7	2.42	.02	.37	1	210
L18N 9+75W	1	57	8	65	.1	34	15	850	3.87	17	5	ND	1	91	1	3	7	86	3.32	.079	13	40	1.00	162	.10	8	1.98	.02	.22	1	360
L18N 9+50W	1	45	8	63	.1	24	11	720	3.61	6	5	ND	1	70	1	2	4	78	.98	.081	15	41	.91	148	.13	3	2.65	.02	.34	1	50
L18N 9+25W	1	54	9	74	.1	28	14	853	4.03	8	5	ND	2	53	1	2	2	82	.83	.074	17	39	.74	223	.11	3	2.50	.02	.33	1	110
L18N 9+00W	1	43	4	70	.2	24	12	948	3.68	9	5	ND	2	59	1	2	2	70	.75	.067	15	35	.64	243	.10	5	2.40	.02	.39	1	140
L18N 8+75W	1	44	10	70	.1	25	12	900	3.73	9	5	ND	2	63	1	2	2	73	.75	.061	15	37	.67	230	.11	3	2.37	.02	.33	1	120
L18N 8+50W	1	36	2	59	.1	18	8	250	2.90	3	5	ND	1	164	1	2	2	51	2.91	.074	11	29	1.85	130	.08	12	1.91	.09	.51	1	80
L18N 8+25W	1	29	5	64	.1	13	5	592	1.54	2	5	ND	1	294	1	2	2	19	8.30	.109	6	14	2.67	198	.04	25	1.21	.12	.29	1	50
L18N 8+00W	1	41	10	65	.1	21	10	531	2.94	4	5	ND	1	234	1	2	2	62	3.76	.082	11	31	2.50	76	.08	8	1.79	.13	.40	1	90
L18N 7+75W	1	43	9	70	.1	27	12	830	4.00	11	5	ND	2	56	1	2	2	83	.65	.062	17	41	.78	162	.11	6	2.32	.02	.30	2	110
L18N 7+50W	1	63	4	101	.1	28	16	1269	4.19	5	5	ND	1	57	1	2	2	69	1.07	.075	17	35	.71	284	.10	7	2.45	.02	.41	1	100
STD C	18	63	40	132	7.1	71	31	1078	4.13	41	17	7	39	51	19	15	19	61	.48	.092	40	61	.98	180	.07	33	2.00	.07	.15	13	1400

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L17N 12+50W	1	40	3	54	.2	17	6	468	1.61	3	5	ND	1	539	1	2	4	33	7.74	.088	7	18	4.94	151	.04	39	1.40	.08	.17	1	50
L17N 12+25W	2	47	3	82	.2	31	16	1016	3.58	3	5	ND	1	101	1	2	3	71	1.17	.091	11	34	1.44	103	.11	17	2.06	.29	.39	1	30
L17N 12+00W	1	50	4	68	.2	35	17	890	4.06	3	5	ND	1	73	1	2	2	89	1.06	.084	14	43	1.14	156	.14	7	2.41	.02	.37	1	40
L17N 11+75W	1	60	9	62	.1	43	18	825	4.44	5	5	ND	1	63	1	2	2	103	1.14	.072	16	51	1.39	154	.16	6	2.74	.02	.29	1	40
L17N 11+50W	1	43	2	67	.4	29	16	866	3.96	3	5	ND	2	72	1	2	2	88	1.13	.077	15	44	1.04	193	.15	5	2.92	.03	.33	1	30
L17N 11+25W	1	51	5	65	.2	32	16	882	4.07	5	5	ND	2	66	1	2	2	93	1.20	.085	14	46	1.12	182	.15	10	2.82	.02	.34	1	60
L17N 11+00W	1	43	3	70	.1	28	13	794	3.81	3	5	ND	1	72	1	2	2	80	1.01	.078	16	40	.82	181	.13	5	2.47	.02	.35	1	50
L17N 10+75W	1	63	3	70	.1	34	16	879	4.03	2	5	ND	1	79	1	2	2	92	1.09	.080	15	50	1.07	173	.17	8	2.91	.02	.44	1	40
L17N 10+50W	1	49	2	70	.1	31	16	821	3.96	8	5	ND	1	67	1	2	2	88	1.04	.074	14	38	1.00	178	.15	6	2.62	.03	.43	1	260
L17N 10+25W	1	56	3	69	.2	42	18	881	4.67	27	5	ND	2	58	1	3	2	102	1.01	.046	16	46	1.13	167	.12	7	2.34	.02	.24	1	960
L17N 10+00W	1	44	4	73	.4	24	8	245	2.98	4	5	ND	2	111	1	4	6	50	1.84	.062	11	27	1.22	126	.09	13	1.85	.10	.39	1	230
L17N 9+75W	1	47	6	133	.2	25	15	1308	3.46	5	5	ND	1	80	1	2	2	58	1.12	.122	14	29	.62	366	.09	7	2.65	.02	.31	1	560
L17N 9+50W	1	42	5	79	.1	23	9	511	3.11	2	5	ND	1	70	1	2	2	57	1.24	.092	12	29	.88	194	.08	11	1.85	.03	.35	1	130
L17N 9+25W	1	52	8	71	.1	25	11	796	3.65	5	5	ND	1	146	1	2	2	69	.99	.078	14	35	.81	129	.09	8	2.05	.02	.39	1	110
L17N 9+00W	1	41	3	68	.1	25	12	722	3.98	10	5	ND	1	65	1	2	2	82	.70	.071	15	43	.75	161	.12	6	2.29	.02	.37	1	100
L17N 8+75W	1	40	3	65	.4	23	10	681	3.77	7	5	ND	2	66	1	2	2	76	.70	.070	14	37	.69	151	.11	4	2.09	.02	.31	1	120
L17N 8+50W	1	47	6	67	.3	27	13	567	3.46	6	5	ND	1	208	1	2	2	69	1.98	.064	13	34	3.53	131	.10	12	1.97	.09	.64	1	280
L17N 8+25W	1	41	2	71	.3	23	12	635	3.31	3	5	ND	1	204	1	2	2	56	2.32	.068	11	30	2.86	105	.08	12	1.65	.11	.65	1	160
L17N 8+00W	1	52	2	54	.4	25	12	572	3.47	5	5	ND	1	292	1	2	2	81	4.90	.077	12	34	2.92	153	.10	13	1.65	.04	.30	1	360
L17N 7+75W	1	42	2	59	.2	25	13	778	3.28	5	5	ND	1	201	1	2	2	73	2.43	.078	11	29	4.08	149	.08	22	1.53	.03	.27	1	780
L17N 7+50W	1	37	2	42	.3	22	13	620	2.78	2	5	ND	1	298	1	2	2	61	6.44	.064	10	31	3.49	83	.08	11	1.17	.07	.21	1	480
STD C	19	63	41	133	7.5	73	31	1103	4.25	44	18	8	39	51	19	17	22	61	.49	.088	40	61	.92	181	.07	34	1.81	.07	.16	14	1400

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

GEOCHEMICAL ANALYSIS CERTIFICATE

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

DATE RECEIVED: NOV 17 1988 DATE REPORT MAILED: Nov 24/88 SIGNED BY. C.Leong ...D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

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SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
30N 12+50W	1	34	9	74	.1	21	11	735	3.68	4	5	ND	3	51	1	2	2	76	.70	.040	11	33	.69	193	.14	7	2.82	.03	.17	2	60
30N 12+25W	1	35	8	68	.1	23	11	635	3.80	8	5	ND	5	46	1	2	2	80	.62	.053	13	37	.66	172	.14	7	2.65	.02	.17	1	50
30N 12+00W	1	44	10	69	.2	27	11	559	3.79	4	5	ND	5	57	1	2	2	70	.80	.050	15	39	.87	176	.12	9	2.93	.03	.18	1	40
30N 11+75W	1	40	7	62	.1	28	12	775	3.44	6	5	ND	4	61	1	2	2	69	.84	.068	13	36	.76	178	.11	8	2.29	.03	.18	1	40
30N 11+50W	1	44	6	83	.5	39	16	974	4.40	4	7	ND	6	49	1	2	3	80	1.01	.054	15	54	.95	244	.08	10	3.19	.02	.18	1	60
30N 11+25W	1	43	8	71	.5	44	16	783	4.50	8	5	ND	7	44	1	2	2	87	.81	.063	15	62	.99	253	.12	7	3.27	.03	.17	1	50
30N 11+00W	1	36	10	72	.4	28	11	793	3.50	6	5	ND	7	51	1	2	3	64	.73	.064	15	41	.62	227	.11	8	2.53	.03	.17	1	30
30N 10+75W	1	38	6	72	.6	31	12	945	3.34	10	5	ND	7	55	1	2	2	63	.84	.066	16	39	.65	220	.10	9	2.18	.03	.18	1	60
30N 10+50W	1	41	7	88	.6	35	13	988	3.51	16	5	ND	6	47	1	2	2	60	.99	.063	14	43	.61	190	.07	9	2.16	.02	.18	1	90
30N 10+25W	1	43	11	90	.8	31	14	898	4.25	11	5	ND	8	48	1	2	4	68	.64	.066	18	45	.59	261	.10	5	3.06	.02	.18	1	60
30N 10+00W	1	41	7	84	.4	26	12	680	3.80	5	5	ND	4	74	1	2	2	54	.83	.063	13	30	1.48	166	.06	11	2.35	.03	.19	2	40
30N 9+75W	1	41	9	101	.6	24	12	873	3.88	7	5	ND	6	64	1	2	2	61	.68	.058	14	30	.77	178	.07	9	2.17	.03	.20	1	40
30N 9+50W	1	49	9	85	.7	31	13	786	3.95	13	8	ND	6	105	1	2	2	69	1.63	.071	17	37	1.20	91	.09	24	2.39	.04	.20	1	120
30N 9+25W	1	47	9	82	.2	26	14	1009	4.14	10	5	ND	4	60	1	2	2	67	.88	.062	17	31	.92	174	.07	12	2.44	.02	.21	1	80
30N 9+00W	1	45	9	79	.2	24	9	431	3.69	5	5	ND	4	104	1	2	2	53	.73	.063	16	34	1.08	102	.08	10	2.59	.03	.20	1	60
30N 8+75W	1	44	9	83	.1	26	13	939	3.98	10	5	ND	2	64	1	2	2	65	.94	.059	15	34	.77	164	.08	21	2.60	.02	.19	2	40
30N 8+50W	1	54	9	78	.1	31	15	919	4.33	9	5	ND	1	87	1	2	2	77	.82	.071	16	38	1.10	137	.09	15	2.45	.03	.18	1	70
30N 8+25W	1	46	6	71	.1	22	8	303	3.14	4	5	ND	2	209	1	2	2	49	1.19	.087	12	27	1.38	82	.06	22	2.29	.05	.18	1	30
30N 8+00W	1	38	10	72	.2	23	12	974	3.56	2	5	ND	4	74	1	2	2	61	.88	.064	16	31	.91	130	.08	15	2.31	.03	.20	1	70
30N 7+75W	1	32	9	80	.1	19	11	627	3.40	2	5	ND	3	44	1	2	2	56	.50	.051	13	31	.55	158	.10	6	2.61	.02	.17	2	30
30N 7+50W	1	32	9	71	.1	20	10	849	3.17	4	5	ND	3	51	1	2	2	53	.59	.050	13	28	.50	227	.10	7	2.50	.03	.17	1	40
26N 12+50W	1	56	8	61	.1	27	13	865	3.65	5	5	ND	2	56	1	2	2	89	1.37	.075	12	33	.95	178	.13	12	2.46	.02	.17	1	60
26N 12+25W	1	37	8	66	.3	22	12	817	3.49	4	5	ND	6	55	1	2	2	72	.87	.083	13	30	.72	226	.14	9	2.86	.02	.19	1	30
26N 12+00W	1	47	9	65	.2	23	12	807	3.68	3	6	ND	4	52	1	2	2	79	.86	.094	14	33	.68	229	.14	7	2.90	.02	.18	1	30
26N 11+75W	1	34	8	80	.4	23	12	892	3.55	4	5	ND	6	40	1	2	2	75	.72	.101	11	34	.67	199	.13	9	2.79	.02	.18	1	40
26N 11+50W	1	44	6	63	.6	25	12	948	3.53	6	5	ND	6	55	1	2	2	74	.99	.086	15	33	.76	224	.11	6	2.90	.02	.17	1	50
26N 11+25W	1	36	7	63	.4	24	11	847	3.25	3	5	ND	5	48	1	2	2	68	.87	.066	12	32	.66	197	.11	7	2.63	.02	.17	1	40
26N 11+00W	1	44	7	65	.4	26	11	956	3.23	5	10	ND	5	51	1	2	2	65	.94	.070	13	31	.62	233	.09	7	2.17	.02	.16	1	60
26N 10+75W	1	38	9	61	.5	23	10	755	3.14	7	8	ND	6	57	1	2	2	60	.81	.060	13	30	.60	192	.10	12	2.24	.02	.18	1	50
26N 10+50W	1	36	9	62	.4	21	8	477	2.79	3	5	ND	5	68	1	2	2	50	.83	.052	13	30	.68	101	.09	13	2.24	.03	.18	1	30
26N 10+25W	1	34	9	70	.4	27	12	819	3.38	5	6	ND	5	54	1	2	2	65	.80	.058	16	43	.59	156	.11	9	2.46	.03	.18	1	50
26N 10+00W	1	36	11	74	.2	28	11	751	3.39	2	6	ND	5	52	1	2	2	62	.66	.063	18	44	.60	203	.12	8	2.77	.03	.18	2	60
26N 9+75W	1	37	9	79	.1	29	11	829	3.35	13	5	ND	2	58	1	2	2	60	1.00	.072	14	36	.61	174	.09	10	2.11	.03	.18	2	80
26N 9+50W	1	34	8	80	.1	26	11	861	3.52	17	5	ND	2	50	1	2	2	56	.71	.061	14	33	.55	204	.08	8	2.22	.02	.17	2	50
26N 9+25W	1	41	7	87	.2	26	9	371	3.23	10	5	ND	2	77	1	2	2	48	1.13	.073	10	32	.83	133	.06	16	1.97	.03	.18	1	70
26N 9+00W	1	38	8	81	.1	24	12	937	3.73	11	5	ND	1	54	1	2	2	60	.71	.065	13	31	.60	194	.08	8	2.32	.02	.18	1	50
STD C	18	58	38	132	6.6	67	29	1060	4.01	38	23	7	38	49	18	17	19	57	.48	.091	39	56	.89	173	.06	39	1.92	.06	.14	12	1300

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
26N 8+75W	1	38	9	82	.3	23	12	861	4.15	10	5	ND	2	43	1	2	2	67	.61	.059	14	32	.62	189	.10	6	2.44	.02	.18	1	60
26N 8+50W	1	36	5	65	.3	21	12	1019	3.77	13	5	ND	2	40	1	2	4	60	.66	.053	12	28	.52	185	.09	8	2.27	.02	.17	1	40
26N 8+25W	1	34	5	85	.1	20	12	914	3.96	16	5	ND	1	45	1	2	3	65	.64	.067	13	32	.53	165	.10	6	2.37	.02	.18	1	40
26N 8+00W	1	48	10	84	.3	24	13	970	4.25	12	5	ND	2	61	1	2	2	78	.84	.060	14	32	.66	188	.11	8	2.95	.02	.18	1	70
26N 7+75W	1	38	9	73	.3	22	12	909	3.90	10	5	ND	2	63	1	3	2	72	.86	.056	14	33	.72	162	.11	7	2.68	.03	.18	1	80
26N 7+50W	1	45	6	74	.1	22	13	1031	4.18	11	5	ND	1	73	1	2	3	78	.96	.072	13	32	.86	176	.11	7	3.22	.02	.18	1	50
23N 12+50W	1	36	8	60	.1	27	13	839	3.62	6	5	ND	1	65	1	2	2	82	1.06	.077	11	34	.98	160	.15	11	2.79	.02	.19	1	30
23N 12+25W	1	38	8	60	.1	27	14	941	3.81	4	5	ND	1	58	1	2	3	91	1.07	.077	12	33	.95	168	.18	8	3.02	.02	.17	1	20
23N 12+00W	1	36	7	58	.1	26	13	914	3.73	6	5	ND	1	59	1	2	2	90	1.17	.060	10	32	.94	172	.17	8	2.68	.02	.17	1	30
23N 11+75W	1	34	5	59	.1	22	9	438	3.42	5	5	ND	1	43	1	2	2	70	.81	.064	9	31	.73	167	.17	7	2.75	.02	.18	1	20
23N 11+50W	1	47	6	51	.1	22	9	734	2.71	7	5	ND	3	134	1	2	2	76	4.64	.086	8	24	1.17	154	.12	18	1.71	.03	.16	2	60
23N 11+25W	1	37	6	60	.1	22	12	908	3.55	8	5	ND	1	51	1	3	2	82	.98	.080	12	34	.72	170	.15	10	2.71	.02	.18	1	50
23N 11+00W	1	28	4	56	.1	21	10	646	3.48	5	5	ND	1	53	1	2	2	85	.83	.068	12	35	.82	84	.16	8	2.20	.06	.18	1	20
23N 10+75W	1	33	8	61	.1	25	11	689	3.52	2	5	ND	1	75	1	2	2	86	.94	.065	13	42	.97	97	.18	9	2.63	.07	.18	1	20
23N 10+50W	1	45	8	75	.1	31	12	784	4.02	11	5	ND	1	60	1	2	3	80	.87	.084	15	46	.93	170	.13	8	3.12	.03	.19	1	60
23N 10+25W	1	49	8	74	.3	31	12	779	4.06	10	5	ND	1	59	1	2	2	77	.85	.083	15	44	.85	157	.12	16	3.00	.02	.18	1	60
23N 10+00W	1	42	7	80	.6	27	12	888	3.88	8	5	ND	3	43	1	2	2	71	.82	.058	14	37	.77	188	.10	23	2.29	.02	.18	1	50
23N 9+75W	1	37	7	71	.4	27	11	529	3.63	10	5	ND	2	43	1	2	2	63	.52	.056	13	35	.57	214	.09	11	2.76	.02	.12	1	320
23N 9+50W	1	32	8	66	.3	21	10	738	3.15	7	5	ND	2	42	1	2	3	54	.51	.051	11	28	.51	211	.10	7	2.43	.02	.16	1	50
23N 9+25W	1	34	8	78	.2	22	11	568	3.73	9	5	ND	2	46	1	2	2	67	.67	.050	12	34	.60	174	.09	6	2.52	.01	.16	1	60
23N 9+00W	1	44	7	75	.4	30	14	705	4.44	10	5	ND	3	55	1	3	3	87	.96	.059	15	42	.77	220	.10	12	2.75	.01	.16	1	90
23N 8+75W	1	33	7	83	.1	24	11	528	3.89	8	5	ND	1	44	1	2	2	72	.58	.045	11	36	.63	179	.10	9	2.37	.02	.16	1	70
23N 8+50W	1	37	9	84	.1	27	11	602	4.05	5	5	ND	1	46	1	2	3	74	.62	.050	13	40	.64	196	.11	6	2.81	.02	.16	1	80
23N 8+25W	1	36	8	121	.1	24	10	800	3.90	9	5	ND	1	47	1	2	2	63	.64	.048	12	35	.57	296	.11	10	3.15	.02	.16	1	60
23N 8+00W	1	34	7	108	.1	24	9	637	3.53	8	5	ND	1	43	1	2	2	57	.51	.080	10	31	.57	226	.11	11	3.06	.02	.11	1	50
23N 7+75W	1	38	9	90	.1	22	11	863	3.61	9	5	ND	1	54	1	2	2	57	.66	.108	10	31	.59	231	.10	9	2.92	.02	.16	1	60
23N 7+50W	1	35	8	76	.1	24	11	688	3.75	8	5	ND	1	49	1	2	2	64	.63	.054	12	35	.61	193	.11	8	3.05	.02	.17	1	100
21N 12+50W	1	38	10	66	.1	31	12	734	3.38	6	5	ND	1	83	1	2	2	77	2.01	.077	9	31	1.18	120	.23	10	2.15	.04	.16	1	70
21N 12+25W	1	62	8	59	.1	41	15	836	4.47	9	5	ND	1	72	1	2	2	104	1.70	.090	24	42	1.37	129	.15	10	2.67	.04	.16	1	120
21N 12+00W	1	42	3	64	.1	45	16	929	4.05	5	5	ND	1	113	1	2	2	85	2.70	.078	10	43	1.54	104	.15	15	2.79	.04	.16	1	80
21N 11+75W	1	66	5	115	.1	110	33	2197	6.43	199	5	ND	1	67	1	9	2	146	2.12	.068	7	102	.54	102	.03	16	1.51	.01	.09	1	15000
21N 11+50W	1	61	8	98	.1	32	16	355	5.14	20	5	ND	1	65	1	5	3	97	1.03	.081	8	43	1.74	62	.07	48	1.82	.20	.26	1	2800
21N 11+25W	1	28	8	61	.2	19	12	664	3.64	12	5	ND	3	140	1	3	2	78	2.88	.078	7	19	2.48	76	.09	28	1.66	.14	.20	1	2400
21N 11+00W	1	41	8	64	.3	25	13	779	3.82	10	5	ND	2	63	1	2	2	82	1.18	.062	13	31	.87	163	.11	13	2.52	.02	.18	1	3300
21N 10+75W	1	48	7	89	.5	30	14	986	4.13	22	5	ND	3	63	1	2	2	64	.83	.066	12	35	.74	178	.05	11	2.34	.02	.19	1	90
21N 10+50W	1	49	8	66	.5	36	13	997	4.03	11	5	ND	3	62	1	3	3	72	.90	.074	13	48	.75	240	.07	9	2.58	.02	.19	1	100
STD C	18	58	42	132	6.5	68	29	1068	4.15	44	18	8	35	49	18	18	21	57	.50	.091	39	56	.91	175	.06	36	1.96	.06	.14	12	1300

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
21N 10+25W	1	65	5	65	.4	55	15	800	4.14	12	5	ND	4	121	1	2	2	84	3.37	.092	11	57	1.30	180	.05	14	2.12	.02	.21	1	280
21N 10+00W	1	50	6	85	.3	32	14	958	4.33	10	5	ND	5	56	1	2	3	75	.83	.084	14	42	.67	222	.06	8	2.48	.01	.18	1	140
21N 9+75W	1	54	6	71	.6	39	15	807	4.39	13	5	ND	4	56	1	2	2	79	1.22	.081	14	42	.89	156	.05	14	2.11	.01	.16	1	350
21N 9+50W	1	42	6	79	.3	27	12	868	3.58	4	5	ND	4	50	1	2	2	62	.78	.098	13	35	.61	226	.07	8	2.52	.02	.18	1	70
21N 9+25W	1	45	6	76	.7	32	13	734	4.23	7	9	ND	5	49	1	2	2	76	.73	.082	15	43	.85	169	.09	8	2.72	.02	.18	1	100
21N 9+00W	1	47	8	73	.5	26	13	974	3.75	4	7	ND	5	48	1	2	2	62	.71	.071	16	33	.66	235	.10	5	2.87	.02	.17	1	80
21N 8+75W	1	49	7	78	.2	28	14	896	4.29	5	5	ND	5	42	1	2	2	83	.75	.054	14	42	.77	213	.10	6	2.69	.02	.17	1	60
21N 8+50W	1	41	6	70	.1	26	11	733	3.81	6	5	ND	2	37	1	2	2	69	.60	.053	12	35	.68	157	.10	7	2.20	.02	.16	1	70
21N 8+25W	1	36	6	75	.1	23	11	786	3.74	2	5	ND	3	39	1	2	2	64	.58	.044	11	35	.64	184	.10	6	2.40	.02	.16	1	50
21N 8+00W	1	36	6	63	.1	25	11	694	3.60	5	5	ND	4	40	1	2	2	68	.67	.028	13	39	.62	145	.10	6	2.07	.02	.17	1	130
21N 7+75W	1	45	4	72	.1	30	12	702	4.08	6	5	ND	2	48	1	2	2	77	.87	.039	15	40	.77	158	.11	8	2.37	.02	.17	1	120
21N 7+50W	1	45	7	73	.1	25	11	794	3.56	2	5	ND	1	44	1	2	2	59	.71	.042	12	31	.77	173	.09	8	2.24	.02	.18	1	90
19N 12+50W	1	46	3	70	.1	54	17	790	4.08	3	5	ND	1	225	1	2	2	65	3.61	.095	10	51	2.89	106	.05	18	1.94	.06	.17	1	100
19N 12+25W	1	48	5	71	.1	39	14	857	4.14	2-	5	ND	2	70	1	2	2	80	1.16	.090	13	45	1.21	216	.13	9	3.63	.02	.18	1	50
19N 12+00W	1	53	8	66	.1	26	14	868	4.40	2	5	ND	2	66	1	2	2	96	1.19	.080	13	29	1.19	170	.08	21	3.48	.02	.16	1	60
19N 11+75W	1	48	7	59	.1	29	14	840	4.33	4	5	ND	1	70	1	2	2	89	1.26	.052	12	41	1.04	184	.11	8	3.56	.02	.17	1	110
19N 11+50W	1	45	4	64	.1	41	14	831	3.50	2	5	ND	2	81	1	2	2	73	1.68	.064	10	32	1.20	168	.12	13	2.30	.03	.17	1	80
19N 11+25W	1	43	6	67	.2	25	8	367	3.03	5	5	ND	3	99	1	2	3	57	1.01	.061	10	28	1.01	155	.09	17	2.44	.03	.18	1	180
19N 11+00W	1	49	7	92	.4	36	15	1136	3.94	16	5	ND	4	53	1	2	2	75	1.00	.084	12	38	.79	205	.08	14	2.25	.02	.18	1	280
19N 10+75W	1	42	6	75	.2	26	13	984	3.61	7	5	ND	4	56	1	2	3	67	.80	.061	12	32	.65	232	.10	9	2.68	.02	.17	1	230
19N 10+50W	1	39	6	80	.5	25	13	966	3.82	11	6	ND	5	64	1	2	2	70	.93	.074	12	31	.63	200	.08	11	2.35	.02	.17	1	120
19N 10+25W	1	37	7	79	.7	23	9	565	3.24	3	7	ND	5	60	1	2	2	56	.69	.079	23	31	.70	186	.08	7	2.74	.02	.18	1	478
19N 10+00W	1	40	7	79	.5	23	11	828	3.35	5	6	ND	4	54	1	2	2	60	.80	.073	13	31	.55	240	.10	7	2.59	.02	.19	1	180
19N 9+75W	1	48	6	81	.4	29	13	923	3.84	10	5	ND	4	66	1	2	2	75	1.12	.076	12	39	.75	180	.09	9	2.28	.02	.18	1	120
19N 9+50W	1	48	5	73	.6	29	13	812	3.93	8	7	ND	4	56	1	2	2	74	.85	.087	14	37	.80	188	.08	21	2.26	.02	.18	1	150
19N 9+25W	1	55	6	74	.8	35	13	815	3.97	10	8	ND	5	65	1	2	2	76	1.00	.086	13	41	.87	207	.08	11	2.29	.02	.17	1	170
19N 9+00W	1	43	6	79	.5	28	12	825	3.74	10	6	ND	5	59	1	2	2	66	.78	.061	14	36	.63	221	.09	20	2.52	.02	.18	1	130
19N 8+75W	1	46	6	80	.5	22	9	693	2.80	3	5	ND	4	83	1	2	2	42	1.07	.074	11	25	.82	232	.06	17	2.03	.02	.19	1	70
19N 8+50W	1	46	5	61	.3	18	8	585	2.36	2	5	ND	3	160	1	3	2	36	2.50	.072	10	22	1.35	217	.04	31	1.58	.02	.19	1	60
19N 8+25W	1	40	3	67	.1	26	11	829	3.56	6	5	ND	2	47	1	2	2	67	.76	.074	13	35	1.00	226	.08	12	1.75	.02	.18	1	110
19N 8+00W	1	38	6	70	.1	25	11	773	3.73	4	5	ND	2	44	1	2	2	71	.79	.052	13	35	.66	157	.11	31	2.07	.02	.18	1	90
19N 7+75W	1	40	7	77	.2	24	12	977	3.66	3	5	ND	3	48	1	2	2	66	.81	.068	14	35	.60	204	.10	9	2.39	.02	.18	1	60
19N 7+50W	1	45	8	72	.1	28	12	798	4.07	5	5	ND	1	45	1	2	2	74	.70	.057	16	41	.70	173	.11	7	2.60	.02	.18	1	110
STD C	18	57	38	132	7.1	67	29	1057	4.05	36	17	6	36	49	18	16	19	56	.49	.091	38	56	.90	173	.06	39	1.92	.06	.16	12	1400

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	Hg PPB
MOD-1	1	15	5	16	.1	4	2	207	.48	2	5	ND	6	30	1	2	2	1	.41	.003	19	12	.04	623	.01	15	.31	.01	.16	1	1	250
MOD-2	1	6	5	10	.1	5	1	226	.60	2	5	ND	8	17	1	2	2	1	.55	.004	16	20	.02	160	.01	8	.23	.02	.13	1	1	170
MOD-3	1	18	6	42	.3	7	5	400	2.24	3	5	ND	1	13	1	2	2	76	3.02	.042	7	23	.61	19	.17	7	1.96	.03	.02	2	1	20
MOD-4	7	28	19	21	.5	35	18	162	6.71	22	5	ND	1	27	1	2	2	167	.77	.030	2	139	.64	33	.21	6	.97	.02	.21	1	10	1500

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)25_ .716

GEOCHEMICAL ANALYSIS CERTIFICATE

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

DATE RECEIVED: NOV 14 1988 DATE REPORT MAILED: Nov 18/88 SIGNED BY. C. Leong .D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

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SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L15N 12+00W	1	15	2	23	.1	11	4	176	.74	11	5	ND	1	915	1	2	2	34	4.85	.037	3	6	15.02	74	.03	73	.88	.07	.06	1	30
L15N 11+75W	1	52	7	69	.1	25	15	751	3.72	4	5	ND	1	119	1	2	2	83	1.45	.100	10	27	1.44	108	.10	17	2.25	.06	.26	1	50
L15N 11+50W	1	51	11	65	.1	33	15	639	4.05	2	5	ND	2	80	1	2	2	90	1.11	.082	13	34	1.30	118	.12	6	2.56	.03	.24	1	60
L15N 11+25W	1	49	10	64	.1	36	15	695	4.04	6	5	ND	2	61	1	2	2	96	1.07	.080	12	40	1.18	127	.13	5	2.72	.02	.25	1	50
L15N 11+00W	1	51	3	63	.1	32	15	647	3.85	11	5	ND	2	59	1	2	2	83	1.11	.082	13	35	.97	140	.12	7	2.50	.02	.25	1	100
L15N 10+75W	1	46	14	70	.1	28	14	725	3.79	4	5	ND	2	56	1	2	2	79	1.06	.080	12	34	.86	174	.12	6	2.67	.02	.26	1	90
L15N 10+50W	1	38	9	69	.1	32	14	711	3.81	8	5	ND	2	56	1	2	2	83	.95	.070	14	40	.87	178	.13	6	2.78	.02	.31	1	60
L15N 10+25W	1	38	7	74	.1	41	16	775	3.58	7	5	ND	1	67	1	2	2	68	1.08	.068	11	37	.95	174	.13	9	2.50	.02	.39	1	30
L15N 10+00W	1	39	9	63	.1	26	10	398	3.06	3	5	ND	2	83	1	2	2	53	.87	.051	11	28	1.19	141	.11	15	2.26	.18	.46	1	80
L15N 9+75W	1	47	6	72	.1	26	13	520	3.40	7	5	ND	1	135	1	2	2	60	2.65	.093	10	30	1.24	99	.07	20	1.95	.09	.50	1	340
L15N 9+50W	1	66	4	113	.1	22	9	302	2.49	2	8	ND	1	73	1	2	2	46	1.05	.080	8	24	1.22	94	.08	27	1.88	.04	.50	1	160
L15N 9+25W	1	37	10	74	.1	27	14	521	3.69	8	5	ND	1	74	1	2	2	73	1.19	.081	10	32	1.84	71	.10	33	1.99	.07	.61	1	330
L15N 9+00W	1	39	4	66	.1	25	15	721	3.88	12	5	ND	2	43	1	2	5	84	.63	.074	13	35	.90	88	.12	12	2.00	.08	.28	1	220
L15N 8+75W	1	37	9	65	.1	23	13	812	3.68	7	5	ND	2	55	1	2	3	73	.79	.056	12	32	.68	160	.11	13	2.30	.02	.32	1	90
L15N 8+50W	1	44	9	71	.1	23	15	792	3.74	8	5	ND	2	52	1	2	2	74	.67	.066	12	32	.69	188	.10	7	2.07	.02	.28	1	130
L15N 8+25W	1	55	5	67	.1	31	15	813	4.22	14	5	ND	1	58	1	2	2	92	1.09	.076	14	36	.86	177	.11	7	2.16	.02	.21	1	250
L15N 8+00W	1	43	6	70	.1	27	16	694	4.20	7	5	ND	2	49	1	2	2	85	.74	.056	13	37	.74	171	.10	9	2.38	.02	.32	1	120
L15N 7+75W	1	41	4	69	.1	25	15	765	4.05	12	5	ND	2	49	1	2	2	80	.79	.059	13	35	.70	193	.10	8	2.28	.02	.24	1	110
L15N 7+50W	1	40	11	78	.1	22	14	762	3.88	8	5	ND	1	43	1	2	2	76	.63	.082	12	32	.56	228	.10	13	2.41	.02	.23	1	210
L13N 12+50W	1	44	10	68	.1	27	15	692	4.16	5	5	ND	2	50	1	2	2	84	.85	.066	15	38	.76	209	.14	9	3.06	.02	.22	2	60
L13N 12+25W	1	46	9	67	.1	26	14	852	3.90	7	5	ND	1	55	1	2	2	77	1.00	.082	14	37	.79	210	.11	8	3.10	.02	.27	1	50
L13N 12+00W	1	44	16	71	.1	29	14	906	3.85	4	5	ND	1	57	1	2	2	75	1.12	.080	13	38	.80	197	.11	7	3.06	.02	.29	1	40
L13N 11+75W	1	40	10	64	.1	24	12	719	3.37	5	5	ND	1	110	1	2	2	66	1.11	.078	11	31	1.38	137	.10	20	2.27	.02	.33	2	60
L13N 11+50W	1	32	4	61	.1	24	15	709	3.73	4	5	ND	2	54	1	2	2	83	.81	.073	11	35	.96	119	.13	12	2.01	.02	.26	1	40
L13N 11+25W	1	36	8	55	.1	21	21	456	2.84	9	5	ND	1	192	1	2	2	80	1.84	.072	9	26	6.27	96	.09	41	2.08	.09	.22	1	30
L13N 10+25W	1	53	6	65	.1	29	14	668	3.39	11	5	ND	1	177	1	2	2	80	2.92	.086	10	31	1.95	81	.09	31	1.90	.08	.25	1	130
L13N 10+00W	1	37	2	54	.1	22	10	367	2.82	5	5	ND	1	212	1	2	2	53	2.75	.081	9	26	1.63	95	.07	33	1.69	.03	.38	1	90
L13N 9+75W	1	78	2	47	.1	25	9	256	2.49	5	5	ND	1	146	1	2	2	63	1.69	.084	11	22	1.32	116	.06	17	1.87	.04	.25	2	70
L13N 9+50W	1	61	5	62	.1	24	11	758	3.22	2	5	ND	1	79	1	2	2	62	.88	.058	12	30	.85	181	.11	6	2.58	.03	.18	1	100
L13N 9+25W	1	41	4	60	.1	24	12	654	3.14	6	5	ND	2	56	1	2	2	61	.88	.042	11	28	.70	157	.11	8	2.18	.02	.23	1	250
L13N 9+00W	1	50	7	72	.1	22	13	877	3.40	8	5	ND	1	59	1	2	2	66	.95	.070	13	30	.59	188	.09	5	2.36	.02	.18	1	150
L13N 8+75W	1	41	4	74	.1	24	14	897	3.86	6	5	ND	1	49	1	2	2	76	.89	.065	14	33	.62	204	.11	9	2.57	.02	.24	1	120
L13N 8+50W	1	44	7	69	.1	26	15	801	4.09	8	5	ND	2	51	1	2	2	85	.99	.064	13	34	.76	184	.12	6	2.60	.02	.25	1	150
L13N 8+25W	1	47	10	73	.2	27	15	980	3.69	10	5	ND	1	59	1	2	2	69	.95	.079	12	29	.69	219	.09	5	2.40	.02	.27	1	130
L13N 8+00W	1	53	12	83	.1	23	16	831	4.49	8	5	ND	2	61	1	2	2	88	.92	.077	14	34	.83	253	.09	6	2.92	.02	.33	1	100
L13N 7+75W	1	63	2	83	.1	25	15	918	4.62	11	5	ND	2	62	1	2	2	92	1.10	.086	14	35	.88	261	.09	9	2.95	.02	.29	1	120
STD C	19	60	36	133	6.9	68	31	1029	4.31	40	23	8	38	48	19	19	24	60	.50	.099	40	56	.94	177	.07	32	1.95	.06	.13	12	1300

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L13N 7+50W	1	89	2	64	.1	34	18	710	4.45	14	5	ND	2	56	1	2	2	108	1.21	.083	13	35	1.09	179	.09	10	2.44	.02	.21	1	100
L12N 12+50W	1	38	2	57	.1	20	12	480	3.37	7	5	ND	3	43	1	2	2	65	.63	.038	13	32	.62	150	.13	8	2.59	.02	.26	1	30
L12N 12+25W	1	35	7	58	.1	25	14	795	3.54	4	5	ND	1	48	1	2	2	75	.93	.055	13	34	.71	165	.11	5	2.48	.02	.23	1	40
L12N 12+00W	1	48	4	62	.1	31	15	843	3.73	7	5	ND	2	51	1	2	2	79	1.07	.067	14	35	.85	176	.12	6	2.60	.02	.23	1	60
L12N 11+75W	1	47	9	66	.1	28	16	875	3.98	6	5	ND	2	54	1	2	2	85	1.03	.066	14	40	.89	173	.13	8	2.85	.02	.30	2	50
L12N 11+00W	1	41	9	81	.1	26	15	855	3.96	9	5	ND	2	46	1	2	3	78	.76	.058	13	33	.63	239	.12	8	2.88	.02	.30	1	70
L12N 10+75W	1	48	13	86	.1	33	19	767	4.71	9	5	ND	2	58	1	2	2	99	.73	.069	15	44	.77	243	.13	9	3.54	.02	.26	1	270
L12N 10+50W	1	60	6	65	.1	35	18	526	4.91	9	5	ND	3	54	1	2	2	114	.81	.047	13	43	1.01	164	.14	6	3.17	.02	.18	1	150
L12N 10+25W	1	30	4	67	.1	21	13	526	3.42	7	5	ND	2	42	1	2	2	71	.71	.040	10	30	.56	168	.11	11	2.21	.02	.25	1	40
L12N 10+00W	1	36	4	82	.1	28	14	611	3.79	7	5	ND	2	49	1	2	2	79	.78	.061	11	36	.63	184	.13	12	2.70	.02	.29	1	70
L12N 9+75W	1	30	3	80	.2	23	12	519	3.38	2	5	ND	2	40	1	2	2	67	.52	.057	10	31	.56	188	.12	5	2.53	.02	.17	1	60
L12N 9+50W	1	35	2	88	.1	24	13	826	3.34	4	5	ND	2	48	1	2	2	64	.69	.068	11	33	.59	203	.13	9	2.70	.02	.23	2	40
L12N 9+25W	1	42	2	68	.1	28	13	775	3.44	8	5	ND	1	72	1	2	2	73	.99	.050	12	33	.80	157	.13	8	2.66	.02	.22	1	50
L12N 9+00W	1	35	7	70	.2	28	14	770	3.56	9	5	ND	2	53	1	2	2	76	.86	.047	11	33	.68	166	.13	6	2.50	.02	.24	1	130
L12N 8+75W	1	42	15	69	.1	28	16	733	4.05	14	5	ND	2	48	1	2	4	82	.81	.043	13	34	.70	185	.12	7	2.81	.02	.26	1	320
L12N 8+50W	1	58	7	69	.1	27	17	761	4.55	7	5	ND	2	46	1	2	2	97	.87	.046	15	38	.84	182	.10	5	3.00	.02	.20	1	600
L12N 8+25W	1	56	6	72	.1	26	15	682	3.84	9	5	ND	1	76	1	2	2	75	1.18	.051	11	29	1.11	171	.07	11	2.58	.01	.36	1	120
L12N 8+00W	1	59	8	84	.1	23	14	893	3.70	9	5	ND	1	59	1	2	2	71	.95	.065	11	27	.81	217	.07	9	2.26	.01	.35	1	110
L12N 7+75W	1	80	3	72	.1	31	18	792	4.67	12	5	ND	1	56	1	2	3	101	.96	.076	15	38	1.03	228	.09	6	2.72	.02	.27	1	510
L12N 7+50W	1	59	6	69	.1	29	16	678	4.39	10	5	ND	2	51	1	2	2	94	.83	.061	15	35	.79	226	.12	8	2.71	.02	.24	1	1200
L10N 12+50W	1	47	5	72	.1	28	16	967	4.04	7	5	ND	1	54	1	2	2	84	.97	.066	14	37	.76	226	.11	6	2.66	.02	.29	1	140
L10N 12+25W	1	33	2	65	.1	26	14	712	3.52	4	5	ND	2	50	1	2	2	75	.77	.074	13	34	.70	151	.12	9	2.28	.02	.26	1	50
L10N 12+00W	1	33	5	72	.1	23	12	863	3.22	6	5	ND	1	45	1	2	4	62	.73	.075	11	28	.58	198	.11	5	2.45	.02	.28	2	40
L10N 11+75W	1	49	10	66	.1	28	16	772	4.29	8	5	ND	2	49	1	2	2	95	1.06	.072	14	39	.88	184	.13	8	2.76	.02	.19	2	60
L10N 11+50W	1	63	13	59	.1	33	16	758	4.25	12	5	ND	3	52	1	2	2	100	1.27	.070	15	43	1.00	174	.12	7	2.21	.02	.15	1	200
L10N 11+25W	1	47	10	58	.1	22	10	370	3.31	5	5	ND	1	153	1	2	2	65	1.99	.044	11	30	1.97	129	.09	26	1.95	.11	.30	2	80
L10N 11+00W	1	50	3	86	.1	32	15	952	3.84	9	5	ND	1	58	1	2	2	75	.92	.047	12	37	.72	230	.07	11	2.21	.02	.31	1	120
L10N 10+75W	1	72	7	67	.1	41	18	765	4.40	14	5	ND	1	79	1	2	2	95	2.88	.097	12	42	1.13	155	.06	12	2.33	.01	.16	2	350
L10N 10+50W	1	65	4	81	.1	33	17	851	4.30	10	5	ND	1	61	1	2	2	92	1.16	.086	14	39	.87	216	.10	12	2.75	.02	.31	2	110
L10N 10+25W	1	72	3	74	.2	37	17	753	4.49	14	5	ND	1	66	1	2	2	102	1.46	.091	14	40	1.05	174	.09	12	2.67	.02	.24	1	200
L10N 10+00W	1	66	11	77	.2	34	16	811	4.39	13	5	ND	1	64	1	2	2	98	1.20	.104	14	41	.92	183	.10	11	2.78	.02	.30	1	130
L10N 9+75W	1	51	9	74	.1	28	16	784	3.93	11	5	ND	1	60	1	2	2	87	1.08	.092	13	37	.73	193	.11	11	2.57	.02	.31	1	80
L10N 9+50W	1	55	13	73	.1	30	14	738	3.99	8	5	ND	1	62	1	2	2	86	1.08	.093	14	36	.80	197	.11	9	2.71	.02	.32	1	90
L10N 9+25W	1	40	2	73	.1	24	14	772	3.73	10	5	ND	2	50	1	2	2	81	.92	.094	13	37	.64	206	.12	7	2.50	.02	.30	1	80
L10N 9+00W	1	47	6	67	.1	29	14	764	3.65	7	5	ND	1	61	1	2	2	81	1.05	.096	13	34	.83	164	.12	8	2.42	.03	.28	1	110
L10N 8+75W	1	44	7	71	.1	26	13	816	3.50	8	5	ND	1	63	1	2	2	76	1.06	.097	13	33	.78	169	.11	9	2.55	.02	.33	1	90
STD C	19	62	41	132	7.0	69	31	1035	4.14	40	19	8	38	49	20	19	22	61	.49	.096	41	55	.93	174	.07	34	1.95	.06	.13	12	1400

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L10N 8+50W	1	48	8	86	.1	26	12	830	3.22	8	5	ND	1	56	1	2	2	58	.96	.151	13	26	.59	293	.08	13	2.73	.02	.48	1	140
L10N 8+25W	1	59	16	78	.1	27	15	892	4.14	9	5	ND	1	53	1	2	2	78	.94	.099	16	32	.72	346	.10	6	3.58	.02	.17	1	210
L10N 8+00W	1	62	16	94	.1	26	17	1102	4.11	10	5	ND	1	45	1	2	2	82	.99	.097	13	29	.70	300	.08	3	2.88	.02	.13	1	200
L10N 7+75W	1	51	8	117	.1	25	15	925	3.60	8	5	ND	1	46	1	2	2	58	.81	.090	13	26	.61	272	.07	5	2.68	.01	.20	1	120
L10N 7+50W	1	88	2	65	.1	21	11	340	2.96	11	5	ND	1	138	1	2	2	48	2.05	.070	10	23	.79	238	.05	17	1.96	.04	.13	1	110
L9N 12+50W	1	48	3	72	.1	30	16	914	3.93	10	5	ND	2	50	1	2	2	77	.89	.062	12	34	.70	230	.11	6	2.38	.02	.28	1	50
L9N 12+25W	1	42	5	70	.1	29	15	789	3.93	7	5	ND	2	43	1	2	2	79	.84	.069	12	35	.75	202	.11	7	2.47	.02	.27	1	60
L9N 12+00W	1	34	10	61	.1	27	15	655	3.76	7	5	ND	3	41	1	2	6	73	.73	.073	13	37	.72	148	.12	7	2.44	.02	.29	1	30
L9N 11+75W	1	36	6	49	.1	24	9	310	2.99	6	5	ND	1	177	1	2	2	67	2.51	.057	10	29	2.09	100	.09	18	1.67	.07	.26	1	80
L9N 11+25W	1	41	2	50	.1	21	9	355	3.08	10	5	ND	1	155	1	2	2	73	2.32	.061	11	30	3.55	119	.09	17	1.94	.06	.20	1	100
L9N 11+00W	1	41	7	55	.1	23	13	674	3.69	8	5	ND	2	61	1	2	2	68	.77	.029	13	35	.97	126	.10	6	2.22	.02	.29	1	150
L9N 10+75W	1	35	10	104	.1	26	12	990	3.08	5	5	ND	1	45	1	2	2	50	.74	.062	11	26	.51	236	.08	10	2.39	.01	.25	1	80
L9N 10+50W	1	67	11	73	.1	41	17	772	4.63	9	5	ND	2	54	1	2	2	97	1.02	.076	15	42	1.00	194	.09	7	2.76	.02	.20	1	320
L9N 10+25W	1	57	8	77	.1	30	15	821	4.10	12	5	ND	1	53	1	2	2	80	1.02	.099	15	37	.76	244	.09	10	2.57	.02	.30	1	140
L9N 10+00W	1	60	16	77	.1	34	15	785	4.19	9	5	ND	2	57	1	3	2	81	.95	.083	16	38	.85	223	.10	7	2.89	.02	.29	1	150
L9N 9+75W	1	60	12	73	.2	39	15	866	3.96	6	5	ND	1	58	1	2	2	76	.96	.100	14	34	.62	249	.08	8	2.75	.02	.30	1	90
L9N 9+50W	1	53	12	74	.1	27	15	913	3.88	11	5	ND	1	48	1	4	2	77	.96	.071	13	31	.70	223	.10	7	2.41	.02	.22	1	5200
L9N 9+25W	1	47	17	75	.1	26	13	820	3.62	6	5	ND	1	45	1	2	2	64	.69	.096	16	25	.58	355	.09	8	3.41	.02	.21	2	220
L9N 9+00W	1	110	12	84	.2	38	21	1355	4.68	13	5	ND	1	56	1	3	2	91	1.41	.120	16	34	1.02	391	.07	10	3.05	.02	.13	3	280
L9N 8+75W	1	145	7	84	.3	37	23	1361	4.84	14	5	ND	1	67	1	3	2	96	3.36	.138	15	33	1.18	413	.04	9	2.69	.02	.12	1	420
L9N 8+50W	1	90	10	62	.1	31	19	788	4.51	9	5	ND	1	64	1	2	2	73	1.90	.047	13	29	1.04	224	.07	7	2.55	.09	.29	1	260
L9N 8+25W	1	60	10	82	.1	28	18	624	4.63	11	5	ND	2	65	1	3	2	80	1.04	.057	13	30	.89	310	.08	10	2.84	.03	.24	2	130
L9N 8+00W	1	41	11	74	.1	24	14	1035	3.22	6	5	ND	1	49	1	2	2	53	.71	.047	10	26	.53	245	.08	9	2.21	.02	.20	1	60
L9N 7+75W	1	44	8	73	.1	26	14	876	3.71	11	5	ND	1	44	1	3	2	73	.88	.079	12	32	.60	198	.09	12	2.18	.01	.28	1	120
L9N 7+50W	1	46	8	70	.1	27	14	533	3.90	5	5	ND	2	39	1	2	5	76	.71	.030	15	35	.61	219	.11	8	2.50	.02	.22	1	210
L7N 12+50W	1	41	10	70	.1	22	14	870	3.59	6	5	ND	1	47	1	2	2	70	.86	.090	13	31	.62	255	.10	8	2.45	.02	.23	1	50
L7N 12+25W	1	38	7	70	.1	26	13	950	3.53	7	5	ND	2	44	1	3	2	69	.78	.067	13	30	.60	259	.10	8	2.40	.02	.20	1	60
L7N 12+00W	1	51	10	67	.1	34	15	875	3.94	8	5	ND	2	53	1	2	2	81	.98	.076	14	36	.75	215	.11	8	2.36	.02	.26	1	70
L7N 11+75W	1	41	12	61	.1	32	15	958	3.82	7	5	ND	2	47	1	2	3	76	.95	.076	13	34	.78	209	.10	8	2.22	.02	.22	1	60
L7N 11+50W	1	31	4	56	.2	22	8	418	2.69	3	5	ND	1	165	1	2	2	50	2.10	.065	9	23	3.87	128	.08	27	1.92	.06	.27	1	50
L7N 10+75W	1	51	15	52	.1	29	14	672	3.99	10	5	ND	1	78	1	2	2	82	1.81	.044	13	34	1.68	131	.10	17	2.26	.06	.29	1	200
L7N 10+50W	1	32	9	57	.1	24	15	781	3.76	8	5	ND	1	57	1	2	2	79	.95	.071	12	34	.83	155	.11	9	2.10	.02	.26	1	90
L7N 10+25W	1	33	8	43	.1	20	9	307	3.00	4	5	ND	1	279	1	2	2	56	4.46	.045	9	27	1.98	129	.08	15	1.75	.03	.28	2	180
L7N 9+00W	1	59	6	59	.1	28	17	923	3.85	10	5	ND	1	48	1	2	2	73	.88	.058	12	35	.70	228	.07	11	2.14	.01	.28	2	60
L7N 8+75W	1	160	11	62	.1	52	28	979	5.06	9	5	ND	1	45	1	2	2	104	1.69	.106	14	68	1.08	324	.05	9	2.64	.01	.22	1	120
L7N 8+50W	1	80	13	69	.1	27	18	979	4.66	12	5	ND	1	65	1	2	2	108	1.31	.113	12	34	.90	266	.08	13	2.36	.01	.25	2	110
STD C	19	60	42	132	7.0	71	31	1042	4.26	42	21	8	39	49	19	16	23	61	.50	.096	41	57	.94	178	.07	38	1.95	.06	.13	13	1300

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Hg PPB
L7N 8+25W	1	110	9	78	.1	30	17	729	4.99	9	5	ND	1	60	1	4	2	114	1.00	.092	15	38	.91	338	.12	5	2.87	.02	.28	1	120
L7N 8+00W	1	108	10	78	.1	29	20	1084	5.45	11	5	ND	1	58	1	2	2	127	1.19	.057	14	37	.91	331	.10	8	2.52	.02	.26	1	150
L7N 7+75W	1	83	6	81	.2	26	18	793	5.29	15	5	ND	1	51	1	4	2	121	.92	.053	15	42	.82	322	.12	4	2.83	.02	.25	1	730
L7N 7+50W	1	63	9	72	.1	23	16	951	4.32	8	5	ND	1	57	1	3	3	102	.94	.060	14	35	.68	357	.10	2	2.54	.02	.21	1	150
STD C	18	59	44	131	6.9	69	30	1024	3.96	45	18	7	38	49	19	16	24	60	.46	.095	41	55	.89	178	.07	33	1.92	.06	.13	11	1300

APPENDIX C

STATEMENT OF QUALIFICATIONS

I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that:

1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.

2. I have been working in all phases of mineral exploration in Canada for the past eighteen years.

3. During the past eighteen years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.

4. I have examined several mineral properties in Southern British Columbia during the past eighteen years.

5. I personally conducted or supervised the surveys outlined in this report.

6. I am the vendor of the property and I retain interest in the property.

November 30, 1988
Kelowna, B.C.

Murray Morrison, B.Sc.

APPENDIX D

STATEMENT OF EXPENDITURES ON THE MODEL 1-3
AND ANNE 1-6 MINERAL CLAIMS

APPENDIX "D"

Statement of Expenditures - on the Model Group of Mineral Claims

Statement of Expenditures in connection with Geological, Geochemical and Geophysical Surveys carried out on the Model 1-3 and ANNE 1-6 mineral claims, located near Tunkwa Lake, British Columbia (N.T.S. Map 92-I-10W) for the year 1988.

Baseline (2.9 km) and Grid Line (14.7 km) Establishment

M. Morrison, geologist	2 days @ $225./day	$	450.
A. Hunt, geologist's assistant	5 days @ $100./day		500.
Truck, 4x4 (incl. gasoline)	2 days @ $ 65./day		130.
Meals and Lodging - 7 man-days @ average 44.24/day			310.
Flagging and belt chain thread			55.
	Sub-total	$	1,445.

Magnetometer Survey (14.7 km)

M. Morrison, geologist	1 day @ $225./day	$	225.
A. Hunt, geologist's assistant	4 days @ $100./day		400.
Magnetometer rental	5 days @ $ 25./day		125.
Truck, 4x4 (incl. gasoline)	1 day @ $65./day		65.
Meals and Lodging - 5 man-days @ average $44.24/day			221.
	Sub-total	$	1,036.

VLF-EM 16 Survey (14.7 km)

A. Hunt, geologist's assistant	5 days @ $100./day	$	500.
VLF-EM 16 instrument rental	(Geolease)		236.
Airfreight VLF-EM 16 instrument to and from Toronto			96.
Meals and Lodging - 5 man-days @ average $44.24/day			221.
	Sub-total		1,053.

Continued . . .

Statement of Expenditures - Continued

Soil Geochemical Survey (12 km)

A. Hunt, geologist's assistant	7 days @ $100./day	$	700.
Meals and Lodging - 7 man-days @ average $44.24/day			310.
Bus express samples to lab.			61.
490 sample bags @ $0.13 each			64.
490 soil samples analyzed for 30 elements by ICP, and for mercury by flameless AA @ $9.60 each			4,704.
	Sub-total		$ 5,839.

Geological Mapping (2.4 km^2 at 1:2,500 scale; 16.3 km^2 at 1:10,000 scale).

M. Morrison, geologist	14 days @ $225./day	$	3,150.
Truck, 4x4 (incl. gasoline)	14 days @ $ 65./day		910.
Meals and Lodging - 14 man-days @ average $44.24/day			619.
	Sub-total		$ 4,679.

Report Preparation

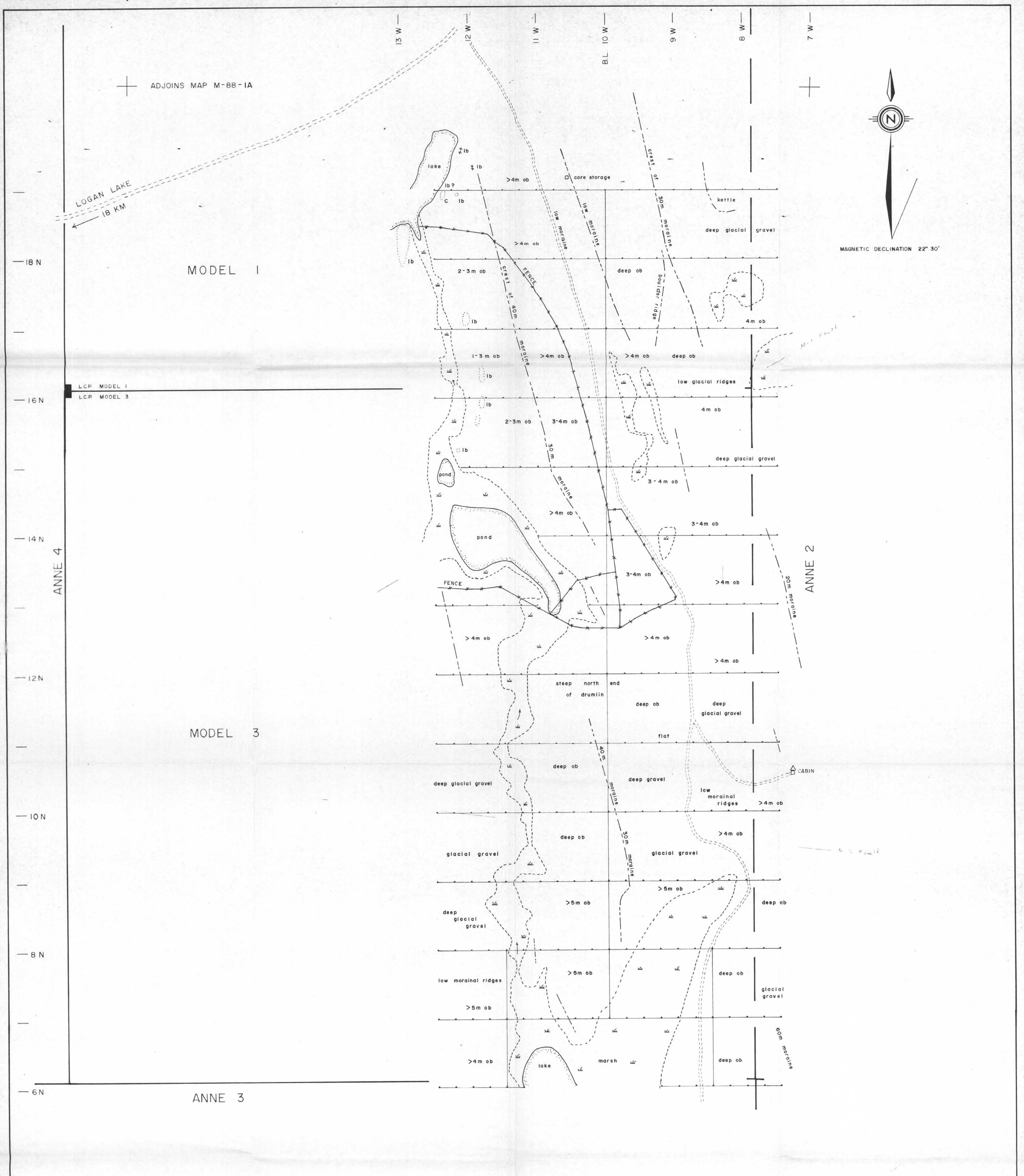
M. Morrison, geologist (includes calculations for geophysical surveys; plotting and contouring for several surveys; and analyzing data in general).	4 days @ $225./day	$	900.
Drafting - 3 figures and 18 maps			460.
Typing			148.
Copying - (2 copies of report)			40.
	Sub-total		$ 1,548.
	GRAND TOTAL		$15,600.

I hereby certify that the preceding statement is a true statement of monies expended in connection with the Geological, Geochemical, and Geophysical Surveys carried out May 7 to August 9, 1988.

November 30, 1988

Murray Morrison - Geologist


ANNE 5
13 W
12 W
11 W
B.L 10 W
9 W
8 W
7 W
SAVONA
21 KM
MAGNETIC DECLINATION 22° 30'
34 N
32 N
30 N
28 N
26 N
24 N
22 N
20 N
MODEL 2
MODEL 1
ANNE 4
ANNE 2
MODEL 2 LCP
MODEL FAULT ZONE
pond
shallow ravine
shallow pond
steep north end of drumlin 20-30m high
15 m moraine
glacial boulder ridge
tertiary basalt boulders
crest of 30m moraine
>30m glacial gravels
flat-topped glacial ridge
flat-topped morainal ridge
top of morainal ridge
low morainal ridges
generally flat
locally sil. 2% py
conglomerate
ADJOINS MAP M-88-1B
LOGAN LAKE
18 KM
- GEOLOGY -
TRIASSIC
I Nicola Group
Ig argillite
If siltstone
Ie sandstone
Id limestone / dolomite
Ic feldspar porphyry andesite flows
Ib amygdaloidal andesite flows
Ia andesite breccias, agglomerates
C carbonate alteration
ob overburden
- LEGEND -
roads
creeks
swamps
moraines
outcrops
angular float
diamond drill hole
LCP MODEL 1
LCP MODEL 3
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
GEOLOGICAL BRANCH
ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOLOGICAL REPORT BY M. MORRISON
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
GEOLOGY
MODEL 1-3 MINERAL CLAIMS
SURVEY BY M.M.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY MM./A.H.
SCALE 1:2500
MAP M-88-1A



PLEASE SEE MAP M-88-1A FOR GEOLOGY AND LEGEND

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,455

0 50 100 200 METRES

TO ACCOMPANY A GEOLOGICAL REPORT BY M. MORRISON

MAD RIVER RESOURCES INC.

MODEL PROPERTY

LOGAN LAKE AREA, KAMLOOPS M.D., B.C.

GEOLOGY

MODEL 1-3 MINERAL CLAIMS

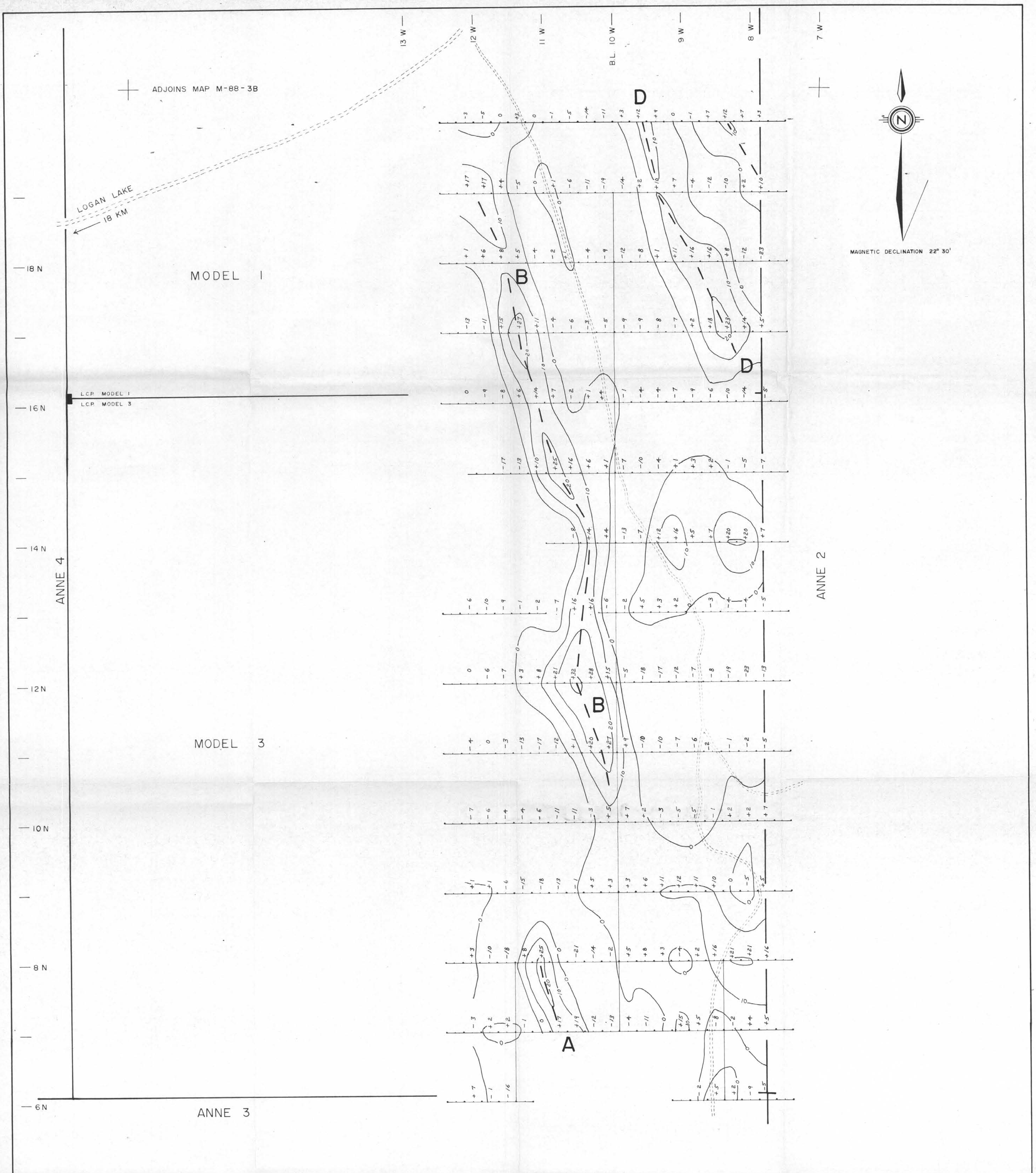
SURVEY BY M.M.	AUGUST 1988	N.T.S.	92-I-10W
DRAWN BY M.M./A.H.	SCALE 1:2500	MAP	M-88-1B

CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN


13 W
12 W
11 W
B.L. 10 W
9 W
8 W
7 W
ANNE 5
SAVONA
21 KM
N
MAGNETIC DECLINATION 22° 30'
34 N
32 N
30 N
28 N
26 N
24 N
22 N
20 N
MODEL 2
MODEL 1
ANNE 4
ANNE 2
MODEL 2 LCP
ADJOINS MAP M-88-2B
LOGAN LAKE
18 KM
L.C.P. MODEL 1
L.C.P. MODEL 3
%
60
40
20
0
-20
-40
-60
%
1 CM = 20%
IN-PHASE PROFILE
IN-PHASE READINGS
QUADRATURE READINGS
QUADRATURE PROFILE
INSTRUMENT : GEONICS EM-16
READINGS TAKEN FACING NORTH
PLEASE SEE MAP M-88-3A FOR FRASER FILTERED DATA
SIGNAL STATION
ANNAPOLIS, MARYLAND
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
GEOLOGICAL BRANCH
ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOPHYSICAL REPORT BY M. MORRISON
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
VLF-EM SURVEY
BASIC DATA & PROFILES
MODEL 1-3 MINERAL CLAIMS
SURVEY BY A.H.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY M.M./A.H.
SCALE 1:2500
MAP M-88-2A


ADJOINS MAP M-88-
LOGAN LAKE
18 KM
13 W
12 W
11 W
B.L. 10 W
9 W
8 W
7 W
N
MAGNETIC DECLINATION 22° 30'
18 N
16 N
14 N
12 N
10 N
8 N
6 N
MODEL 1
MODEL 3
L.C.P. MODEL 1
L.C.P. MODEL 3
ANNE 4
ANNE 2
ANNE 3
%
60
40
20
0
-20
-40
-60
1 CM = 20%
IN-PHASE PROFILE
IN-PHASE READINGS
QUADRATURE READINGS
QUADRATURE PROFILE
INSTRUMENT : GEONICS EM-16
READINGS TAKEN FACING NORTH
PLEASE SEE MAP M-88-3B FOR FRASER FILTERED DATA
SIGNAL STATION
ANNAPOLIS, MARYLAND
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
GEOLOGICAL BRANCH
ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOPHYSICAL REPORT BY M. MORRISON
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
VLF-EM SURVEY
BASIC DATA & PROFILES
MODEL 1-3 MINERAL CLAIMS
SURVEY BY A.H.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY M.M./A.H.
SCALE 1:2500
MAP M-88-2B


ANNE 5
SAVONA 21 KM
MAGNETIC DECLINATION 22° 30'
13 W
12 W
11 W
B.L. 10 W
9 W
8 W
7 W
34 N
32 N
30 N
28 N
26 N
24 N
22 N
20 N
MODEL 2
MODEL 1
ANNE 4
ANNE 2
MODEL 2 L.C.P.
F
G
E
D
C
ADJOINS MAP M-88-3B
LOGAN LAKE 18 KM
INSTRUMENT: GEONICS EM-16
PLEASE SEE BASIC DATA ON MAP M-88-2A
CONTOUR INTERVAL: 0, 10, 20 %
FRASER FILTERED DIP ANGLE
AXES OF CONDUCTORS
SIGNAL STATION ANNAPOLIS, MARYLAND
L.C.P. MODEL 1
L.C.P. MODEL 3
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
GEOLOGICAL BRANCH ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOPHYSICAL REPORT BY M. MORRISON
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
VLF-EM SURVEY
FRASER FILTERED DATA
MODEL 1-3 MINERAL CLAIMS
SURVEY BY A.H.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY M.M./A.H.
SCALE 1:2500
MAP M-88-3A



INSTRUMENT: GEONICS EM-16

PLEASE SEE BASIC DATA ON MAP M-88-2B

CONTOUR INTERVAL: 0, 10, 20 %

FRASER FILTERED DIP ANGLE

— — — AXES OF CONDUCTORS

SIGNAL STATION ANNAPOLIS, MARYLAND

CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN

0 50 100 200 METRES

TO ACCOMPANY A GEOPHYSICAL REPORT BY M. MORRISON

MAD RIVER RESOURCES INC.

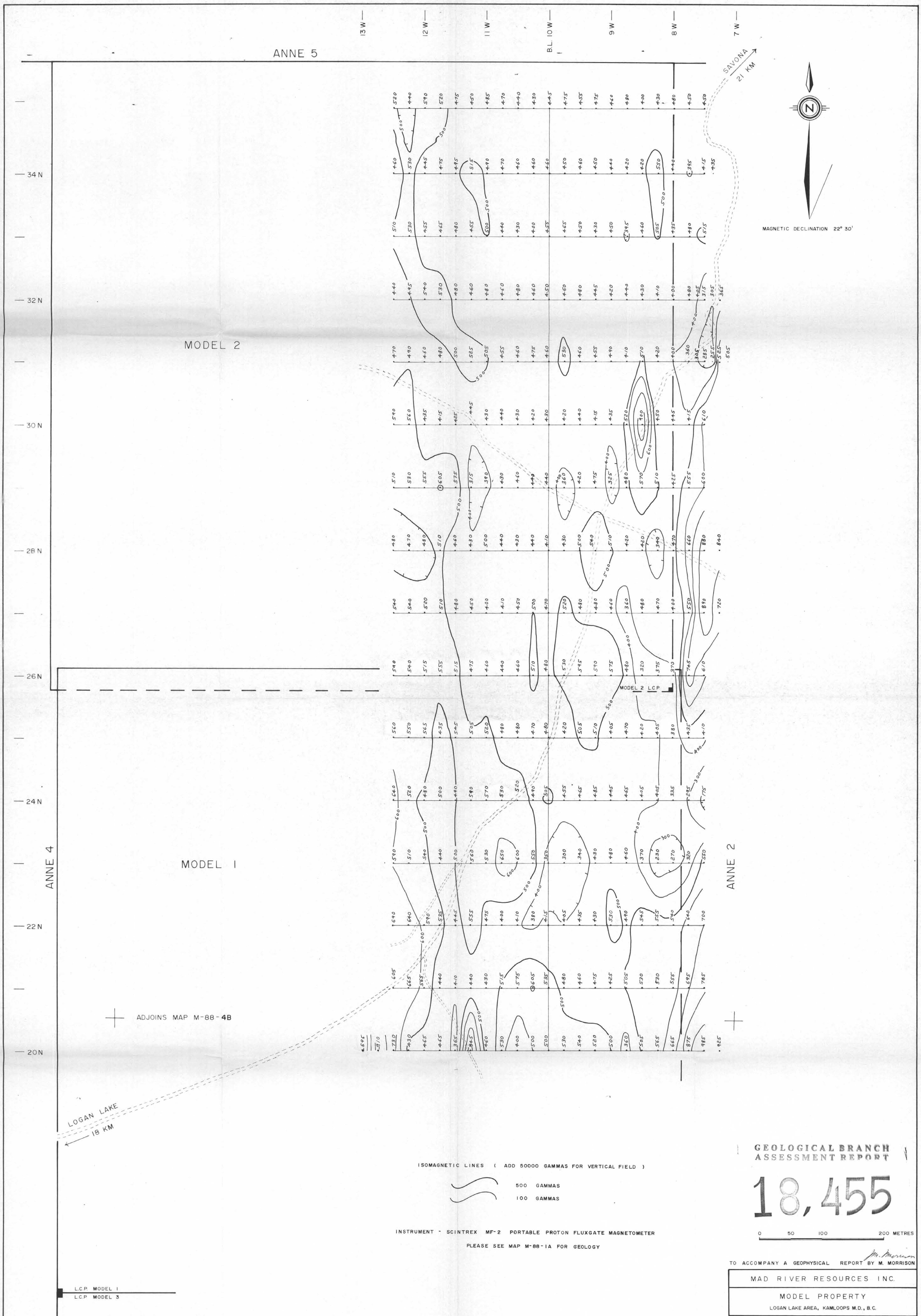
MODEL PROPERTY

LOGAN LAKE AREA, KAMLOOPS M.D., B.C.

VLF-EM SURVEY FRASER FILTERED DATA

MODEL 1-3 MINERAL CLAIMS

SURVEY BY A.H.	AUGUST 1988	N.T.S. 92-I-10W
DRAWN BY M.M./A.H.	SCALE 1:2500	MAP M-88-3B



ISOMAGNETIC LINES (ADD 50000 GAMMAS FOR VERTICAL FIELD)

500 GAMMAS

100 GAMMAS

INSTRUMENT - SCINTREX MF-2 PORTABLE PROTON FLUXGATE MAGNETOMETER

PLEASE SEE MAP M-88-1A FOR GEOLOGY

CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN

GEOLOGICAL BRANCH ASSESSMENT REPORT

18,455

0 50 100 200 METRES

TO ACCOMPANY A GEOPHYSICAL REPORT BY M. MORRISON

MAD RIVER RESOURCES INC.

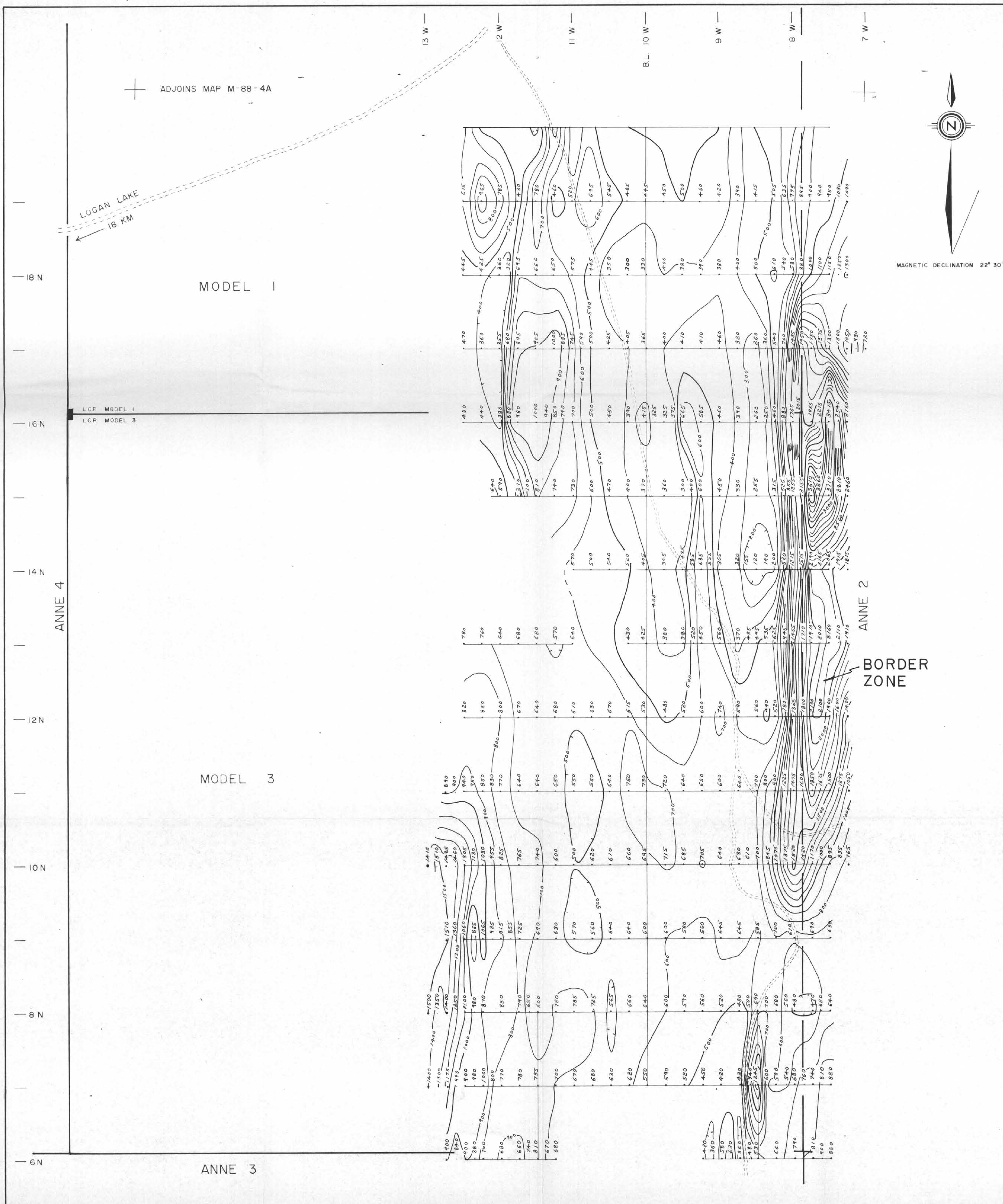
MODEL PROPERTY

LOGAN LAKE AREA, KAMLOOPS M.D., B.C.

GROUND MAGNETOMETER SURVEY

MODEL 1-3 MINERAL CLAIMS

SURVEY BY A.H.	AUGUST 1988	N.T.S. 92-I-10W
DRAWN BY MM./A.H.	SCALE 1:2500	MAP M-88-4A



ISOMAGNETIC LINES (ADD 50000 GAMMAS FOR VERTICAL FIELD)

500 GAMMAS

100 GAMMAS

INSTRUMENT - SCINTREX MF-2 PORTABLE PROTON FLUXGATE MAGNETOMETER

PLEASE SEE MAP M-88-1B FOR GEOLOGY

CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN

0 50 100 200 METRES

TO ACCOMPANY A GEOPHYSICAL REPORT BY M. MORRISON

MAD RIVER RESOURCES INC.

MODEL PROPERTY

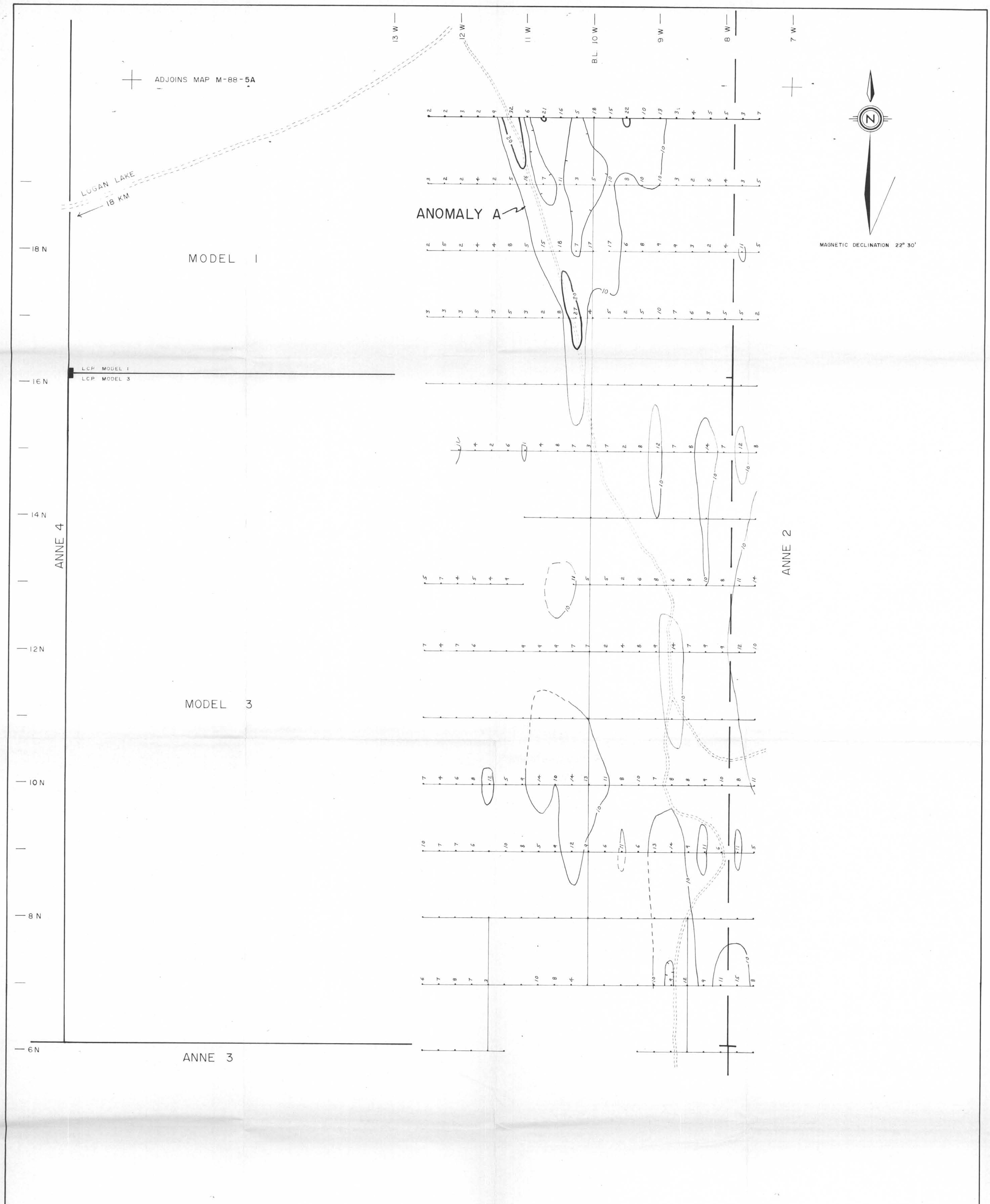
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.

GROUND MAGNETOMETER SURVEY

MODEL 1-3 MINERAL CLAIMS

SURVEY BY A.H.	AUGUST 1988	N.T.S. 92-I-10W
DRAWN BY M.M./A.H.	SCALE 1:2500	MAP M-88-4B


ANNE 5
13 W
12 W
11 W
BL 10 W
9 W
8 W
7 W
SAVONA 21 KM
N
MAGNETIC DECLINATION 22° 30'
34 N
32 N
30 N
28 N
26 N
24 N
22 N
20 N
ANOMALY B
MODEL 2
MODEL 2 LCP
MODEL 1
ANNE 4
ANNE 2
ANOMALY A
ADJOINS MAP M-88-5B
LOGAN LAKE 18 KM
PLEASE SEE MAP M-88-1A FOR GEOLOGY
20 ppm arsenic
10 ppm arsenic
L.C.P. MODEL 1
L.C.P. MODEL 3
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
GEOLOGICAL BRANCH
ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOCHEMICAL REPORT BY M. MORRISON
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
GEOCHEMICAL SURVEY
ARSENIC IN SOIL
MODEL 1-3 MINERAL CLAIMS
SURVEY BY A.H.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY MM./A.H.
SCALE 1:2500
MAP M-88-5A



PLEASE SEE MAP M-88-1B FOR GEOLOGY

20 ppm arsenic
10 ppm arsenic

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,455

0 50 100 200 METRES

TO ACCOMPANY A GEOCHEMICAL REPORT BY M. MORRISON

MAD RIVER RESOURCES INC.

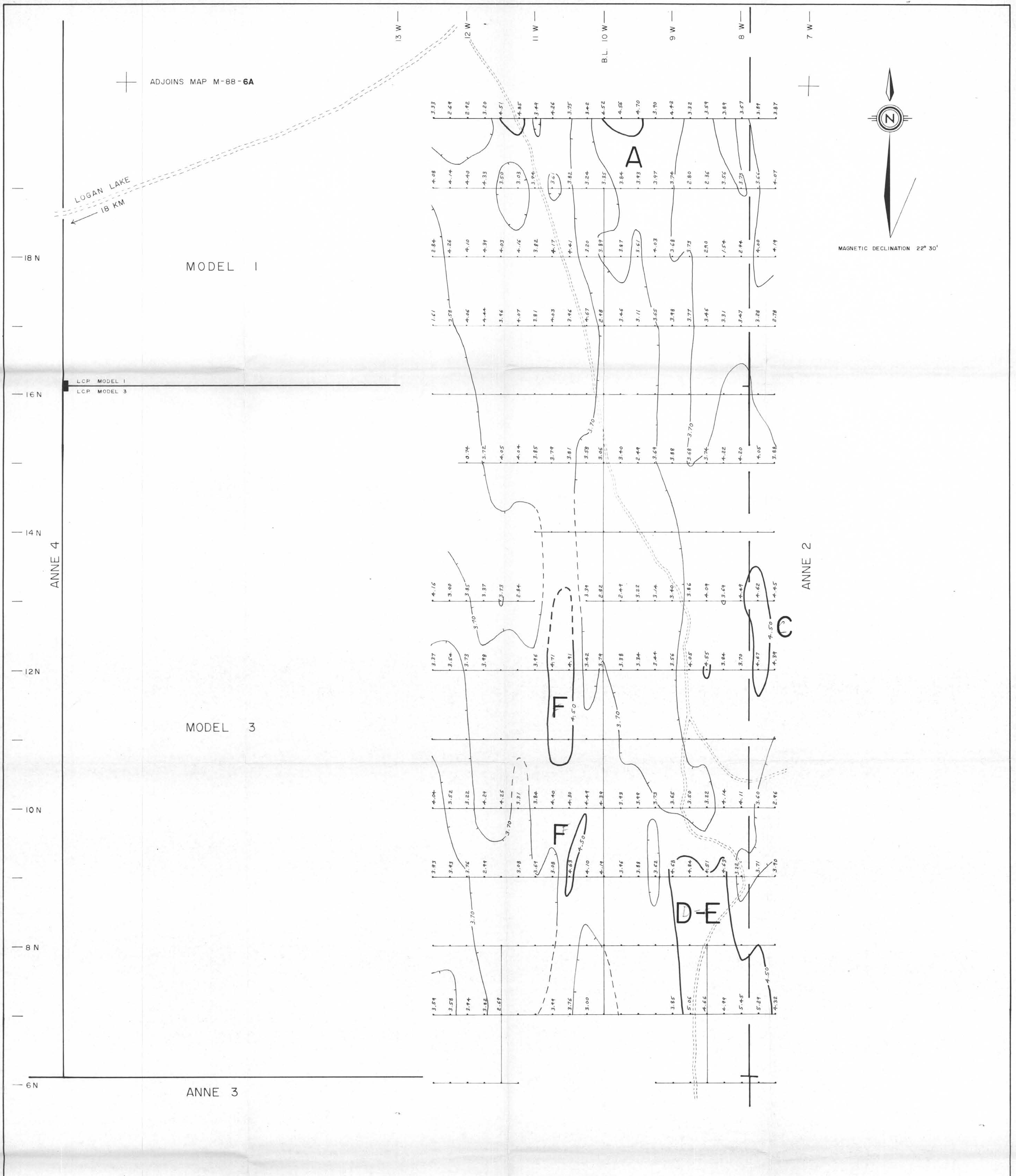
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.

GEOCHEMICAL SURVEY
ARSENIC IN SOIL
MODEL 1-3 MINERAL CLAIMS

CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN

SURVEY BY A.H.	AUGUST 1988	N.T.S. 92-I-10W
DRAWN BY M.M./A.H.	SCALE 1:2500	MAP M-88-5B


13 W
12 W
11 W
B.L. 10 W
9 W
8 W
7 W
ANNE 5
SAVONA
21 KM
N
MAGNETIC DECLINATION 22° 30'
34 N
32 N
30 N
28 N
26 N
24 N
22 N
20 N
MODEL 2
MODEL 1
ANOMALY B
ANOMALY A
ANNE 4
ANNE 2
MODEL 2 LCP
ADJOINS MAP M-88-6B
LOGAN LAKE
18 KM
PLEASE SEE MAP M-88-1A FOR GEOLOGY
4.50 % iron
3.70 % iron
L.C.P. MODEL 1
L.C.P. MODEL 3
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
GEOLOGICAL BRANCH
ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOCHEMICAL REPORT BY M. MORRISON
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
GEOCHEMICAL SURVEY
IRON IN SOIL
MODEL 1-3 MINERAL CLAIMS
SURVEY BY A.H.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY MM./A.H.
SCALE 1:2500
MAP M-88-6A



PLEASE SEE MAP M-88-1B FOR GEOLOGY

4.50 % iron

3.70 % iron

CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,455

0 50 100 200 METRES

TO ACCOMPANY A GEOCHEMICAL REPORT BY M. MORRISON

MAD RIVER RESOURCES INC.

MODEL PROPERTY

LOGAN LAKE AREA, KAMLOOPS M.D., B.C.

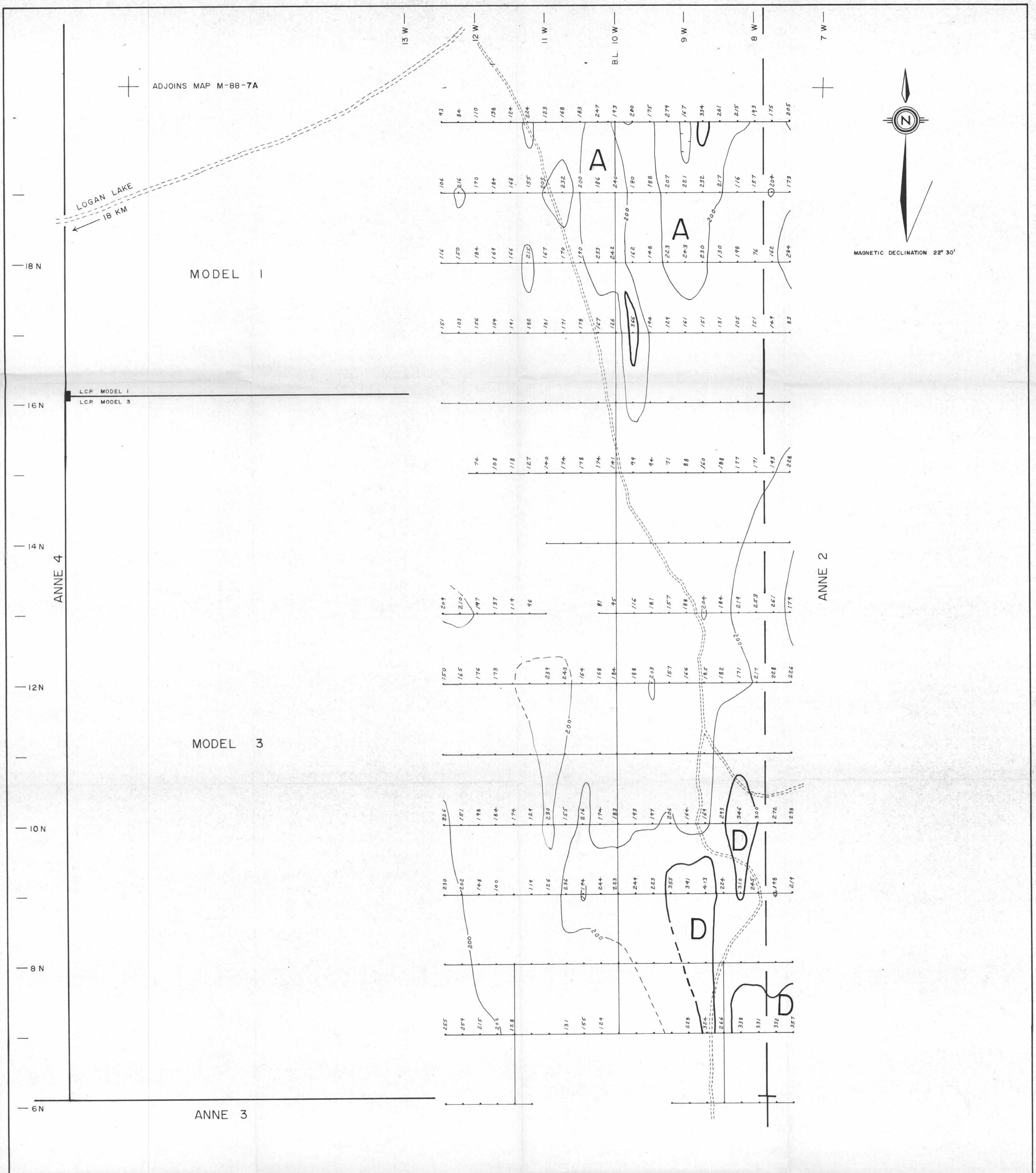
GEOCHEMICAL SURVEY

IRON IN SOIL

MODEL 1-3 MINERAL CLAIMS

SURVEY BY A.H.	AUGUST 1988	N.T.S. 92-1-10W
DRAWN BY M.M./A.H.	SCALE 1:2500	MAP M-88-6B


ANNE 5
13W
12W
11W
BL 10W
9W
8W
7W
SAVONA 21 KM
N
MAGNETIC DECLINATION 22° 30'
34 N
32 N
30 N
28 N
26 N
24 N
22 N
20 N
MODEL 2
MODEL 1
B
C
A
A
MODEL 2 LCP
ANNE 4
ANNE 2
ADJOINS MAP M-88-7B
LOGAN LAKE 18 KM
L.C.P. MODEL 1
L.C.P. MODEL 3
PLEASE SEE MAP M-88-1A FOR GEOLOGY
200 ppm barium
300 ppm barium
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
GEOLOGICAL BRANCH
ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOCHEMICAL REPORT BY M. MORRISON
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
GEOCHEMICAL SURVEY
BARIUM IN SOIL
MODEL 1-3 MINERAL CLAIMS
SURVEY BY A.H.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY MM./A.H.
SCALE 1:2500
MAP M-88-7A



PLEASE SEE MAP M-88-1B FOR GEOLOGY

200 ppm barium

300 ppm barium

CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN

0 50 100 200 METRES

TO ACCOMPANY A GEOCHEMICAL REPORT BY M. MORRISON

MAD RIVER RESOURCES INC.

MODEL PROPERTY

LOGAN LAKE AREA, KAMLOOPS M.D., B.C.

GEOCHEMICAL SURVEY

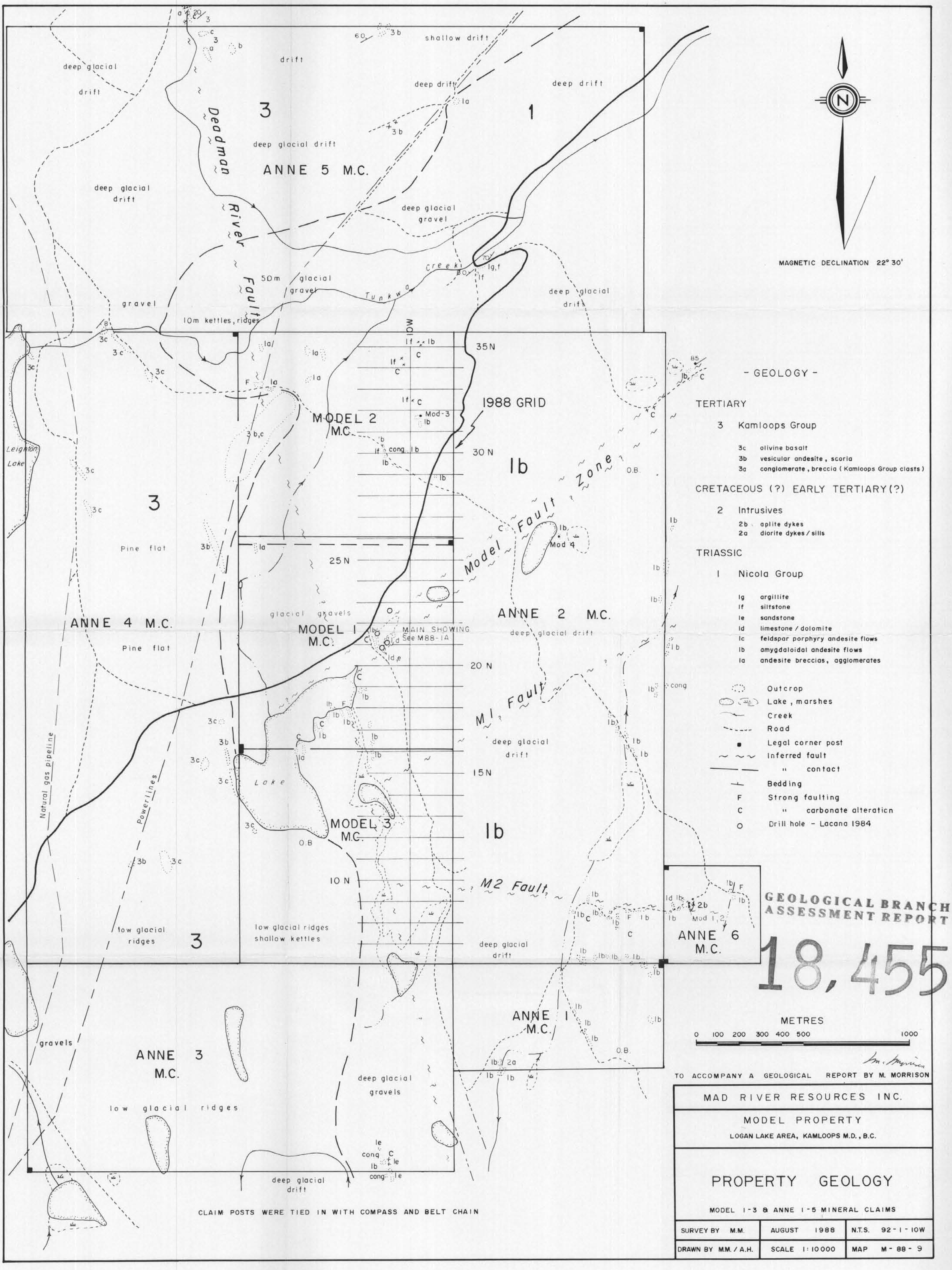
BARIUM IN SOIL

MODEL 1-3 MINERAL CLAIMS

SURVEY BY A.H.	AUGUST 1988	N.T.S. 92-I-10W
DRAWN BY M.M./A.H.	SCALE 1:2500	MAP M-88-7B

ANNE 5
13 W
12 W
11 W
BL 10 W
9 W
8 W
7 W
SAVONA 21 KM
N
MAGNETIC DECLINATION 22° 30'
34 N
32 N
30 N
28 N
26 N
24 N
22 N
20 N
MODEL 2
MODEL 1
MODEL 2 LCP
ANNE 4
ANNE 2
ANOMALY A
ADJOINS MAP M-88-8B
LOGAN LAKE 18 KM
PLEASE SEE MAP M-88-1A FOR GEOLOGY
120 ppb Mercury
240 " "
480 " "
960 " "
GEOLOGICAL BRANCH ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOCHEMICAL REPORT BY M. MORRISON
L.C.P. MODEL 1
L.C.P. MODEL 3
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
GEOCHEMICAL SURVEY
MERCURY IN SOIL
MODEL 1-3 MINERAL CLAIMS
SURVEY BY A.H.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY MM / A.H.
SCALE 1:2500
MAP M-88-8A


ADJOINS MAP M-88-8A
LOGAN LAKE
18 KM
13 W
12 W
11 W
B.L. 10 W
9 W
8 W
7 W
18 N
16 N
14 N
12 N
10 N
8 N
6 N
L.C.P. MODEL 1
L.C.P. MODEL 3
MODEL 1
MODEL 3
ANOMALY A
B
C
D
E
ANNE 4
ANNE 2
ANNE 3
MAGNETIC DECLINATION 22° 30'
N
PLEASE SEE MAP M-88-1B FOR GEOLOGY
120 ppb Mercury
240 " "
480 " "
960 " "
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
GEOLOGICAL BRANCH ASSESSMENT REPORT
18,455
0 50 100 200 METRES
TO ACCOMPANY A GEOCHEMICAL REPORT BY M. MORRISON
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
GEOCHEMICAL SURVEY
MERCURY IN SOIL
MODEL 1-3 MINERAL CLAIMS
SURVEY BY A.H.
AUGUST 1988
N.T.S. 92-I-10W
DRAWN BY M.M./A.H.
SCALE 1:2500
MAP M-88-8B



ANNE 5 M.C.
ANNE 4 M.C.
ANNE 3 M.C.
ANNE 2 M.C.
ANNE 1 M.C.
ANNE 6 M.C.
MODEL 1 M.C.
MODEL 2 M.C.
MODEL 3 M.C.
Deadman River Fault
Tunkwa Creek
Leighton Lake
Lake
Model Fault Zone
M1 Fault
M2 Fault
1988 GRID
35N
30N
25N
20N
15N
10N
MAIN SHOWING See M88-1A
Mod-3
Mod 4
Mod 1, 2
deep glacial drift
shallow drift
deep glacial gravel
50m glacial gravel
10m kettles, ridges
glacial gravels
Pine flat
low glacial ridges
low glacial ridges shallow kettles
deep glacial gravels
gravels
Natural gas pipeline
Powerlines
MAGNETIC DECLINATION 22° 30'
- GEOLOGY -
TERTIARY
3 Kamloops Group
3c olivine basalt
3b vesicular andesite, scoria
3a conglomerate, breccia (Kamloops Group clasts)
CRETACEOUS (?) EARLY TERTIARY (?)
2 Intrusives
2b aplite dykes
2a diorite dykes / sills
TRIASSIC
1 Nicola Group
1g argillite
1f siltstone
1e sandstone
1d limestone / dolomite
1c feldspar porphyry andesite flows
1b amygdaloidal andesite flows
1a andesite breccias, agglomerates
Outcrop
Lake, marshes
Creek
Road
Legal corner post
Inferred fault
" contact
Bedding
F Strong faulting
C " carbonate alteration
O Drill hole - Lacana 1984
GEOLOGICAL BRANCH ASSESSMENT REPORT
18,455
METRES
0 100 200 300 400 500 1000
TO ACCOMPANY A GEOLOGICAL REPORT BY M. MORRISON
CLAIM POSTS WERE TIED IN WITH COMPASS AND BELT CHAIN
MAD RIVER RESOURCES INC.
MODEL PROPERTY
LOGAN LAKE AREA, KAMLOOPS M.D., B.C.
PROPERTY GEOLOGY
MODEL 1-3 & ANNE 1-5 MINERAL CLAIMS
SURVEY BY M.M.
AUGUST 1988
N.T.S. 92-1-10W
DRAWN BY M.M. / A.H.
SCALE 1:10000
MAP M-88-9

GEOLOGICAL BRANCH ASSESSMENT REPORT

18,455

— ABBREVIATIONS —

amyg	amygdaloidal	lim	limonite
ank	ankerite	mod	moderate
and	andesite	py	pyrite
arg	argillite	qtz	quartz
bx'd	brecciated	repl	replaced
carb	carbonate	sil	silica, silicified
cin	cinnabar	sli	slight
chl	chlorite	T.D.	Total Depth
decomp	decomposed	tr	trace
ep	epidote	vfg	very fine grained
fr's	fractures	vn, vnlets	vein, veinlets
hem	hematite		

Please see geology maps M-88-1A & 9 for geological legend

— LEGEND —

× × × × broken core, highly fractured rock

~ ~ ~ fault gouge, faults

— — — assumed geological contacts

greater than 50 % carbonate replacement

sample interval

0 5 10 20 METRES

The tables list the parts per million for mercury antimony and arsenic analyzed from sludge samples of the 1984 drilling program. Samples believed to be anomalous are underlined.

M. Morrison

TO ACCOMPANY A GEOLOGICAL REPORT BY M. MORRISON

MAD RIVER RESOURCES INC.

MODEL PROPERTY

LOGAN LAKE AREA, KAMLOOPS M.D., B.C.

CROSS SECTIONS

LOOKING NORTH

1984 DIAMOND DRILLING BY LACANA MINING CORP.

MODEL 1-3 MINERAL CLAIMS

RELOGGED BY M.M.	AUGUST 1988	N.T.S. 92-I-10W
DRAWN BY M.M./A.H.	SCALE 1:250	FIG. M-88-10