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BIOGEOCHEMICAL
ASSESSMENT REPORT

on the

AURI CLAIM GROUP
BEAVERDELL AREA
GREENWOOD MINING DIVISION

by

MURRAY MORRISON, B.Sc.

Claims: Auri 1-4 (4 units)

Location: The Auri Claim Group is situated 3 km southwest of Buck Lake, 12 km northeast of Beaverdell, B.C.

Lat. 49°32'; Long. 119°00';

N.T.S. Maps 82-E-11E & 10W

Owner: Murray Morrison

Operator: Murray Morrison

Date Started: October 29, 1990

Date Completed: October 30, 1990

Kelowna, B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT December 31, 1990

20,818

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SUMMARY

The Auri Claim Group, located 12 km northeast of Teck Corporation's Highland Bell Silver Mine at Beaverdell, B.C., is comprised of 4, two-post mineral claims owned by the writer, M. Morrison, of Kelowna, B.C.. The property, located in the Greenwood Mining Division, lies immediately north of the old Rosemont Mine from which limited shipments of gold ore, averaging 16 g/tonne, were made in the late thirties. The ore at the Rosemont Mine occurs in a roof pendant of Anarchist Group rocks (Permian and/or Triassic) that has been intruded by Nelson diorite (Cretaceous?). The Auri Claim Group is also underlain by Anarchist Group rocks that have been intruded by Nelson diorite.

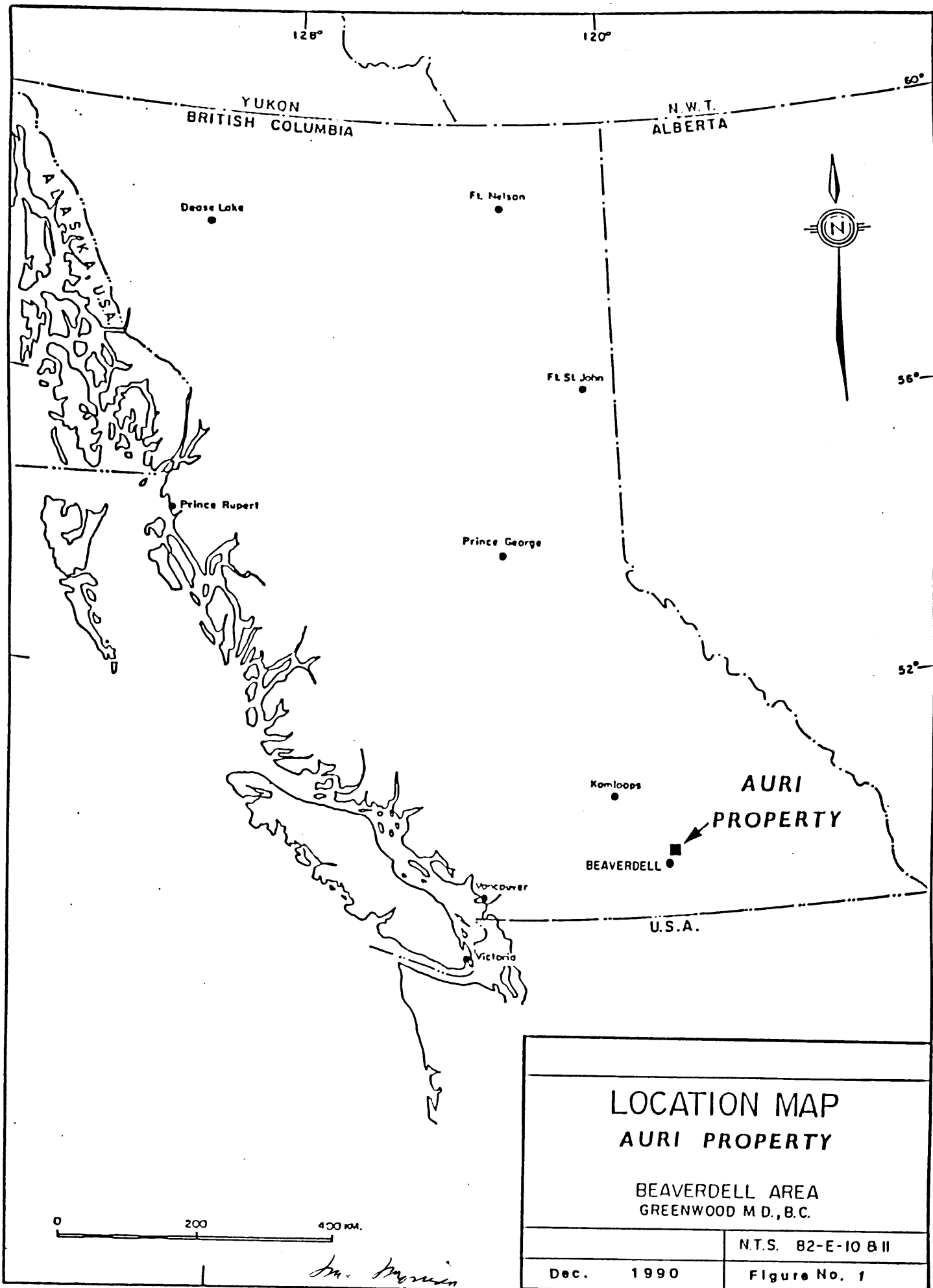
Over a nine year period the ground now covered by the Auri Claim Group has been covered alternately by the Goldie 1, Golden Lady 1, and Auriferous 1 mineral claims and surveys have included soil geochemistry (Cousens, 1981), geophysics (magnetic and VLF-EM, Morrison, 1983, 1987), geology (Morrison, 1987) and biogeochemistry, Morrison (1986, 1987).

Two weak cadmium biogeochemical anomalies coincident with magnetic and VLF-EM anomalies identified during the 1987 surveys were the target for this year's (1990) biogeochemical survey using only dry (dead wood) twigs of Douglas fir.

This year's dead wood samples yielded a 5-fold increase in cadmium values compared with the 1987 samples which used fresh (live wood) first and second year twigs of Douglas fir, and the weak 1987 cadmium anomalies have been outlined much more distinctly with this year's samples.

Lithogeochemical sampling of limestone in the vicinity of the cadmium anomalies is recommended with possible follow-up Backhoe trenching across coincident cadmium anomalies, magnetic "highs" and VLF-EM conductors.

It is hoped that the cadmium will prove to be a pathfinder to gold mineralization similar to that located at the old Rosemont Mine.



LOCATION MAP	
AURI PROPERTY	
BEAVERDELL AREA GREENWOOD M.D., B.C.	
Dec. 1990	N.T.S. 82-E-10 B II
Figure No. 1	

M. Martin

INTRODUCTION

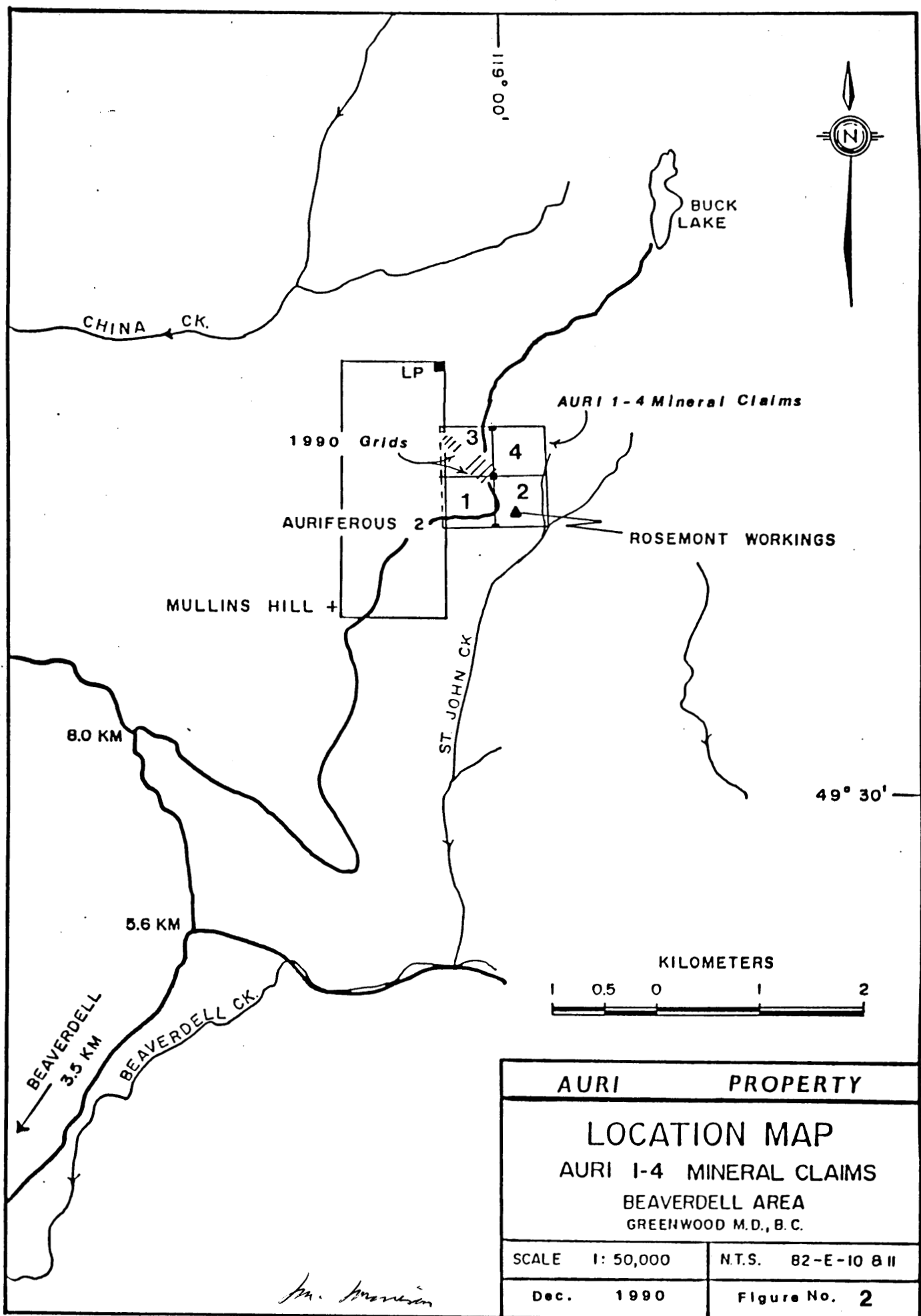
This report, written for government assessment work requirements, discusses the results of an experimental biogeochemical survey carried out on portions of the Auri Group of mineral claims by the writer during October 1990.

The Claim Group, located 12 km northeast of Beaverdell, B.C., covers metavolcanics and metasediments of the Permian and/or Triassic Anarchist Group immediately north of the old Rosemont Mine. A few tons of ore shipped from the Rosemont Mine in the late 1930's yielded an average 16 g/tonne gold. The gold was associated with sulphides of iron occurring within irregular quartz veins cutting well fractured Anarchist Group rocks.

The Anarchist Group rocks extending north from the Rosemont Mine were the focus of biogeochemical, geophysical (VLF-EM and magnetic) and geological studies carried out by the writer in 1987 (Morrison, 1987).

Two areas which exhibited slightly elevated values for silver and cadmium in first and second year Douglas fir twigs and needles collected during the 1987 biogeochemical survey were selected for testing this year (1990). Dry (dead wood) twigs of the Douglas fir were collected for this year's experimental survey, because the writer has discovered from work on other properties that the dead wood twigs of the Douglas fir give a broader range of biogeochemical values than do fresh (live wood) twigs and needles.

Figures illustrating the distribution of cadmium, silver, lead, copper and manganese in the two survey areas are included within this report. The Certificates of Biogeochemical Analyses (Appendix C) list the values for all 30 elements tested during the survey.



AURI PROPERTY

LOCATION MAP

AURI 1-4 MINERAL CLAIMS

BEAVERDELL AREA

GREENWOOD M.D., B.C.

SCALE 1: 50,000

N.T.S. 82-E-10 B II

Dec. 1990

Figure No. 2

Jan. Morrison

LOCATION AND ACCESS

The Auri Claim Group is located 3 km southwest of Buck Lake, or 12 km northeast of Beaverdell, B.C. (Lat. 49°32'; Long. 119°00'; N.T.S. Maps 82-E-11E & 10W). The property may be reached via the Beaverdell Creek road (5.6 km) and the Buck Lake road (10 km) as illustrated on Figure 2. The trip requires 45 minutes driving time from Beaverdell during the summer months.

The Buck Lake road, transecting the property as illustrated, provides the only access at present, but the country is very amenable to road construction.

PHYSICAL FEATURES AND CLIMATE

The Auri Claim Group covers a ridge separating the headwaters of St. John and China Creeks 3 km southwest of Buck Lake. The ridge, at 1400 metres elevation, is part of the Beaverdell Range - a low range of hummocky mountains trending in a northeasterly direction across the southeastern margin of the Okanagan Highland. St. John and China Creeks flow southwesterly as part of the West Kettle River watershed.

The claim group is mantled with a shallow clayey till and rock exposures are limited to less than 5% of the surface.

A young forest of Douglas fir, Lodgepole pine, and larch covers the property. There are also scattered groves of poplar and spruce. Alder occurs as the dominant underbrush across the property.

Buck Lake provides drinking water for grazing cattle throughout the summer. The upper tributaries of St. John and China Creeks also provide water most of the summer and autumn seasons.

Continued . . .

PHYSICAL FEATURES AND CLIMATE - Continued

The region receives 50 cm of precipitation annually - half of it in the form of winter snow. The winter snow pack of 1 to 1½ metres begins to accumulate in November and lingers in shaded areas until mid-May. The winters in the Beaverdell area are moderate and the summers are cooler than those of the hot Okanagan Valley lying just 40 kilometres to the west.

CLAIM STATUS

The Auri Claim Group is made up of the following mineral claims:

<u>CLAIM NAME</u>	<u>UNITS</u>	<u>RECORD DATE</u>	<u>RECORD NO.</u>	<u>MINING DIVISION</u>	<u>EXPIRY DATE *</u>
Auri 1	1	Nov.6/89	5604	Greenwood	Nov.6/93
Auri 2	1	Nov.6/89	5605	"	Nov.6/93
Auri 3	1	Nov.6/89	5606	"	Nov.6/93
Auri 4	1	Nov.6/89	5607	"	Nov.6/93

* The Expiry Date is based on the acceptance of this report for Assessment Work Credits.

The claims were staked by the writer, November 6, 1989 and were recorded in the Greenwood Mining Division. They are 100% owned by the writer, M. Morrison, of Kelowna, B.C.

The Rosemont Crown Grant mineral claim (Lot 3291s) is not owned by the writer. The exact position of the Crown Grant is unknown, but it is assumed to cover at least some of the old Rosemont workings illustrated on Figure 2. The workings match those described in the literature under the title of the "Rosemont Mine". The original Rosemont property was made up of 4 mineral claims, and it is unknown as to what extent the present single Rosemont Crown Grant covers the Rosemont Mine workings.

Continued . . .

CLAIM STATUS - Continued

A further complication to the positioning of the Rosemont Crown Grant occurs on published government topographic and mineral claim reference maps. These maps indicate that Lot 3291s is located a full kilometre north of the Rosemont workings.

In spite of several searches by the writer none of the corner posts or surveyed boundaries of Lot 3291s have been found. It should be assumed that the Crown Grant covers at least some of the old mine workings.

HISTORY

The Auri Claim Group is located 12 km northeast of Teck Corporation's Highland Bell Mine, which has been producing silver ore since 1900 on a continuous basis. The Rosemont Mine, which is in part overstaked by the Auri 2 mineral claim (see Claim Status above), appears to have been discovered and staked in 1937.

Prior to 1939, 41 tons of ore were shipped from the Rosemont Mine, yielding 26 oz of gold and 28 oz of silver. In 1939 the property was optioned to Highland Bell Ltd., which shipped 22 tons of ore that yielded 10 oz of gold and 4 oz of silver. The following year (1940) Highland Bell Ltd. did 30 feet of drifting and 100 feet of cross-cutting, and in 1941 they did another 50 feet of drifting before dropping their option on the property.

Minor "cat" trenching was carried out in the vicinity of the old pits on top of the ridge, well above the adits, by persons unknown in the 1960's(?).

Continued . . .

HISTORY - Continued

During 1981 crews of Cominco Ltd. carried out a soil geochem program over the central portion of their Goldie property (now the Auri Claim Group). Samples were analyzed for gold, silver, copper, lead and zinc. The results of the survey were discouraging and the property was transferred to the writer in September, 1983.

In October 1984 a VLF-EM 16 ground survey was conducted on a portion of the Goldie 1 mineral claim (now covered by the Auri Claim Group) by the writer.

The Goldie 1 mineral claim was subsequently restaked as the Auriferous 1 mineral claim, and the Auriferous 2 mineral claim was added to the west in June 1987.

In 1987 the Auriferous 1&2 mineral claims were optioned to Zygote Resources Ltd. of Kelowna, B.C.. Zygote Resources Ltd. financed a 1987 exploration program of geological, geophysical (VLF-EM and magnetic) and biogeochemical surveys on portions of the Auriferous property (Morrison, 1987) but allowed their option to lapse in 1990.

The Auri 1-4 mineral claims were subsequently staked to cover a portion of the former Auriferous 1 mineral claim lying immediately north of the old Rosemont Mine.

REGIONAL GEOLOGY

The Geological Survey of Canada maps for Kettle River, East Half (Map 6-1957), and West Half (Map 15-1961), both by H.W. Little, show that the Auri Claim Group covers a roof pendant of Anarchist rock (Permian and/or Triassic) that has been intruded by a portion of the Beaverdell (Nelson) Batholith (Cretaceous?). The maps show that the Nelson granitic rocks have, in turn, been

Continued . . .

REGIONAL GEOLOGY - Continued

intruded by a body of Valhalla (Cretaceous?) intrusive rock immediately north of the Auri Claim Group.

At the Beaverdell Mining Camp, 12 km to the southwest, ore occurs in shear zones cutting Nelson granitic rocks predominantly, and to a lesser extent, Anarchist rocks. The ore solutions are believed to have originated from a local stock of Valhalla quartz monzonite. Very similar conditions are believed to occur at the Auri Claim Group.

PROPERTY GEOLOGY

The geology of the Auri Claim Group was mapped at a scale of 1:2000 by the writer in 1987 (Morrison, 1987).

Summary

In summary, a flat-lying(?) roof pendant of Anarchist Group (Permian and/or Triassic) metasediments and metavolcanics is intruded by Nelson (Cretaceous?) quartz diorite on the property. The country and intrusive rocks are intimately associated at many locations on the property, with the country rocks showing the effects of contact metamorphism, and the intrusive rocks exhibiting various degrees of contamination from the assimilation of the country rocks. Various hybrid rock units were mapped in 1987 ranging from those of nearly pure intrusive composition to those of "baked" argillite or tuff.

In several regions on the property the metamorphosed country rock and contaminated intrusive rock are well mineralized with 1 to 3% pyrite and pyrrhotite near the intrusive interface, but the zones of mineralization measure only a few metres in thickness. There are, however, local infolds or down-warps of the country rock into the intrusive resulting in larger mineralized areas.

Continued . . .

PROPERTY GEOLOGY - Continued

Summary - Continued

One such area occurs on the Rosemont Crown Grant and has been explored with excavations. The few tons of rich (16 g/Tonne) gold ore won from the Rosemont Mine have come from pyrite and pyrrhotite pockets associated with irregular quartz veins found cutting through well-fractured Anarchist and Nelson rocks near the intrusive contact.

Anarchist Group - Permian and/or Triassic

Anarchist Group metasediments and metavolcanics underlie much of the Auri Claim Group. The predominant rocks are grey recrystallized limestones and fine to medium grained thin bedded andesite tuffs. Sandstones, argillaceous limestones, limy tuffs and fine to medium grained dacitic tuffs also form a part of the Anarchist Group rocks on the property. The limestones have been recrystallized and the sediments and limy tuffs metamorphosed to hornfels or skarny tuffs by the heat of the Nelson intrusive.

The succession of Anarchist rocks appears to start with sandstones and argillites which grade upward into argillaceous limestone and limestones. The thin bedded andesitic and dacitic tuffs appear to overlie the limestone.

Nelson Intrusions - Cretaceous(?)

Nelson diorite or quartz diorite appears to underlie all Anarchist Group rocks on the property - sometimes at very shallow depth. At lower elevations surrounding the property the intrusive is a fresh, equigranular quartz diorite, but on the property, the intrusive shows the effects of contamination by the Anarchist Group rocks. The intrusive grades upwards into a hornblende diorite, and then into successively finer grained and more mafic phases until it is difficult to distinguish from hornfels.

Continued . . .

PROPERTY GEOLOGY - Continued

Nelson Intrusions - Cretaceous(?) - Continued

The Nelson batholithic rocks appear to have invaded the Anarchist rocks by assimilation and the intrusive contacts are gradational.

Local Geology - Biogeochemical Survey Area

The two areas traversed during this year's (1990) biogeochemical survey cover flat-lying limestone units that appear to conformably overlie argillaceous limestone and argillite.

1990 - BIOGEOCHEMICAL SURVEY

Grid

The 1.1 km of grid used for this year's biogeochemical survey was measured from remnants of the 1987 survey grid and reflagged. The grid, at 045 degrees azimuth, is illustrated on Figures 3 & 4 accompanying this report.

The Survey

Two areas on the Auri Claim Group were selected for this year's experimental biogeochemical survey. These areas yielded slightly elevated values for cadmium and silver during the 1987 biogeochemical survey which used the first and second year twigs and needles of Douglas fir as a sample medium. Tests on other properties surveyed by the writer since 1987 (Morrison, 1990) indicate that dry (dead wood) twigs of the Douglas fir give a broader range of biogeochemical values than do fresh (live wood) samples. This year's survey was conducted with dry twigs of the Douglas fir in an attempt to better define the 1987 anomalies. The 1987 anomalies were also found to be coincident with weak magnetometer "highs"

Continued . . .

1990 - BIOGEOCHEMICAL SURVEY - Continued

The Survey - Continued

and VLF-EM conductors during 1987 surveys (Morrison, 1987).

Dry (dead wood) twigs were cut from several branches of 3 or 4 Douglas fir at each sample site. An attempt was made to use equal sized trees throughout the survey and trees of 15 to 20 cm diameter were used wherever possible. An average of 200 g of twigs of $\frac{1}{2}$ to $1\frac{1}{2}$ cm diameter were collected for each sample and placed in kitchen garbage bags for shipment to the laboratory.

All 53 of the biogeochemical samples were shipped to Acme Analytical Laboratories Ltd. in Vancouver for ashing and ICP 30 element analysis.

The values obtained for cadmium, silver, lead, copper and manganese have been plotted and contoured on Figures 3A-E and 4A-E, respectively. The other 25 elements tested do not appear to give meaningful results when compared with the geology of the property and they have not been plotted. The values obtained for all 30 elements as well as the laboratory procedures used for analysis are listed in Appendix C.

DISCUSSION - BIOGEOCHEMICAL SURVEY

Cadmium

The cadmium values of the survey range from 2.1 to 56.1 parts per million (ppm) and have been contoured at 10 and 20 ppm on Figures 3A & 4A. The 20 ppm contour on Figure 3A is coincident with a limestone outcrop on the property. The 10 ppm contour extending to the north lies over an area of unknown geology covered by drift.

Continued . . .

DISCUSSION - BIOGEOCHEMICAL SURVEY - Continued

Cadmium- Continued

The 10 ppm cadmium contour on Figure 4A covers an area underlain with limy argillite immediately down slope from a limestone outcrop.

Silver

Figures 3B & 4B illustrate the distribution of silver values obtained from this year's samples. The values range from 0.4 to 2.6 ppm. The writer has found from surveys on other properties in the area that 3 ppm represents anomalous silver. The spot "highs" outlined by the 2 ppm contour on Figures 3B & 4B are therefore not considered significant.

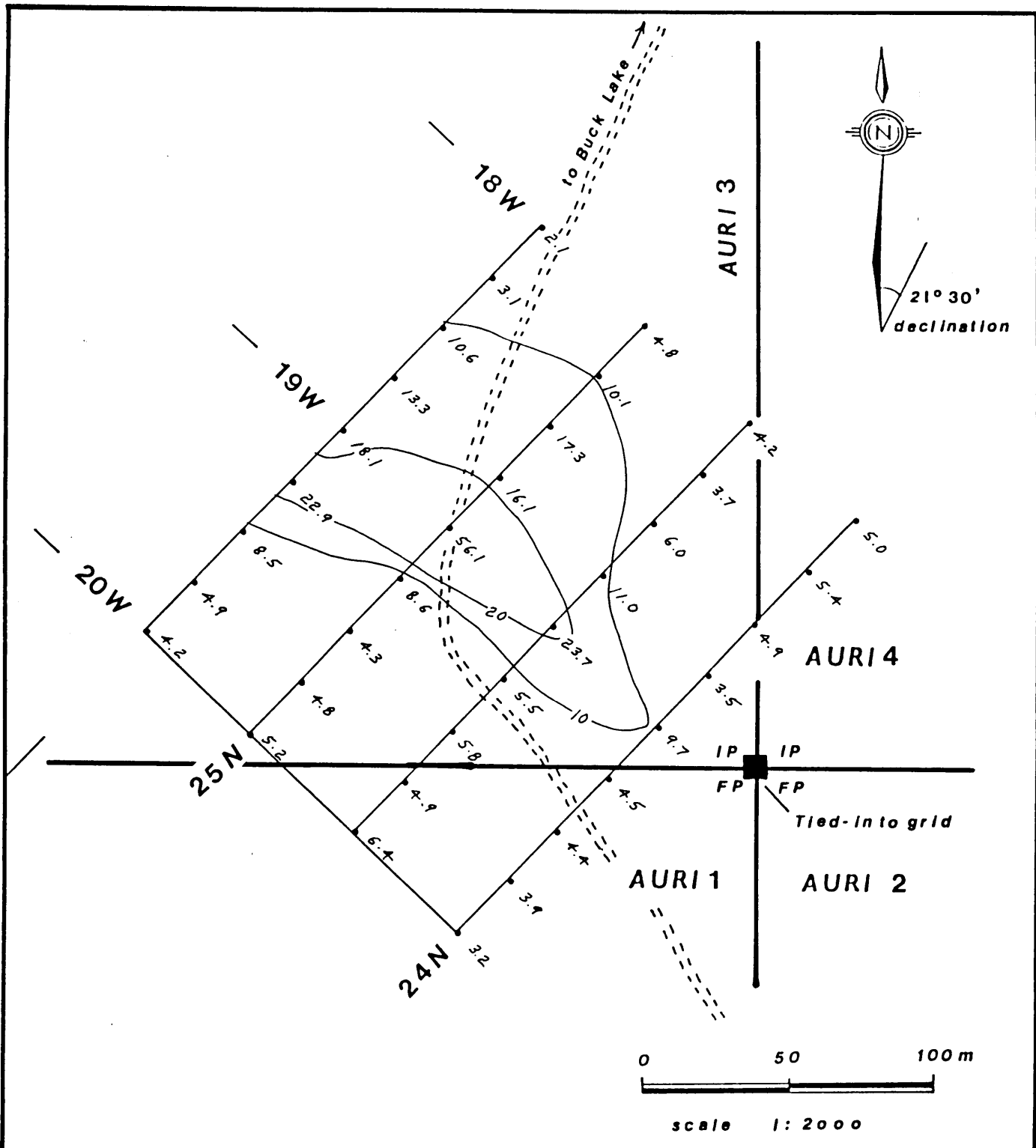
Lead

Most lead values fall between a narrow range of 75 and 100 ppm on Figures 3C & 4C. The lowest value for the survey is 42 ppm, while the highest value is 184 ppm. Although not anomalous the 100 ppm lead value has been contoured on Figures 3C & 4C. The elevated lead values occur peripheral to the cadmium anomalies in both survey areas.

Copper

The copper values of the survey have also been contoured at 100 ppm on Figures 3D & 4D. Like lead, most copper values fall within a narrow range of values (75 - 100 ppm) with extreme values ranging only from 67 to 147 ppm. The 100 ppm copper contour does not outline any feature related to the mapped geology.

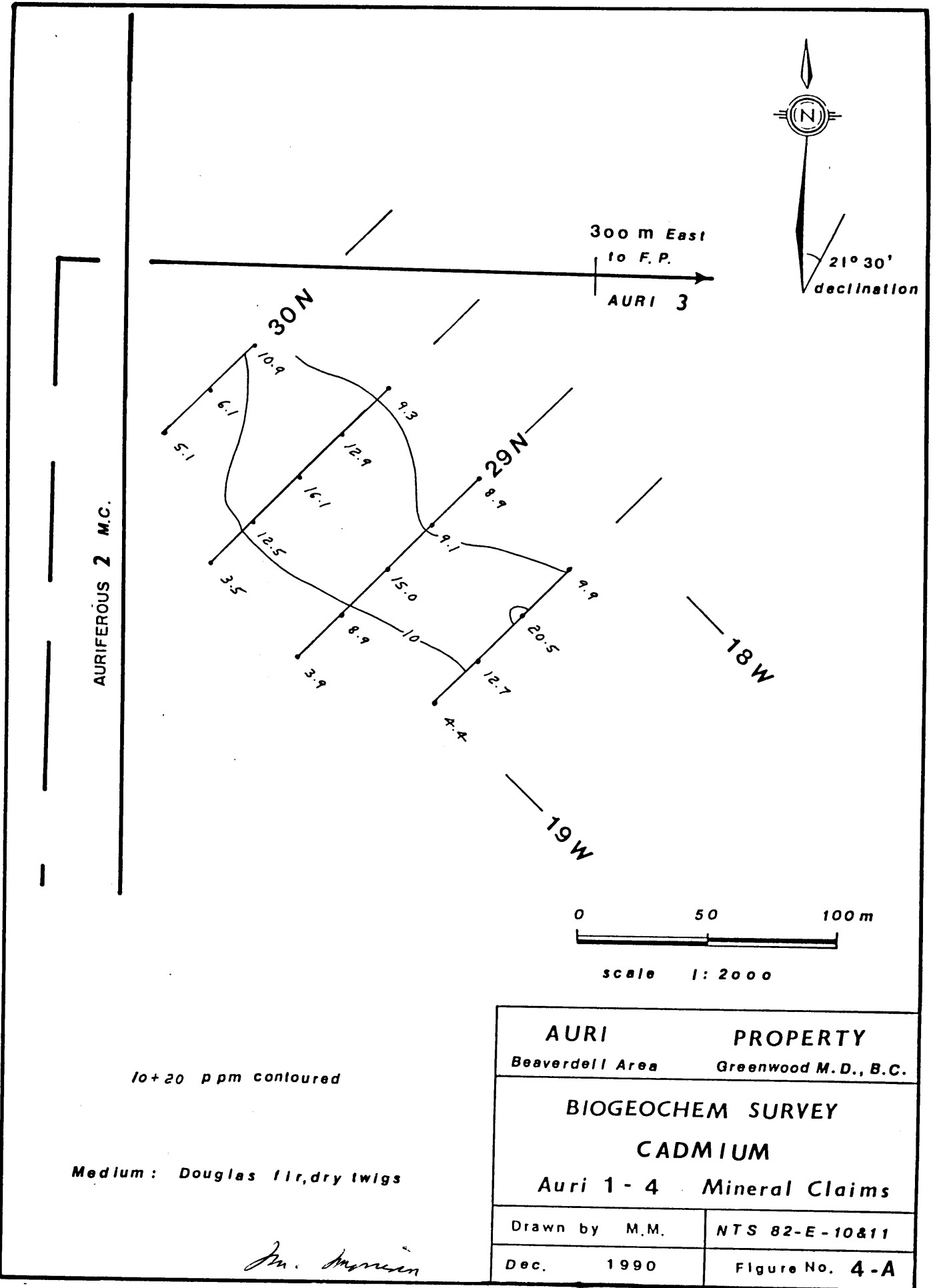
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10+20 ppm contoured

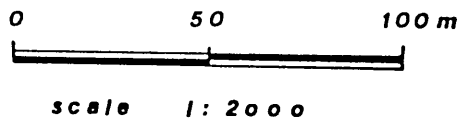
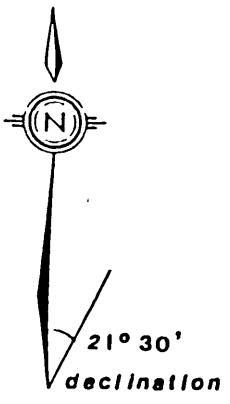
Medium: Douglas fir, dry twigs
J.A. Morrison

AURI	PROPERTY
Beaverdell Area	Greenwood M. D., B.C.
BIOGEOCHEM SURVEY	
CADMIIUM	
Auri 1-4	Mineral Claims
Drawn by M.M.	NTS 82-E-10&11
Dec. 1990	Figure No. 3-A



AURIFEROUS 2 M.C.

300 m East
to F.P.
AURI 3

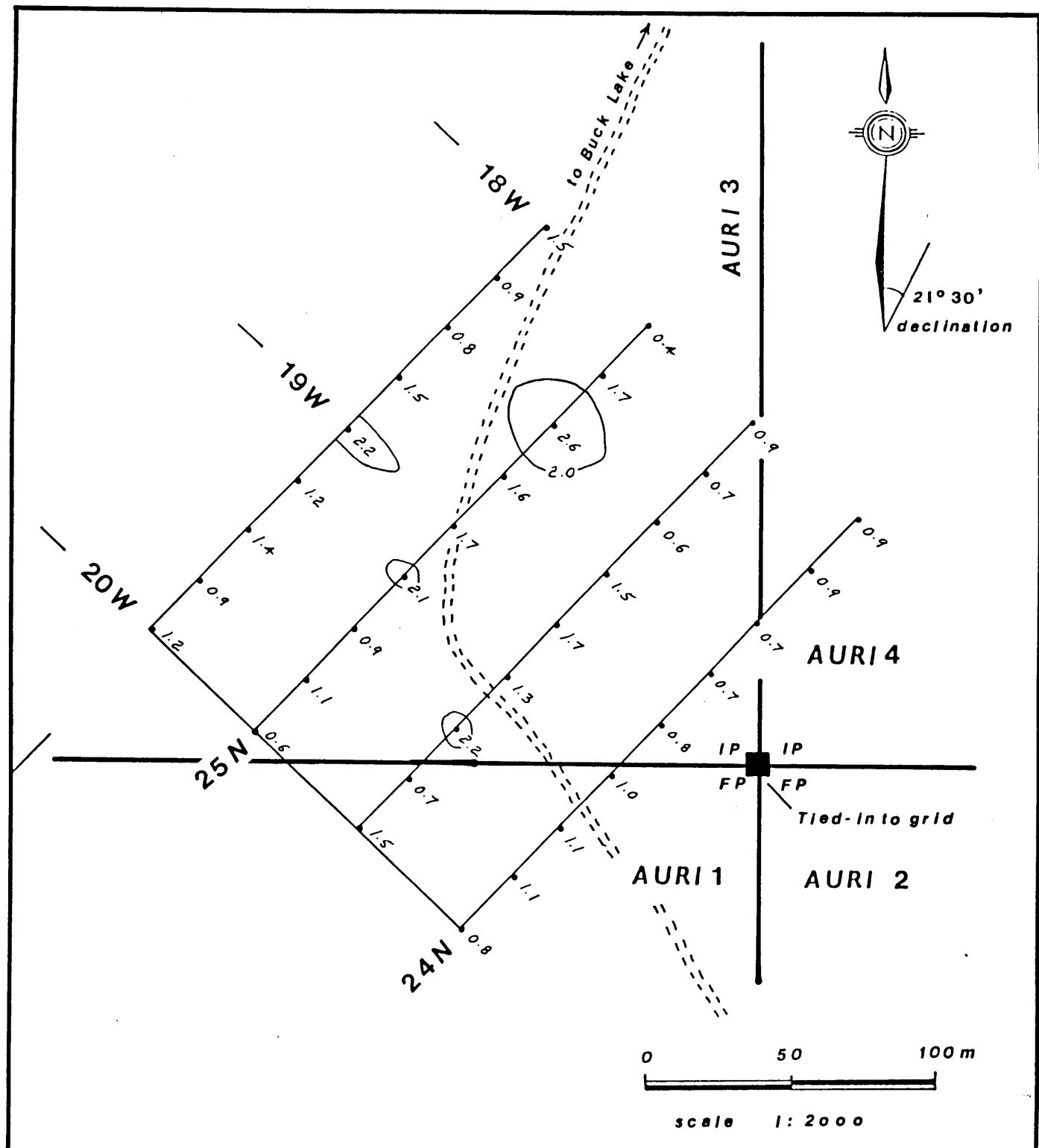


10+20 ppm contoured

Medium: Douglas fir, dry twigs

Jm. Morrison

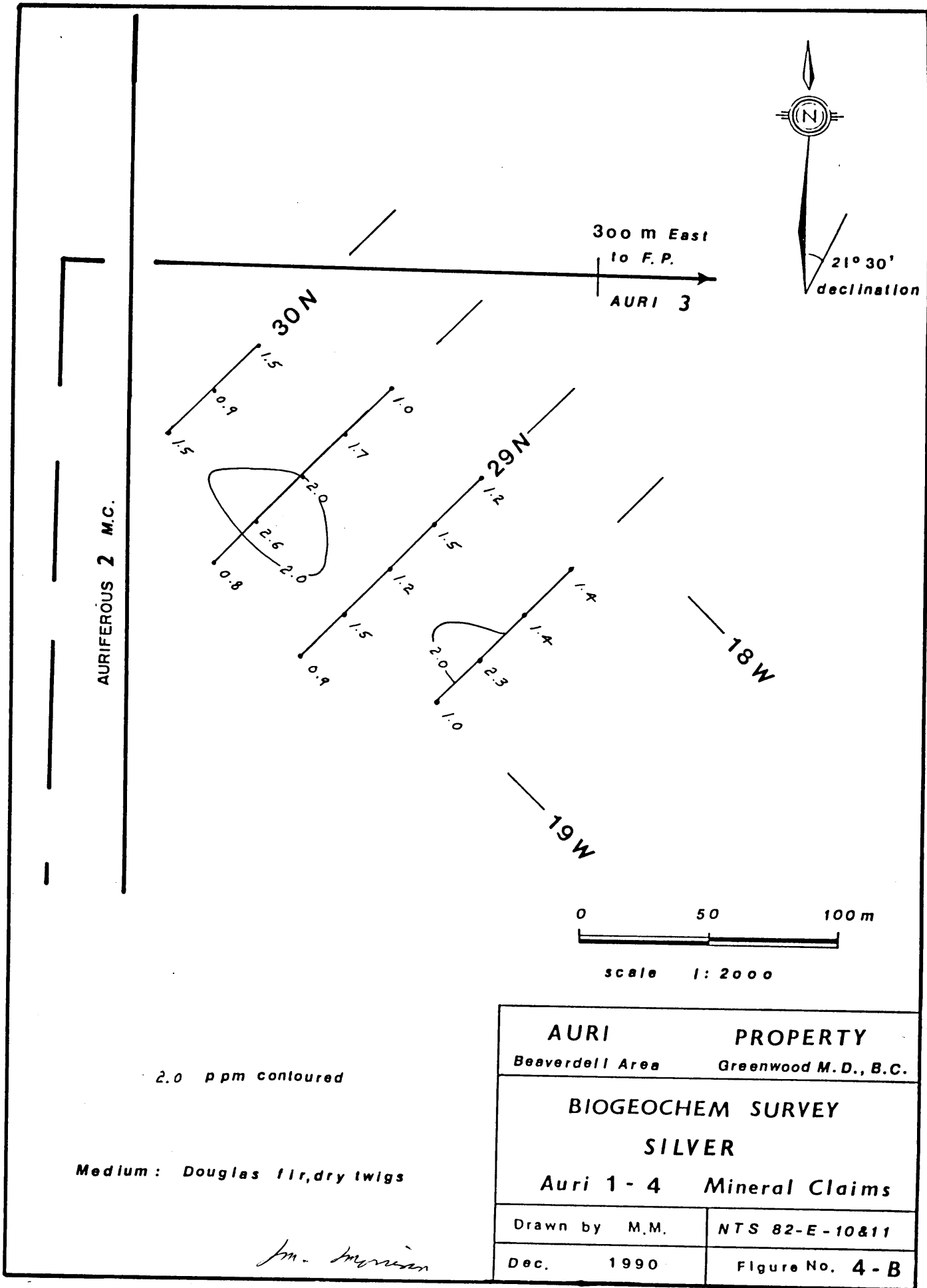
AURI PROPERTY	
Beaverdell Area Greenwood M.D., B.C.	
BIOGEOCHEM SURVEY	
CADMIUM	
Auri 1 - 4 Mineral Claims	
Drawn by M.M.	NTS 82-E-10&11
Dec. 1990	Figure No. 4-A



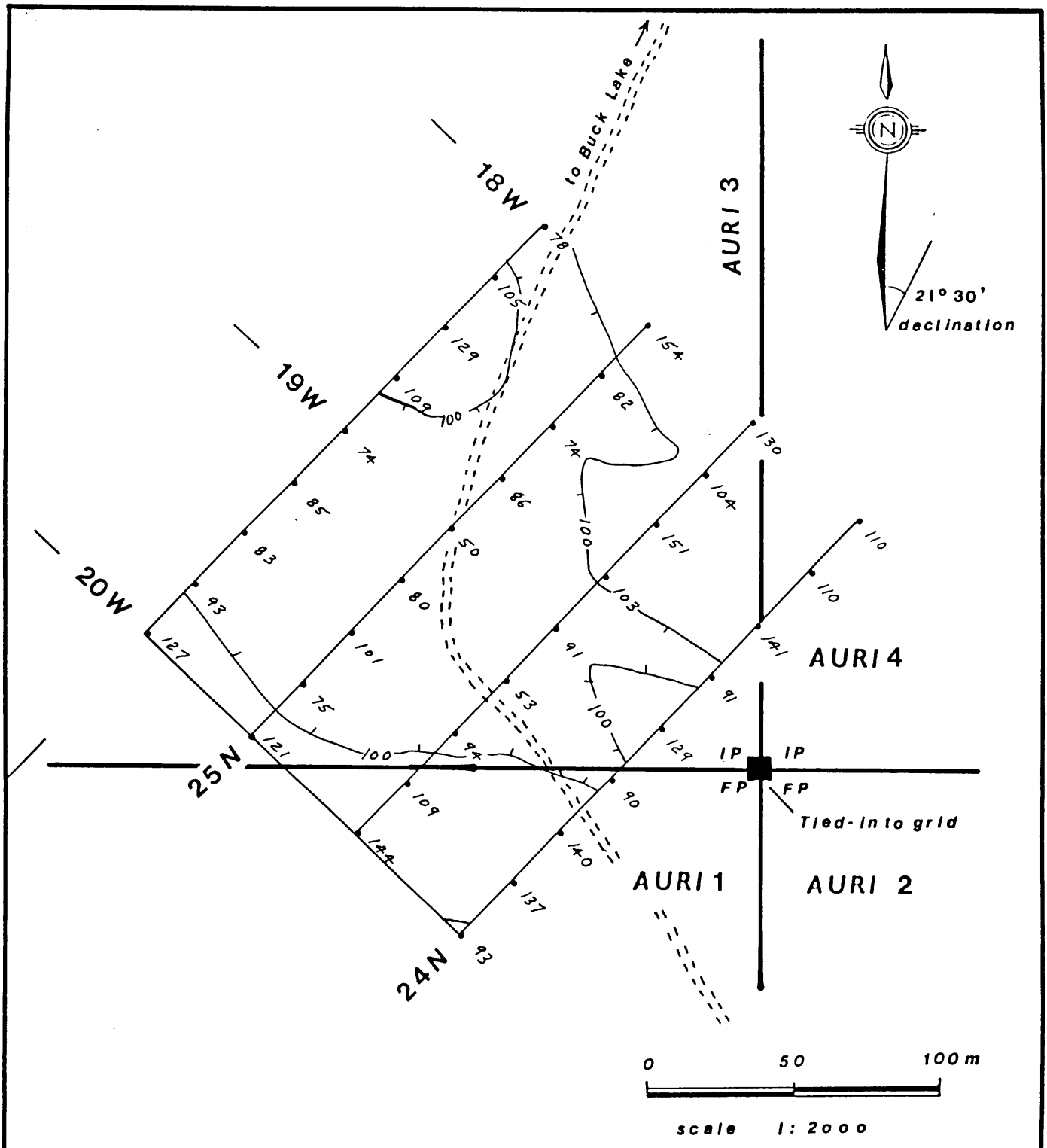
2.0 ppm contoured

Medium: Douglas fir, dry twigs
Jim. Morison

AURI	PROPERTY
Beaverdell Area	Greenwood M. D., B.C.
BIOGEOCHEM SURVEY	
SILVER	
Auri 1-4 Mineral Claims	
Drawn by M.M.	NTS 82-E-10&11
Dec. 1990	Figure No. 3-B



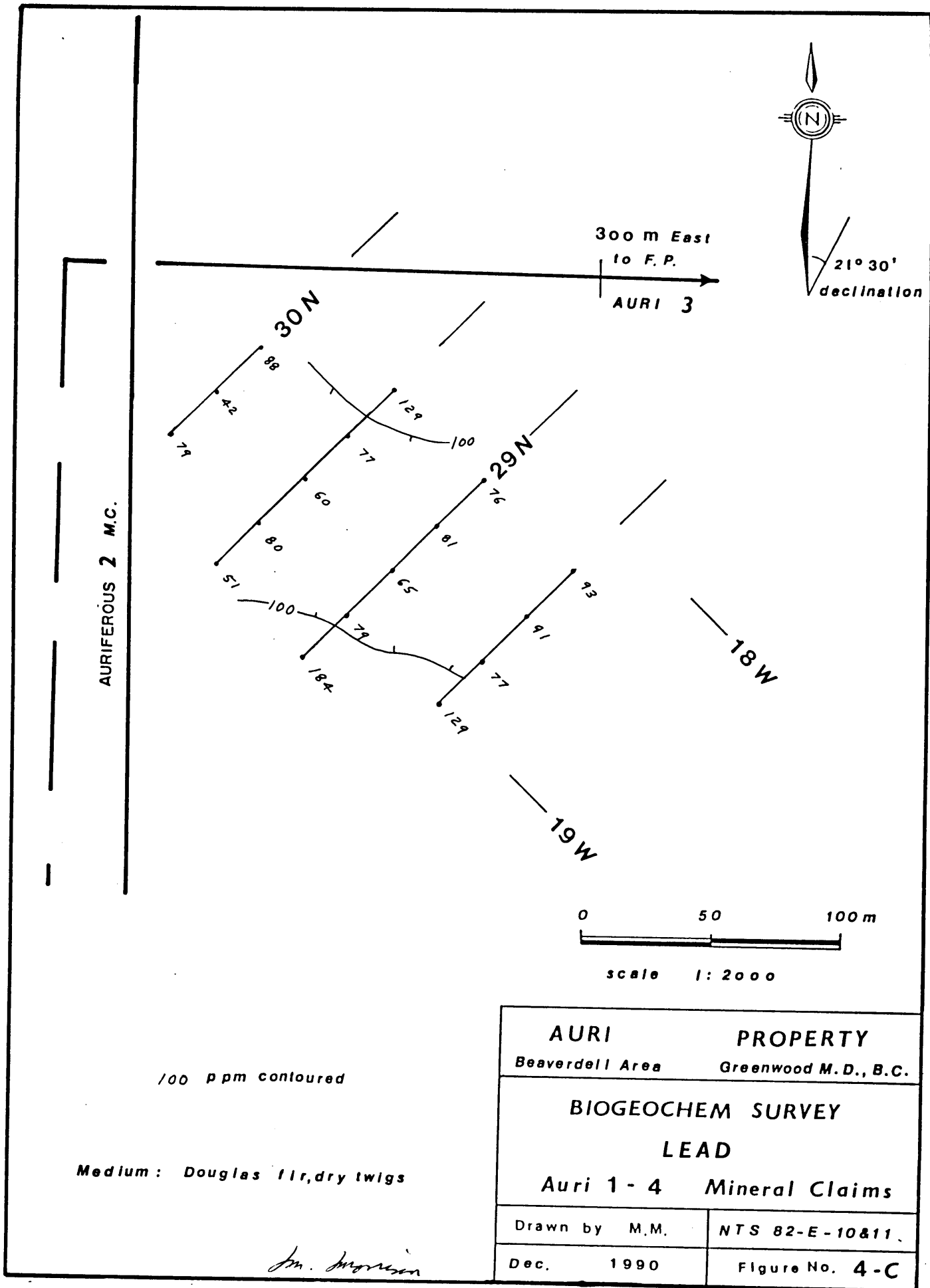
AURI		PROPERTY	
Beaverdell Area		Greenwood M.D., B.C.	
BIOGEOCHEM SURVEY			
SILVER			
Auri 1 - 4		Mineral Claims	
Drawn by	M.M.	NTS 82-E-10&11	
Dec.	1990	Figure No. 4-B	



100 ppm contoured

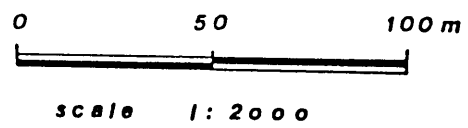
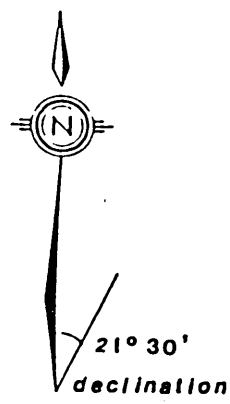
Medium: Douglas fir, dry twigs
M. Morrison

AURI		PROPERTY	
Beaverdell Area		Greenwood M.D., B.C.	
BIOGEOCHEM SURVEY			
LEAD			
Auri 1-4		Mineral Claims	
Drawn by	M.M.	NTS 82-E-10&11	
Dec.	1990	Figure No. 3-C	



AURIFEROUS 2 M.C.

300 m East
to F.P.
AURI 3

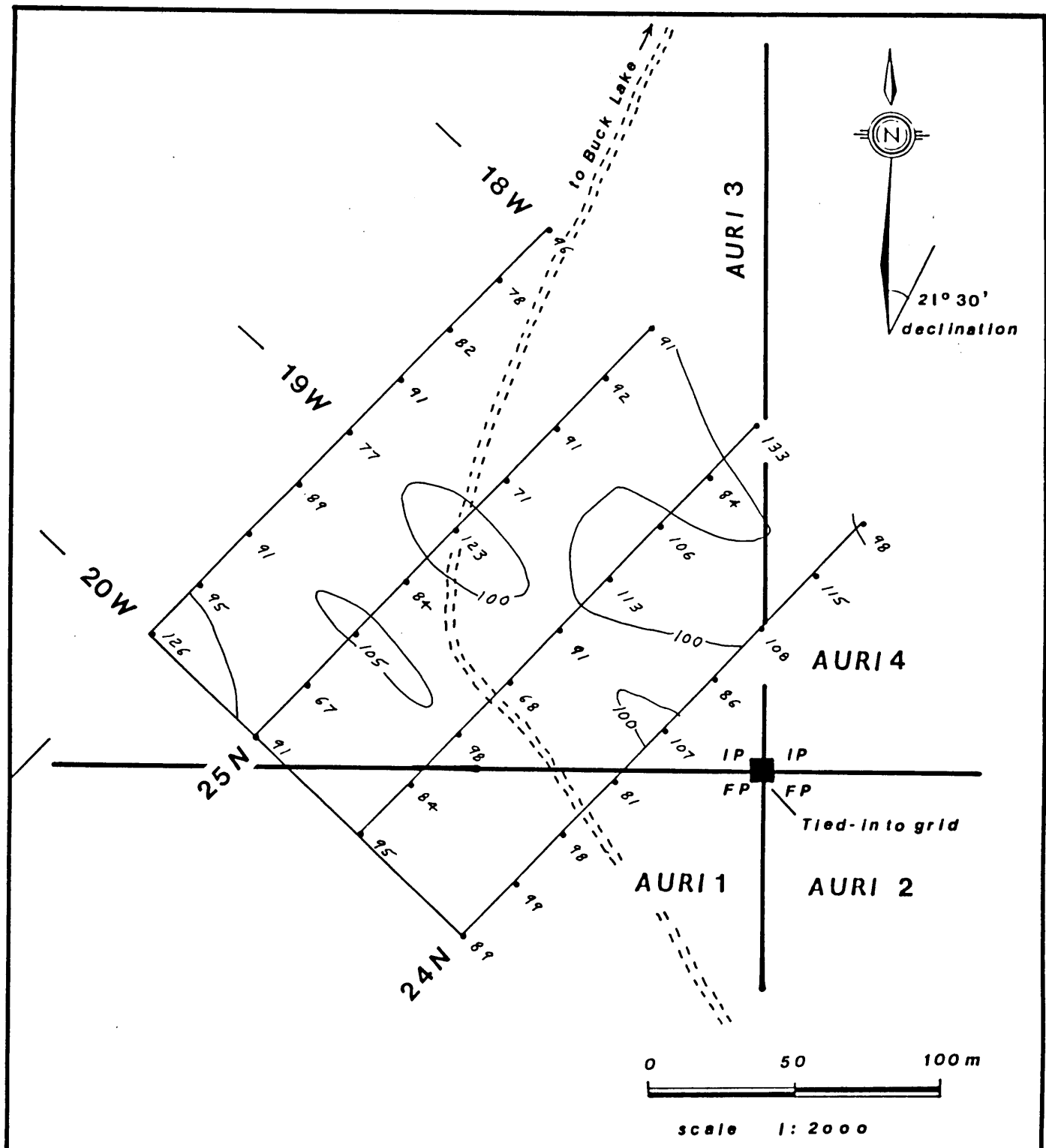


100 ppm contoured

Medium: Douglas fir, dry twigs

Jan. Morrison

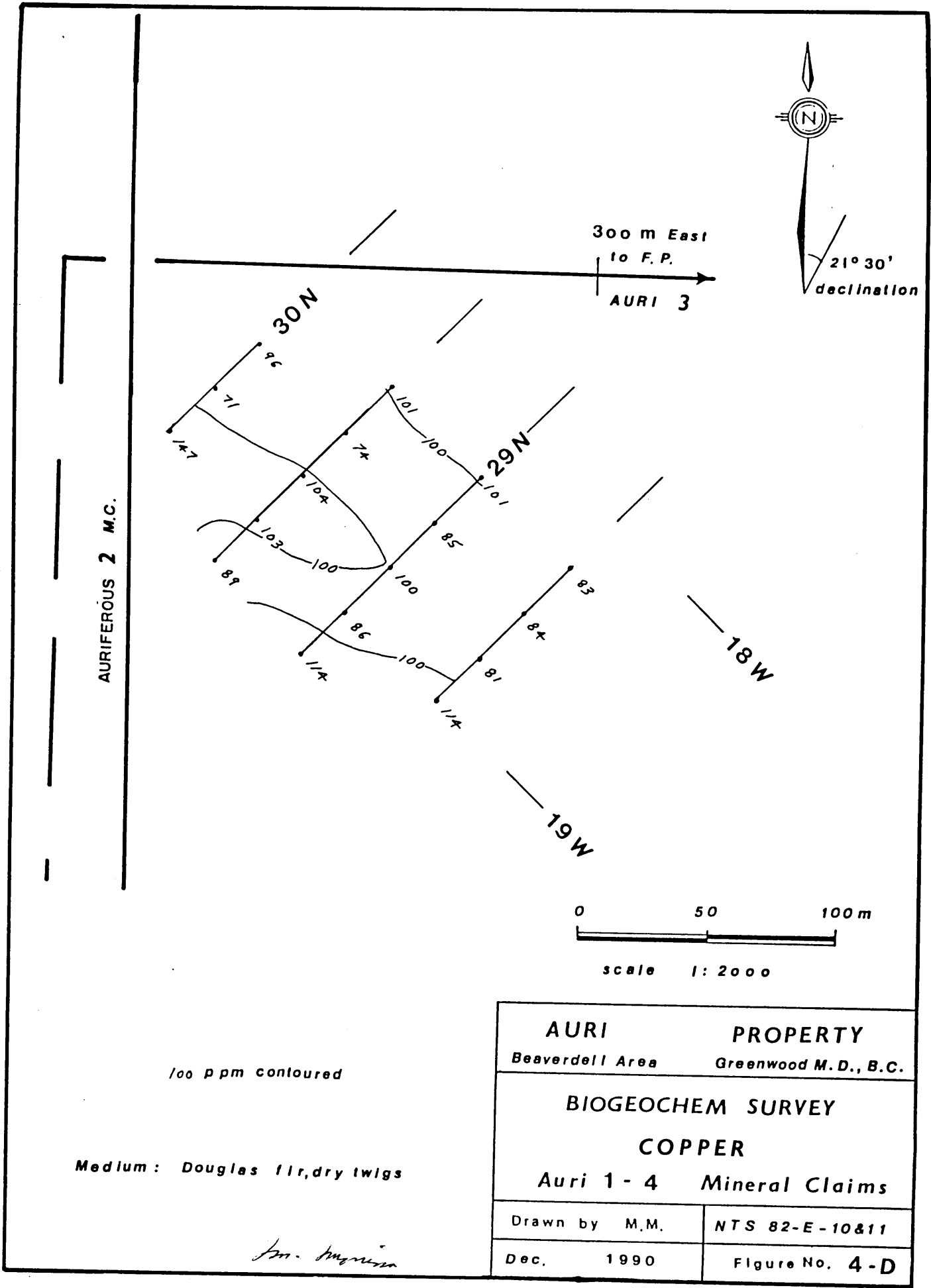
AURI		PROPERTY	
Beaverdell Area		Greenwood M.D., B.C.	
BIOGEOCHEM SURVEY			
LEAD			
Auri 1 - 4		Mineral Claims	
Drawn by	M.M.	NTS 82-E-10&11	
Dec.	1990	Figure No. 4-C	



100 ppm contoured

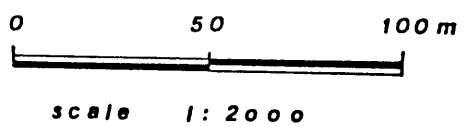
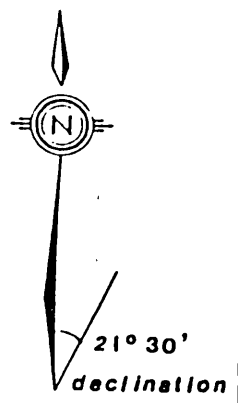
Medium: Douglas fir, dry twigs
Jan. Morrison

AURI	PROPERTY
Beaverdell Area	Greenwood M.D., B.C.
BIOGEOCHEM SURVEY	
COPPER	
Auri 1-4 Mineral Claims	
Drawn by M.M.	NTS 82-E-10&11
Dec. 1990	Figure No. 3-D



AURIFEROUS 2 M.C.

300 m East
to F.P.
AURI 3

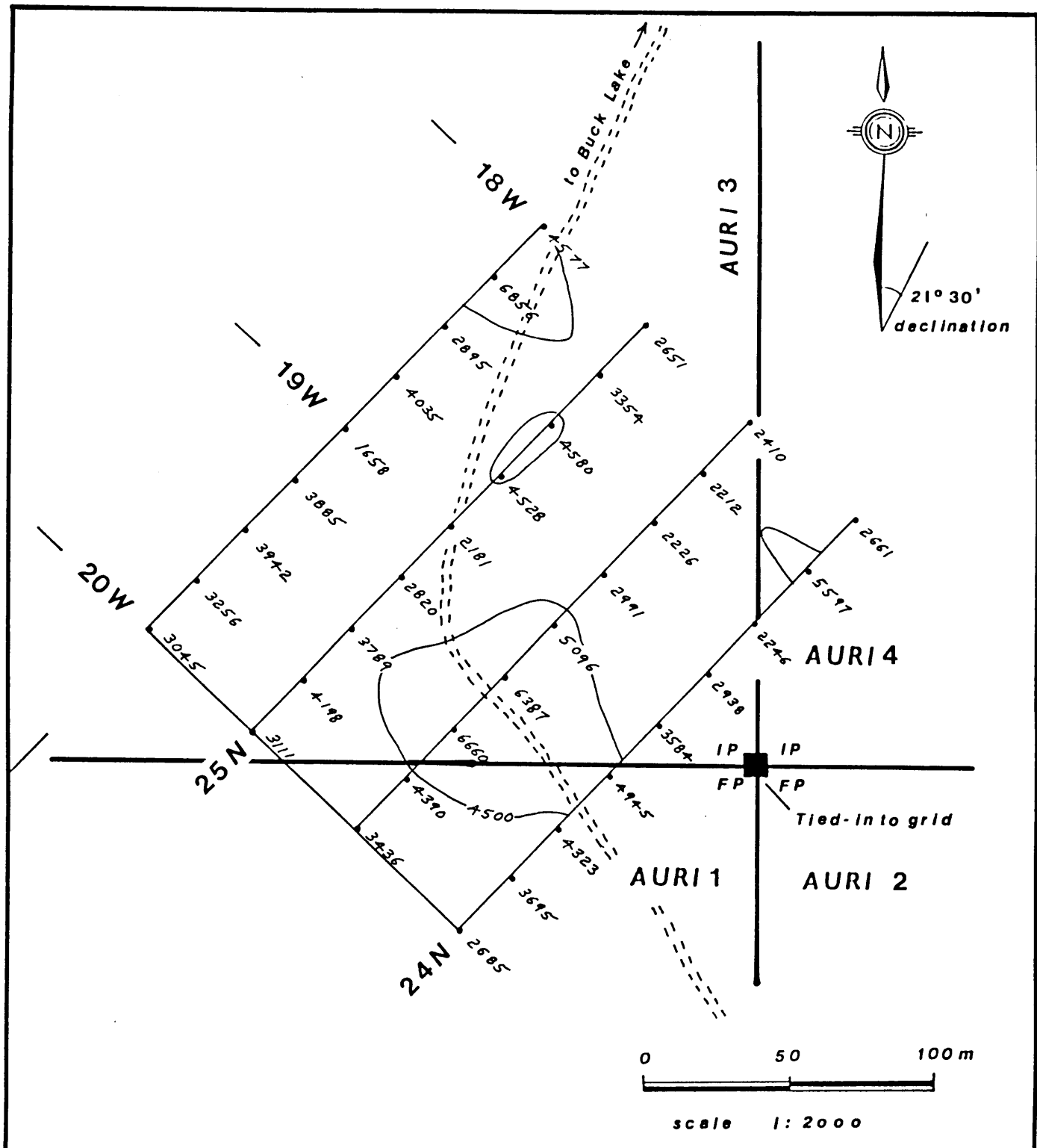


100 ppm contoured

Medium: Douglas fir, dry twigs

J.M. Morrison

AURI PROPERTY	
Beaverdell Area	Greenwood M.D., B.C.
BIOGEOCHEM SURVEY	
COPPER	
Auri 1 - 4 Mineral Claims	
Drawn by M.M.	NTS 82-E-10&11
Dec. 1990	Figure No. 4-D

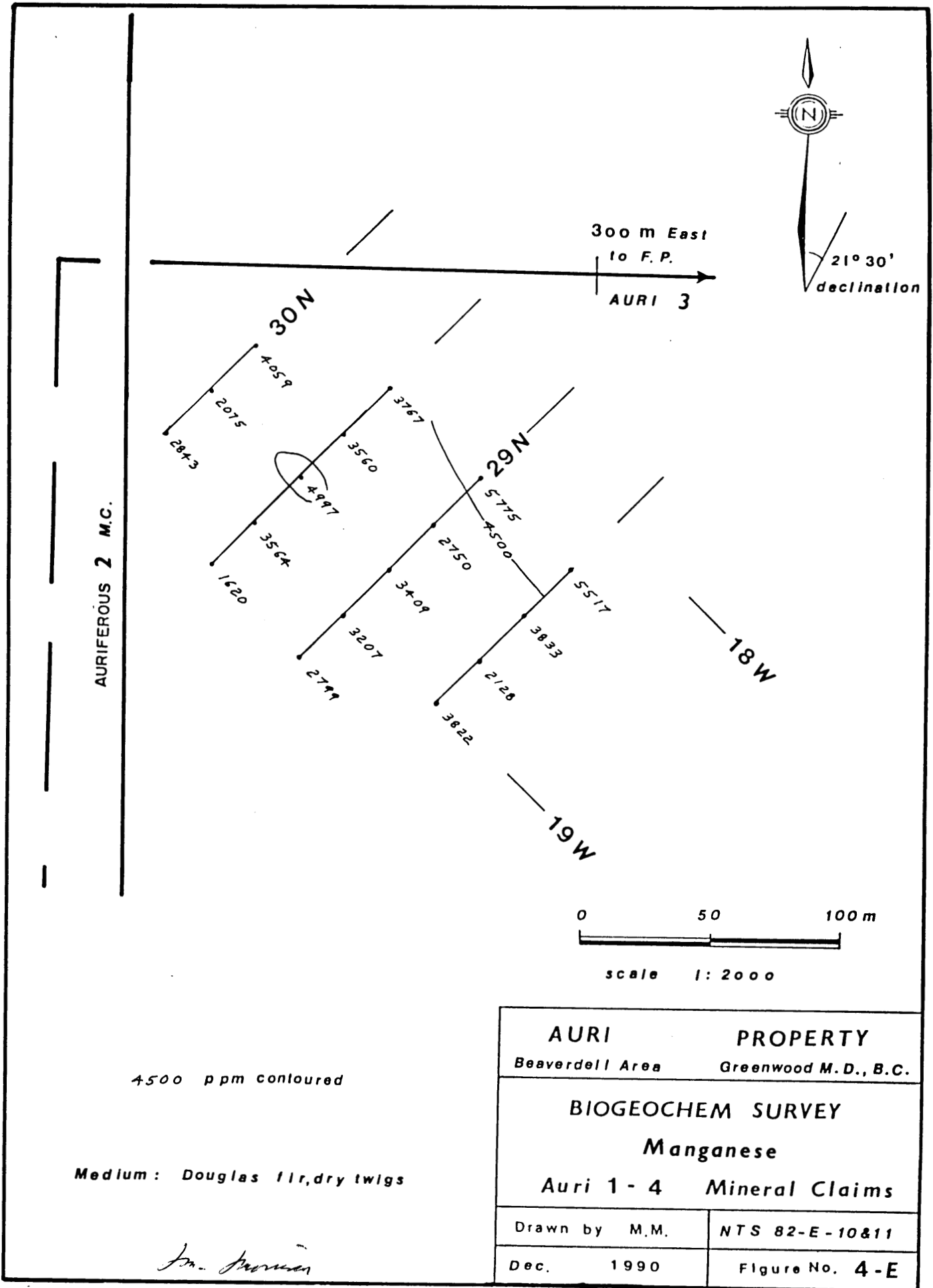


4.500 ppm contoured

Medium: Douglas fir, dry twigs

J.M. Morrison

AURI PROPERTY	
Beaverdell Area	Greenwood M. D., B.C.
BIOGEOCHEM SURVEY	
Manganese	
Auri 1-4 Mineral Claims	
Drawn by M.M.	NTS 82-E-10&11
Dec. 1990	Figure No. 3-E



4500 ppm contoured

Medium: Douglas fir, dry twigs

J.M. Norman

AURI PROPERTY	
Beaverdell Area	Greenwood M.D., B.C.
BIOGEOCHEM SURVEY	
Manganese	
Auri 1 - 4 Mineral Claims	
Drawn by M.M.	NTS 82-E-10&11
Dec. 1990	Figure No. 4-E

DISCUSSION - BIOGEOCHEMICAL SURVEY - Continued

Manganese

Figures 3E & 4E illustrate the distribution of manganese in the survey area. The manganese has been contoured at the 4500 ppm level, and one zone of greater than 4500 ppm manganese on grid line 24+50 N coincides with an area of rusty, sheared argillite. None of the other elements surveyed give high values in the area and the manganese zone is considered insignificant.

Summary

Of the 30 elements analyzed and the 5 elements plotted only cadmium gives a distinct biogeochemical pattern that is related to geology and other surveys conducted on the property. This year's zones of elevated cadmium (on Figures 3A & 4A) roughly coincide with the magnetic "highs", VLF-EM conductors, and the elevated cadmium zones of the 1987 surveys (Morrison, 1987).

CONCLUSIONS AND RECOMMENDATIONS

This year's biogeochemical survey using the dry (dead wood) twigs of the Douglas fir as opposed to fresh (live wood), first and second year twigs and needles (1987 survey) resulted in a 5-fold increase in the amount of cadmium obtained from most samples. Two areas of weakly elevated cadmium located during the 1987 survey have been distinctly outlined by this year's data.

The two cadmium anomalies are not supported by other elements tested this year, but they do roughly coincide with magnetic "highs" and VLF-EM conductors outlined during 1987 surveys (Morrison, 1987).

The cadmium anomalies, in part, coincide with limestone outcroppings and may simply reflect elevated cadmium background values

Continued . . .

CONCLUSIONS AND RECOMMENDATIONS - Continued

in the limestone. It is therefore recommended that samples of the limestone be collected for lithogeochemical testing as a first phase of exploration. If it is found that the limestone does not have an abnormally high cadmium content then second phase exploration could include backhoe trenching across the coincident cadmium anomalies, magnetic highs and VLF-EM conductors.

Ultimately, it is hoped that the cadmium will prove to be a pathfinder to gold mineralization similar to that located at the Rosemont Mine.

Kelowna, B.C.
December 31, 1990


Murray Morrison - B.Sc.

REFERENCES

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* These references are all filed as Assessment Reports with the British Columbia Ministry of Energy, Mines and Petroleum Resources.

APPENDIX A

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 mining exploration in Canada for the past twenty years.
3. During the past twenty years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.
4. I have examined many mineral properties in Southern British Columbia during the past twenty years.
5. I have conducted biogeochemical surveys on three other properties in Southern British Columbia in recent years.
6. I conducted the Biogeochemical Survey outlined in this report.
7. I own a 100% interest in the Auri Claim Group.

December 31, 1990
Kelowna, B.C.


Murray Morrison - B.Sc.

APPENDIX B

STATEMENT OF EXPENDITURES - ON THE AURI CLAIM GROUP

Statement of Expenditures in connection with a Biogeochemical Survey carried out on the Auri Claim Group located 12 kilometres northeast of Beaverdell, B.C. (N.T.S. Map 82-E-11E&10W) for the year 1990.

BIOGEOCHEMICAL SURVEY (1.1 km)


M. Morrison, geologist	2 days @ \$225.00/day	\$	450.
F. Hunt, assistant	2 days @ \$100.00/day		200.
Truck, 4x4 (including gasoline and insurance)			
	2 days @ \$ 70.00/day		140.
Meals and Lodging	- no charge		0.
Flagging and belt chain thread			5.
Sample bags			5.
Bus express samples to lab			13.
53 biogeochemical samples analyzed for 30 elements by ICP @ \$5.25 each			278.
			<hr/>
	sub-total	\$	1,091.

REPORT PREPARATION COSTS

M. Morrison, geologist	1 day @ \$225.00/day	\$	225.
Drafting and typing			50.
Copying reports			16.
			<hr/>
	sub-total	\$	291.
	GRAND TOTAL	\$	1,382.
			<hr/> <hr/>

I hereby certify that the preceding statement is a true statement of monies expended in connection with the Biogeochemical Survey carried out October 29-30, 1990.

December 31, 1990



Murray Morrison - Geologist

GEOCHEMICAL ANALYSIS CERTIFICATE

M.S. Morrison File # 90-5893 Page 1

684 Balsam Road, Kelowna BC V1W 1B9

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	ASH	SAMPLE
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	wt. gm	wt. gm
L30N 19+00W	3	147	79	1727	1.5	8	3 2843	.44	92	5	ND	2 1237	5.1	2	2	8 30.36	.661	3	14	1.30	270	.02	319	.80	.11	1.97	25	2.4	198			
L30N 18+75W	2	71	42	1479	.9	5	2 2075	.37	58	5	ND	1 1763	6.1	2	2	6 33.14	.471	2	9	.90	480	.02	274	.37	.09	1.23	1	3.2	200			
L30N 18+50W	2	96	88	1608	1.5	9	3 4059	.66	64	5	ND	2 1048	10.9	2	2	12 27.57	.745	4	15	1.03	330	.03	242	1.05	.15	1.64	1	3.2	205			
L29+50N 19+25W	3	89	51	1281	.8	5	2 1620	.38	140	5	ND	1 844	3.5	2	2	7 31.06	.675	2	12	1.08	279	.02	265	.75	.11	1.89	1	2.9	196			
L29+50N 19+00W	3	103	80	1822	2.6	10	3 3564	.56	94	5	ND	2 1060	12.5	2	2	10 27.84	.766	3	13	1.29	228	.02	320	.84	.11	1.54	1	2.4	200			
L29+50N 18+75W	2	104	60	2217	2.0	6	2 4997	.29	75	5	ND	1 1168	16.1	2	2	6 31.49	.635	2	12	1.19	373	.01	360	.56	.12	2.56	1	2.6	203			
L29+50N 18+50W	2	74	77	1373	1.7	8	3 3560	.53	52	5	ND	1 1158	12.9	2	2	10 29.89	.556	3	12	.83	302	.03	230	.75	.13	1.25	1	3.5	200			
L29+50N 18+25W	3	101	129	1659	1.0	11	4 3767	.82	136	5	ND	2 872	9.3	2	2	15 24.46	.706	5	18	1.02	159	.04	199	1.37	.15	1.34	1	2.9	201			
L29N 19+25W	6	114	184	769	.9	16	5 2799	1.34	304	5	ND	2 1188	3.9	3	2	24 14.66	1.413	6	19	1.29	162	.06	167	1.59	.23	3.08	1	2.4	197			
L29N 19+00W	3	86	79	1599	1.5	9	3 3207	.61	51	5	ND	2 1032	8.9	2	2	11 26.03	.749	3	12	1.23	226	.03	231	.84	.13	2.02	1	3.2	200			
L29N 18+75W	3	100	65	1717	1.2	14	3 3409	.53	80	5	ND	2 792	15.0	2	2	10 27.92	.697	3	13	1.21	220	.03	249	.74	.12	1.63	1	2.8	200			
L29N 18+50W	2	85	81	1492	1.5	11	3 2750	.54	84	5	ND	1 1235	9.1	2	2	10 29.12	.557	3	12	1.04	278	.02	244	.78	.11	1.20	1	3.4	202			
L29N 18+25W	2	101	76	1494	1.2	7	3 5775	.43	113	5	ND	1 897	8.9	2	2	8 30.57	.632	3	13	.91	263	.02	246	.73	.10	1.64	1	2.8	203			
L28+50N 19+00W	5	114	129	1569	1.0	13	4 3822	.94	58	5	ND	2 795	4.4	2	2	18 21.04	.891	6	17	1.12	177	.04	199	1.38	.17	1.83	1	3.0	199			
L28+50N 18+75W	3	81	77	1769	2.3	7	2 2128	.41	91	5	ND	1 1357	12.7	2	2	8 31.80	.525	2	12	.97	297	.02	279	.61	.10	1.35	2	2.9	197			
L28+50N 18+50W	3	84	91	1872	1.4	8	3 3833	.59	80	5	ND	3 1061	20.5	2	2	11 28.44	.663	3	14	.97	200	.03	264	1.02	.13	1.26	39	2.9	200			
L28+50N 18+25W	2	83	93	1616	1.4	10	3 5517	.70	56	5	ND	2 885	9.9	2	2	13 25.99	.707	3	13	.80	202	.03	179	.84	.14	1.55	1	4.1	193			
L25+50N 20+00W	5	126	127	1743	1.2	23	3 3045	.73	225	5	ND	1 815	4.2	2	2	14 24.77	.734	5	21	1.01	155	.03	231	1.43	.12	1.30	42	2.3	200			
L25+50N 19+75W	3	95	93	1469	.9	12	3 3256	.61	14	5	ND	2 1068	4.9	2	2	11 26.45	.874	4	13	1.17	217	.03	244	.97	.12	1.93	1	3.1	195			
L25+50N 19+50W	2	91	83	1816	1.4	10	3 3942	.48	24	5	ND	2 1167	8.5	2	2	9 28.78	.616	3	13	1.12	238	.02	286	.91	.12	1.44	1	2.7	194			
L25+50N 19+25W	2	89	85	1672	1.2	14	3 3885	.69	45	5	ND	2 1252	22.9	2	2	13 25.67	.717	4	17	1.12	270	.03	273	.85	.18	2.44	14	3.2	200			
L25+50N 19+00W	2	77	74	2121	2.2	9	2 1658	.46	70	7	ND	1 2348	18.1	2	2	9 31.72	.489	3	13	.95	240	.02	308	.51	.12	1.08	1	3.2	199			
L25+50N 18+75W	5	91	109	2008	1.5	16	4 4035	.93	100	5	ND	3 1021	13.3	2	2	17 22.58	.805	5	20	.91	246	.04	203	1.14	.19	1.79	1	3.3	202			
L25+50N 18+50W	3	82	129	1357	.8	15	4 2895	1.08	67	5	ND	2 734	10.6	2	2	20 20.41	.931	7	17	.91	229	.05	180	1.48	.21	1.94	1	4.3	201			
L25+50N 18+25W	2	78	105	1918	.9	12	3 6856	.64	214	6	ND	2 1132	3.1	2	2	12 25.98	.753	4	20	1.03	190	.03	308	1.17	.14	1.21	1	2.7	198			
L25+50N 18+00W	2	96	78	1872	1.5	12	3 4557	.74	217	5	ND	2 1256	2.1	2	2	13 22.60	.945	5	16	1.42	185	.03	267	1.35	.19	2.04	1	2.8	200			
L25N 20+00W	4	91	121	1364	.6	14	4 3111	.93	222	5	ND	2 753	5.2	2	2	17 21.84	.897	5	15	1.06	145	.04	154	1.47	.18	1.60	1	3.5	195			
L25N 19+75W	1	67	75	1534	1.1	8	3 4198	.41	16	5	ND	2 898	4.8	2	2	8 29.59	.658	3	12	1.02	323	.02	247	1.15	.08	1.35	1	3.5	196			
L25N 19+50W	3	105	101	1953	.9	12	4 3789	.82	20	5	ND	1 1010	4.3	2	2	15 22.79	.905	4	16	1.22	202	.04	242	1.35	.17	2.00	1	2.9	201			
L25N 19+25W	3	84	80	1608	2.1	12	3 2820	.64	13	5	ND	2 1497	8.6	2	2	11 26.13	.748	3	12	1.38	258	.03	305	.90	.14	2.04	1	3.0	199			
L25N 19+00W	3	123	50	1987	1.7	8	2 2181	.31	72	5	ND	1 2039	56.1	2	2	6 29.94	.979	2	12	1.31	275	.01	275	.40	.10	3.03	1	3.3	201			
L25N 18+75W	4	71	86	1766	1.6	10	3 4528	.75	24	5	ND	2 1378	16.1	2	2	14 24.73	.631	4	14	1.27	222	.03	238	.97	.15	1.73	23	3.6	200			
L25N 18+50W	3	91	74	2384	2.6	14	3 4580	.57	53	5	ND	2 986	17.3	2	2	11 26.51	.707	3	15	1.44	200	.03	309	.95	.15	1.81	1	2.9	196			
L25N 18+25W	3	92	82	1796	1.7	14	3 3354	.54	53	5	ND	1 1229	10.1	2	2	10 27.92	.805	3	13	.90	189	.02	282	.98	.12	1.70	1	3.2	201			
L25N 18+00W	4	91	154	1089	.4	15	5 2651	1.19	124	5	ND	3 926	4.8	2	2	22 19.26	.988	7	15	.87	187	.05	123	1.19	.23	2.14	1	4.4	196			
STANDARD C	18	57	38	131	6.9	73	31 1053	3.93	39	17	7	40	56	19.6	15	20	58	.46	.098	38	59	.89	183	.07	35	1.91	.06	.14	11	-	-	

BIOGEOCHEMICAL ANALYSIS CERTIFICATE

APPENDIX C

Page 29

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: BIOGEOCHEM

DATE RECEIVED: NOV 14 1990 DATE REPORT MAILED: Nov 25/90. SIGNED BY: *C. Leung* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

M.S. Morrison FILE # 90-5893

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	ASH	SAMPLE		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	wt.	gm	wt.	gm
L24+50N 20+00W	4	95	144	1498	1.5	12	4	3436	.95	40	5	ND	1	1115	6.4	2	2	18	23.57	.853	6	15	.96	152	.05	209	1.65	.17	2.07	6	4.3	203		
L24+50N 19+75W	3	84	109	1546	.7	10	3	4390	.70	49	5	ND	1	1228	4.9	2	2	13	25.96	.771	4	13	1.05	168	.03	230	1.21	.13	1.54	1	3.4	195		
L24+50N 19+50W	3	98	94	1686	2.2	8	4	6660	.69	42	5	ND	2	1068	5.8	2	2	13	24.45	.829	4	12	1.13	162	.03	251	1.57	.13	1.86	1	2.8	200		
L24+50N 19+25W	6	68	53	1685	1.3	6	3	6387	.45	50	7	ND	2	1052	5.5	2	2	8	29.28	.523	2	10	1.14	250	.02	259	.58	.13	2.20	1	3.6	201		
L24+50N 19+00W	7	91	91	2523	1.7	9	3	5096	.66	46	5	ND	2	1001	23.7	2	2	12	25.67	.680	3	14	1.16	203	.03	252	.79	.16	1.98	1	3.3	196		
L24+50N 18+75W	4	113	103	2052	1.5	11	4	2991	.79	76	5	ND	2	823	11.0	2	2	15	25.38	.798	5	16	1.10	259	.04	229	.88	.16	1.60	1	2.6	202		
L24+50N 18+50W	5	106	151	1101	.6	13	4	2226	.97	47	5	ND	1	952	6.0	2	2	18	20.87	1.278	5	15	.87	171	.04	175	1.09	.19	3.37	1	3.7	199		
L24+50N 18+25W	3	84	104	1004	.7	8	3	2212	.61	31	5	ND	1	942	3.7	2	2	11	27.47	.896	4	10	.99	193	.03	220	.73	.13	2.53	1	4.4	203		
L24+50N 18+00W	7	133	130	1319	.9	16	4	2410	1.01	65	5	ND	1	940	4.2	2	2	19	20.01	1.154	5	16	1.32	177	.05	215	1.14	.20	2.55	1	2.5	200		
L24N 20+00W	2	89	93	1180	.8	8	3	2685	.53	45	5	ND	1	1191	3.2	2	2	10	29.49	.750	4	11	.96	174	.03	260	1.02	.11	2.21	1	3.6	201		
L24N 19+75W	2	99	137	1288	1.1	11	4	3695	.70	51	5	ND	1	1402	3.9	2	2	12	27.08	.631	4	12	1.10	157	.03	249	1.19	.12	1.06	1	3.3	197		
L24N 19+50W	3	98	140	1426	1.1	10	4	4323	.83	43	5	ND	2	1125	4.4	2	2	15	23.94	.710	5	14	.81	138	.04	192	1.47	.12	1.12	1	3.3	202		
L24N 19+25W	2	81	90	1672	1.0	8	3	4945	.61	54	5	ND	2	1069	4.5	2	2	11	27.34	.677	4	14	.89	167	.03	268	1.28	.12	1.31	1	3.2	199		
L24N 19+00W	22	107	129	1814	.8	13	4	3584	.84	43	5	ND	1	861	9.7	2	2	16	24.26	.882	5	16	.90	154	.04	166	.89	.15	1.68	1	3.3	196		
L24N 18+75W	2	86	91	1412	.7	8	3	2938	.60	45	5	ND	1	1097	3.5	2	2	11	27.42	.717	4	12	1.22	205	.03	250	.82	.14	1.76	1	3.4	200		
L24N 18+50W	3	108	141	1309	.7	12	4	2246	.98	37	5	ND	2	903	4.9	2	2	18	21.10	1.024	5	14	1.00	162	.05	181	1.02	.17	2.39	2	3.5	198		
L24N 18+25W	2	115	110	2003	.9	6	2	5597	.48	50	5	ND	1	1554	5.4	2	2	9	24.00	.883	3	16	1.54	177	.02	390	.64	.15	4.46	1	2.3	197		
L24N 18+00W	2	98	110	1445	.9	10	3	2661	.72	54	5	ND	3	1291	5.0	2	2	13	23.58	.613	4	13	1.00	191	.03	204	.78	.14	1.66	1	3.0	198		
STANDARD C	19	59	37	134	7.1	72	31	1055	3.96	39	20	7	39	52	19.6	15	22	59	.46	.098	39	61	.90	184	.07	37	1.92	.06	.14	11	-	-		

BIOGEOCHEMICAL ANALYSIS CERTIFICATE

APPENDIX C