ASSESSMENT WORK REPORT

FOR

CHANDELEUR BAY PRODUCTION COMPANY LTD.

OF

SOIL GEOCHEMISTRY SURVEY, VLF-EM GROUND SURVEY

AND AERIAL MAGNETIC-VLF-EM SURVEY

ON

JS 8, 9, 10 AND 11 CLAIMS

IN THE MESS CREEK AREA

IN THE

LIARD MINING DIVISION

OF

BRITISH COLUMBIA

DURING PERIOD AUGUST 1990 TO JUNE 27, 1991

57°15' NORTH LATITUDE
130°57' WEST LONGITUDE
NTS 104 G 2W

SEPTEMBER 14, 1991

MANEX CONSULTANTS LTD.
BY: Emanuel Amendolagine, P.Eng.

TABLE OF CONTENTS

INTRODUCTION

Field work was carried out on the JS 8, 9, 10 and 11 claims during the period of August 1990 to June 1991.

The work consisted of limited reconnaissance soil geochemical sampling, detailed soil geochemical survey; airborne magnetic VLF-EM survey and a ground VLF-EM survey.

All the work was performed on the east portion of JS 8 and 9.

All work performed both air and ground was under the direction of Emanuel Amendolagine, P.Eng.

The Lloyd C. Brewer geophysical survey report was compiled from air data obtained by Columbia Airborne Geophysical Services (1984) Ltd. and ground data from field technican Pat Crook.

The air survey was a portion of a larger air survey of the area and was flown on June 26, 1991. A portion of the cost was allocated to the JS 8 to 11 claim group as reported in Columbia Airbone Geophysical Services (1984) Ltd. dated September 10, 1991.

The ground geophysical survey was performed during the period of June 20-26, 1991.

The airborne and ground geophysics surveys are reported under seperate cover by "Columbia Airborne Geophysical Services (1984) Ltd."

The geophysical surveys and report are under the direction of Lloyd C. Brewer.

Summary

Surveys were performed on the Chandeleur Bay Production Co. Ltd. claims JS 8, 9, 10 and 11 during the period of August 1990 to June 27, 1991.

The surveys and work performed are:

1. Loop soil geochemical survey by Jaroslav Ruza during August 1990. This consisted of a reconnaissance soil sampling which yielded three gold assays of: No. 4 - 0.048; No. 5 - 0.060 and No. 7 - 7.875 oz/T Au.

2. Ground soil geochemical survey of fifty samples on a control grid of 250 meters EW by 500 meters N.S. The samples results were weak but the contour pattern indicated a possible anomalous area in the south west portion of the survey area with a generally weak northeasterly trend in the surveyed area. This area is in the general location of Ruza loop high gold results. This area should be a target for future exploration programs.

3. A VLF-EM ground survey was performed on the controlled grid set up for the soil sampling during the period of June 20-25, 1991. This survey was reported on by Columbia Airborne Geophysical Services (1984) Ltd.

   The results of the ground VLF-EM survey indicated a general north northeasterly trend.

   This would be coincident with the soil sample assay weak anomalous trend.

4. An aerial Magnetic and VLF-EM was conducted by Columbia Airborne Geophysical Services (1984) Ltd. The air survey was conducted over the eastern portion of the JS 8 and 9 claims. This survey did not define any conductive zones on the limited survey. The survey results for the ground VLF-EM and the aerial Magnetic-VLF-EM results are discussed in the airborne report by Columbia Airborne Geophysical Services (1984) Ltd..

Conclusions and Recommendations

The exploration program completed indicated a degree of positive corrolation between the ground geophysical, the Ruza loop survey gold results and the soil geochemical survey. It is recommended that the property should be fully explored with reconnaisance geochemical soil and rock chip sampling, geological mapping and examine and sample the two Gossan zones seen from the air on the JS 8 creek and the JS 9 creek.

PROPERTY HISTORY

There is no known history of work on the JS 8, 9, 10 and 11 claims.

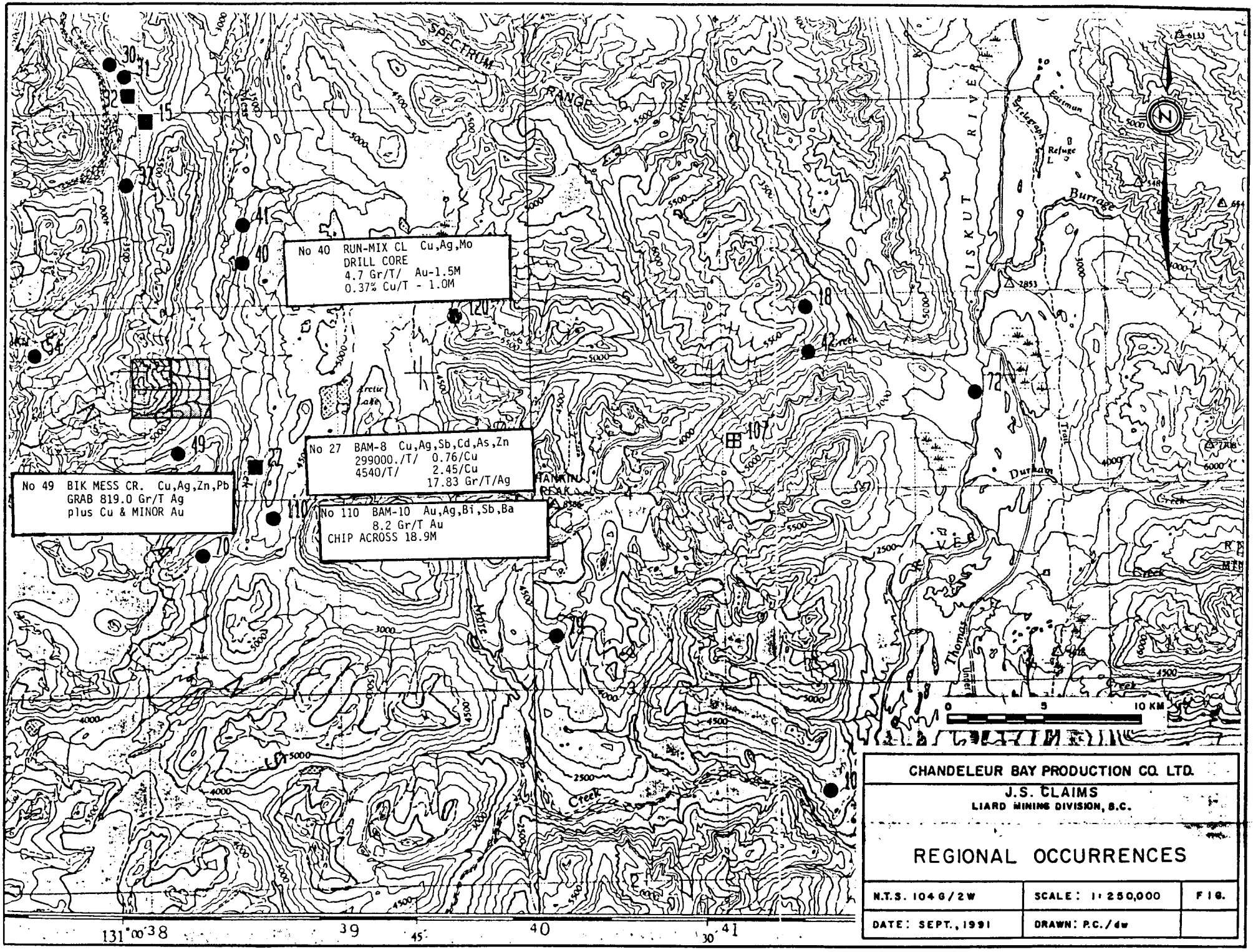
However, the mineral occurrances Minfile Map 104G indicates mineral occurrances in close proximity to the claims.

The Barn 8 and 10 claims some 2 km to the southeast report 299,000 T of 0.76% Cu, 4,540 T of 2.45 % Cu/T and 17.83 Gr/T Ag and 8.2 Gr/T Au across a 18.9 m chip sample.

The BIK-MESS Cr. claim some one km to the south report a grab sample assaying 819.0 Gr/T Ag plus Cu, Pb and minor Au values.

The Run Mix claim some 3 km to the north-northeast reported drill core samples of 4.7 Gr/T au across 1.5 m and 0.37% Cu/T-1 m.

These are shown on the following MINFILE MAP 104G report.



CHANDELEUR BAY PRODUCTION CO. LTD.

J.S. CLAIMS

LIARD MINING DIVISION, B.C.

REGIONAL OCCURRENCES

N.T.S. 104G/2W	SCALE: 1:250,000	FIG.
DATE: SEPT., 1991	DRAWN: P.C./dw	

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

MINFILE MAP 104G

TELEGRAPH CREEK
MINERAL OCCURRENCE MAP

Scale 1:250 000

This project is a contribution to the Canada/British Columbia Mineral Development Agreement 1985–1990.

Province of British Columbia — Ministry of Energy, Mines and Petroleum Resources

Energy, Mines and Resources Canada — Énergie, Mines et Ressources Canada

DATE REVISED: July 1988

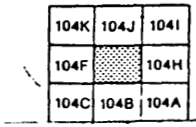
TOTAL NUMBER OCCURRENCES: 122

LEGEND

STATUS

- Producer
- Past Producer
- Developed Prospect
- Prospect
- Showing

INDEX



018	MARY	Mo,Cu
019	MOUNTAIN GOAT	Au,Cu
020	LUCKY STRIKE	Au,Ag,Pb,Zn,Cu
021	JW	Cu,Ag
022	SPHAL 17	Cu,Au,Ag
023	ANN	Cu
024	NEW LIMPOKE	Cu,Mo
025	LADY JANE	Pb,Zn,Cu,Ag,Au
026	MN	Fe,Ti
027	BAM 8	Cu,Ag,Sb,Cd,As,Zn
028	RM	Cu
029	SPHAL 27	Cu,Au
030	NABS 21	Cu
031	NABS 13	Cu
032	NABS 30 FR	Cu,Mo
033	QC	Cu
034	GJ	Cu,Au,Ag
035	SF	Ag,Au,Ba,Pb,Zn,Cu
036	RED DOG	Au,Ag,Cu,Pb,Zn
037	NICKS	Cu,Mo
038	LLK	Cu,Mo,Ag,Au
039	DOK 35	Cu,Mo
040	RUN	Cu,Au,Mo
041	RUN NORTH	Cu,Mo
042	ME	Cu,Mo,Pb,Zn,Au,Ag
043	DOK	Cu
044	AL	Cu,Au
045	WOLF	Cu,Au,Ba
046	JAY	Cu
047	JOAN AND MB	Cu
048	JACK	Pb,Zn,Ag,Cu
049	BIK	Cu,Ag,Zn,Pb
050	HUMMINGBIRD	Cu,Au,Ag
051	CW	Cu,Au
052	SAL	Cu
053	PTARMIGAN	Au,Ag,Zn,Pb,Cu
054	MOUNT NICKMAN	Ab,Ol
055	MIDDLE SCUD	Cu,Ag
056	NORTH SCUD	Cu
057	COT AND BULL	Ag,Cu,Au
058	MARG WEST	Cu,Mo,Wo,Pb,Au
059	HORN	Cu
060	DEVILS CLUB	Cu,Ag,Au
061	PERELESKIN	Cu,Zn
062	COS	Cu
063	LATE	Cu,Au
064	CONOVER MOUNTAIN	Cu
065	MIST	Cu,Au
066	STIKINE EAST	Cu
067	STIKINE NORTH	Cu
068	AC	Cu
069	OP	Cu
070	BJ	Au,Cu,Pb,Zn,Ag,Te,Bi
071	ART	Cu
072	BALL CREEK	Au
073	MESS	Cu
074	PR	Cu
075	GU	Cu,Pb,Zn,Mo
093	GALORE CREEK-WEST RIM	Cu
094	GALORE CREEK-BUTTE	Cu
095	GALORE CREEK-SOUTHWEST	Cu,Fe
096	GALORE CREEK-SADDLE	Cu
097	GALORE CREEK-WEST FORK GLACIER	Cu
098	GALORE CREEK-SOUTH BUTTE	Cu
099	GALORE CREEK-SOUTH 110	Cu
100	CAM	Cu
101	MOUNT EDZIZA	Vg
102	GALORE CREEK LIMESTONE	Ls
103	BM 38	Cu
104	ISKUT RIVER	Ls
105	TAHLTAN LAKE	Ls
106	KLASTLINE	Ls
107	HANK	Au,Ag,Pb,Zn,Cu
108	PAYDIRT	Au,Cu
109	HEL	Ur
110	BAM 10	Au,Ag,Bi,Sb,Be
111	YEHINIKO EAST	Cu
112	YEHINIKO WEST	Cu
113	C 96	Cu
114	C 2	Cu
115	OUT 26	Cu
116	OUT 10	Cu,Pb,Zn
117	IN 41	Cu
118	BB 57	Cu
119	BB 38	Cu
120	DAGO	Cu,Ag,Pb,Zn
121	TUFF	Au,Ag,Cu
122	GR	Au,Ag,Pb,Zn,Cu

PROPERTY

The property is owned by Chandeleur Bay Production Co. Ltd.

The property consists of four claims. They are as shown on a copy of claim sheet NTS 104G/2W:

Claims	Record No.	Units	Expiry Date*
JS 8	7411	16	June 27, 1993
9	7412	12	June 27, 1993
10	7413	16	June 27, 1993
11	7414	12	June 27, 1993

valid upon acceptance of assessment report.

LOCATION

The property is located some 350 km north northwest of Terrace, B.C., west of Mess Creek, some 50 km north west of Bob Quinn Lake camp which is located on highway 37, and the property at 57° 15 N latitude, and 130° 57' west longitude.

The property lies to the west of Mess Creek with the JS 8 and 9 ICP at an elevation of 2,600 feet ASL and the ICP for JS 10 and 11 at 5,000 feet ASL.

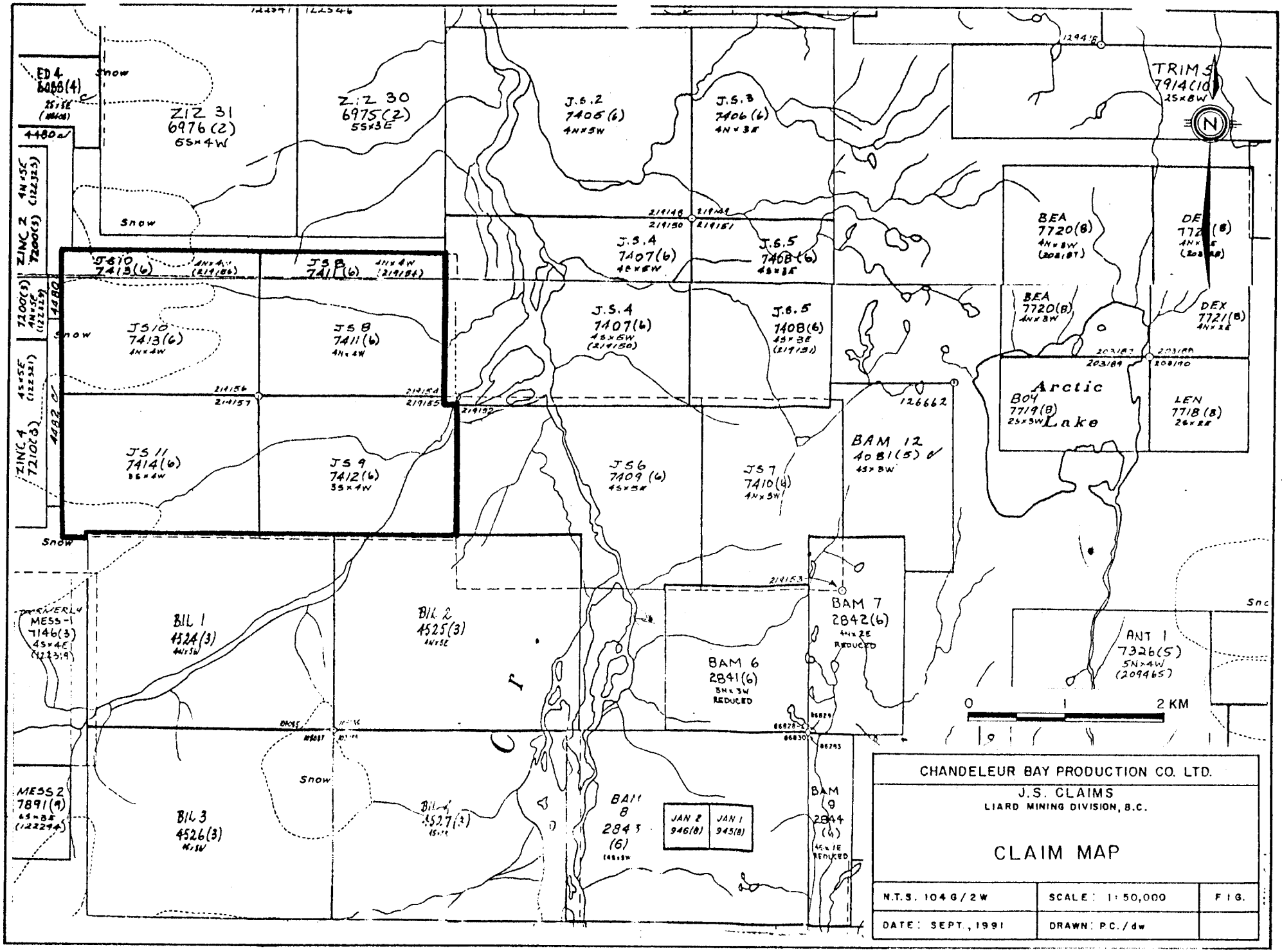
The peak on JS 10 is some 7,500 feet ASL as per topograph map.

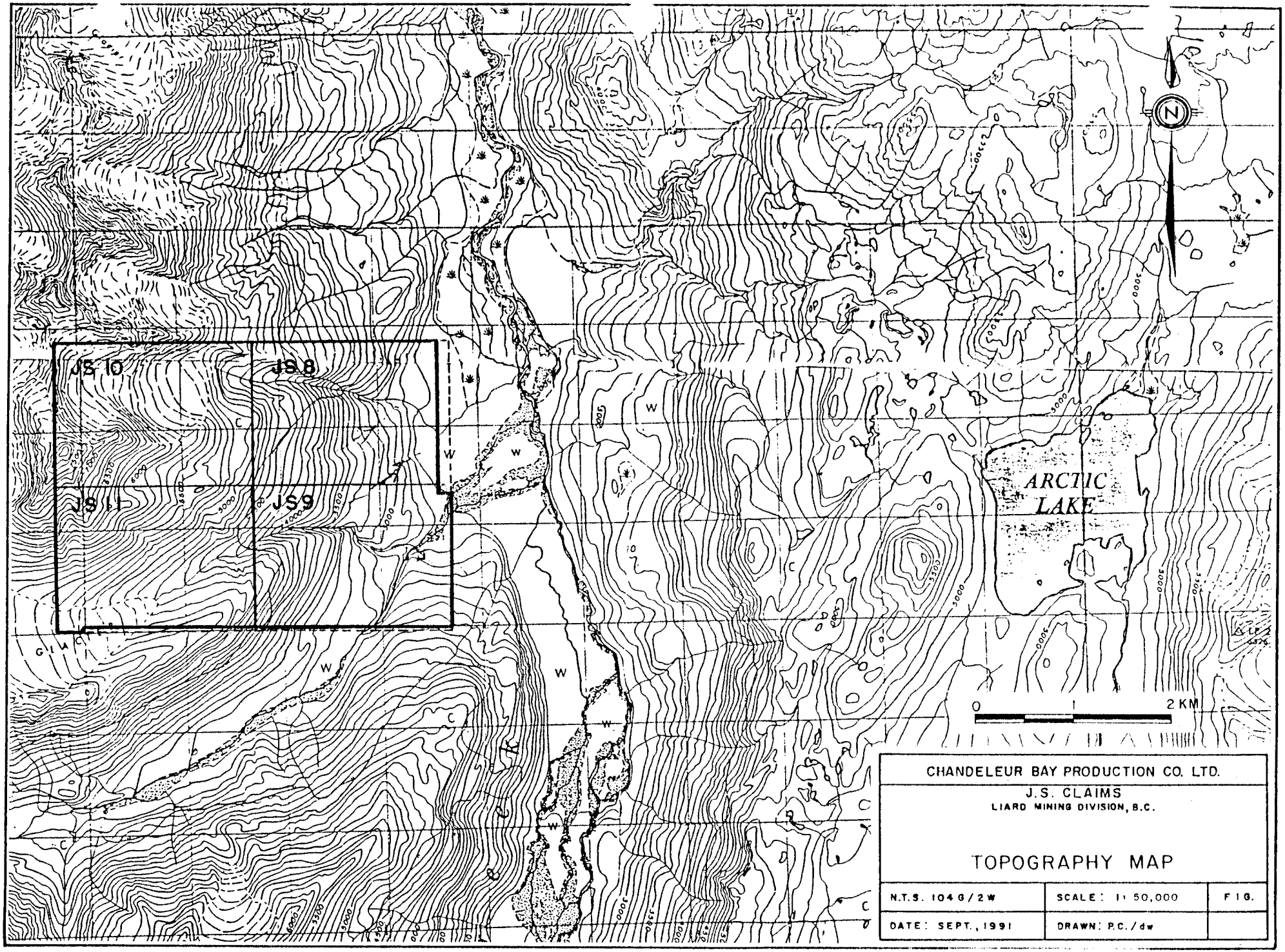
ACCESS

Access to the claims is via Bob Quinn Lake staging camp and airstrip.

The Bob Quinn camp is some 350 km by air from Terrace, B.C. and some 400 km by road.

The claims are some 50 km northwest from the Bob Quinn camp and on the west side of Mess Creek as shown on the following road map.


ED 4
6488(4)
25×SE
Snow
ZIZ 31
6976(2)
65×4W
Z.Z 30
6975(2)
55×3E
J.S.2
7405(6)
4N×5W
J.S.3
7406(6)
4N×3E
TRIM 5
7914(10)
25×8W
N
ZINC 2
7200(5)
4N×5E
J.S.4
7407(6)
4S×5W
J.S.5
7408(6)
4S×3E
BEA
7720(8)
4N×8W
DEX
7721(8)
4N×2E
JS10
7413(6)
4N×4W
JS8
7411(6)
4N×4W
JS11
7414(6)
3S×4W
JS9
7412(6)
3S×4W
JS6
7409(6)
4S×3W
JS7
7410(4)
4N×3W
BAM 12
4081(5)
4S×8W
126662
Arctic
Lake
BO4
7719(8)
2S×3W
LEN
7718(8)
2S×2E
BAM 7
2842(6)
4N×2E
REDUCED
BAM 6
2841(6)
3N×3W
REDUCED
ANT 1
7326(5)
5N×4W
(209465)
0 1 2 KM
BIL 1
4524(3)
4N×5W
BIL 2
4525(3)
4N×3E
MESS 1
7146(3)
4S×4E
MESS 2
7891(9)
6S×8E
BIL 3
4526(3)
4N×3W
BIL 4
4527(3)
BAM 8
2843(6)
4S×3W
BAM 9
2844(4)
4S×1E
REDUCED
JAN 2
946(8)
JAN 1
945(8)
CHANDELEUR BAY PRODUCTION CO. LTD.
J.S. CLAIMS
LIARD MINING DIVISION, B.C.
CLAIM MAP
N.T.S. 104G/2W
SCALE: 1:50,000
FIG.
DATE: SEPT., 1991
DRAWN: P.C./dw



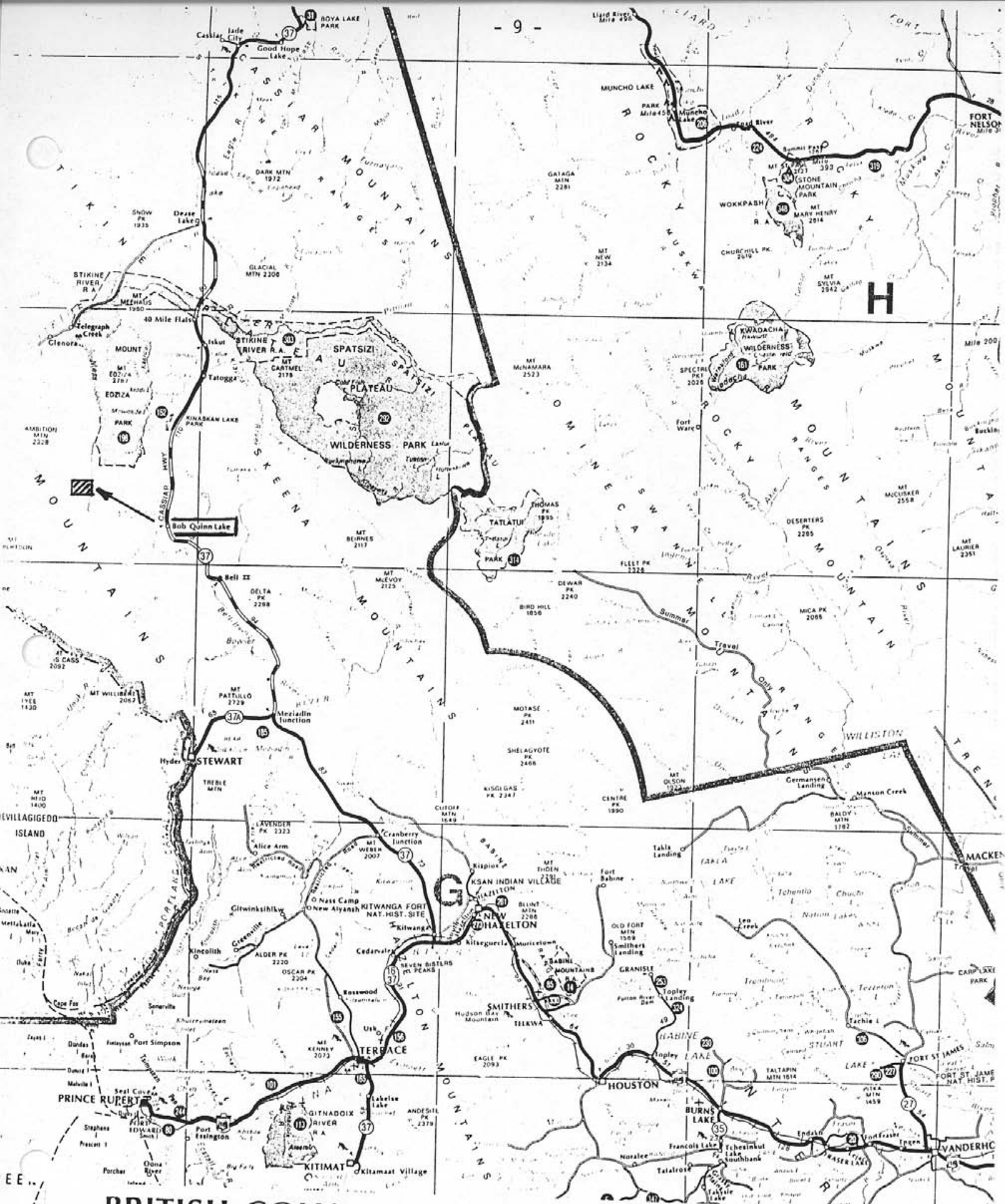
CHANDELEUR BAY PRODUCTION CO. LTD.

J.S. CLAIMS

LIARD MINING DIVISION, B.C.

TOPOGRAPHY MAP

N.T.S. 104G/2W	SCALE: 1:50,000	FIG.
DATE: SEPT., 1991	DRAWN: P.C./dw	



BRITISH COLUMBIA ROAD MAP AND PARKS GUIDE

SCALE 1 : 2 500 000

kilometres 20 0 20 40 60 80 100 120 140 160 180 200 kilometres

1 CENTIMETRE EQUALS 25 KILOMETRES 1 INCH EQUALS APPROXIMATELY 40 MILES

ELEVATIONS IN METRES ABOVE SEA LEVEL

Regional Geology

The property geology is mapped on GSC map 11-1971, paper 71-44 "Telegraph Creek map sheet".

The claim area is plotted on the geological map in the south central portion of the sheet some 6km west of Artic Lake as shown on the following pages.

The regional geology of the area is discussed in the abstract and table of formations in the following pages.

ABSTRACT

The map-area, bounded by latitudes 57° and 58° N and longitudes 130° and 132° W includes parts of the Coast Mountains, Stikine Plateau and Hazelton Mountains. It lies across the axis of the northeasterly trending Stikine Arch, a lobe of crystalline and metamorphic rocks that remained relatively positive throughout most of Mesozoic time.

Coast Mountains in the southwestern part of the map-area are underlain mainly by granitic rocks that range in age from Triassic to Tertiary and contain pendants of metamorphosed late Paleozoic and Mesozoic sedimentary and volcanic rocks.

Mississippian and Permian strata comprising phyllite, thick limestone units and minor volcanics outcrop in the central and western part of the map-area. They are overlain unconformably by an extremely thick succession of Upper Triassic to Middle Jurassic eugeosynclinal sediments and andesitic volcanics that underly most of the northern and eastern part of the map-area.

Late Jurassic clastic sediments, deposited in the Bowser Successor Basin are exposed in Hazelton Mountains east of Iskut River.

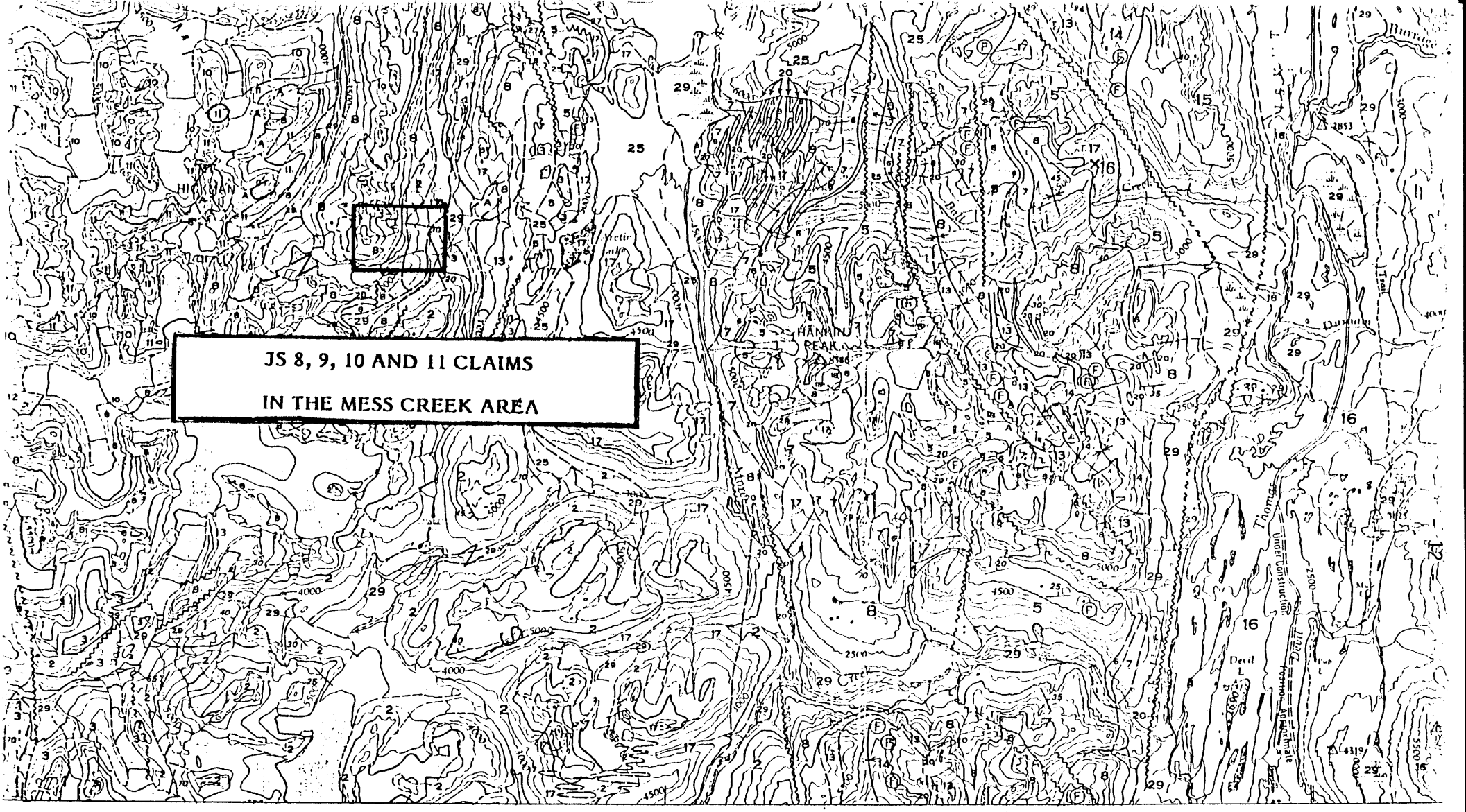
Cretaceous and Tertiary non-marine clastic sediments and early Tertiary volcanics are preserved in fault blocks and as erosional remnants on some of the higher peaks.

Late Tertiary, Pleistocene and Recent volcanism has produced large, complex piles of undeformed lava flows and pyroclastic rocks ranging in composition from rhyolite to basalt.

The area includes numerous mineral deposits, some of which are major potential producers of copper.

TABLE OF FORMATIONS

Era	Period or Epoch	Group or Formation	Map-unit	Lithology	Thickness (feet)
Cenozoic	Pleistocene and Recent		29	Unconsolidated glacial and alluvial deposits	
			28	Hot spring deposits, tuffs	0-15
			27	Olivine basalt, flows and tephra	0-1,500
	Tertiary and Quaternary		26	Rhyolite and dacite flows, lava domes and pyroclastic rocks; minor basalt	0-3,000
	Upper Tertiary and Pleistocene		25	Basalt flows and pyroclastic rocks; minor rhyolite	0-5,000
	Cretaceous and Tertiary	Sloko Group	24	Rhyolite, trachyte and dacite flows and pyroclastic rocks	0-500+
	Upper Cretaceous Lower Tertiary		23	Biotite andesite lava domes, flows and sills	
			22	Biotite leucogranite intrusions	
		Sustut Group	21	Conglomerate, quartzose sandstone, arkose	1,000+
			20	Felsite, quartz-feldspar porphyry	
			19	Biotite-hornblende quartz monzonite	
	Jurassic and/or Cretaceous		18	Hornblende diorite	
			17	Granodiorite, quartz diorite; minor diorite, leucogranite, and migmatite	
	Jurassic Middle? and Upper	Bowser Group	16	Chert-pebble conglomerate, grit, greywacke, siltstone, and shale	5,000+
	Middle		15	Basalt, basaltic andesite; mainly pillow lava	1,000-8,000
	Lower and Middle		14	Shale; minor siltstone, siliceous, calcareous and ferruginous siltstone.	3,500
	Lower		13	Conglomerate, grit, greywacke, basaltic and andesitic volcanic rocks; peperites	4,000
		Hickman batholith	12	Syenite, orthoclase porphyry, monzonite, pyroxenite	
			11	Hornblende-quartz diorite, hornblende-pyroxene diorite, amphibolite	
			10	Hornblende granodiorite; minor hornblende quartz diorite	
	Triassic Upper		9	Undifferentiated volcanic and sedimentary rocks; includes units 5 to 8	10,000
			8	Augite andesite flows, pyroclastic rocks and derived sediments; minor greywacke, siltstone and conglomerate	4,000+
			7	Siltstone, siliceous siltstone, ribbon chert, calcareous and dolomitic siltstone, greywacke, volcaniclastic rocks and minor limestone.	2,300+
			6	Limestone, fetid limestone, shale	0-300+
			5	Greywacke, siltstone, shale; minor conglomerate, tuff and volcanic sandstone	3,000+
	Middle		4	Shale, concretionary shale; minor calcareous shale and siltstone	600+
Paleozoic	Permian		3	Limestone, minor chert and tuff	1,000-2,000
	Permian and Mississippian		2	Phyllite, argillaceous quartzite, quartz-sericite and chlorite schist, greenstone, minor chert, schistose tuff and limestone	?
	Mississippian		1	Limestone, crinoidal limestone, ferruginous limestone; tuff, chert and phyllite	2,850
		Age unknown, probably pre-Lower Jurassic	A	Amphibolite, amphibolite gneiss	
			B	Ultramafic rocks; peridotite, dunite, serpentinite	



MAP 11-1971
PAPER 71-44

GEOLOGY

TELEGRAPH CREEK

BRITISH COLUMBIA

Scale 1:250 000

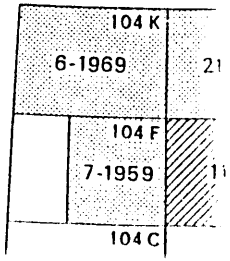
Base-map at the same scale published by the Army Survey Establishment, R. C. E. in 1950-54

Copies of the topographical edition of this map may be obtained from the Canada Map Office, 615 Booth Street, Ottawa, Ontario K1A 0E9

Geographical names subject to revision

Elevations in feet above mean sea-level

Printed by



LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

29 Fluviatile gravel; sand, silt; glacial outwash, till, alpine moraine and colluvium

28 Hot-spring deposit, tufa, aragonite

27 Olivine basalt, related pyroclastic rocks and loose tephra; younger than some of 29

TERTIARY AND QUATERNARY
UPPER TERTIARY AND PLEISTOCENE

26 Rhyolite and dacite flows, lava domes, pyroclastic rocks and related subvolcanic intrusions; minor basalt

25 Basalt, olivine basalt, dacite, related pyroclastic rocks and subvolcanic intrusions; minor rhyolite; in part younger than some 26

CRETACEOUS AND TERTIARY
UPPER CRETACEOUS AND LOWER TERTIARY
SLOKO GROUP

24 Light green, purple and white rhyolite, trachyte and dacite flows, pyroclastic rocks and derived sediments

22 23 22. Biotite leucogranite, subvolcanic stocks, dykes and sills
23. Porphyritic biotite andesite, lava domes, flows and (?) sills

SUSTUT GROUP

21 Chert-pebble conglomerate, granite-boulder conglomerate, quartzose sandstone, arkose, siltstone, carbonaceous shale and minor coal

20 Felsite, quartz-feldspar porphyry, pyritiferous felsite, orbicular rhyolite; in part equivalent to 22

19 Medium-to coarse-grained, pink biotite-hornblende quartz monzonite

JURASSIC AND/OR CRETACEOUS
POST-UPPER TRIASSIC PRE-TERTIARY

18 Hornblende diorite

17 Granodiorite, quartz diorite; minor diorite, leucogranite and migmatite

JURASSIC
MIDDLE (?) AND UPPER JURASSIC
BOWSER GROUP

16 Chert-pebble conglomerate, grit, greywacke, subgreywacke, siltstone and shale; may include some 13

MIDDLE JURASSIC

15 Basalt, pillow lava, tuff-breccia, derived volcaniclastic rocks and related subvolcanic intrusions

LOWER AND MIDDLE JURASSIC

14 Shale, minor siltstone, siliceous and calcareous siltstone, greywacke and ironstone

LOWER JURASSIC

13 Conglomerate, polymictic conglomerate; granite-boulder conglomerate, grit, greywacke, siltstone; basaltic and andesitic volcanic rocks, peperites, pillow-breccia and derived volcaniclastic rocks

MESOZOIC

TRIASSIC AND JURASSIC
POST-UPPER TRIASSIC PRE-LOWER JURASSIC

12 Syenite, orthoclase porphyry, monzonite, pyroxenite

HICKMAN BATHOLITH

10 11 10. Hornblende granodiorite, minor hornblende-quartz diorite 11. Hornblende, quartz diorite, hornblende-pyroxene diorite, amphibolite and pyroxene-bearing amphibolite

TRIASSIC
UPPER TRIASSIC

9 Undifferentiated volcanic and sedimentary rocks (units 5 to 8 inclusive)

8 Augite-andesite flows, pyroclastic rocks, derived volcaniclastic rocks and related subvolcanic intrusions; minor greywacke, siltstone and polymictic conglomerate

7 Siltstone, thin-bedded siliceous siltstone, ribbon chert, calcareous and dolomitic siltstone, greywacke, volcanic conglomerate, and minor limestone

6 Limestone, fetid argillaceous limestone, calcareous shale and reefoid limestone; may be in part younger than some 7 and 8

5 Greywacke, siltstone, shale; minor conglomerate, tuff and volcanic sandstone

MIDDLE TRIASSIC

4 Shale, concretionary black shale; minor calcareous shale and siltstone

PALEOZOIC

PERMIAN
MIDDLE AND UPPER PERMIAN

3 Limestone, thick-bedded mainly bioclastic limestone; minor siltstone, chert and tuff

PERMIAN AND OLDER

2 Phyllite, argillaceous quartzite, quartz-sericite schist, chlorite schist, greenstone, minor chert, schistose tuff and limestone

MISSISSIPPIAN

1 Limestone, crinoidal limestone, ferruginous limestone; maroon tuff, chert and phyllite

B Amphibolite, amphibolite gneiss; age unknown probably pre-Upper Jurassic

A Ultramafic rocks; peridotite, dunite, serpentinite; age unknown, probably pre-Lower Jurassic

Geological boundary (defined and approximate, assumed)

Bedding (horizontal, inclined, vertical, overturned) 57°

Anticline

Syncline

Fault (defined and approximate, assumed)

Thrust fault, teeth on hanging-wall side (defined and approximate, assumed)

Fossil locality

Mineral property 15x

Glacier

INDEX TO MINERAL PROPERTIES

1. Liard Copper	5. Bam	9. MH	13. Ann, Su
2. Galore Creek	6. Gordon	10. BIK	14. SF
3. QC, QCA	7. Limpoke	11. JW	15. Goat

Property Geology

In general terms the geology of the property area is a sequence of formations trending north south.

The mapped formation from Mess Creek going west are:

1. The east boundary of the claims is underlain by **No. 29** unconsolidated glacial and alluvial deposits.

2. The next formation is **No. 3** Permian limestone, minor cherts and tuffs.

3. The next formation west is **No. 17** of Jurassic grandionte, quartz diorite, leucogranite and migmatile.

4. The next is **No. 2** of Permian-Miss, phylite, argillaceous quartzite, quartz-sericite and chlorite schist, greenstone, minor chert, schistose tuff and limestone.

5. The western formation mapped is **No. 8** of Triassic augite, andersite flows, pyroclastic rocks and derived sediments, minor greywacke, and siltstone and conglomerate.

Traverses were made on the eastern portion of the cliams but no attempt to map the geology was attempted.

Rock samples were taken and will be available for study for future mapping.

Surveys Performed

The work performed on the property consists of:

1. Reconnaissance loop soil geochemical survey in August 1990 by Jaroslav Ruza.

2. Line grid and detail soil geochemical survey on the eastern part of JS 9.

3. VLF-EM ground survey discussed in the attached Columbia Airborne Geophysical Services (1984) Ltd. report of September 10, 1991 by Lloyd C. Brewer.

4. The attached airborne Magnetic and VLF-EM survey by Columbia Airborne Geophysical Services (1984) Ltd. Report dated September 10, 1991.

The reconnaissance loop soil geochemical survey was performed in August 1990. The survey consisted of a loop type of survey by Jaroslav Ruza and Stanislava Ruza. There are east flowing creeks on the eastern part of JS 8 and 9 claims. The loop survey explained to me by Mr. Ruza was going west up stream on JS 9 then south across to JS 8 then downstream on JS 8 in an easterly direction. There were three samples taken 1, 2 and 3 going west up the creek on JS 9 claim. Then a traverse was made going south to the creek on JS 8. One sample, No. JS 4, was taken midway between the creeks on JS 8 and JS 9. Samples 5, 6 and 7 were taken on JS 8 going east down stream.

This traverse was reported by Jaroslav Ruza. The samples were assayed by Minen Laboratories of North Vancouver. The three highest Au PPb sample results were assayed for gold.

The values were:

Sample No.		Au oz/T
JS	4	.048
	5	.060
	7	7.875

These results and the close proximity of the mineral showings and blocked out tonnages shown on the Telegraph Creek map of the Minfile report justify the exploration of the JS claim group. The following is a copy of the Assay Reports and a location map submitted by Jaroslav Ruza.

A copy of the Minfile mineral map also follows the Property History section.

MIN-EN LABORATORIES
(DIVISION OF ASSAYERS CORP.)

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
FAX (604) 980-9621
THUNDER BAY LAB.:
TELEPHONE (807) 622-8958
FAX (807) 623-5931
SMITHERS LAB.:
TELEPHONE/FAX (604) 847-3004

Geochemical Analysis Certificate

OV-1095-RG1

Company: RUZA RESOURCES LTD.
Project:
Attn: JAROSLAV RUZA

Date: AUG-15-90
Copy 1. RUZA RES.LTD., WEST VANCOUVER, B.C.

We hereby certify the following Geochemical Analysis of 14 ROCK samples submitted AUG-09-90 by J.RUZA.

Sample Number	AU-FIRE PPB	AG PPM	CU PPM	MO PPM	ZN PPM
J.S1	6	1.6	495	25	94
J.S2	1	0.9	21	5	20
J.S3	3	0.3	19	26	25
J.S4	1600	57.0	595	9	550
J.S5	2100	240.0	4325	20	1000
J.S6	12	4.0	3340	3	73
J.S7	>100000	390.0	72000	88	152
B.1	595	6.0	460	320	72
B.2	7650	11.0	850	65	124
B.3	122	2.0	8400	23	32
B.4	162	1.5	201	400	50
B.5	84	0.9	325	23	71
B.6	46	72.0	22500	51	4650
B.7	78	5.9	10500	6	870

Certified by _____

MIN-EN LABORATORIES

MIN-EN LABORATORIES
(DIVISION OF ASSAYERS CORP.)

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

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

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

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

Assay Certificate

OV-1095-RA1

Company: RUZA RESOURCES LTD.
Project:
Attn: JAROSLAV RUZA

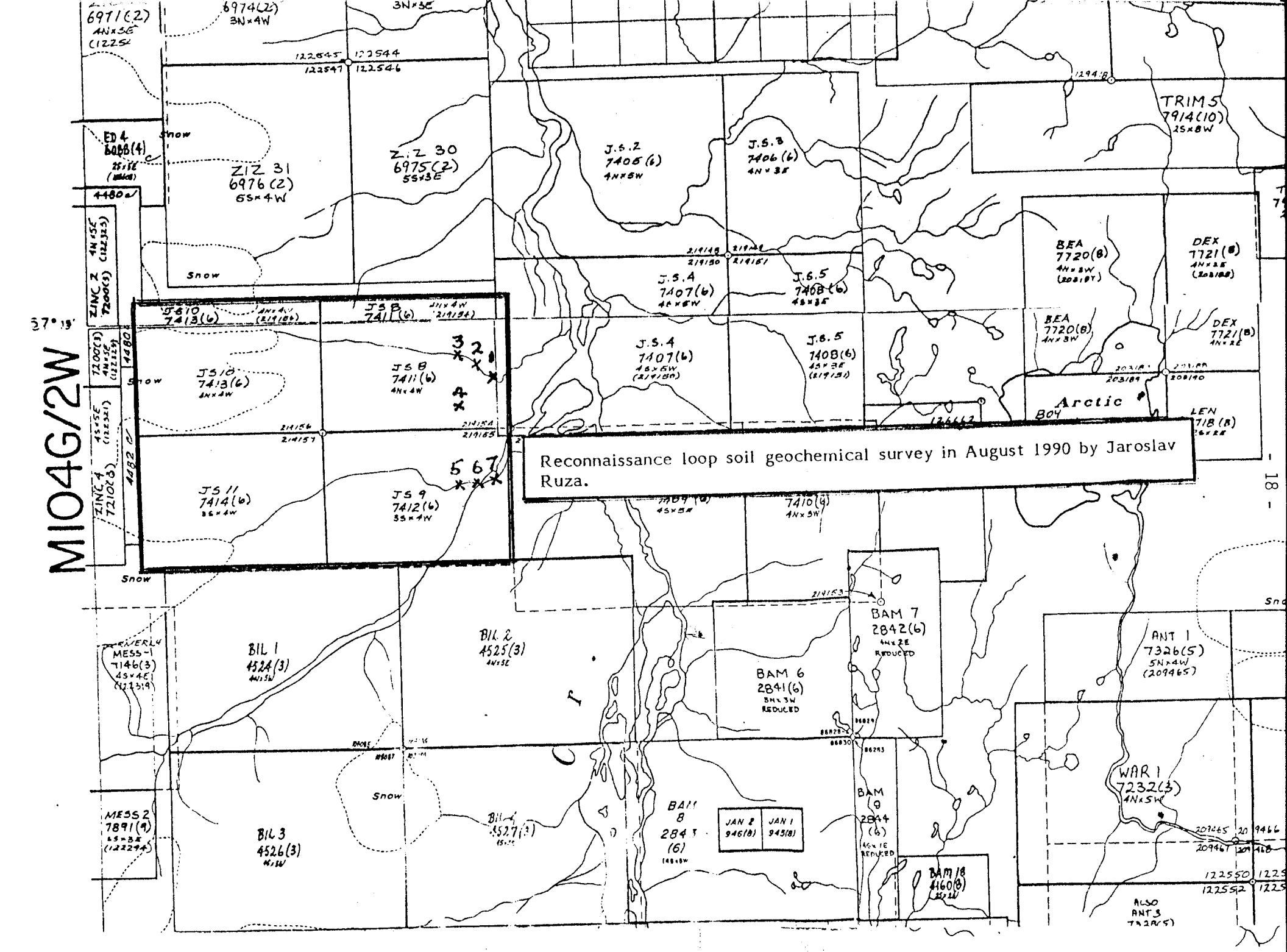
Date: AUG-15-90
Copy 1. RUZA RES.LTD., WEST VANCOUVER, B.C.

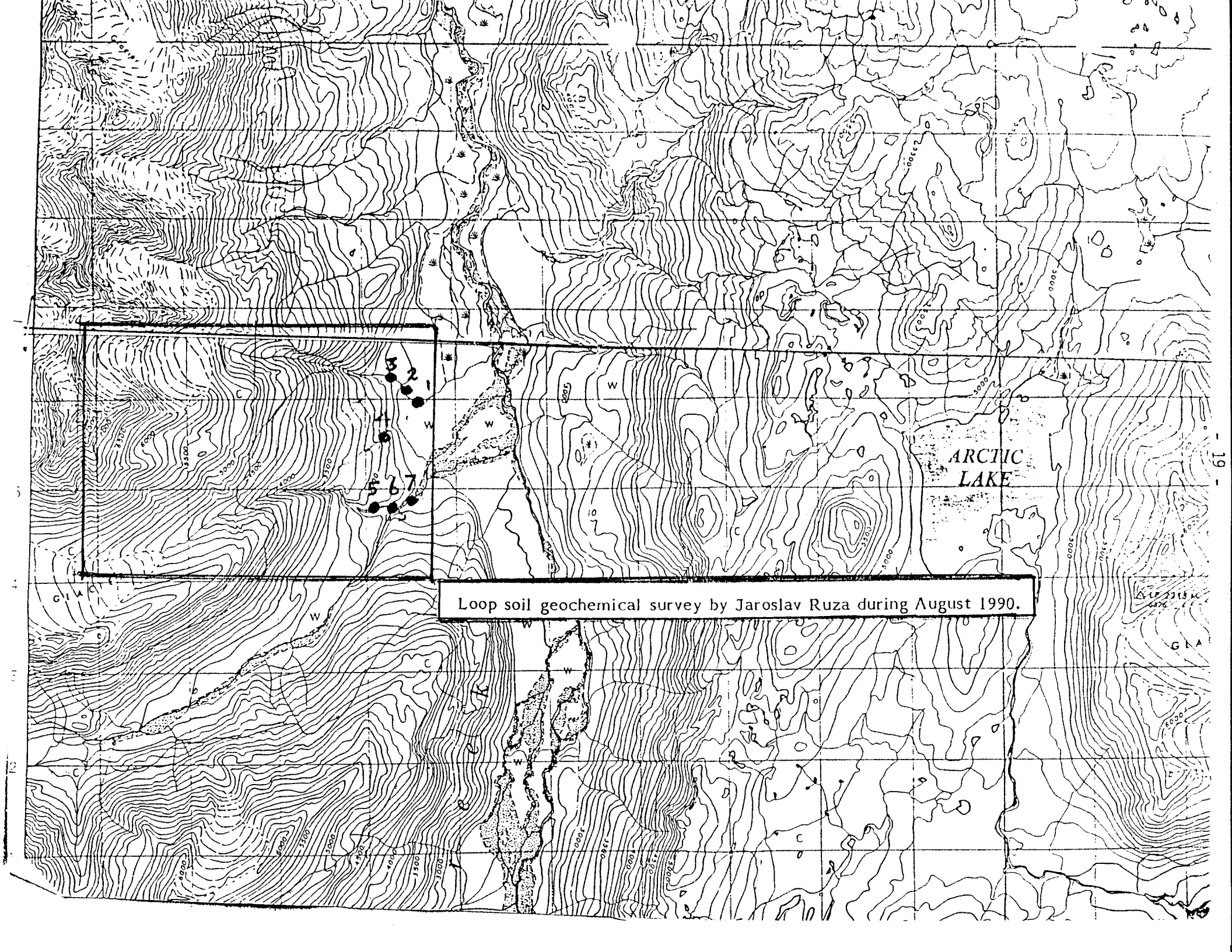
We hereby certify the following Assay of 4 ROCK samples submitted AUG-09-90 by J.RUZA.

Sample Number	AU g/tonne	AU oz/ton
J.S4	1.63	.048
J.S5	2.05	.060
J.S7	270.00	7.875
B.2	9.20	.268

Certified by _____

MIN-EN LABORATORIES


M104G/2W
Reconnaissance loop soil geochemical survey in August 1990 by Jaroslav Ruza.
JS 10 7413(6) 4N×4W
JS 8 7411(6) 4N×4W
JS 11 7414(6) 3S×4W
JS 9 7412(6) 3S×4W
J.S.4 7407(6) 4S×6W
J.S.5 7408(6) 4S×3E
J.S.2 7406(6) 4N×6W
J.S.3 7406(6) 4N×3E
Z.Z 30 6975(2) 5S×3E
Z.Z 31 6976(2) 6S×4W
TRIM 5 7914(10) 2S×8W
BEA 7720(8) 4N×3W
DEX 7721(8) 4N×2E
BAM 7 2842(6) 4N×2E REDUCED
BAM 6 2841(6) 3N×3W REDUCED
BIL 1 4524(3) 4N×5W
BIL 2 4525(3) 4N×5E
BIL 3 4526(3) 4N×5W
ANT 1 7326(5) 5N×4W (209465)
WAR 1 7232(3) 4N×5W
MESS 1 7146(3) 4S×4E
MESS 2 7891(9) 6S×3E
Arctic Boy
Snow
37° 19'
- 18 -


ARCTIC
LAKE
Loop soil geochemical survey by Jaroslav Ruza during August 1990.

Soil Geochemical Survey

During the period of June 20 to 25, 1991 a line grid, soil geochemical survey and VLF-EM survey wre conducted on a limited area on the eastern portion of the JS 9 claim.

The survey line grid measured 500 meters north and 250 meters west. The base line was on the east side of the claim some 200 meters west of the east claim line of the JS 9 claim. There are two base lines on the line grid. The north south 0-0 base line is on the east side of the grid the second base line N-S is the 2+50m W line.

Fifty soil geochemical samples were taken at fifty meter intervals on all the cross lines and also at fifty meter intervals on both base lines. The fifty samples were taken with a mattock in the "B" horizon placed in marked paper bags. The samples were assayed by Pioneer Laboratories Inc. by multi-element ICP analysis for 30 elements and gold assays. The assay procedure is printed on the laboratories report sheet. The assay results for Au, As, Ba, Zn, Ag and Cu were plotted on the grid maps.

The soil samples did not return any significant high assay results. However, contoured the Au, As, 2m and Ba assays did produce a definite pattern. The Au and Ag contour pattern are nearby identical.

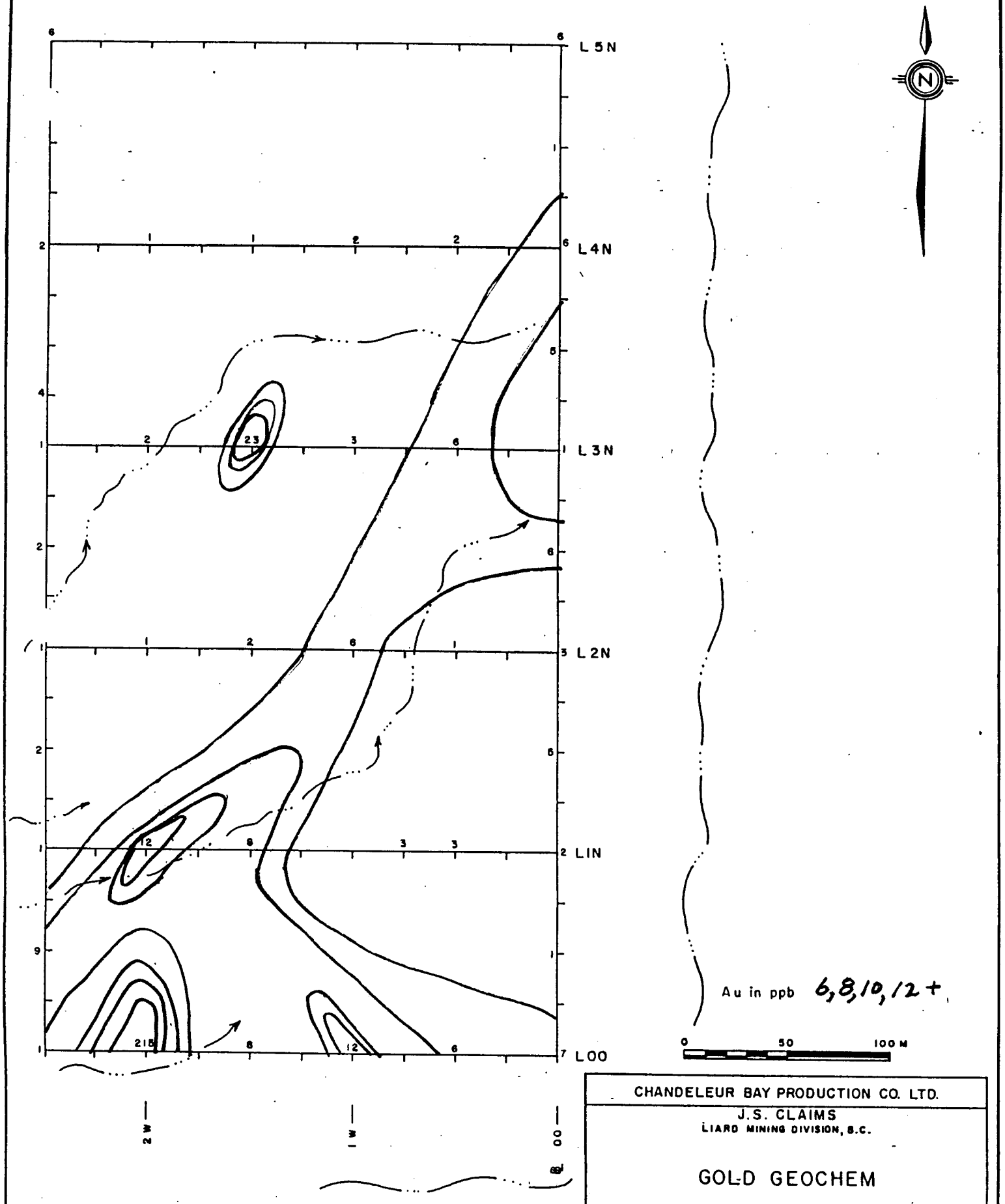
The Ba and Zn contours also fit the pattern in a lesser degree. The cause of the pattern could be a manifestation of subsurface mineralization or could indicate an old stream channel. The indicated weak anomaly is stronger on the south west portion of the surveyed area and strikes diagonally across the surveyed area in a north east direction.

The reported high gold assays of the "Ruza" loop survey, samples 4, 5 and 7 should be in the general immediate area to the west and south of the current surveyed area.

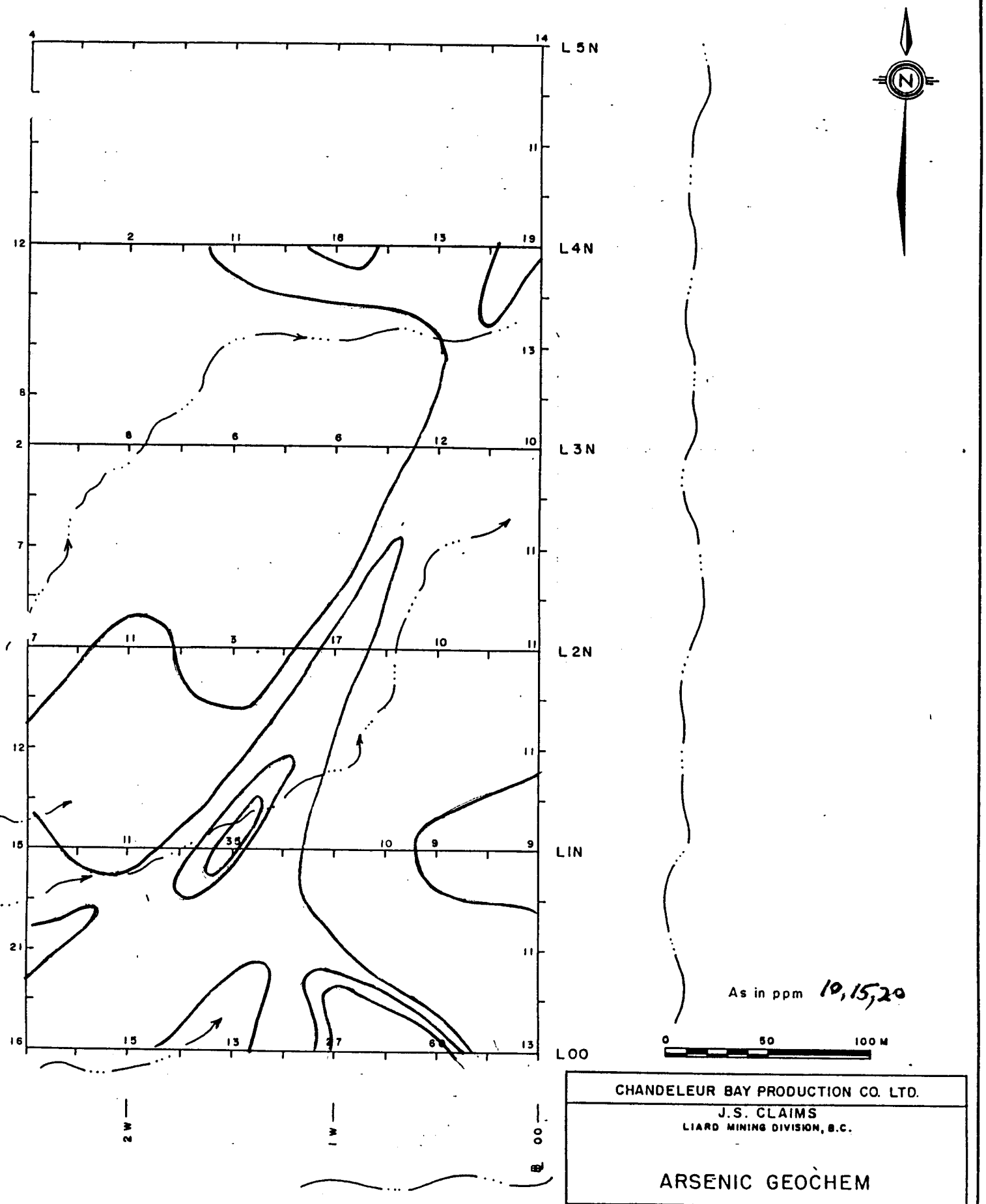
At this time the relationship between the two sets of assay results are not known.

This area should be one of the target areas in any future exploration program.

The following are the plotted assay results and contoured maps.



CHANDELEUR BAY PRODUCTION CO. LTD.		
J.S. CLAIMS LIARD MINING DIVISION, B.C.		
GOLD GEOCHEM		
N.T.S. 104G/2W	SCALE: 1:2500	FIG.
DATE: SEPT., 1991	DRAWN: P.C./dw	

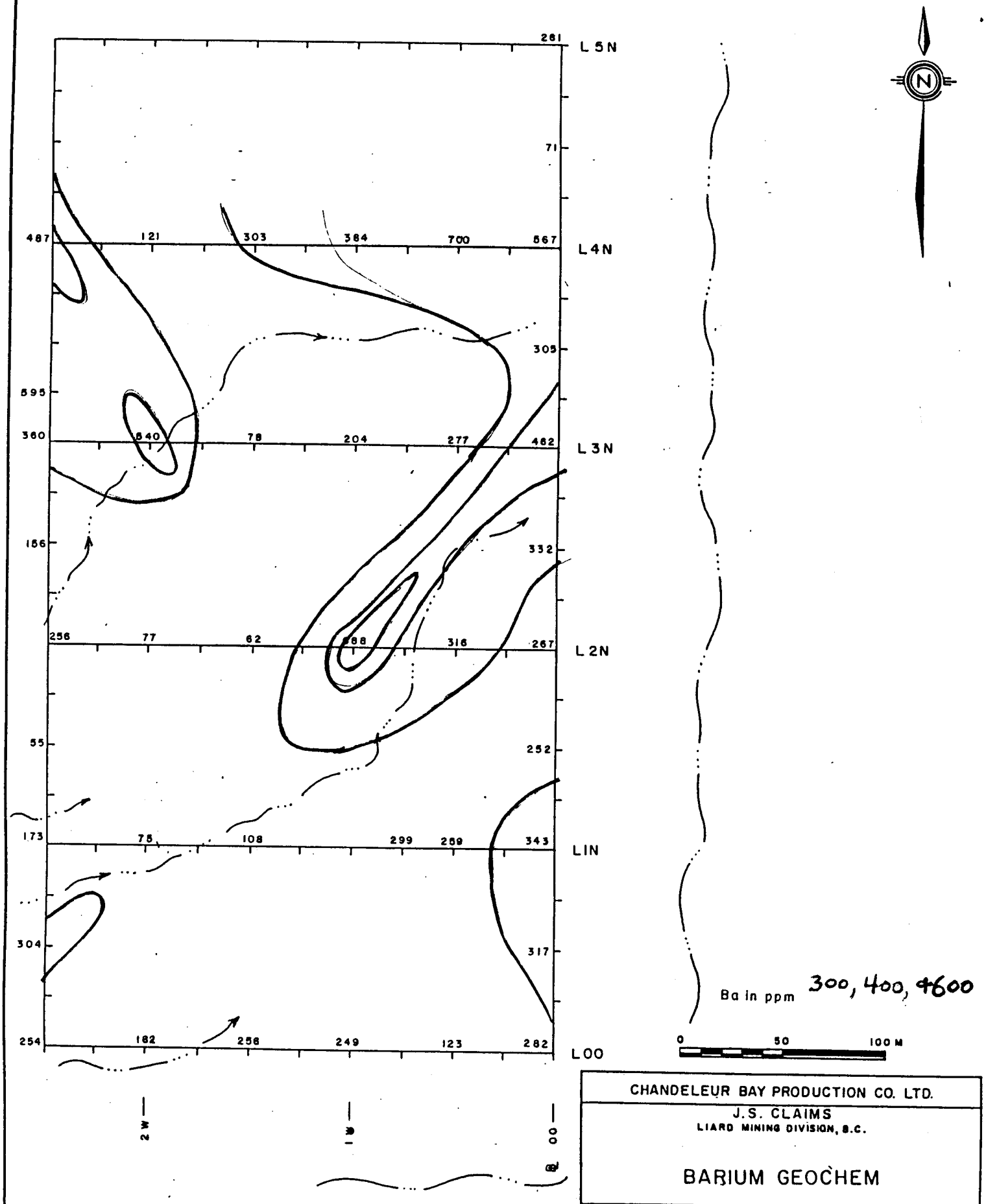


CHANDELEUR BAY PRODUCTION CO. LTD.

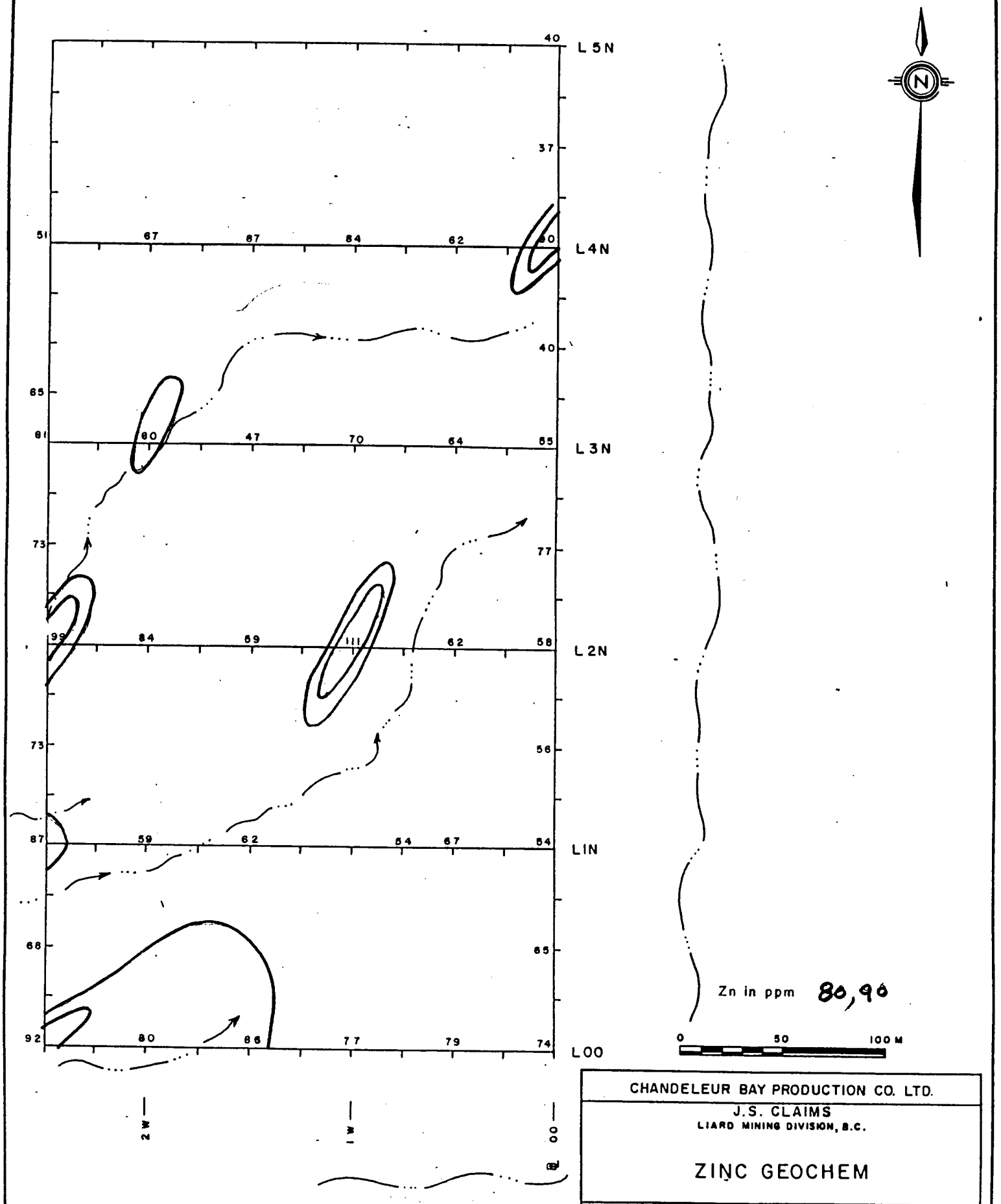
J.S. CLAIMS
LIARD MINING DIVISION, B.C.

ARSENIC GEOCHEM

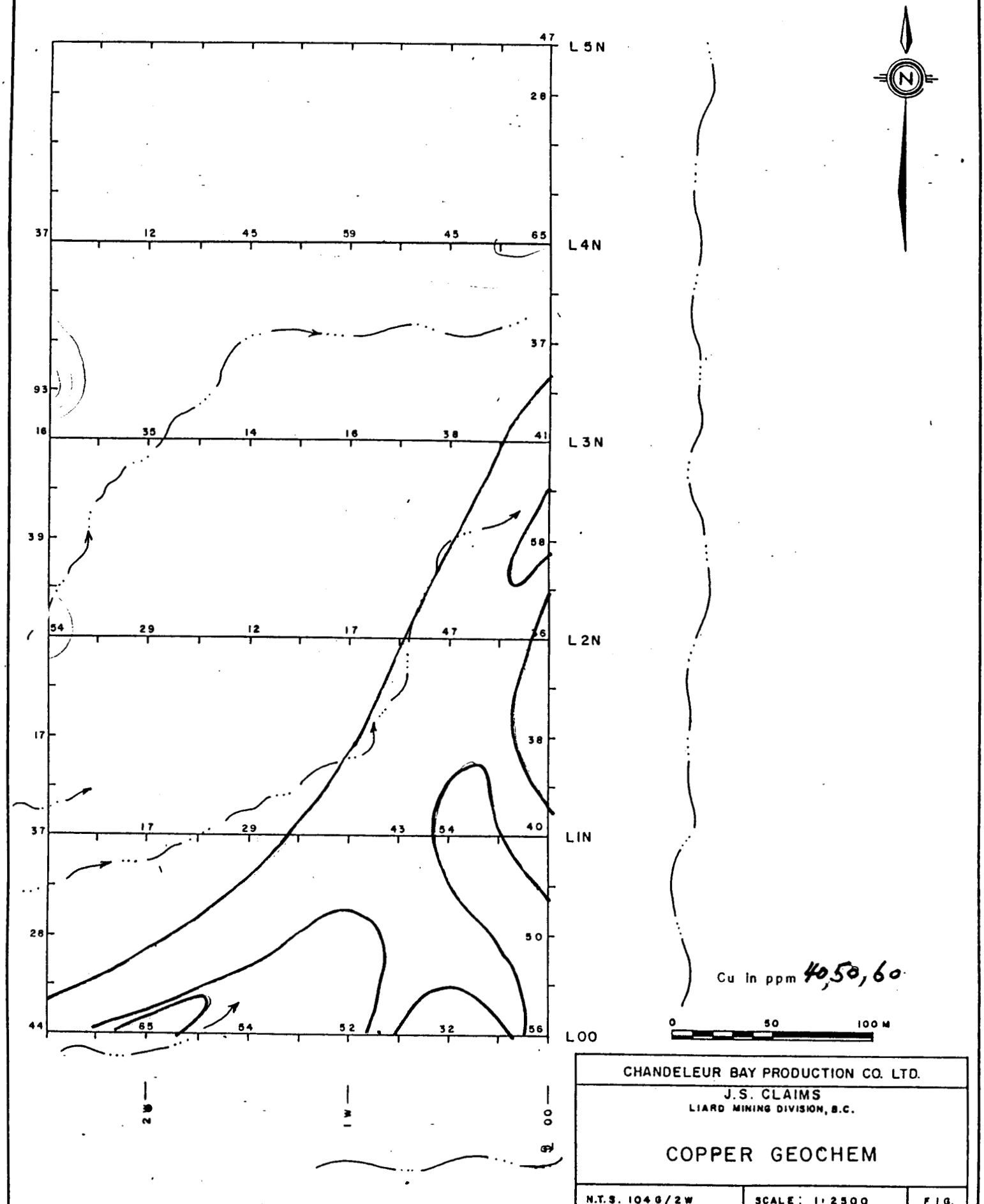
N.T.S. 104 G/2W	SCALE: 1:2500	FIG.
DATE: SEPT., 1991	DRAWN: P.C./dw	



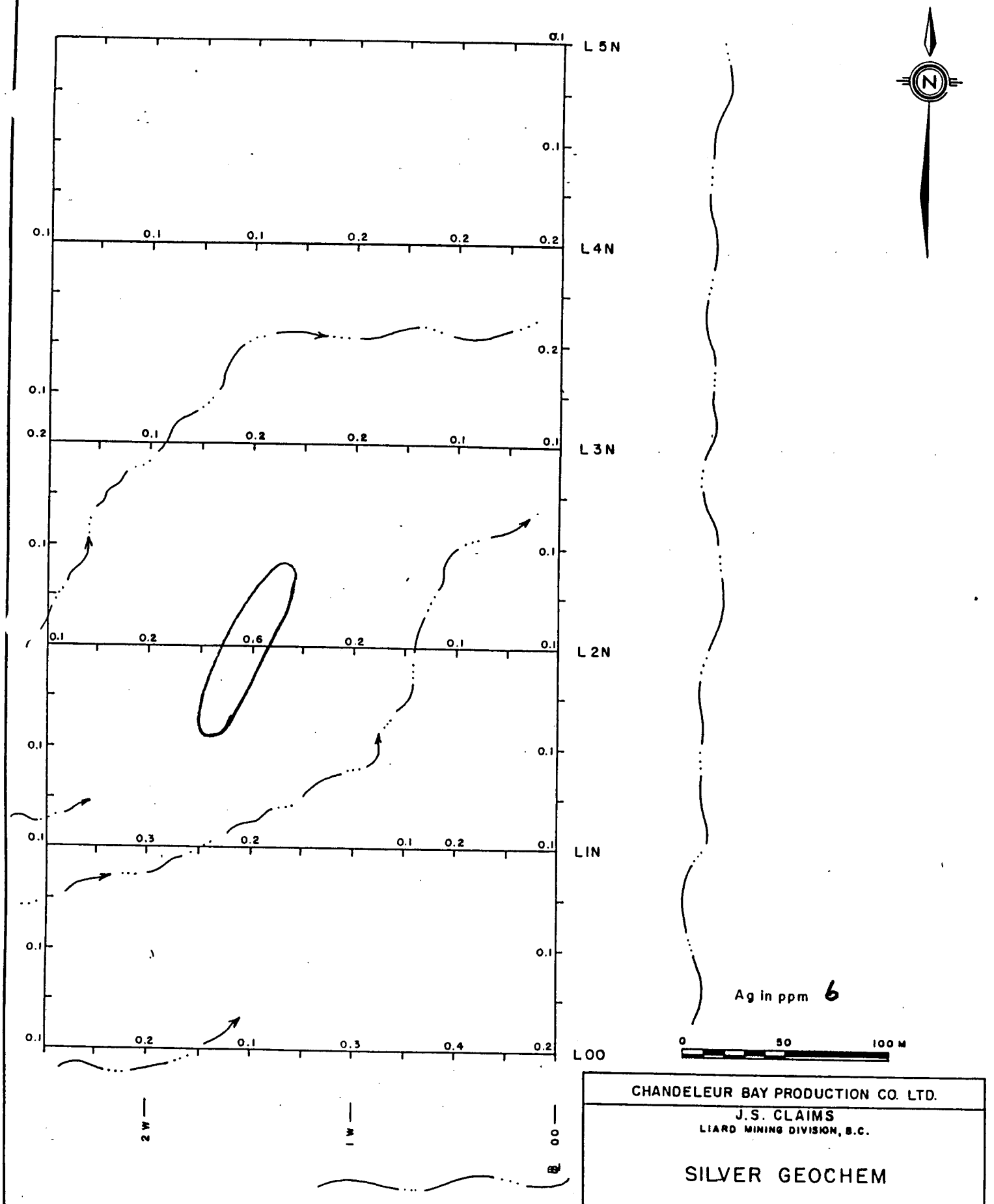
CHANDELEUR BAY PRODUCTION CO. LTD.		
J.S. CLAIMS LIARD MINING DIVISION, B.C.		
BARIUM GEOCHEM		
N.T.S. 104G/2W	SCALE: 1:2500	FIG.
DATE: SEPT., 1991	DRAWN: P.C./dw	



CHANDELEUR BAY PRODUCTION CO. LTD.		
J.S. CLAIMS LIARD MINING DIVISION, B.C. ZINC GEOCHEM		
N.T.S. 104G/2W	SCALE: 1:2500	FIG.
DATE: SEPT., 1991	DRAWN: P.C./dw	



CHANDELEUR BAY PRODUCTION CO. LTD.		
J.S. CLAIMS LIARD MINING DIVISION, B.C.		
COPPER GEOCHEM		
N.T.S. 104 G/2W	SCALE: 1:2500	FIG.
DATE: SEPT., 1991	DRAWN: P.C./dw	



CHANDELEUR BAY PRODUCTION CO. LTD.		
J.S. CLAIMS LIARD MINING DIVISION, B.C.		
SILVER GEOCHEM		
N.T.S. 104G/2W	SCALE: 1:2500	FIG.
DATE: SEPT., 1991	DRAWN: P.C./dw	

Statistical Analysis

The following is a grouing of the assay results. There is only one interesting gold assay of 215 PPb. The assays are grouped mainly to assist in contouring. The pattern formed was discussed.

Elements	Assay Range	No. of Samples
Gold	1 to 5 PPb (not contoured)	30
	6 to 215 PPb	20
Arsnic	2 to 14 PPM	34
	15 to 60 PPM	16
Zinc	37 to 79 PPM	34
	80 to 111 PPM	16
Barium	55 to 299 PPM	34
	300 to 700 PPM	16
Silver	.1 to .4 PPM	49
	.6 PPM	1
Copper	11 to 39 PPM	26
	40 to 93 PPM	24

The following is the Pioneer Laboratories Inc. report on the results.

PIONEER LABORATORIES INC. 5-730 EATON WAY NEW WESTMINSTER, BC CANADA V3M 6J9 TELEPHONE (604)522-3830

GEOCHEMICAL ANALYSIS CERTIFICATE

MANEX CONSULTANTS
Project:
Sample Type: Soils

Multi-element ICP Analysis - .500 gram sample is digested with 3 ml of aqua regia, diluted to 10 ml with Water. This leach is partial for Mn, Fe, Ca, P, La, Cr, Mg, Ba, Ti, B, W and limited for Na, K and Al. Detection Limit for Au is 3 ppm. Au Analysis - 10 gram sample is digested with aqua regia, MIBK extracted, graphite furnace AA finished to 1 ppb detection.

Analyst R Sean
Report No. 9110114
Date: Sept 6, 1991

ELEMENT	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*
SAMPLE	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
L00 0+00	1	56	10	74	.2	62	16	1193	4.82	13	5	ND	1	30	.3	2	2	75	.97	.089	10	74	.93	282	.05	2	1.15	.01	.06	1	7
L00 0+50W	4	32	12	79	.4	57	13	857	6.22	60	5	ND	1	10	.3	2	3	83	.13	.123	12	66	.51	123	.04	2	1.60	.01	.04	1	6
L00 1+00W	1	52	12	77	.3	107	22	873	4.93	27	5	ND	1	24	.3	2	2	61	.35	.107	18	71	1.01	249	.02	4	2.07	.02	.05	1	12
L00 1+50W	1	54	7	86	.1	118	23	1076	5.50	13	5	ND	1	25	.4	2	2	75	.38	.071	9	75	1.08	256	.03	4	1.45	.01	.06	1	8
L00 2+00W	1	65	9	80	.2	126	26	1199	5.60	15	5	ND	1	18	.3	2	2	74	.34	.065	11	79	1.06	182	.03	2	1.69	.01	.06	1	215
L00 2+50W	1	44	9	92	.1	78	18	1442	5.73	16	5	ND	1	25	.4	2	2	83	.74	.089	11	89	.80	254	.04	2	1.58	.01	.05	1	11
L1N 0+00	1	40	6	54	.1	44	14	785	3.66	9	5	ND	1	54	.2	2	2	63	2.07	.096	8	49	1.25	343	.05	3	.80	.02	.07	1	2
L1N 0+50W	1	54	9	67	.2	48	16	890	3.97	9	5	ND	1	42	.3	2	2	72	1.81	.090	8	55	1.40	259	.08	3	1.09	.04	.06	1	3
L1N 0+75W	1	43	5	54	.1	35	13	728	3.78	10	5	ND	1	46	.3	2	2	69	1.79	.087	8	52	1.16	299	.06	3	.69	.02	.07	1	3
L1N 1+50W	2	29	6	62	.2	49	8	406	5.20	35	5	ND	1	12	.2	2	2	70	.18	.287	11	58	.54	108	.04	2	1.53	.01	.05	1	8
L1N 2+00W	2	17	8	59	.3	22	6	522	4.74	11	5	ND	1	9	.3	2	2	72	.08	.166	18	42	.23	75	.08	2	1.32	.01	.05	1	12
L1N 2+50W	1	37	8	87	.1	74	15	1282	5.73	15	5	ND	1	14	.4	2	2	78	.25	.088	11	78	.62	173	.04	2	1.76	.01	.04	1	1
L2N 0+00	1	36	7	58	.1	40	14	732	4.30	11	5	ND	1	58	.5	2	2	81	2.35	.113	9	84	1.31	267	.06	2	.64	.02	.07	1	3
L2N 0+50W	1	47	11	62	.1	46	16	888	3.90	10	5	ND	1	25	.2	2	2	68	.56	.110	10	47	.90	316	.05	4	.86	.02	.08	1	1
L2N 1+00W	1	17	12	111	.2	35	8	389	4.73	17	5	ND	1	24	.2	2	2	84	.38	.070	12	37	.47	688	.08	2	1.60	.01	.05	1	6
L2N 1+50W	3	12	8	59	.6	18	5	610	3.33	3	5	ND	1	9	.2	2	3	78	.14	.128	8	52	.31	62	.18	2	1.33	.02	.05	1	2
L2N 2+00W	2	29	10	84	.2	58	14	973	5.35	11	5	ND	1	11	.2	2	2	95	.19	.129	6	108	.93	77	.06	2	2.06	.01	.03	1	1
L2N 2+50W	2	54	5	99	.1	127	15	2532	4.38	7	5	ND	1	27	.5	2	2	63	.45	.060	22	50	.56	256	.06	3	1.42	.07	.07	1	1
L3N 0+00	1	41	5	55	.1	37	12	850	3.45	10	5	ND	1	74	.4	2	2	55	3.09	.108	9	35	1.35	462	.03	2	.54	.02	.08	1	1
L3N 0+50W	1	38	8	64	.1	36	14	731	3.69	12	5	ND	1	30	.3	2	2	64	.70	.098	9	41	.78	277	.04	4	.83	.02	.08	1	6
L3N 1+00W	1	16	7	70	.2	26	8	518	4.35	6	5	ND	1	29	.4	2	2	74	.47	.045	14	55	.35	204	.05	2	1.26	.02	.05	1	3
L3N 1+50W	2	14	12	47	.2	24	6	269	3.72	6	5	ND	1	9	.2	2	2	91	.10	.022	9	61	.37	78	.07	3	1.34	.02	.03	1	23
L3N 2+00W	1	35	6	80	.1	95	33	3903	7.54	8	5	ND	1	33	.6	2	2	88	.69	.055	12	33	.64	540	.03	5	1.42	.02	.05	1	2
L3N 2+50W	1	16	5	81	.2	7	10	2489	3.28	2	5	ND	1	15	.4	2	2	39	.32	.194	18	7	.27	360	.07	2	1.24	.06	.08	1	1
BL-1 0+00W	1	50	10	67	.3	58	16	970	5.48	21	5	ND	1	45	.3	2	2	91	1.63	.100	10	95	1.10	265	.06	2	1.06	.01	.06	1	7
BL-1 0+50W	1	47	3	65	.1	46	14	677	4.00	11	5	ND	1	55	.3	2	2	74	2.09	.092	8	67	1.41	317	.08	3	.85	.02	.07	1	1
BL-1 1+50W	1	38	11	56	.1	34	13	642	3.37	11	5	ND	1	38	.2	2	2	57	1.35	.087	9	40	.93	252	.04	3	.69	.02	.07	1	5
BL-1 2+50W	1	58	11	77	.1	46	16	889	3.91	17	5	ND	1	31	.3	2	2	66	.76	.094	10	44	.97	332	.04	4	.94	.02	.09	1	6
BL-1 3+50W	1	37	5	40	.2	26	11	569	3.20	13	5	ND	1	29	.2	2	2	60	.81	.073	9	28	.79	305	.08	4	.64	.03	.08	1	5
BL-1 4+50W	1	28	5	37	.1	18	8	244	2.57	11	5	ND	1	16	.2	2	2	51	.37	.078	8	27	.57	71	.07	2	.59	.02	.06	1	2

ELEMENT	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
SAMPLE	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
BL-1 5+00W	1	47	6	40	.1	25	11	628	3.06	14	5	ND	1	33	.2	2	2	52	1.29	.078	9	26	.86	281	.06	2	.59	.02	.06	1	6
BL-1 5+50W	1	43	5	46	.2	29	12	421	3.12	13	5	ND	1	33	.3	2	2	54	1.22	.083	8	30	.99	297	.05	5	.67	.02	.07	1	1
BL-1 4N 0+00	1	65	15	90	.2	46	16	864	4.90	19	5	ND	1	32	.4	2	2	89	.69	.116	10	71	.88	567	.06	5	.79	.02	.08	1	6
BL-1 4N 0+50W	1	45	7	62	.2	41	13	698	4.25	13	5	ND	1	53	.3	2	2	81	1.73	.089	8	63	1.27	700	.07	5	.79	.02	.09	1	2
BL-1 4N 1+00W	1	59	20	84	.2	53	17	899	4.74	18	5	ND	1	39	.3	2	2	86	1.21	.107	9	71	1.26	384	.08	5	.92	.02	.08	1	2
BL-1 4N 1+50W	1	45	7	87	.1	29	12	643	1.94	11	5	ND	1	70	.4	2	2	31	2.17	.106	6	19	.56	303	.02	11	.64	.01	.08	1	1
BL-1 4N 2+00W	2	12	10	67	.1	9	3	350	1.85	2	5	ND	1	11	.2	2	2	35	.15	.041	10	14	.17	121	.19	3	.97	.04	.05	1	1
BL-1 4N 2+50W	1	37	7	51	.1	34	13	747	3.54	12	5	ND	1	65	.3	2	2	62	2.58	.092	9	44	1.31	487	.05	3	.66	.02	.09	1	2
BL-1 5+00N OFFS	1	37	5	90	.2	9	11	831	4.12	4	5	ND	1	13	.2	2	2	85	.26	.142	7	12	.64	351	.03	3	2.07	.04	.10	1	6
BL-1 2+50N STRE	1	18	4	83	.1	11	10	988	5.26	5	5	ND	1	8	.2	2	2	108	.13	.103	6	21	.57	98	.06	3	1.97	.01	.07	1	4
BL-1 5+50N OFFS	1	31	7	75	.1	75	13	907	7.02	16	5	ND	1	9	.2	2	2	105	.14	.207	6	93	.81	77	.04	2	1.98	.01	.04	1	22
BL-1 6+00N OFFS	1	11	5	50	.1	12	4	197	3.38	8	5	ND	1	7	.2	2	2	69	.05	.032	4	22	.16	60	.03	6	1.01	.03	.05	1	4
TL 2+50W 0+50N	1	28	5	68	.1	65	12	475	6.42	21	5	ND	1	17	.2	2	2	92	.24	.058	12	108	.77	304	.07	2	1.74	.01	.05	1	9
TL 2+50W 1+50N	1	17	8	73	.1	34	10	643	5.02	12	5	ND	1	8	.2	2	2	89	.13	.199	6	72	.66	55	.06	2	1.76	.02	.04	1	2
TL 2+50W 2+50N	1	39	5	73	.1	16	10	765	4.79	7	5	ND	1	11	.2	2	2	100	.18	.081	7	22	.62	156	.03	3	1.75	.02	.05	1	2
TL 2+50W 3+25N	1	93	4	65	.1	15	16	1872	5.68	8	5	ND	1	22	.2	2	2	75	.41	.044	13	6	.70	595	.01	6	2.47	.04	.11	1	4
TL2+50W4N S BED	1	33	5	80	.1	117	15	757	3.96	8	5	ND	1	31	.2	2	2	64	.77	.050	10	87	1.60	139	.06	6	1.37	.04	.06	1	1
UP STREAM OFF#1	1	56	6	85	.1	150	22	1305	4.65	22	5	ND	1	39	.7	2	2	72	1.12	.076	13	84	1.30	254	.03	5	1.67	.02	.06	1	6
UP STREAM OFF#2	1	41	6	75	.1	138	20	994	4.35	17	5	ND	1	29	.3	2	2	68	.78	.050	10	81	1.48	151	.04	7	1.51	.03	.07	1	5
EXTRA SAMPLE	1	51	8	76	.2	66	17	1035	5.77	28	5	ND	1	41	.2	2	2	91	1.49	.106	10	108	1.06	267	.06	3	1.19	.01	.06	1	19

REPORT NO. 9110114

The following samples were prepared -35 mesh and pulverized:

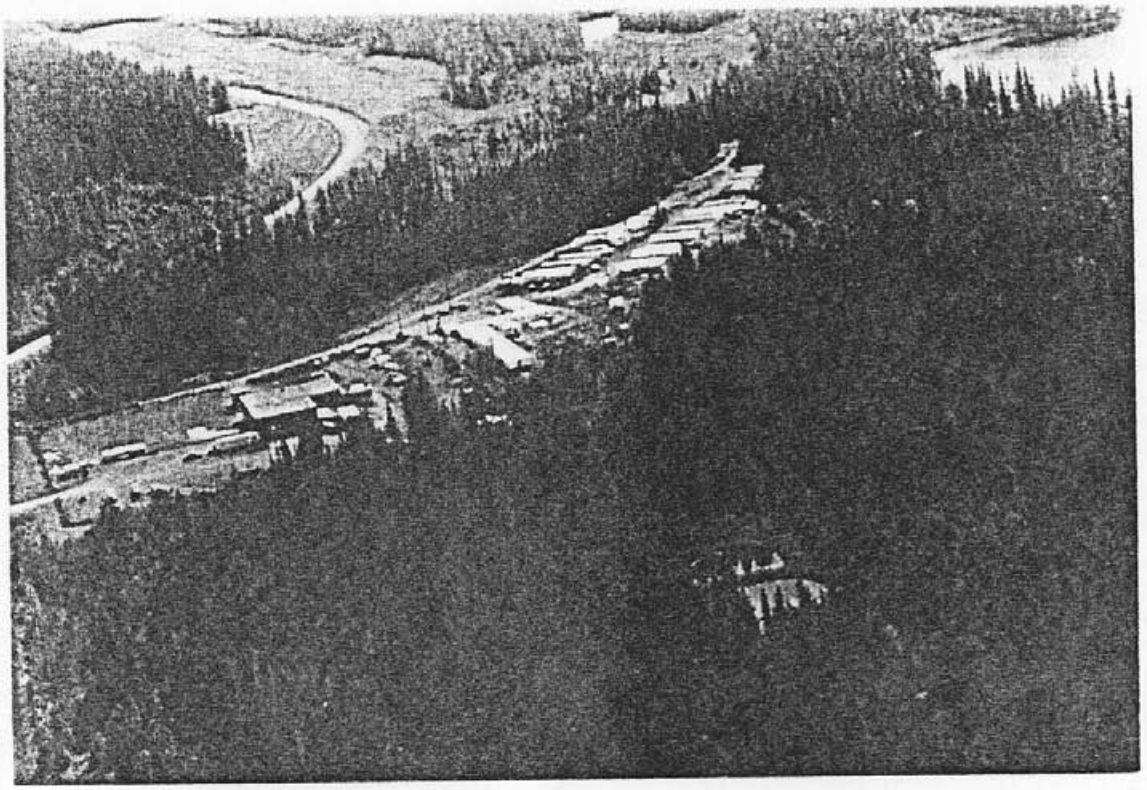
L2N 2+50W
L3N 2+50W
BL-1 3+50W
BL-1 4N 1+50W
BL-1 5+00N OFFSET

BL-1 5+50N OFFSET
BL-1 6+00N OFFSET
TL 2+50W 4N STREAM BED
UP STREAM OFFSET #2

Picture chronology of JS 8 to JS 10 claims project for Chandeleur Bay Production Co. Ltd. on Mess Creek, British Columbia during the period June 20 to 25, 1991.

The pictures portray:

1. Bob Quinn Lake staging base on Hwy. 37.
2. Helicopter flight to camp site.
3. Camp site with survey crew.
4. Checking JS 8 and 9 claim posts.
5. Looking to area of claim post JS 10 and 11 from camp site.
6. Area of JS 10 and 11 claim posts under snow.
7. Looking east from camp site toward Mess Creek and beyond.
8. Checking outcrop on JS 9.
9. Looking at Gossen area from helicopter at ± 4500 feet elevation on JS 9 creek.
10. Looking at Gossen area from Helicopter at • 4500 feet elevation on JS 8 creek.
11. Sorting out geochemical soil samples.
12. Helicopter return to Bob Quinn Lake camp.

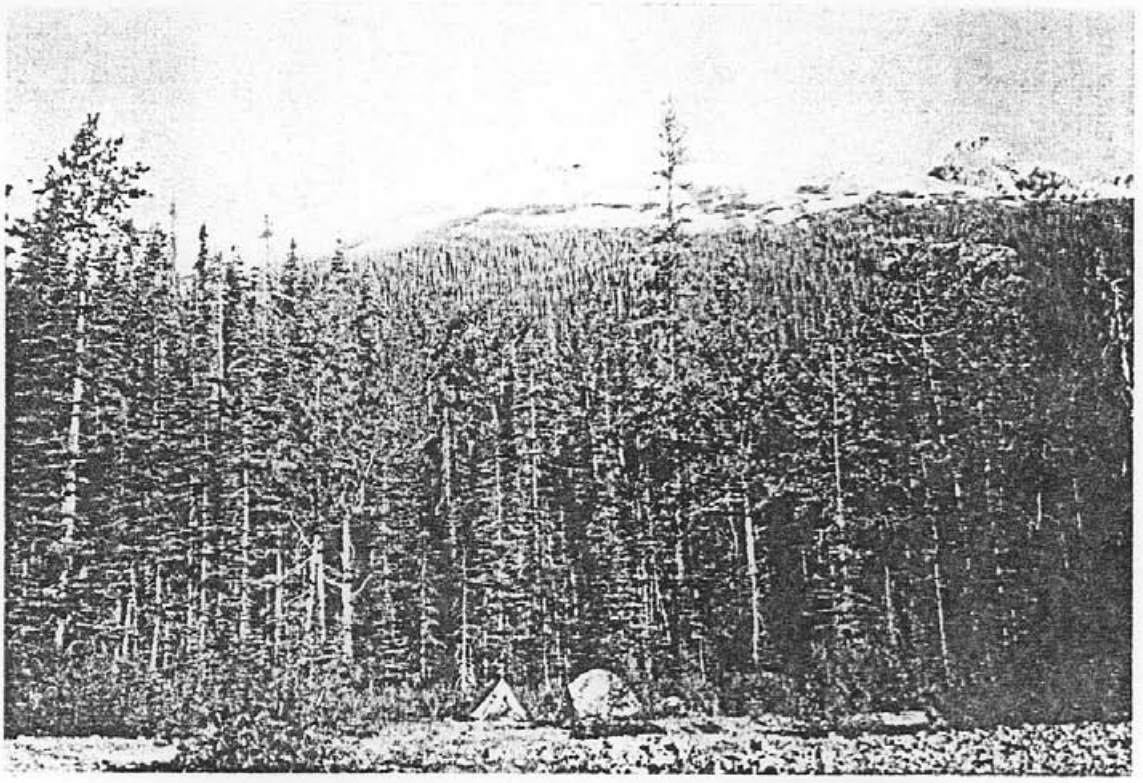


BOB QUINN LAKE - HELICOPTER STAGING BASE ON HWY. 37

HELICOPTER AT CAMP SITE ON CLAIM JS-8

CAMP SITE WITH PAT CROOK TECH-SURVEYER AND
DOUG OLSON - GEOL., P.ENG. SURVEYER LOOKING WEST

MANNY CHECKING CLAIM POSTS JS-8 AND 9

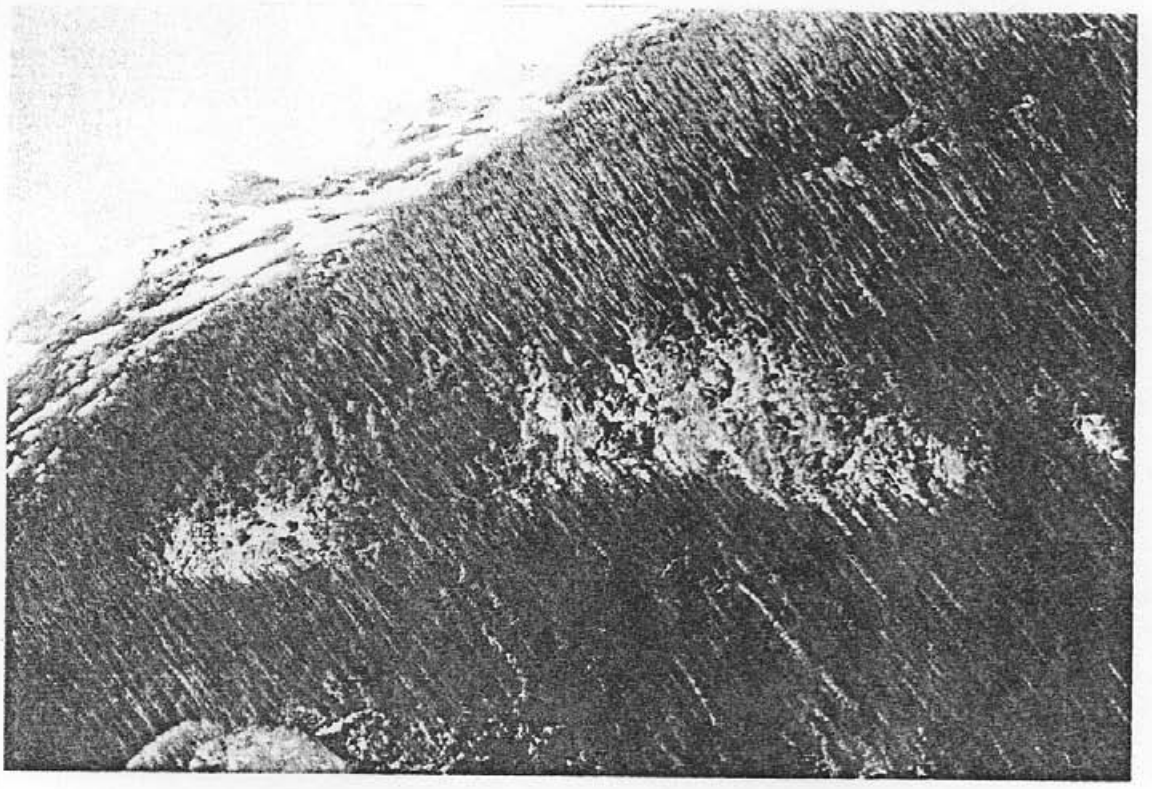


LOOKING WEST FROM CAMP SITE 2,600' ASL TO CLAIM
POST AREA SITE OF JS-10 AND 11 AT 5,000' ASL AT SNOW LINE

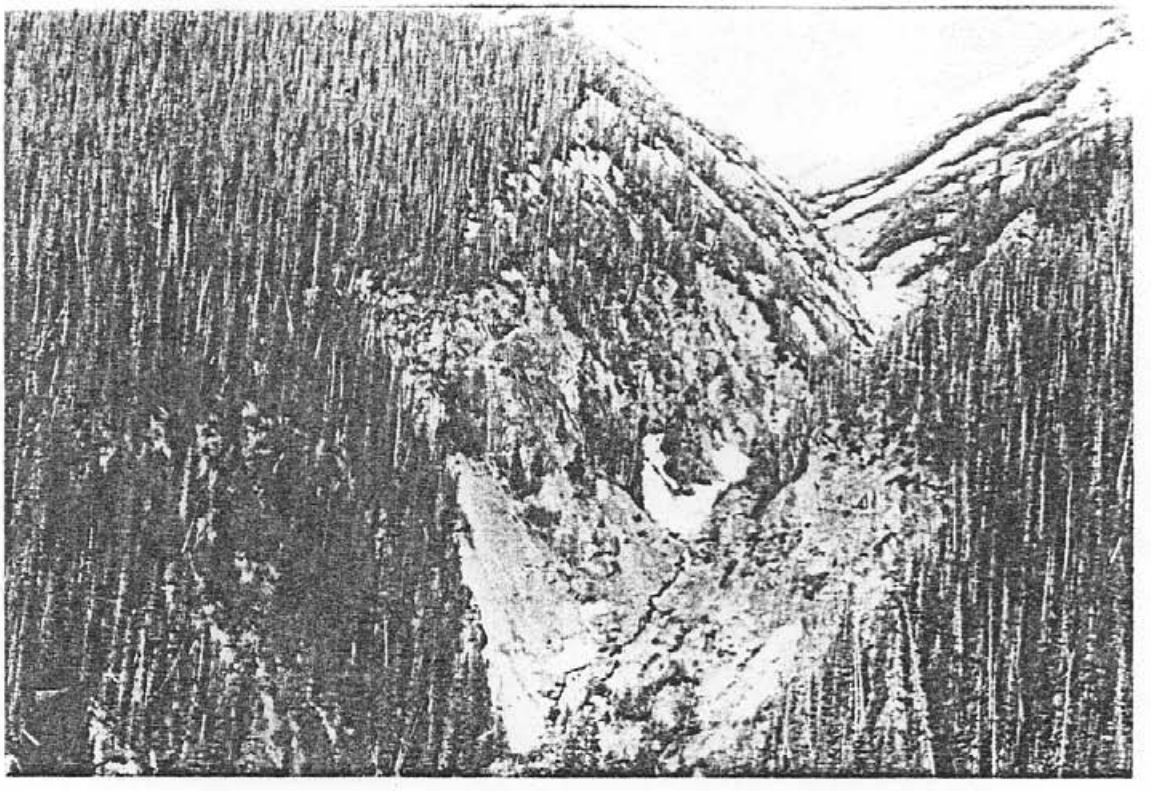
SITE OF JS-10 AND 11 AT 5,000' ASL

LOOKING EAST FROM CAMP SITE TO MESS CR. VALLEY
CLAIM POST FOR JS-8 AND 9 AT CENTRE RIGHT AT TREE LINE

CHECKING OUTCROP UP STREAM ON JS-9

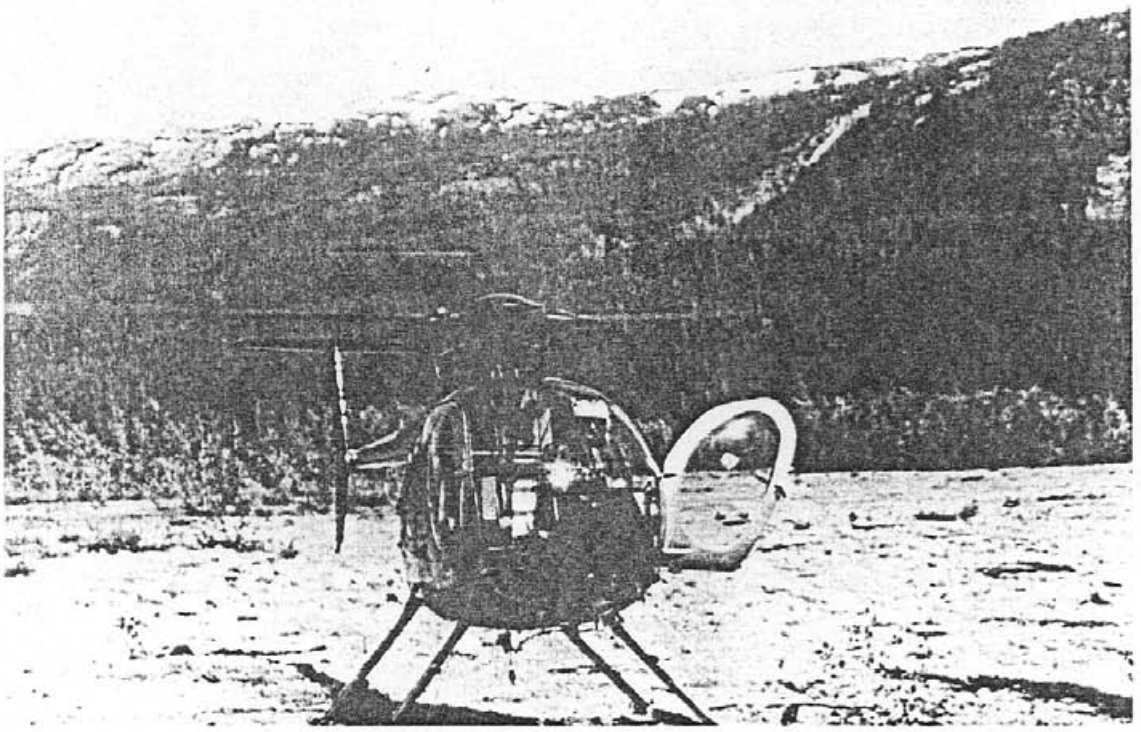


GOSSEN AREA UP STREAM ON EAST FLOWING CR. ON JS-9
AT +4500' ELEVATION



GOSSEN AREA UP STREAM ON EAST FLOWING CR. ON JS-8
AT 4500' ELEVATION

SORTING GEOCHEM SOIL SAMPLES BY MANNY AMENDOLAGINE, P.ENG.



HELICOPTER TO EVACUATE CAMP AND
RETURNING TO BOB QUINN LAKE STAGING CAMP

Conclusion and Recommendation

The JS 8 to 11 claims are located in an area that is known for many Au, Ag, As, Cu, Pb, Zn and Mo showing. This can be seen on Minfile Map 104G. Telegraph Creek and on the GSC Map 11-1971 paper 71-44 Geology of Telegraph Creek.

The soil geochemical loop survey by T. Ruza in 1990, the soil geochemical survey by Manex Consultants Ltd. in June 1991, the ground VLF-EM survey in June 1991 and the Airborne Magnetic-VLF-EM by Columbia Airborne Surveys all indicate that there is validity to the property and that the property should be explored with the intentions of developing a viable ore body.

The indications soil geochemical assay are on the weak side but they are there and should be furthered examined.

It is recommended that the property be further explored.

The program should consist of:

1. a complete reconnaisance soil and rock geochemical survey;

2. examine in detail the southern portion of the current surveyed area with some program to test the N-E lineal trend and the weak anomalous area in the south;

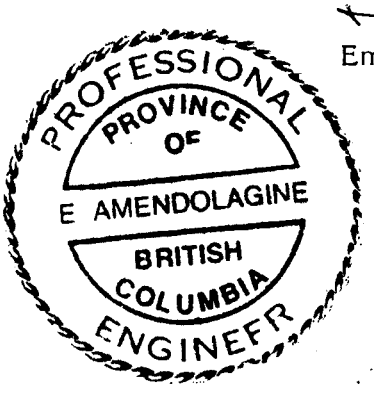
3. a complete geological mapping survey; and

4. the Gossen areas on both JS 8 and JS 9 Creek should be fully sampled and mapped.

Access to the property is on the expensive side and the exploration could be accomplished in one or two stages.

Respectfully submitted,
Manex Consultants Ltd.

September 14, 1991



Emanuel Amendolagine, P.Eng.

CERTIFICATE

I, Emanuel Amendolagine, of the City of Vancouver, Province of British Columbia, hereby certify:

1. That I am a geologist and reside in Vancouver, British Columbia.

2. That I am a graduate of Hunter College, City of New York, and Columbia University, with a B.A. and M.A., respectively, and that I have been practising my profession as a geologist for 35 years.

3. That I am a Professional Engineer in the Province of British Columbia.

4. The total program was run under my supervision.

DATED AT VANCOUVER, BRITISH COLUMBIA this 14 day of September, 1991.

E. Amendolagine, P. Eng.

Breakdown of Costs

Pat Crook	6 days @ $150/D - Field Tech.	$ 900.00
D. Olson	6 days @ $300/D - Geol. Field Tech.	1,800.00
E. Amendolagine	6 days @ $400/D - Geol. Tech.	2,400.00
Room & Board	3 men/6/D @ $100/Man/D	1,800.00
Transportation	Helicopter, 3 air, car rent, gas	1,638.37
Supplies & Comm.		845.69
Assays		680.79
Recording Fees		570.00
Drafting, Type, Pictures, etc.		650.00
Columbia Airborne Geophys. - air & report		2,500.00
Manex Consultants - report		1,500.00
Ruza Resources Ltd.		
Jaroslav Ruza	1 day	
Stanislav Ruza	1 day	
Assays, Air and Expenses - Total		1,151.69
		$16,386.54

GEOPHYSICAL REPORT

ON

AIRBORNE MAGNETIC AND VLF-EM SURVEYS
AND GROUND VLF-EM SURVEYS

OVER THE

J.S. 8 - 11 PROPERTY

ARCTIC LAKE, MESS CREEK
MOUNT EDZIZA PARK AREA

LIARD MINING DIVISION,
BRITISH COLUMBIA

PROPERTY:	J.S. #8 - #11 CLAIMS Northwestern British Columbia
LOCATION:	57°14' North Latitude 130°57'West Longitude N.T.S. 104 G/2 & G/7
WRITTEN FOR:	CHANDLEUR BAY PRODUCTION CO LTD. 526-736 Granville Street Vancouver B.C.
SURVEYED BY:	Columbia Airborne Geophysical Services (1984) Ltd. Suite 1122 - 470 Granville Street Vancouver, B.C
DATED:	September 10, 1991

TABLE OF CONTENTS

SUMMARY

Airborne magnetic and VLF-EM surveys and Ground VLF-EM surveys were carried out over the Mess Creek Property (comprised of the J.S 8 - 11 Claims) owned by Chandeluer Bay Production Co. Ltd., of Vancouver British Columbia) on June 26, 1991. The property is located approximately 345 kilometers northwest of Stewart, in northern British Columbia. Access to the property is by helicopter based at Bob Quinn Lake airstrip located some 40 kilometers of the east of the property. The terrain of the claims consists of rugged slopes throughout. Forests at the lower elevations are moderately dense coniferous timber. The purpose of the survey was to aid in the mapping of geology as well as to locate possible sulphide mineralization.

The Mess Creek Claims occur within a geologically complex area which is the juncture of three large scale tectonic features. To the west lies the northwest trending Coast Plutonics. Trending northeasterly across the regional northwesterly trend are crystaline and metamorphic rocks of the Stikine Arch. To the south, the Jura-Cretaceous Bowser Basin.

The airborne survey was flown at about a 50 meter terrain clearance on contour lines with a separation of 100-200 meters. The instruments used were a Sabre Electronics proton precession magnetometer and a Sabre Electronics VLF-EM receiver. The magnetic data were picked from the strip charts and hand contoured. The contours were drawn on a survey plan on which the VLF-EM anomalies were plotted as well.

A total of 3500 meters of Ground VLF-EM surveys were completed utilizing VLF transmitting stations Seattle, Annapolis and Hawaii.

CONCLUSIONS

1. A moderate magnetic low occurs in the northeastern portion of the survey area coincidental with a major creek valley, possible fault controlled.

2. Both the aerial and ground surveys were conducted on a very limited scale it would be necessary to cover a larger survey area in order to provide more meaningful data.

RECOMMENDATIONS

The geophysical surveys have revealed several target areas within the property such as a magnetic low. More thorough coverage utilizing airborne magnetics and VLF EM surveys are recommended with follow up prospecting, detailed geological mapping and soil geochemistry work carried out to further define any additional targets. Soil geochemistry lines should be run in areas of interest, such as across the VLF-EM conductors. Advanced ground geophysics should may be quite useful as well in finding and delineating more accurately the target areas.

GEOPHYSICAL REPORT

on

AIRBORNE MAGNETIC AND VLF-EM SURVEYS

and

GROUND VLF-EM DIP ANGLE SURVEYS

over the

J.S. # 8 - #11 PROPERTY

Arctic Lake, Mess Creek
Mount Edziza Park Area

Liard Mining Division,
British Columbia

INTRODUCTION AND GENERAL REMARKS

This report discusses the survey procedure, compilation of data and the interpretation of a both a low-level airborne magnetic and two frequency VLF-EM surveys and a ground VLF-EM dip angle survey carried out on the JS #8 - JS #11 Claims, located in the Mess Creek area of northwestern British Columbia. These surveys were carried out on between June 20, and June 27, 1991. The airborne geophysical surveys were

carried out by the author. A total of 18.3 line kilometers of airborne surveys were done over the property and surrounding area. The ground survey was carried out by Pat Crook and comprised of 3,500 meters of VLF dip angle survey.

The object of the surveys was to aid in the geological mapping of lithology and structure for the purpose of exploration of the type of base and gold mineralization as is found in the Mess Creek area. Magnetic surveys have been proven to be a good geological mapping tool. The VLF-EM has also responded to some of the mineralization and associated structure in the area.

LIST OF FIGURES

PROPERTY AND OWNERSHIP

The property consists of four metric claims totalling 56 units located in the Liard Mining Division of British Columbia (Figure 2), more particularly described as follows:

Name Of Claim	Number Of Units	Record Number	Expiry Date
JS # 8	16	7411	June 27, 1992
JS # 9	12	7412	June 27, 1992
JS # 10	16	7413	June 27, 1992
JS # 11	12	7414	June 27, 1992

The expiry dates shown take into account the survey under discussion as being accepted for assessment credits.

The property is owned by Chandeleur Bay Production Co. Ltd. of Vancouver, British Columbia.

LOCATION AND ACCESS

The Mess Creek property is located along the eastern front of the Coast Range Mountains approximately 345 kilometers northwest of Smithers, B.C. The claims lie adjoining the western edge of the Mess Creek Valley, directly west of Arctic Lake. The claims are centered at 130°57' west longitude and 57°14' North Latitude. The NTS is 104G/2 and 104G/7. Access is via helicopter from either the Iskut Village area or the Bob Quinn airstrip located about 40 kilometers of the southeast on the Stewart-Cassiar Highway. Topography varies from moderate to steep slopes with elevations ranging from 760 meters to 2280 meters a.s.l.

REGIONAL GEOLOGY

The Telegraph Creek Map Sheet (NTS 104G) was mapped by J.G. Souther of the Geological Survey of Canada during the period 1956 to 1969 (GSC Paper 71-44).

According to Souther, the More Creek area is underlain by sedimentary and volcanic rocks of Triassic and Jurassic age (map units 5, 7, 8, 9 and 13). These rocks are intruded by granitic plutons and rhyolite dykes of Triassic and/or Cretaceous age (map units 17 and 20), Basaltic rocks of the Mt. Edziza area of Tertiary and Quaternary age are the youngest rocks in the area.

Recent work by Read et al in the Forrest Kerr and Lower More Creek areas (GSC Open File 2094) suggests the Triassic and Jurrassic sedimentary and volcanic rocks are part of the Stuhini Group.

No detailed information on the underlaying geology of the JS claims could be found in the public domain, however, detailed geological work has been conducted on claims located eight kilometers to the east. The underlaying rocks on these claims appear to be the prevailing rock units in the area and it would, therefore, be safe to assume that one or more of these units is present under the JS claims.

The rocks under the adjoining claims have been grouped into five general rock categories. The crowded andesite porphyry are part of a Jura-Cretaceous intrusive complex which has intruded an Upper Triassic volcanic pole.

Welded tuff, agglomerates, crystal lithic tuffs, breccia and volcanic flows are part of a folded Triassic succession. Discrimination of distinct rock types within this general classification is virtually impossible due to lateral and vertical changes within a single unit.

Unit 2, the crowned andesite porphyry, is a distinctive rock type consisting of up to 60% phenocrysts set in a fine grained mosaic groundmass. Well formed laths of horneblende make up approximately 25% of the phenocrysts while the remainder consists of euhedral plagioclase. The average crystal length of the plagioclase phenocrysts is 3 to 4 mm with the occasional crystal up to 6 mm. In some samples, occasional large, eunedral potash feldspar phenocrysts up to 9 mm are visible.

Unit 3 is a breccia consisting of broken blocks of unit 2 and dioritic porphyry set in a dioritic intrusive matrix.

The felsite is white to light green to grey pyritiferous felsite in which the mafic minerals have been destroyed. Optical determinations have shown that the rock consists of approximately 50-60% phenocrysts set in a fine-grained mosaic, granular groundmass. The phenocrysts are generally feldspar and can attain lengths up to 6 mm. No mafic phenocrysts are visible; however, the groundmass contains abundant carbonate, sericite, quartz and pyrite. Plagioclase is widely replaced by carbonate. The felsite occurs in an area north of the fill in map area as a solid mappable unit. It also appears in sill like bodies in and between units of relatively fresh rock near faulted areas throughout the property in unmappable units.

Unit 5, the feldspar andesite porphyry, is a still-like body consisting of up to 60% feldspar phenocrysts set in a fine grained, dark green matrix. The feldspars exhibit trachytic texture and often are found as large a 6 mm in length. The unit is slightly magnetic and shows very little alteration effects.

INSTRUMENTATION AND THEORY

a) Airborne Magnetic Survey

The magnetic data are detected using a nuclear free precession proton magnetometer, manufactured by Sabre Electronic Instruments Ltd. of Burnaby, B.C. The magnetometer measures the total count of the earth's magnetic field intensity with a sensitivity of one gamma. The data are recorded on magnetic tape and 12 cm analog strip chart.

The magnetic patterns obtained from a regional airborne survey are directly related to the distribution of magnetite in the survey area. However, the geology cannot be deduced from isomagnetic maps by simply assuming that all magnetic highs are underlain by gabbro or ultramafic rocks, and that all magnetic lows are caused by limestone or chert. The problem with such a simplistic approach is that magnetite is not uniformly distributes in any type of rock. Other problems arise from the fact that most geologic terrains have rocks of high susceptibility superimposed on less 'magnetic' rocks, and vice versa. Cultural features such as powerlines, pipelines and railways also complicate matters. So many variables can be involved that it may be impossible to make a strictly accurate analysis of the geology of an area from magnetic data alone. It is preferable to use other information such as geological, photogeological and electromagnetic in combination with magnetic data to obtain a more accurate geological analysis.

b) Airborne VLF-EM Survey

A two-frequency omni-directional receiver unit, manufactured by Sabre Electronics Instruments Ltd. of Burnaby, B.C., was used for the VLF-EM survey. The transmitters used are NLK Arlington (Seattle), Washington, operating on 24.8 KHz, and Annapolis, Maryland, transmitting at 21.4 KHz. These signals are used due to their ideal orientation with respect to southeasterly and southerly geological structures, and their good signal strength.

The VLF (Very Low Frequency) method uses powerful radio transmitters set up in various parts of the world for military communications. These powerful transmitters can induce electric currents in conductive bodies thousands of kilometers away from the radio source. The induced currents set up secondary magnetic fields which can be detected at surface through deviations in the normal VLF field. The VLF method is inexpensive and can be a useful initial tool for mapping structure and prospecting.

Successful use of the VLF requires that the strike of the conductor be in the direction of the transmitting station so that the lines of magnetic field from the transmitter cut the conductor. Thus, conductors with northeasterly to southwesterly strikes should respond to Annapolis transmissions, while conductors with northwesterly to southerly strikes should respond to Seattle transmissions. Some conductors respond to both stations, giving coincident field strength peaks.

It is impossible to determine the quality of conductors with any reliability, using field strength data alone. The question of linearity is in doubt if the conductor does not appear to cross the adjacent flight lines. The relatively high frequency results in a multitude of anomalies from unwanted sources such as swamps, creeks and cultural debris. However, the same characteristic also results in the detection of poor conductors such as faults, shear zones and rock contacts, making the VLF-EM a powerful mapping tool.

c) Ground VLF-EM Survey

A model 27 VLF-EM receiver unit manufactured by Sabre Electronic Instruments, of Burnaby, B.C., was used for this survey. The transmitting stations used were Seattle, Washington transmitting at a frequency of 24.8 KHz. The station is located south of the property; Annapolis, Maryland transmitting at a frequency of 21.4 Khz, located to the southeast and Honolulu, Hawaii, located to the southwest of the property.

SURVEY PROCEDURE

A two-meter bird was fitted with a magnetometer coil and two omni-directional EM receivers and towed beneath the helicopter on a 10-meter cable. The mean terrain clearance for the bird was 50 m.

The survey was contour-line flown at an average line spacing of 200 m. Navigation was visual, using 1:50,000 scale topographical maps enlarged to 1:10,000.

The aircraft used to conduct this survey was a Vancouver Island Helicopters Ltd., Bell 206 Jet Ranger helicopter. Airspeed was a constant 60 KPH so that creek valleys and canyons were penetrated thoroughly. The slow airspeed provided safety, detailed coverage of boxed-in areas and consistency of data retrieval, which is critical in rugged terrain, such as within portions of this survey.
The number of line kilometers flown as shown on Map 6 is 18.3.

The survey operator has over 10 years of experience in conducting aerial magnetic and electromagnetic surveys from rotary-wing aircraft under all types of terrain conditions.

DATA REDUCTION AND COMPILATION

The observant magnetic total field was recorded on analogue strip charts. These were played back together with audio recordings containing fiducial markers, and the fiducial markers were transferred to the strip charts. The fiducial markers were identified with the topographical features along the flight lines.

The magnetic data were taken from the strip charts and plotted at a scale of 1:50,000 (1 cm = 500 m). The data were then contoured at 50 gamma interval above a magnetic base of 54,000 gammas onto Map 6.

DISCUSSION OF RESULTS

a) Airborne Magnetics

The area of coverage for this airborne survey was limited to the eastern portion of the JS Claims.

The magnetic field over the survey area is quiet. The general intensity is 600 to 750 gammas which can be considered as the magnetic background. The magnetic survey appears to indicate that the portion of the property is underlain by only one major rock unit, as there is only one basic level of magnetic background.

As portions of the survey were flown over thick overburden and glacial till, it is also quite possible that the magnetic signatures of the underlying rock units have been masked or dampened.

A magnetic low of moderate amplitude is located within the western portion of the survey area, this is coincidental with a major creek valley flowing easterly into Mess Creek.

Magnetic lows often occur along creek valleys and/or areas of low topography. The reasons for this are as follows:

(i) Valleys almost always contain deeper overburden which means detecting element is further from the bedrock causing the magnetic field.

(ii) If the survey is flown across the valley or gully, then the detecting element is also further from the bedrock.

(iii) Gullies and valleys are often caused by faults or shear zones which are often reflected by magnetic lows.

b) Airborne VLF-EM

The major cause of VLF-EM anomalies, as a rule, are geological structure such as fault, shear and breccia zones. It is therefore logical to interpret VLF-EM anomalies to likely be caused by these structural zones. Of course, sulphides may also be a causative source. But in the writer's experience, when VLF-EM anomalies correlate with sulphide mineralization, the anomalies are usually reflecting the structure associated with the mineralization rather than the mineralization itself.

There is some variation in the intensity from one VLF-EM anomaly to the next. This is not only due to the conductivity of a causative source, but also the direction it strikes relative to the direction to the transmitter. In other words, those conductors lying close to the same direction as the direction to the transmitter can be picked up easier than those that are lying at a greater angle. Depending upon its conductivity, a conductor may not be picked up at all if it is at too great an angle.

The VLF-EM survey failed to define any conductive zones within the survey area, however, it should be taken into account that the survey was conducted on a very limited scale. The VLF-EM responses within surveys conducted over adjoining properties have been encouraging, gossanous zones similar to those noted at higher elevations on the JS property have responded strongly.

C) Ground VLF Survey

The raw data from the VLF-EM surveys is presented on Figures 3, 4 and 5. The data is plotted and contoured.

There is a a general north northeasterly trend within the survey. There is also a correlation with a major east west trending creek, The creek valley is most likely structurally controlled.

Respectfully submitted,

COLUMBIA AIRBORNE GEOPHYSICAL SERVICES (1984) LTD.

Per: _____
Lloyd C. Brewer

September 10, 1991

BIBLIOGRAPHY

BCDMPR, Claims Map M 104G/7 East & West and 104 G/2 East & West

DEMR, NTS Map 104 G//2 & 104 G/7

DEMR, NTS Map "Klastine River" 104 G 11 East

G.S.C. Map "Geology Klastine River (104G/16E), Ealue Lake (104H/13W), Cake Hill (104I/4W) and Stikine Canyon (104J/1E)" Open File 1080.

G.S.C. Map " Telegraph Creek Map Sheet" (104G) (GSC Paper 71-44)

Grove, Edward W., 1986 Geology and Mineral Deposits of the Unuk River-Salmon River-anyox Area B.C., Bull 63, BCMEMPR

CERTIFICATION

I, LLOYD C. BREWER of the City of Vancouver, in the Province of British Columbia, Canada, DO HEREBY CERTIFY:

That I am owner and President of Columbia Airborne Geophysical Services (1984) Ltd., with offices located at Suite 1122 - 470 Granville Street, Vancouver, B.C.

I further certify that:

1. I am President of White Wolf Explorations Ltd., and have been employed full time in the mineral exploration industry for the past eleven years in Canada, United States and Mexico.

2. I was project manager and instrument operator for this airborne magnetic survey over the Mess Creek property.

3. This report was compiled from data obtained by Columbia Airborne Geophysical Services (1984) Ltd, under my direct supervision on the 26th of June, 1991, and from VLF-EM data gathered by Pat Crook, under the supervision of M. Amendologine between June 20th to 28th, 1991.

4. I have no direct or indirect interest in any of the properties mentioned within this report, nor do I expect to receive any interest as a result of writing this report.

Lloyd C. Brewer

Dated at:

#1122 - 470 Granville Street,
Vancouver, B.C.

September 10, 1991

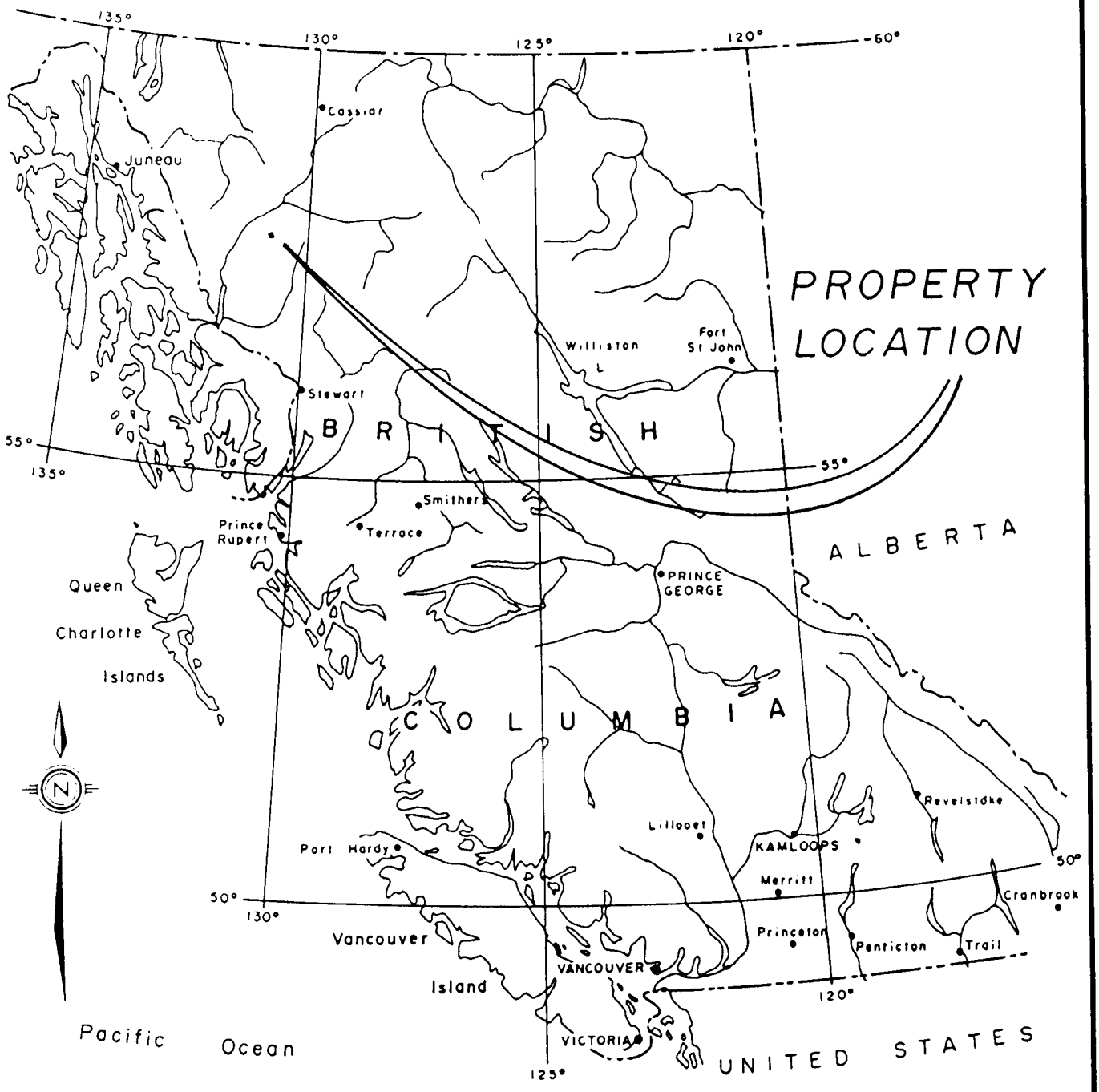
AFFIDAVIT OF COSTS

I, Lloyd C. Brewer, President of Columbia Airborne Geophysical Services (1984) Ltd., certify that the airborne magnetic and VLF-EM surveys were flown on the 26th of June 1991, and that they were flown at an all inclusive cost of $ 2,500.00.

LLOYD C. BREWER
President

COLUMBIA AIRBORNE GEOPHYSICAL SERVICES (1984) LTD.

September 10, 1991



CHANDELEUR BAY PRODUCTION CO LTD

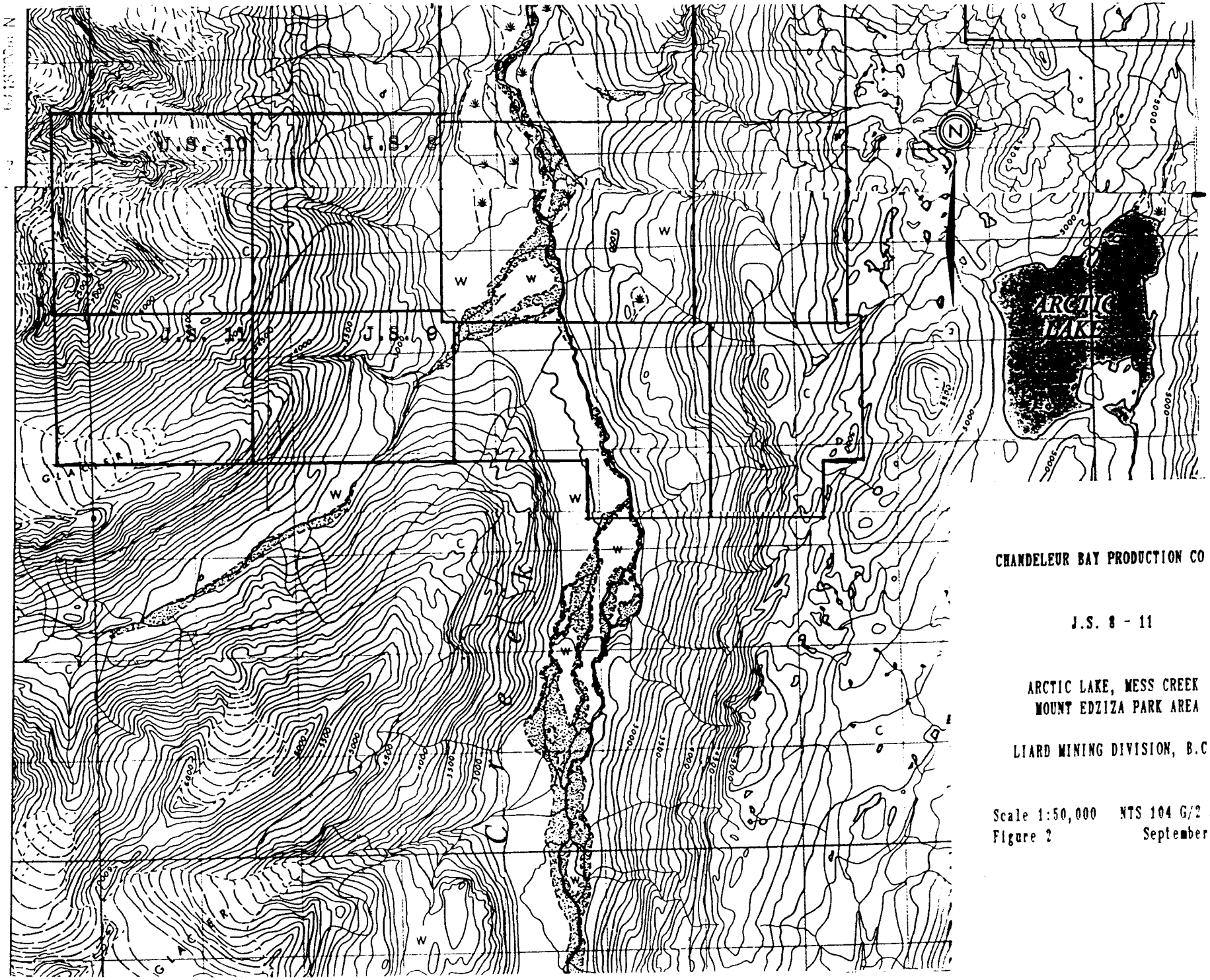
J.S 8 - 11

PROPERTY LOCATION MAP

FIGURE 1 NTS 104 G/2 & G/7

100 0 100 200 300 400 Km

100 0 100 200 Mi



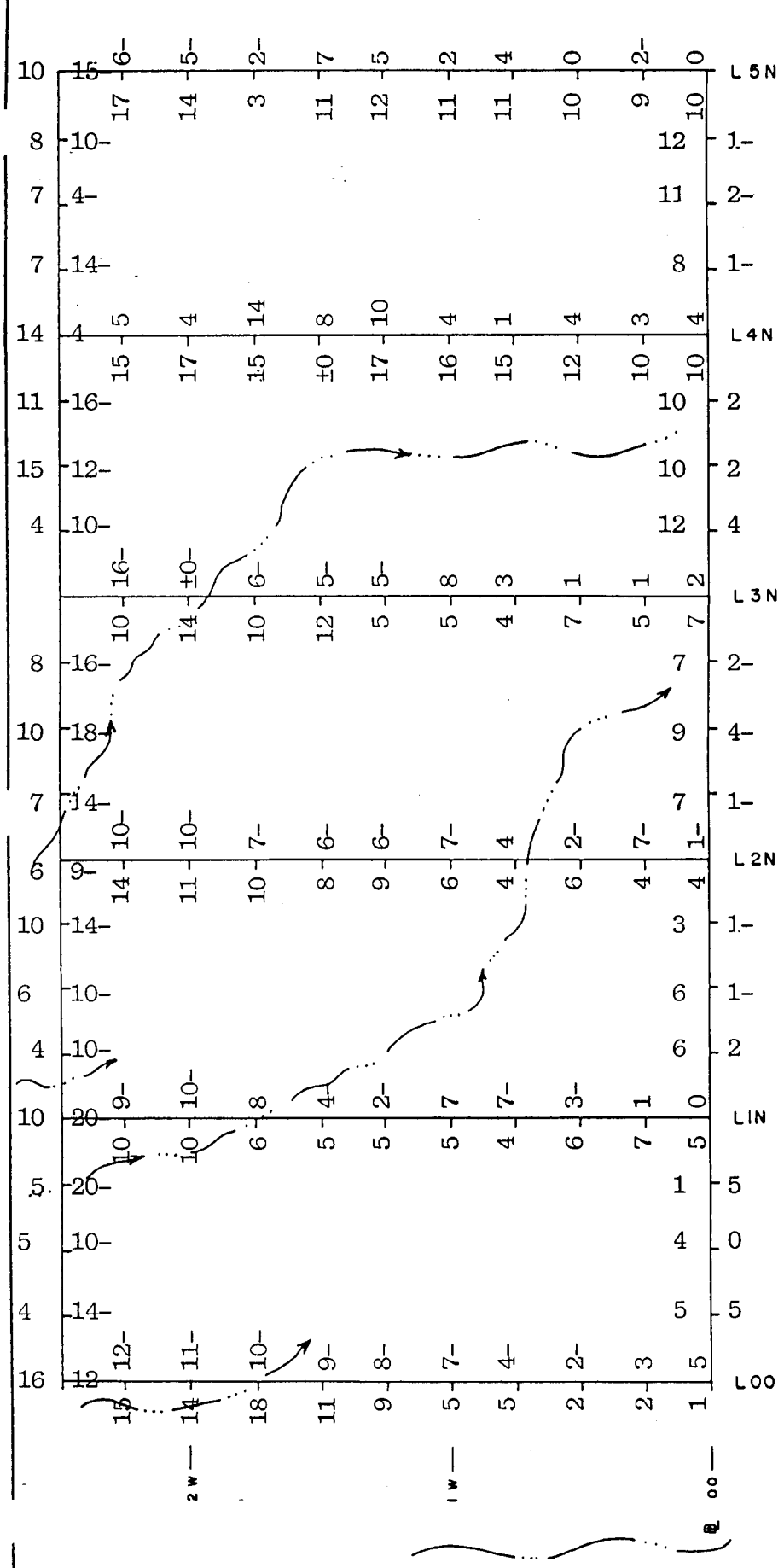
CHANDELEUR BAY PRODUCTION CO LTD

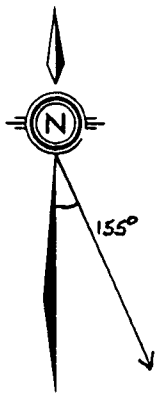
J.S. 8 - 11

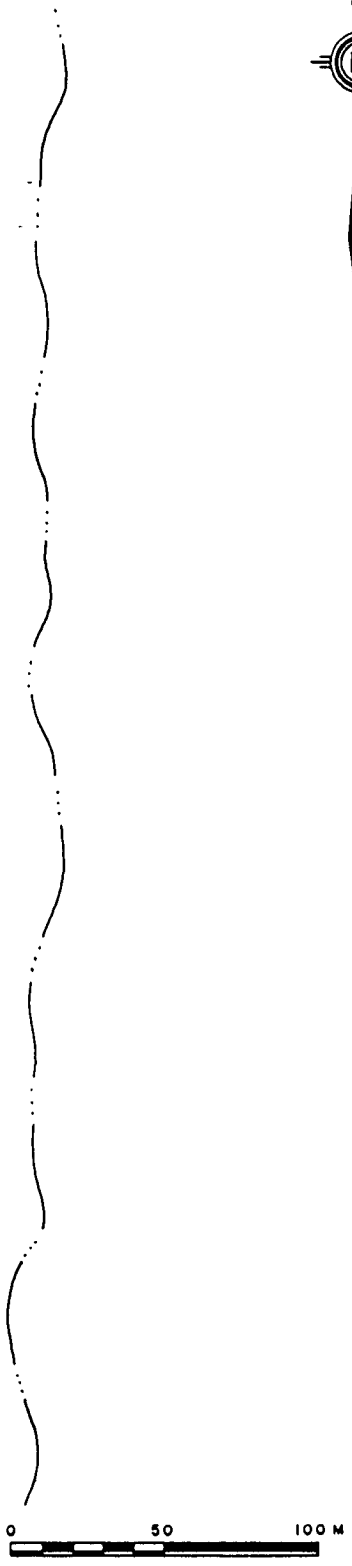
ARCTIC LAKE, MESS CREEK
MOUNT EDZIZA PARK AREA

LIARD MINING DIVISION, B.C.

Scale 1:50,000 NTS 104 G/2 & G/7
Figure 2 September 1991





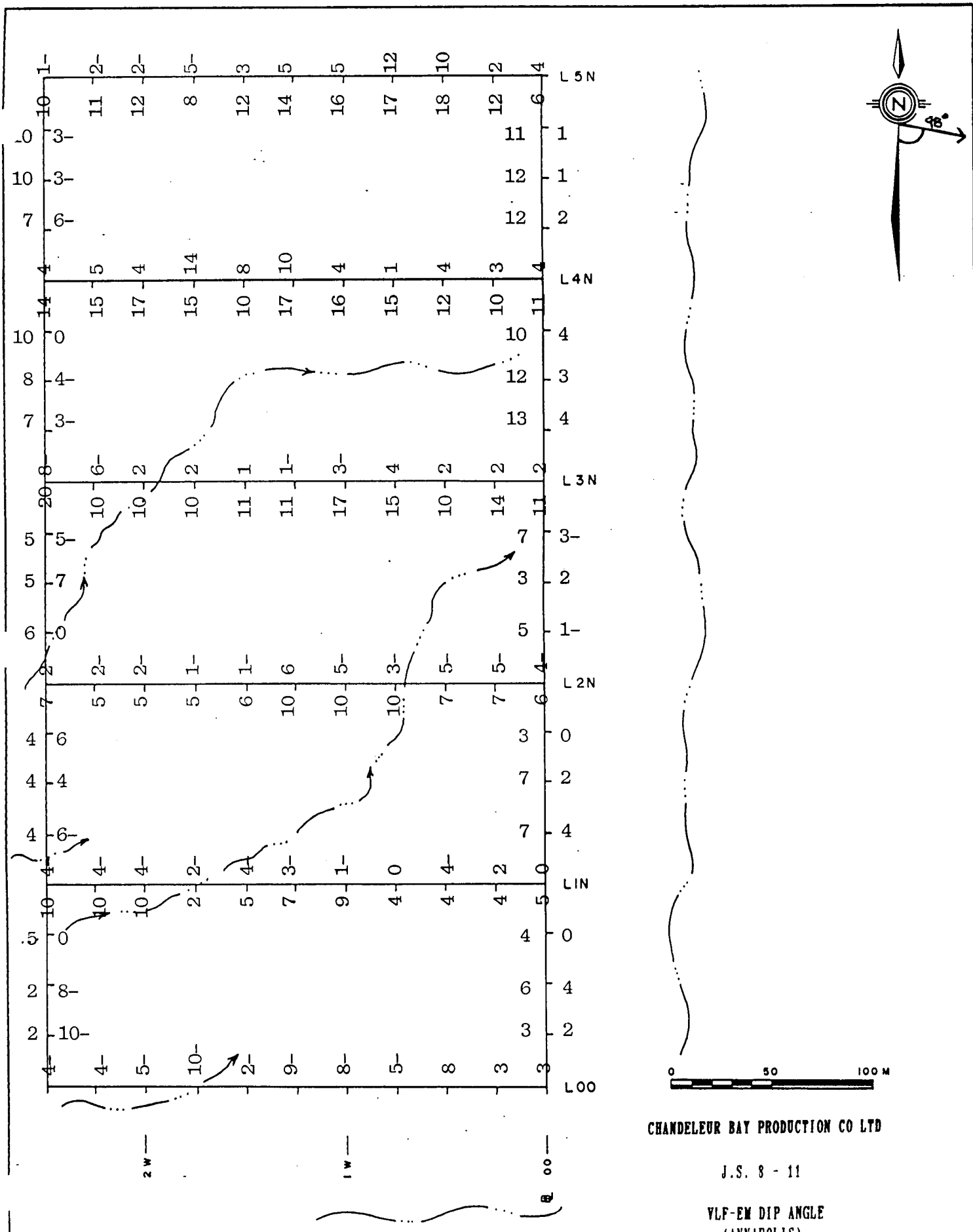


CHANDELEUR BAY PRODUCTION CO LTD

J.S. 8 - 11

VLF-EM DIP ANGLE
(SEATTLE)

FIGURE 3 SEPTEMBER 1991

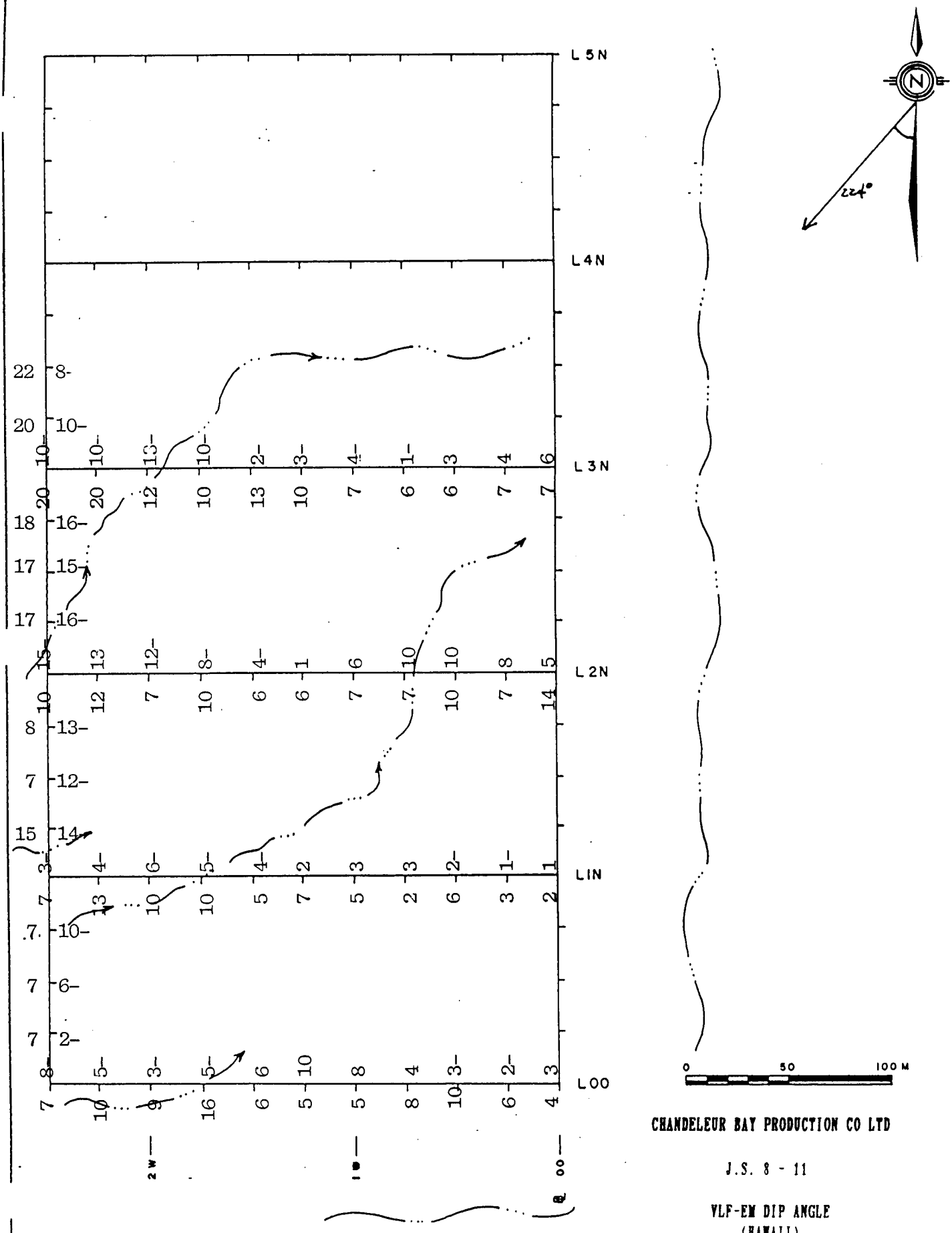


CHANDELEUR BAY PRODUCTION CO LTD

J.S. 8 - 11

VLF-EM DIP ANGLE
(ANNAPOLIS)

FIGURE 4 SEPTEMBER 1991

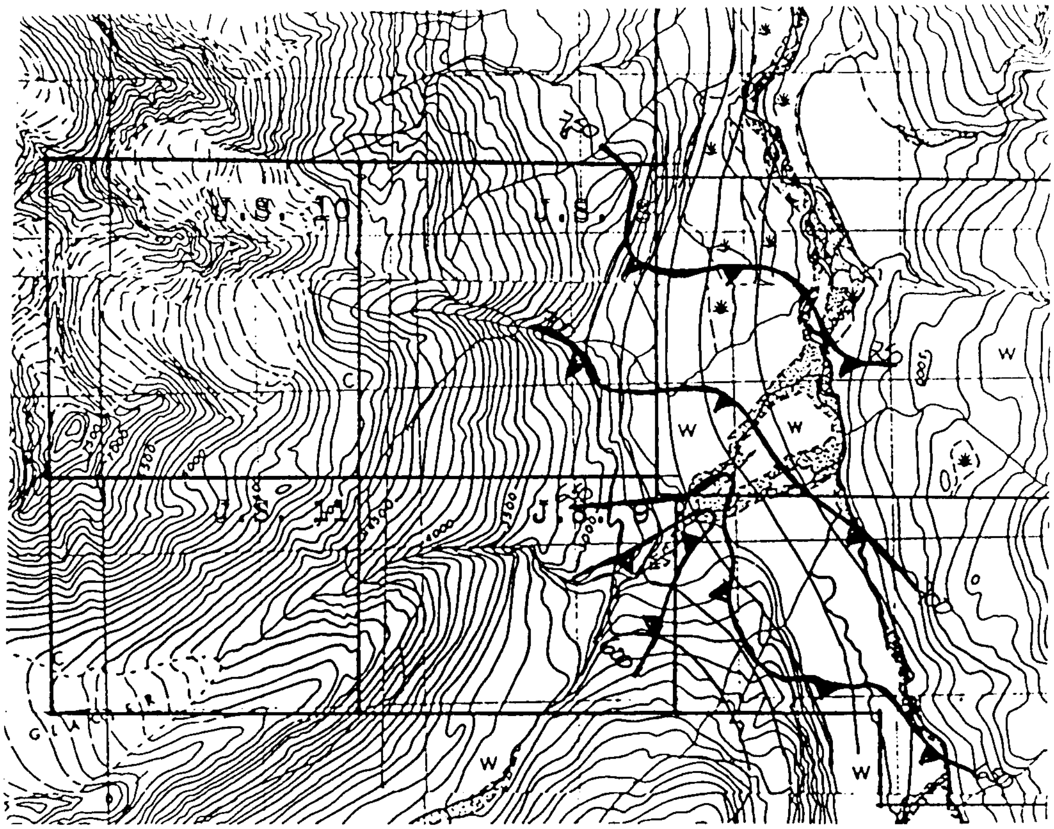


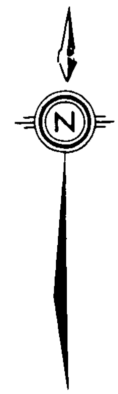
CHANDELEUR BAY PRODUCTION CO LTD

J.S. 8 - 11

VLF-EM DIP ANGLE
(HAWAII)

FIGURE 5 SEPTEMBER 1991



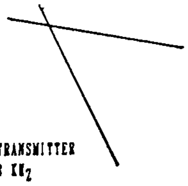


Magnetic Base 54,000 gammas

LEGEND

- o Legal corner post
- Claim boundary
- Flight line
- Magnetic contour
- Magnetic depression

VLF-EM TRANSMITTER DIRECTION



Survey Carried Out By:

COLUMBIA AIRBORNE GEOPHYSICAL SERVICES (1984) LTD.

To Accompany Report By LLOYD C. BREWER

CHANDELEUR BAY PRODUCTION CO LTD			
J.S. 8 - 11 CLAIMS ARCTIC LAKE, MESS CREEK EDZIZA PARK AREA LIARD MINING DIVISION, BRITISH COLUMBIA			
AIRBORNE SURVEY MAGNETIC CONTOURS AND VLF-EM ANOMALIES			
SCALE:	N.T.S.:	DATE:	DRAFTED BY:
1:50,000	104G/2 & G/7	SEPT 91	LCB/LLW