

IRON MOUNTAIN PROJECT

M491

ASSESSMENT REPORT

1981 PROGRAM

GEOPHYSICAL

GEOCHEMICAL, GEOLOGICAL

Lat. 50°03'N Long. 120°45'W

N.T.S. 92 1/2

NICOLA MINING DIVISION

GYPROC I GROUP CLAIMS

TWO

BY

FOUR

TWO BY FOUR

SHORTSTUD

FIERRA # 3

10,114  
PART  
1 of 2

Owners: Gordon Richards,  
8827 Hudson Street,  
Vancouver, B. C.

Operator: Chevron Canada Limited,  
901 - 355 Burrard Street,  
Vancouver, B. C.

Author: G. W. Laforme

January 1982

## TABLE OF CONTENTS

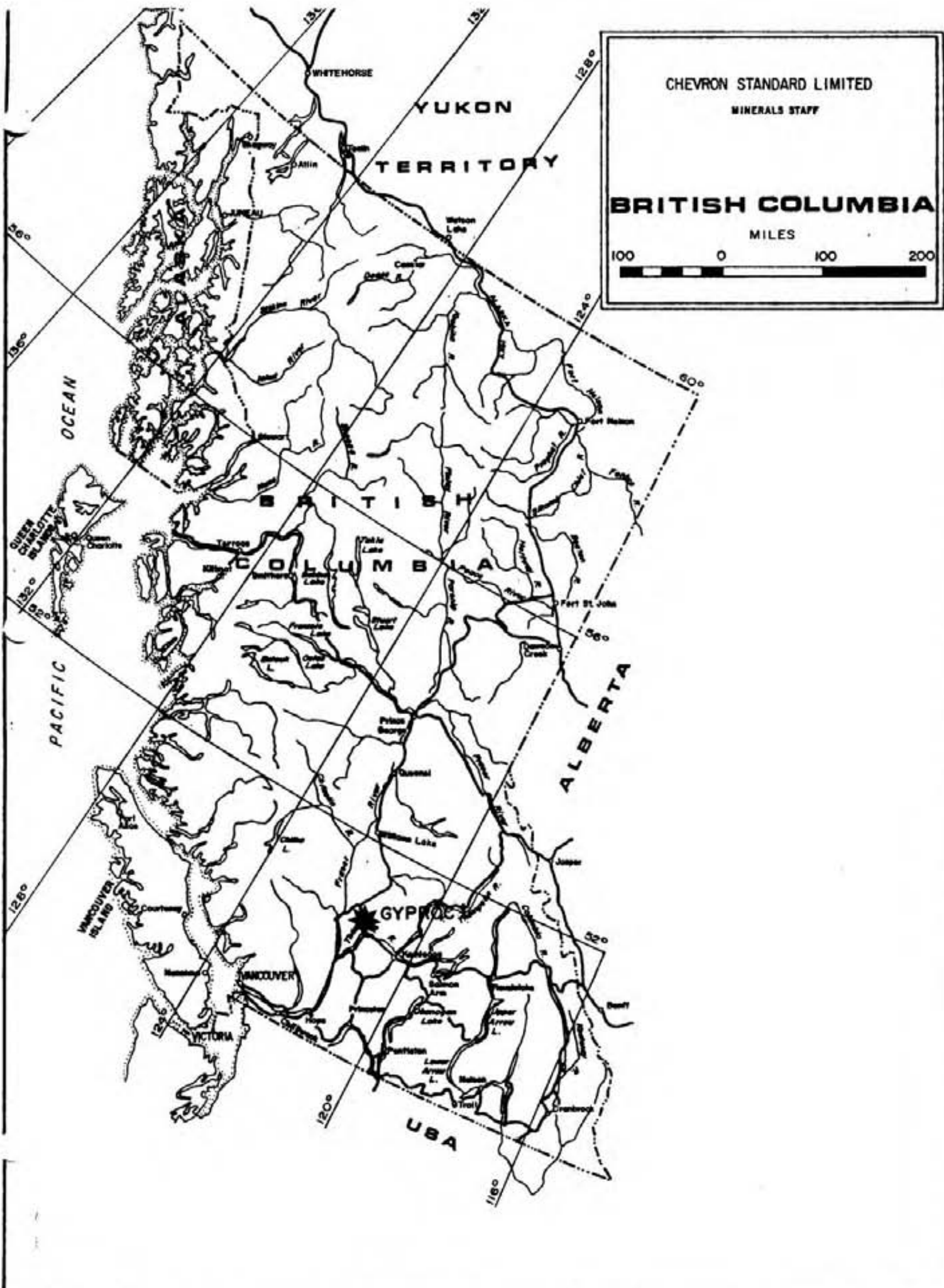
INTRODUCTION	1
INDEX MAP	
CLAIMS MAP - Figure 1	
LOCATION AND ACCESS	2
PROPERTY	3
IRON MOUNTAIN PROPERTY HISTORY	4
HISTORY	5
1981 FIELD PROGRAM	7
1981 FIELD PERSONNEL	8
STATEMENT OF COSTS	9
ASSESSMENT ALLOCATION	10
CONCLUSIONS	11
RECOMMENDATION	11
STATEMENT OF QUALIFICATIONS	
REFERENCES	

### APPENDIX:

Moving Coils Surface PEM Survey	
Geology Descriptions by Mark Brewster	
Thin Sections Examination by S. G. McAllister	
Geochemical Preparation and Analytical Procedures	
Geochemical Lab Reports	In Pocket

### MAPS:

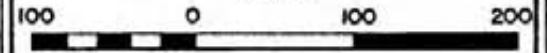
Fig. 2	Geology	
3	Cross Section	
4	Alterations; Jasper Horizon, Veining and Clastic Sulphides	
5	Geochemistry Pb, Ba	
6	Geochemistry Cu, Zn	



CHEVRON STANDARD LIMITED  
MINERALS STAFF

# BRITISH COLUMBIA

MILES





## INTRODUCTION

This report will document for assessment purposes all work carried out in 1981 on the Gyproc I Group of mineral claims located some eight kilometers south of the town of Merritt, B.C. This area is underlain by marine sediments and volcanic rocks of the Nicola formation, recognized as a volcanogenic exhalative type massive sulphide environment.

A program of geochem soil and rock sampling along with geological mapping was carried out.

The area, generally a high rolling plateau, is classed as open range land, with fir and pine forest covering the uplands and grass in the valleys.

LOCATION AND ACCESS

The Gyproc I Group of mineral claims is located on the northeast, east and south flanks of the summit of Iron Mountain. It is within the Nicola Mining Division and centered at  $120^{\circ}45'W$ ,  $50^{\circ}03'N$ .

A good gravel road provides access to the property.

Merritt is served by the Canadian Pacific Railroad and by the paved provincial highways No. 5 and No. 8. A new highway is under construction through the Coquihalla Pass joining Merritt to Hope.

PROPERTY

The Gyproc I Group is comprised of:

<u>Claim Name</u>	<u>Record No.</u>	<u>Lapse Date</u>	<u>No. of Units</u>
Two	480 (7)	July 1984	2
By	481 (7)	July 1984	2
Four	482 (7)	July 1984	4
Two By Four	484 (7)	July 1984	8
Short Stud	667 (7)	July 1984	4
Fierro #3	997 (2)	Feb. 1982	4

Recorded Owner: Gordon Richards, Vancouver, B. C.

Until the end of the 1981 field season the entire group was held under option agreement by:

Chevron Canada Limited,  
901 - 355 Burrard Street,  
Vancouver, B. C. V6C 2G8

IRON MOUNTAIN PROPERTY

HISTORY

<u>Year</u>	<u>Current Name</u>	<u>Owner or Operator</u>	<u>Work</u>
1927	Leadville	Emmett Todd	Discovery of showing.
1927,28	"		Shaft sunk to 70' depth.
1929	"	Comstock of B.C. Ltd.	1000 acres of claims staked. Great plans. Nothing forthcoming.
1947	Lucky Todd	George Hunter and partners	Shaft rehabilitated. 36 tons ore shipped to Trail, yielding 67 oz Ag, 11, 819 lb. Pb, and 484 lb. Zn.
1951	"	Granby Mining Corp.	Shaft de-watered.
1966	"	?	Some work?
1968-74	Makelstin	Acoplomo Mining and Development Co.	Total of approx. > 24 mi. Magnetometer surveys > 24 mi. EM (VLF?) surveys 180 Sas. Soil surveys 586' Diamond drilling
1977	One Sixty One	Quintana Minerals Corp.	Geologic mapping.
1978			Regional 1:15,000 mapping by W.J.McMillan, B.C.D.M., due for publishing in 1979.



## HISTORY

The Iron Mountain area has experienced prospecting and mineral exploration by a variety of operators since the turn of the century. Development work by Comstock of B.C. Ltd. had been done by about 1927 on the "Leadville" shaft near the summit of the mountain, where a galena "vein" had been discovered.

Work on this prospect appears to have been fairly minimal until 1947 when a further attempt was made to reopen the old "Leadville" shaft, then renamed the "Lucky Todd". Thirty-six tons of ore were shipped to Trail with net contents consisting of 67 ounces silver, 11,819 pounds lead and 484 pounds zinc.

Similar lithologies to the Lucky Todd shaft area occur on the Two By Four claim, approximately 2,800 meters N43<sup>0</sup>E of the old "Lucky Todd" shaft. Surface stripping by bulldozer has occurred in this area, and several pits have been blasted in the exposed bedrock by previous owners.

In 1979, a grid of 100-meter line separation and 50-meter station interval was established over a part of the Gyproc Group. That portion of the grid on the Two By Four claim was soil sampled. Sixty-seven soil samples and two silt samples were collected and analyzed for Pb, Zn, Cu and Ag.

In 1980 the balance of the above grid was sampled and detailed geological mapping of the group was commenced. Two hundred seventeen samples were collected and analyzed for Cu, Pb, Zn and Ba.

1981 FIELD PROGRAM

A Moving Coils Surface PEM Survey was conducted over the property.

The grid, established in 1979 (line separation - 100 meters, station intervals - 50 meters), was expanded to cover all of the Gyproc I Group. One thousand one hundred ninety-one soil and fifty-five rock samples were collected and analyzed for Zn, Cu, Pb and Ba.

Where possible, soil samples were taken from the "B" horizon. They were packaged in gusseted kraft paper sample bags. All samples were shipped to:

Chemex Labs Ltd.  
212 Brooksbank Ave.  
North Vancouver, B.C.  
V7J 2C1

Results are plotted on maps of scale 1:5,000. Details of analytical techniques employed are in the attached Appendix.

For lithological study 24 thin sections of the rock samples were prepared and stained by:

Vancouver Petrographics Ltd.  
Post Office Box 39  
8887 Nash Street  
Fort Langley, B.C.  
VOX 1J0

Mark Brewster detailed the lithological units identified by the geological mapping. Sandy McAllister examined the thin sections and described textures and alterations.

## 1981 FIELD PERSONNEL

The field crew consisted of:

Bill Howell (Contractor)	Party Chief
Mark Brewster	Geologist
Sandy McAllister	Geologist
Colin Bradley	Assistant
Bruce Coates	"
Paul Fagerlund	"
Derek Hodge	"
John Mill	"
Sarah Monger	"
Tim Sandberg	"
Ross Watson	"
David Arscott	Project Supervisor

## STATEMENT OF COSTS

Wages		\$22,005.25
Travel		1,433.90
Camp Supplies		1,948.31
Camp Provisions		1,159.40
Freight		1,233.60
Reproduction and drafting		796.49
Accommodation		2,136.10
Assays		9,372.50
Contractors:	Geophysical	16,371.00
	Geological	14,807.96
	Other	19,725.48
	Report	<u>1,200.00</u>
	Total	\$92,189.99

WAGES

	<u>Office</u>	<u>Field</u>	<u>Travel</u>
Mark Brewster	14	19	2
Sandy McAllister	5	18	2
Colin Bradley	-	18	2
Bruce Coates	-	18	2
Paul Fagerlund	-	18	2
Derek Hodge	-	18	2
John Mill	-	11	2
Sarah Monger	-	18	2
Tim Sandberg	-	18	2
Ross Watson	-	18	2
David Arscott	2		
Total No. of Man Days		215	
Rate		\$102.35/day	
Total Wages		\$22,005.25	

## ASSESSMENT ALLOCATION

FOR ASSESSMENT PURPOSES KINDLY CREDIT

<u>CLAIM NAME</u>	<u>UNITS</u>	<u>\$</u>	<u>YEARS</u>	<u>TOTAL</u>	<u>LAPSE DATE</u>
TWO	2	\$200.00	7	\$ 2,800.	July 1991
BY	2	200.00	7	2,800.	July 1991
FOUR	4	200.00	7	5,600.	July 1991
TWO BY FOUR	8	200.00	7	11,200.	July 1991
SHORT STUD.	4	200.00	7	5,600.	July 1991
FIERRO #3	4	100.00	3	1,200.	
	4	200.00	6	<u>4,800.</u>	Feb. 1991
				\$34,000.	

TOTAL COST FOR 1981 PROGRAM	\$92,189.99
ASSESSMENT CREDIT	<u>34,000.00</u>
Balance	\$58,189.99

KINDLY CREDIT PAC WITH BALANCE OF \$48,189.99

\$29,095.00 to Gordon Richards  
8827 Hudson St.,  
Vancouver, B. C.  
V6P 4N1

\$29,094.99 to Chevron Canada Limited  
901 - 355 Burrard St.,  
Vancouver, B. C.  
V6C 2G8

CONCLUSIONS

The geochemical survey shows scattered low values for Pb, Zn, Cu and Ba, with correlated and enhanced values near the Todd shaft and over very limited areas in the nearby sediments.

A geophysical survey using time domain E.M. Crone equipment produced no response.

RECOMMENDATION

No further work is recommended.

STATEMENT OF QUALIFICATIONS

I am a graduate of the University of British Columbia, Vancouver, B. C.,  
Discipline Geology Degree, B.Sc.

I have 12 years' field experience. The work herein recorded was compiled  
from data obtained from members of the field crew, from geochem lab  
results and from the company ledger.

*G. W. Laforme*

G. W. LAFORME

February, 1982

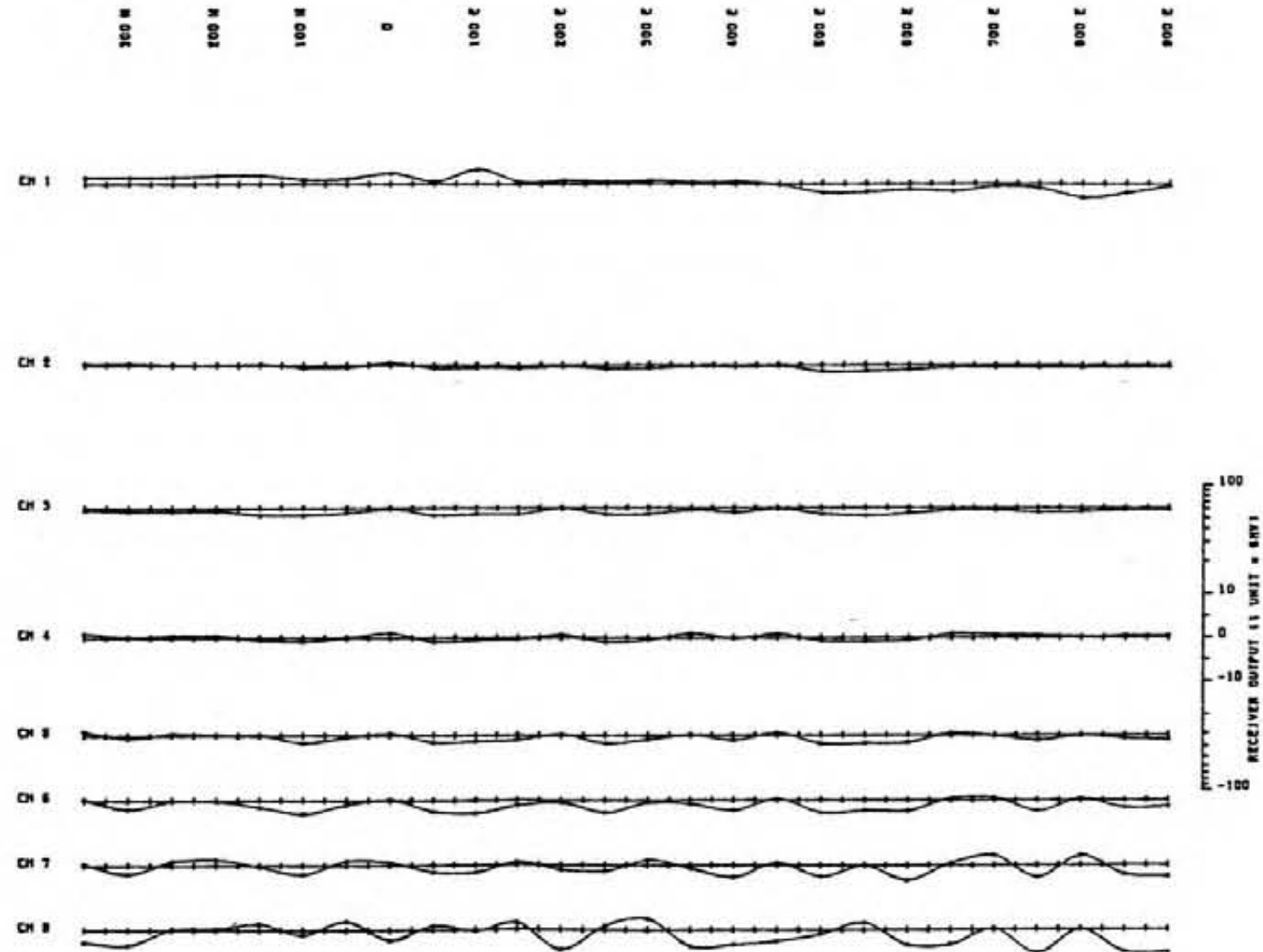


REFERENCES:

- |               |  |   |
|---------------|--|---|
| June 1972     | R.W. Hutchinson<br>R.H. McMillan<br>(Company Report) | Volcanogenic base metal<br>Sulphides<br>Cordilleran Region                              |
| June 1975     | D.G. Leighton<br>(Company Report)                    | Report on Exploration<br>for<br>Kuroko Type Mineral Deposits                            |
| November 1979 | W.A. Howell  | Iron Mountain Project<br>1979 Assessment Report   |
| March 1981    | W.A. Howell  | Iron Mountain Project<br>1980 Report<br>Geological and Geophysical Surveys              |
| October 1981  | W.J. McMillan et al                                  | Province of British Columbia<br>(2) Preliminary Map 47<br>Nicola Project - Merritt Area |


APPENDIX

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

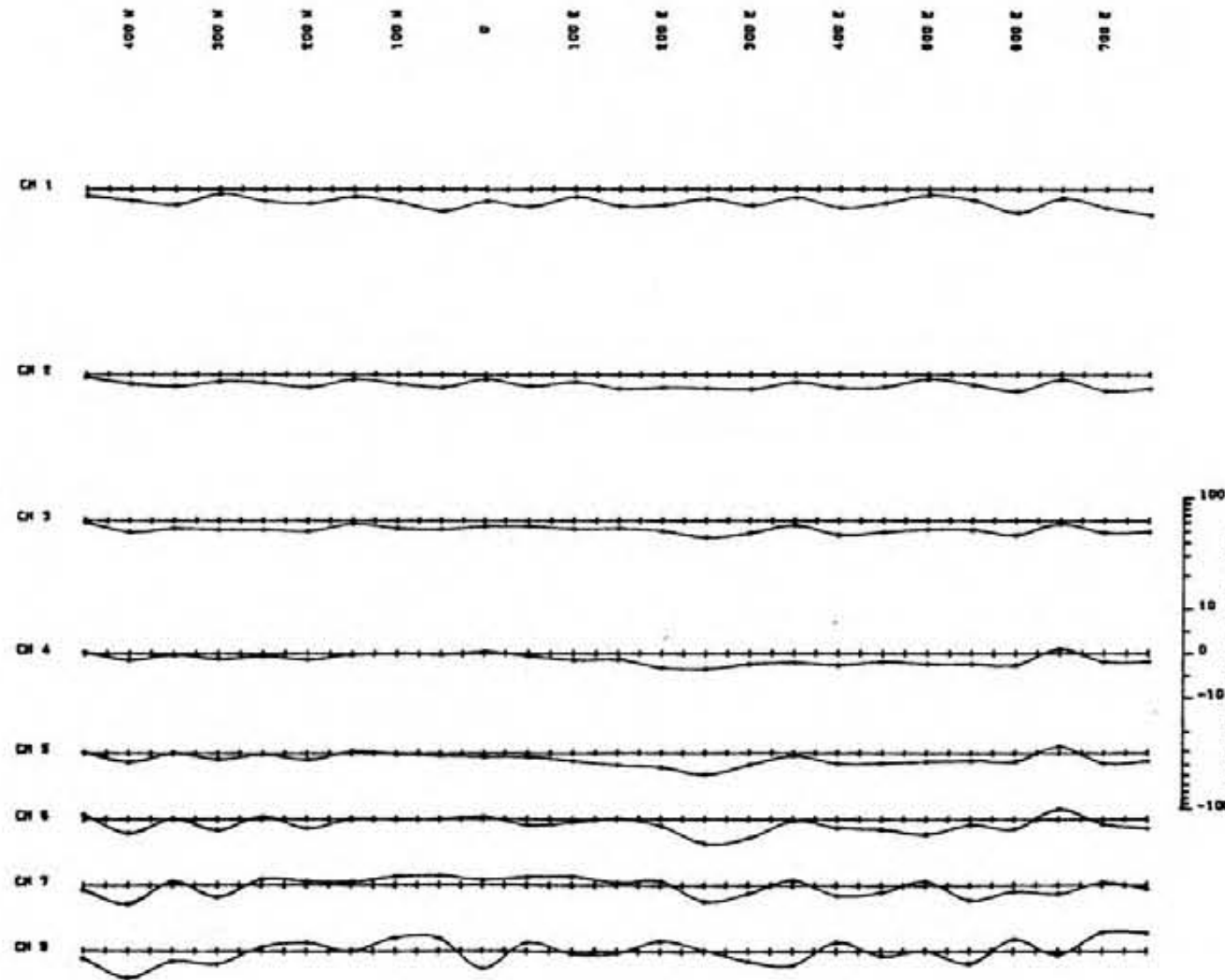


10,114

COIL SPACING	: 100 M
TX LOOP SIZE	: 15.0 M DIAMETER
TIME BASE	: 10.8 MS
HORIZONTAL SCALE	: 1:7500
SURVEYED BY	: AS.TT.
DATE	: SEPT / 1981


	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTERREX LTD.	85-907
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: A.	
LINE	: 4000N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

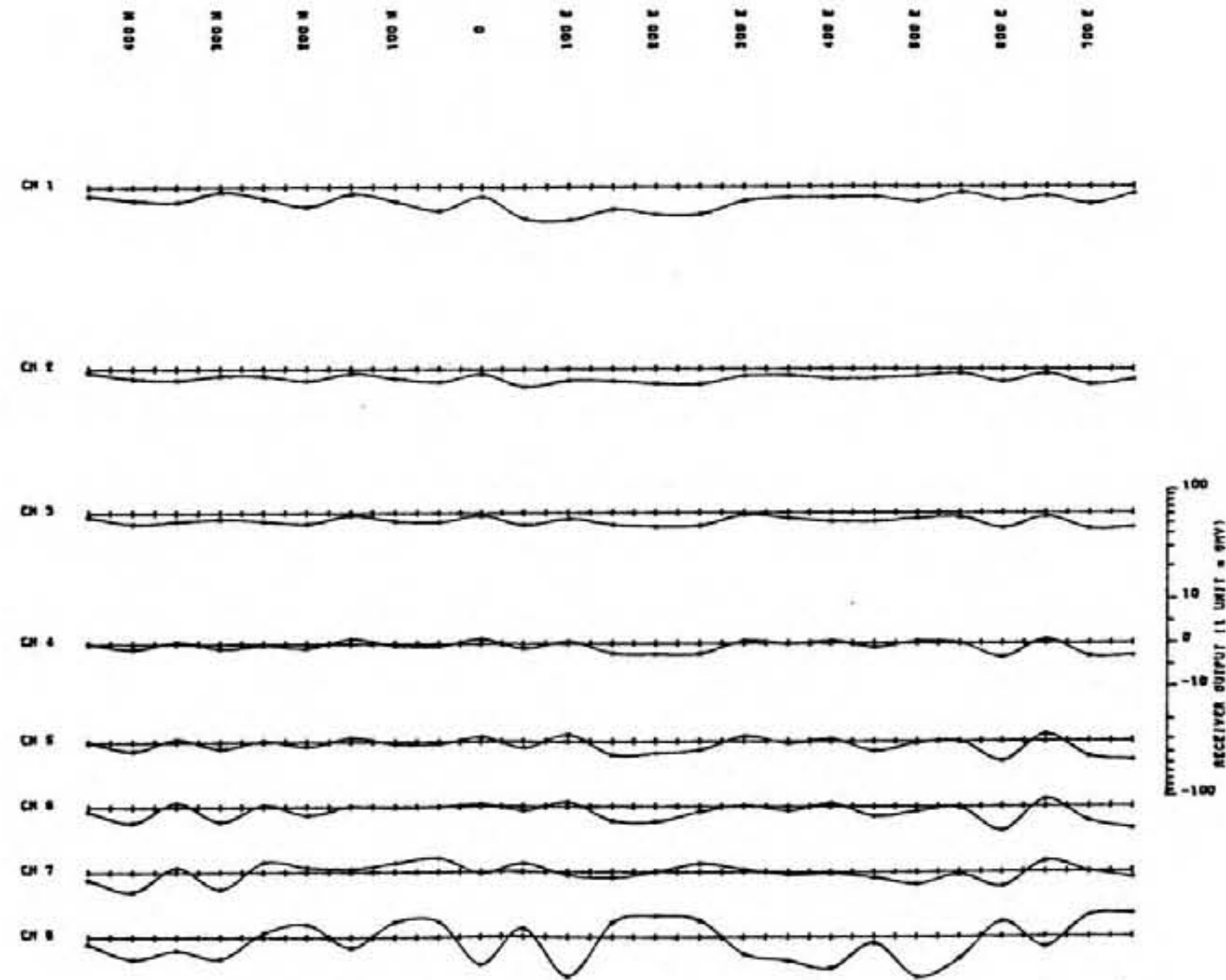


10,114

COIL SPACING : 100 M  
TX LOOP SIZE : 15.0 M DIAMETER  
TIME BASE : 10.8 MS  
HORIZONTAL SCALE : 1:7500  
SURVEYED BY : AS.IT.  
DATE : OCT / 1981


	SURVEYED & COMPILED BY		PROJECT NO.
	GEOTERREX LTD.		85-907
CLIENT		: CHEVRON STANDARD LTD.	
AREA		: IRON MOUNTAIN PROJECT	
GRID CODE		: B.	
LINE		: S300N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

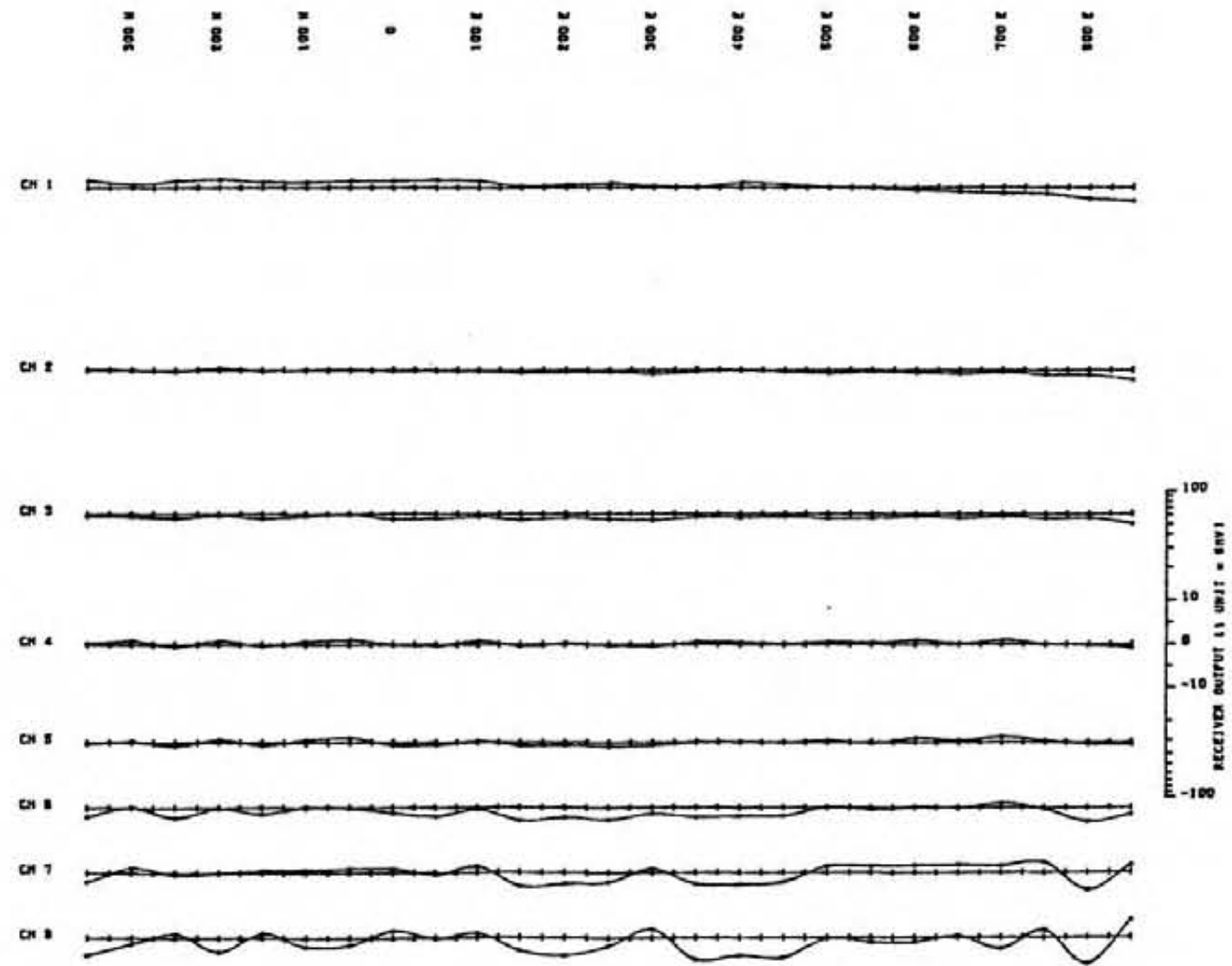


10,114

COIL SPACING : 100 M  
TX LOOP SIZE : 15.0 M DIAMETER  
TIME BASE : 10.8 MS  
HORIZONTAL SCALE : 1:7500  
SURVEYED BY : AS.TT.  
DATE : OCT / 1981


	SURVEYED & COMPILED BY		PROJECT NO.
	GEOTERREX LTD.		85-907
CLIENT		: CHEVRON STANDARD LTD.	
AREA		: IRON MOUNTAIN PROJECT	
GRID CODE		: B.	
LINE		: 5200N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

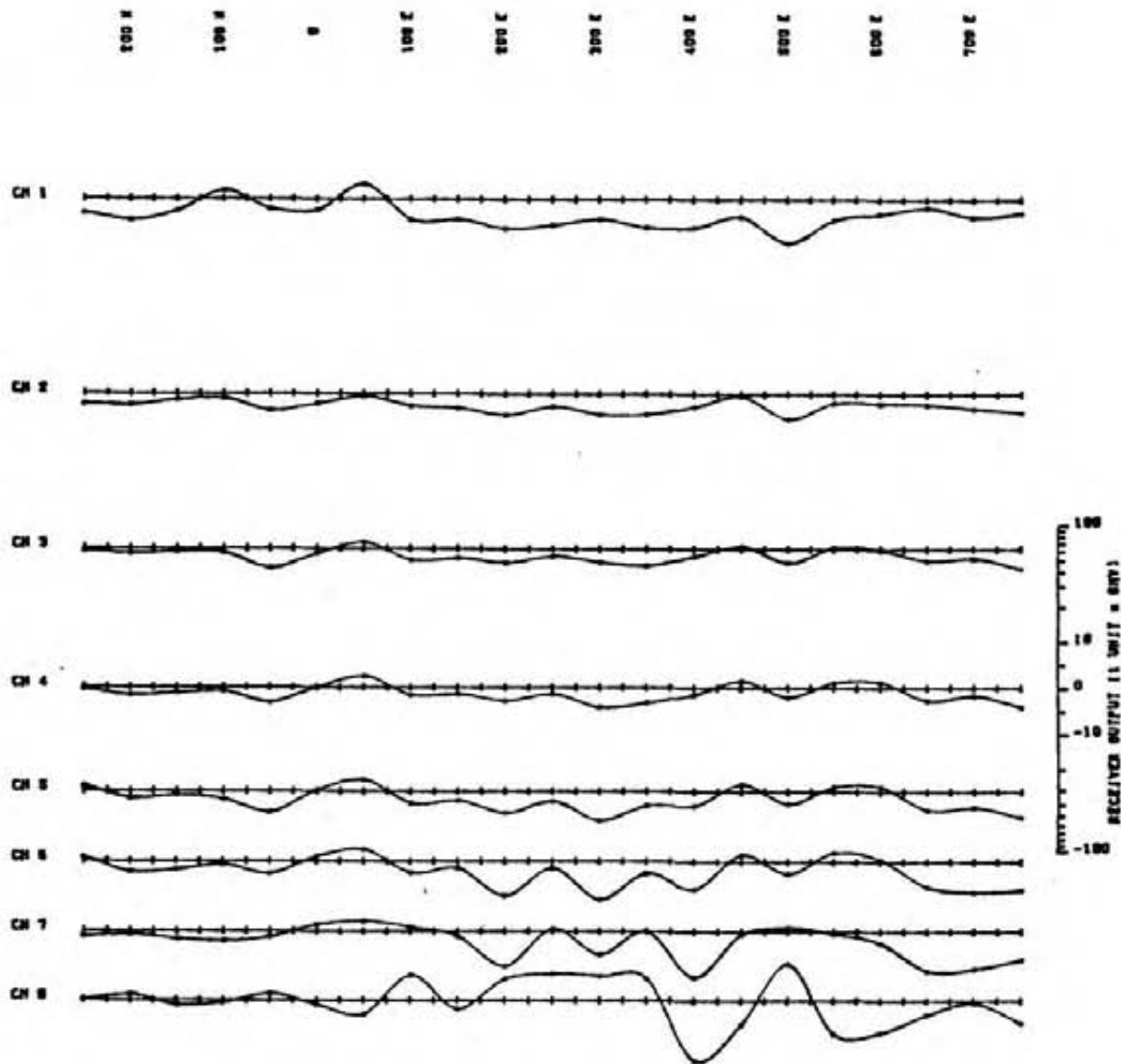


19114


COIL SPACING : 100 M  
TX LOOP SIZE : 15.0 M DIAMETER  
TIME BASE : 10.8 MS  
HORIZONTAL SCALE : 1:7500  
SURVEYED BY : AS.TT.  
DATE : SEPT / 1981

	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTREX LTD.	85-907
CLIENT : CHEVRON STANDARD LTD.		
AREA : IRON MOUNTAIN PROJECT		
GRID CODE : A.		
LINE : 4100N		

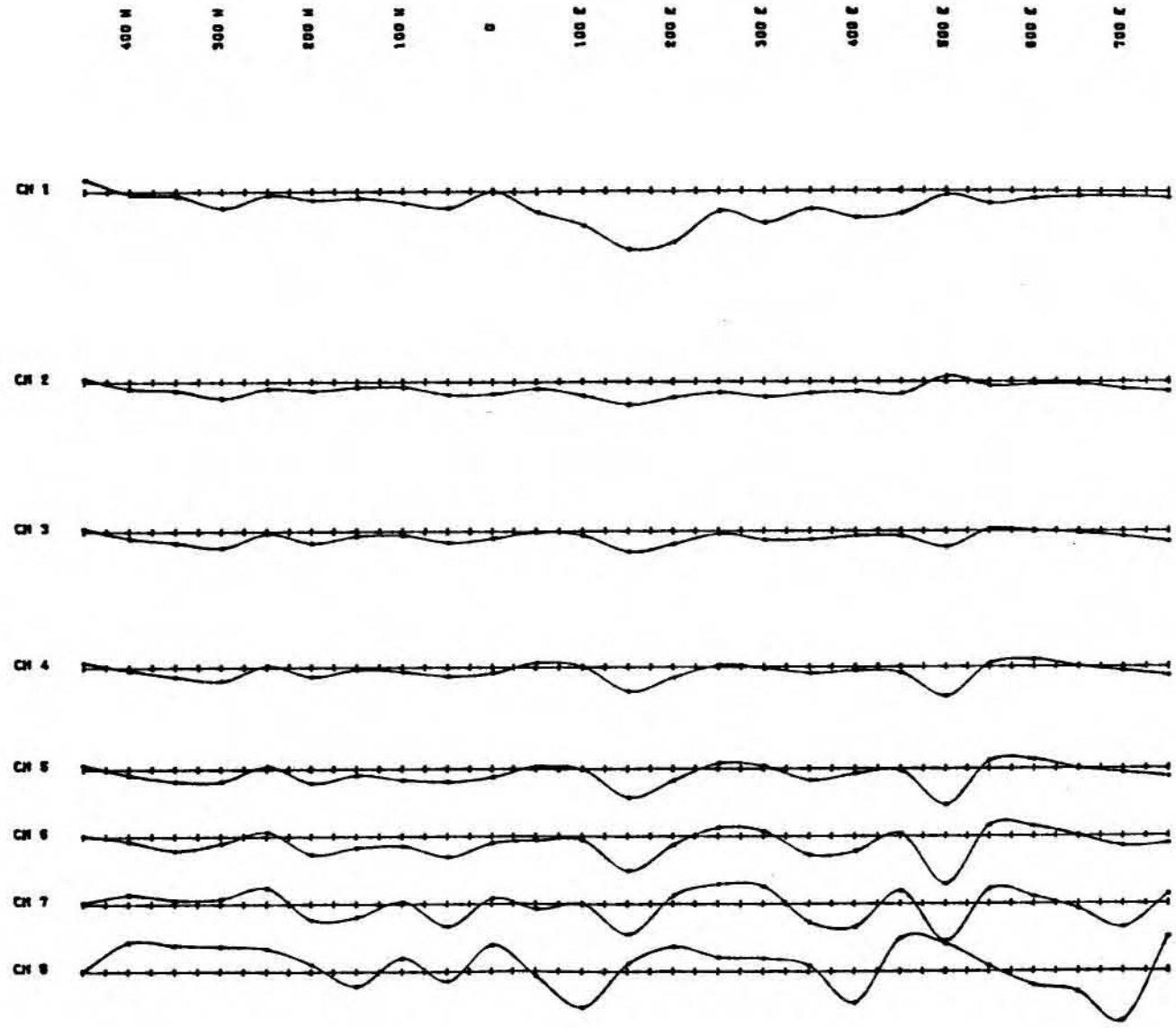
**PEM**  
**MOVING COILS SURVEY**  
**RECEIVER OUTPUT VOLTAGE**



COIL SPACING	: 100 M
TX LOOP SIZE	: 15.0 M DIAMETER
TIME BASE	: 10.8 MS
HORIZONTAL SCALE	: 1:7500
SURVEYED BY	: AS.TT.
DATE	: OCT / 1981


	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTREX LTD.	85-907
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: B.	
LINE	: 5400N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE



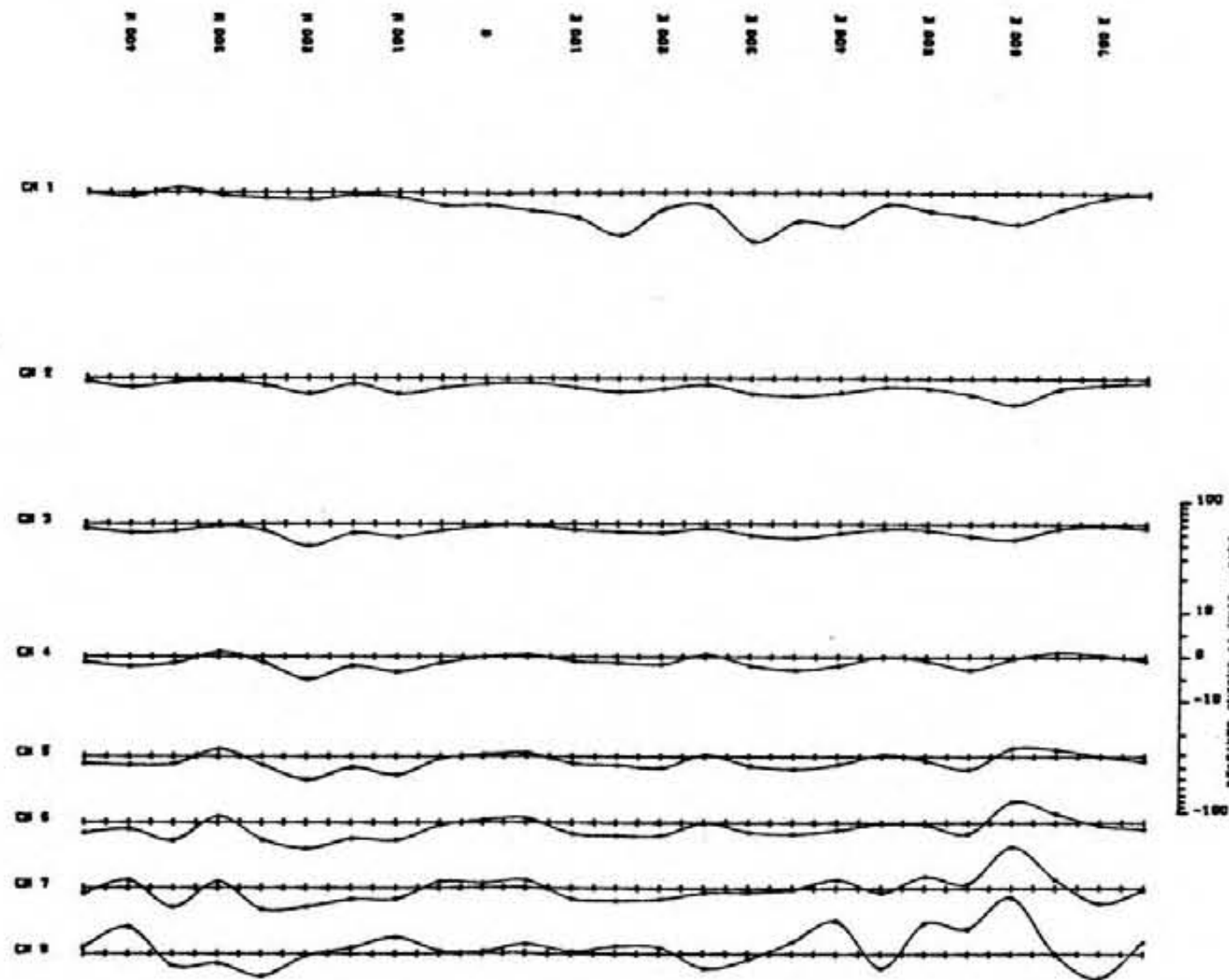
10,114

COIL SPACING : 100 M  
TX LOOP SIZE : 15.0 M DIAMETER  
TIME BASE : 10.8 MS  
HORIZONTAL SCALE : 1:7500  
SURVEYED BY : AS.TT.  
DATE : OCT / 1981

	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTREX LTD.	85-907
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: B.	
LINE	: 5500N	




PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

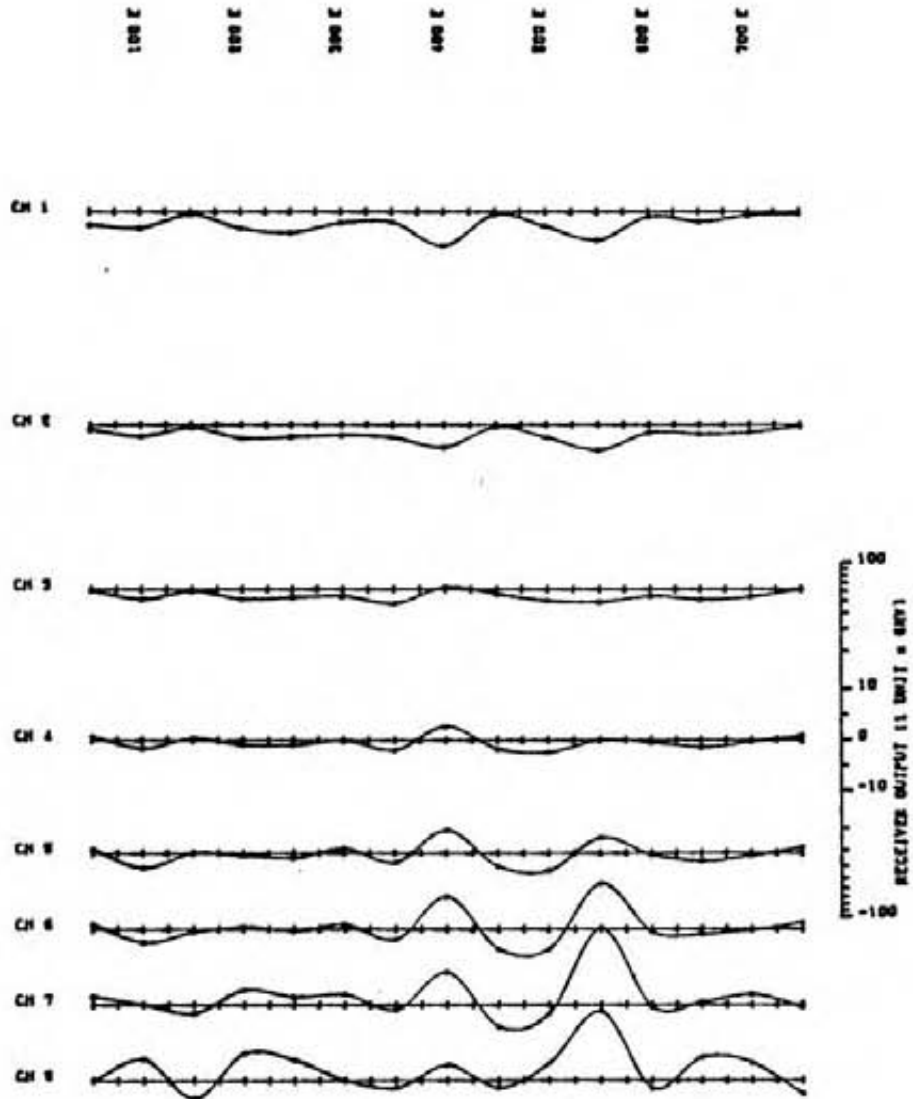


10,114

COIL SPACING	: 100 M
TX LOOP SIZE	: 15.0 M DIAMETER
TIME BASE	: 10.8 MS
HORIZONTAL SCALE	: 1:7500
SURVEYED BY	: AS.TT.
DATE	: OCT / 1981

	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTERREX LTD.	85-807
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: B.	
LINE	: 5600N	

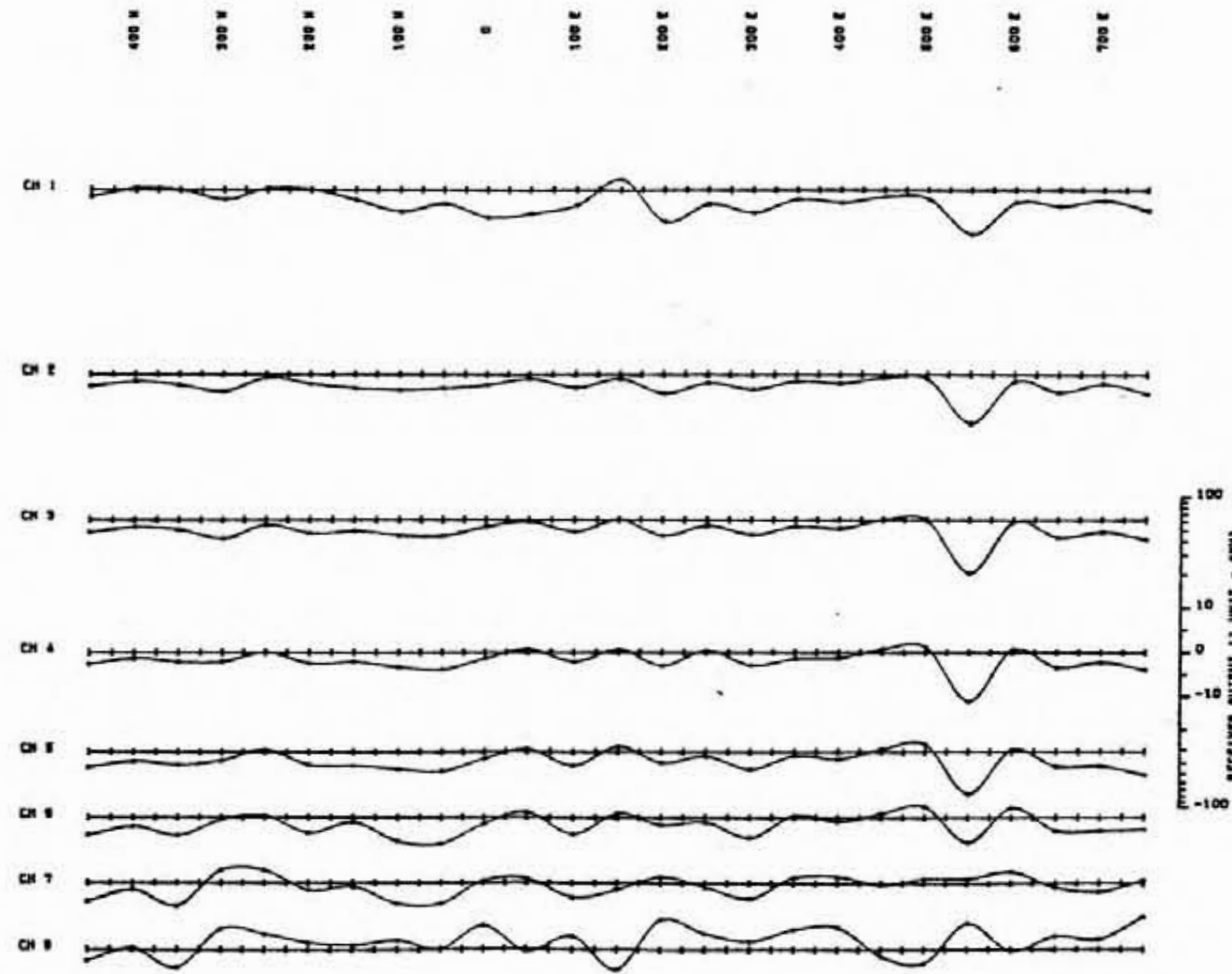
PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE



COIL SPACING	: 100 M
TX LOOP SIZE	: 15.0 M DIAMETER
TIME BASE	: 10.8 MS
HORIZONTAL SCALE	: 1:7500
SURVEYED BY	: AS.TT.
DATE	: OCT / 1981


	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTREX LTD.	85-907
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: B.	
LINE	: S800N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

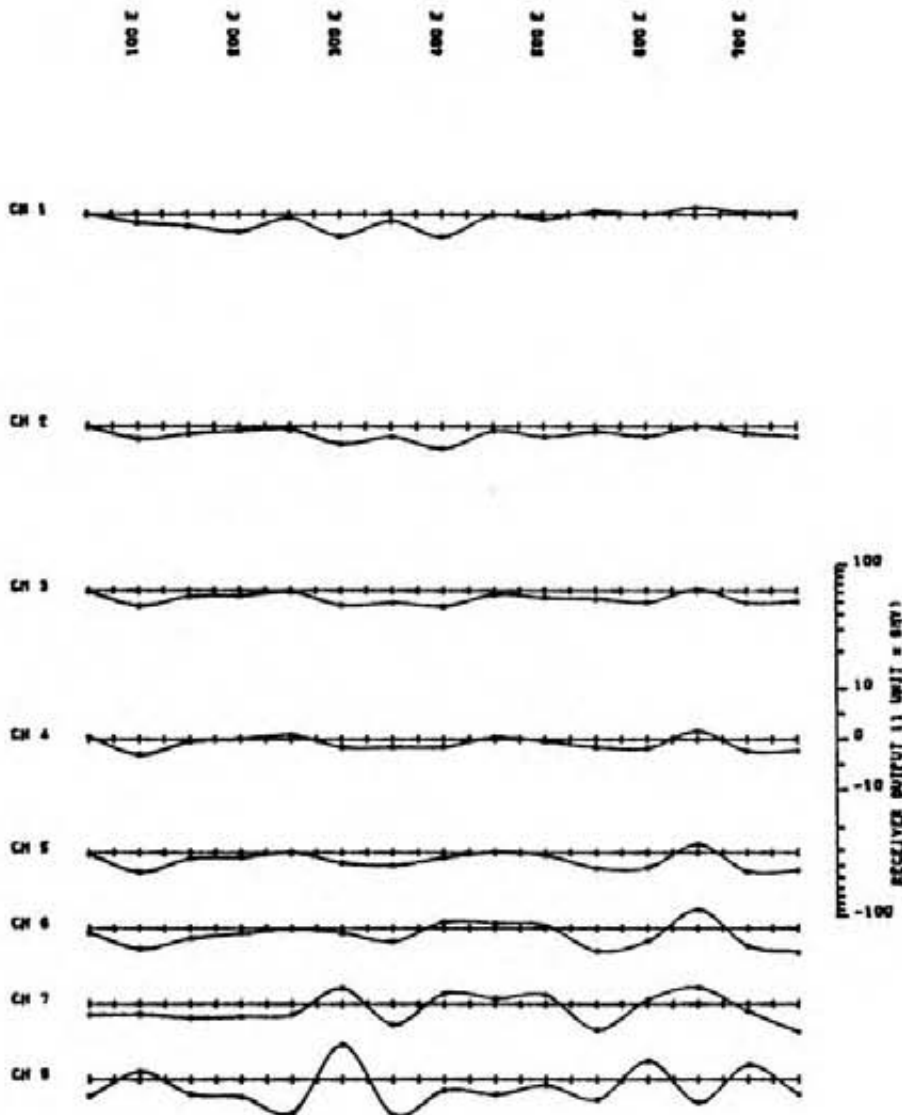


10,114

COIL SPACING : 100 M  
TX LOOP SIZE : 15.0 M DIAMETER  
TIME BASE : 10.8 MS  
HORIZONTAL SCALE : 1:7500  
SURVEYED BY : AS.TT.  
DATE : OCT / 1981

	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTERREX LTD.	85-907
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: B.	
LINE	: 5700N	

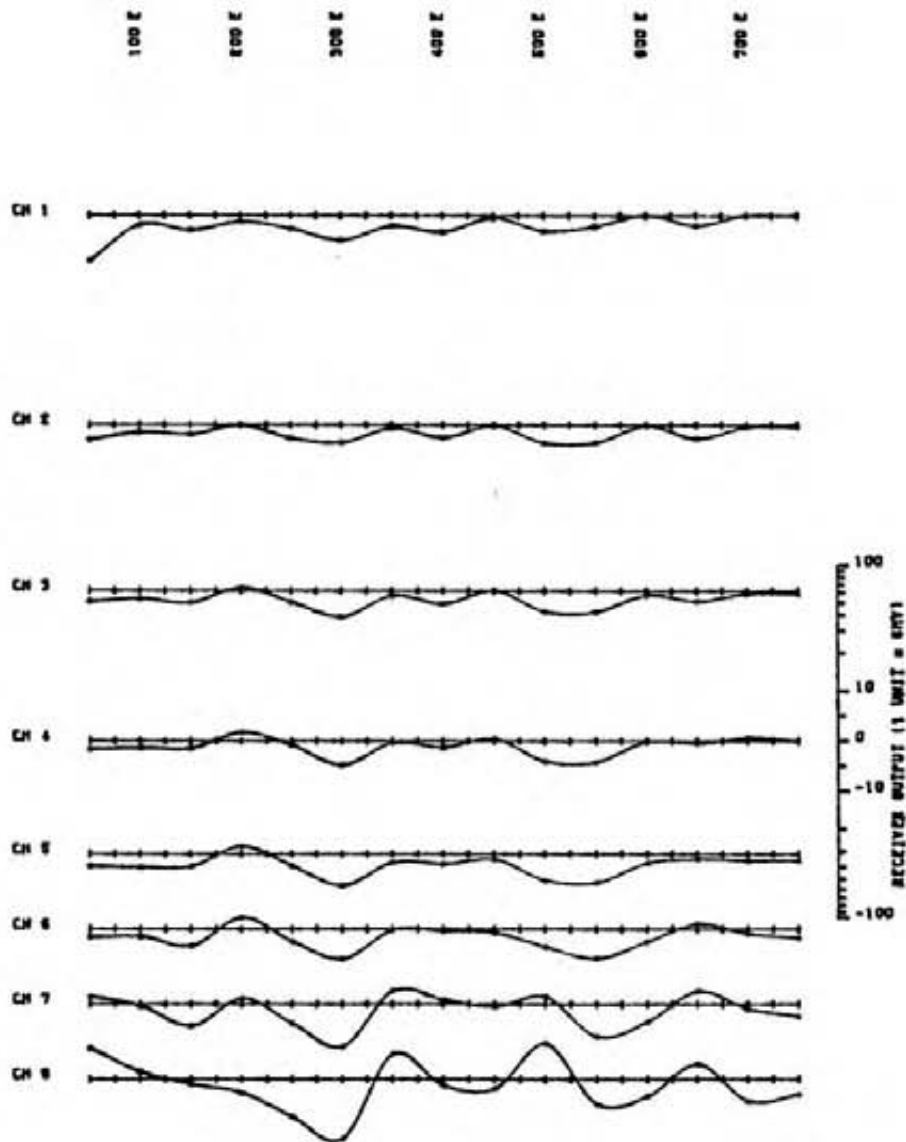
PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE



COIL SPACING	: 100 M
TX LOOP SIZE	: 15.0 M DIAMETER
TIME BASE	: 10.8 MS
HORIZONTAL SCALE	: 1:7500
SURVEYED BY	: AS.TT.
DATE	: OCT / 1981

	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTREX LTD.	85-907
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: B.	
LINE	: 5900N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE



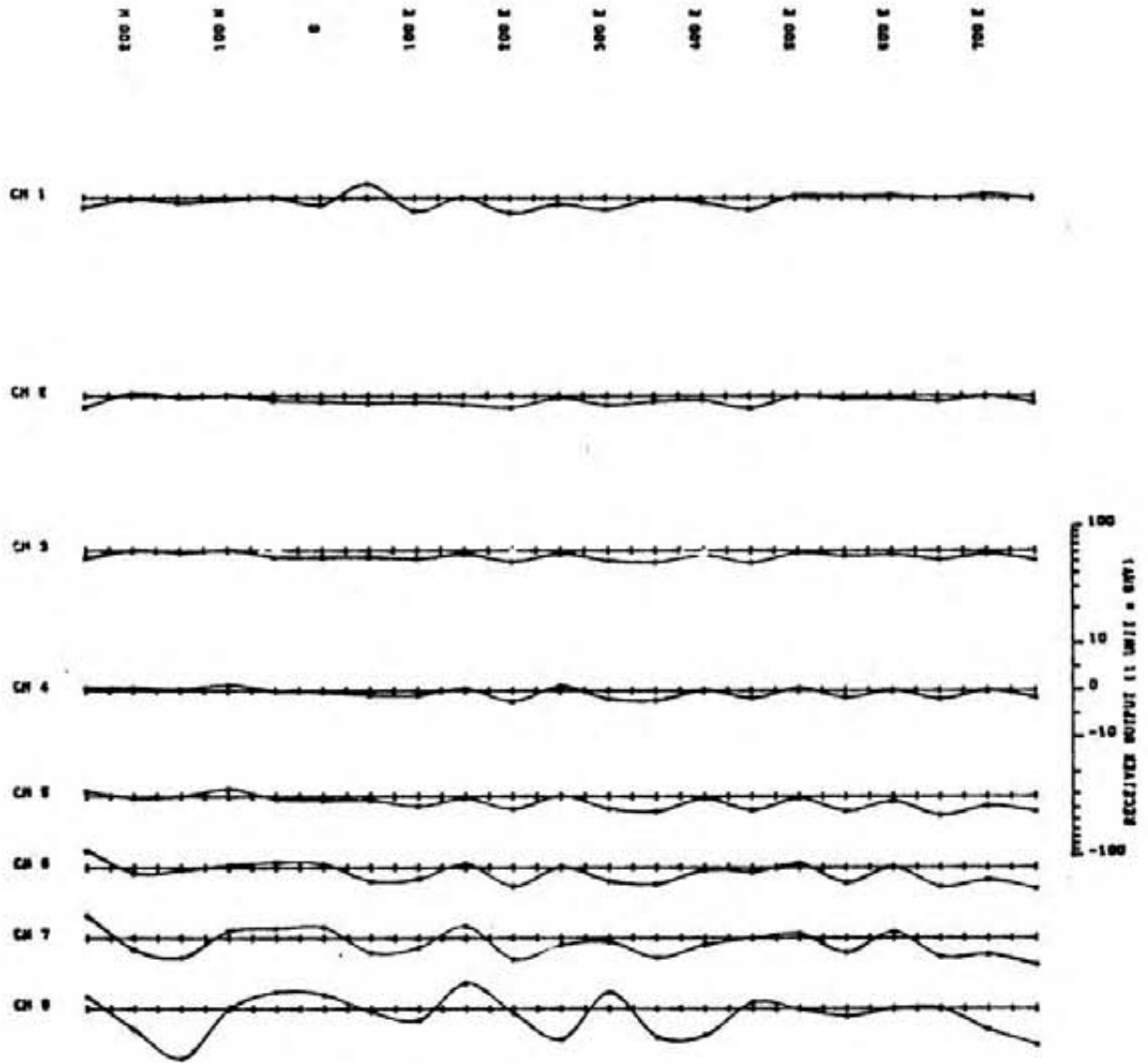
COIL SPACING : 100 M  
TX LOOP SIZE : 15.0 M DIAMETER  
TIME BASE : 10.8 MS  
HORIZONTAL SCALE : 1:7500  
SURVEYED BY : AS.TT.  
DATE : OCT / 1981




SURVEYED & COMPILED BY : GEOTREX LTD. PROJECT NO. : 85-907

CLIENT : CHEVRON STANDARD LTD.  
AREA : IRON MOUNTAIN PROJECT  
GRID CODE : B.  
LINE : 6000N

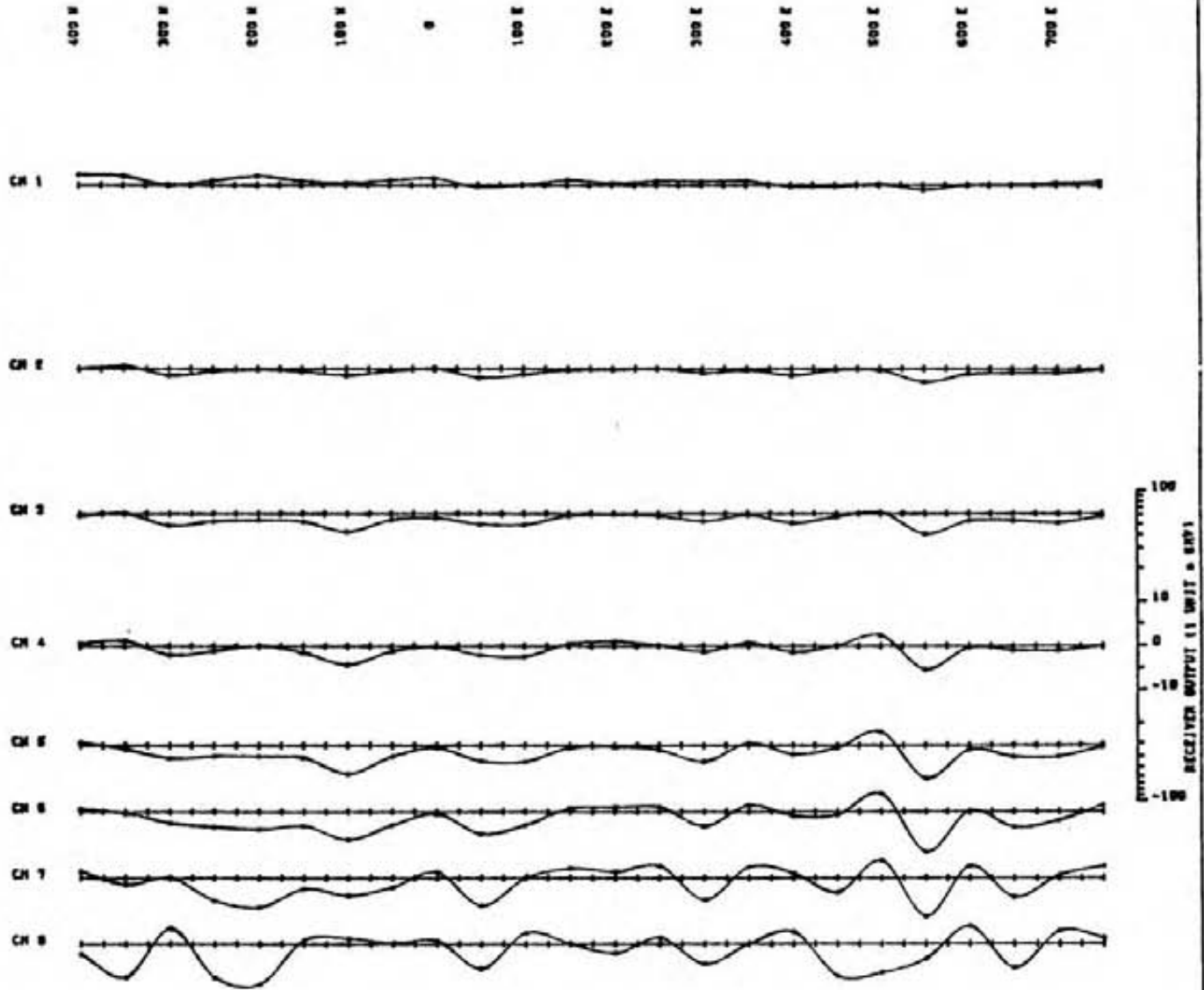
PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE




COIL SPACING	: 100 M
TX LOOP SIZE	: 15.0 M DIAMETER
TIME BASE	: 10.8 MS
HORIZONTAL SCALE	: 1:7500
SURVEYED BY	: AS.TT.
DATE	: OCT / 1981

	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTREX LTD.	85-907
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: B.	
LINE	: 6200N	

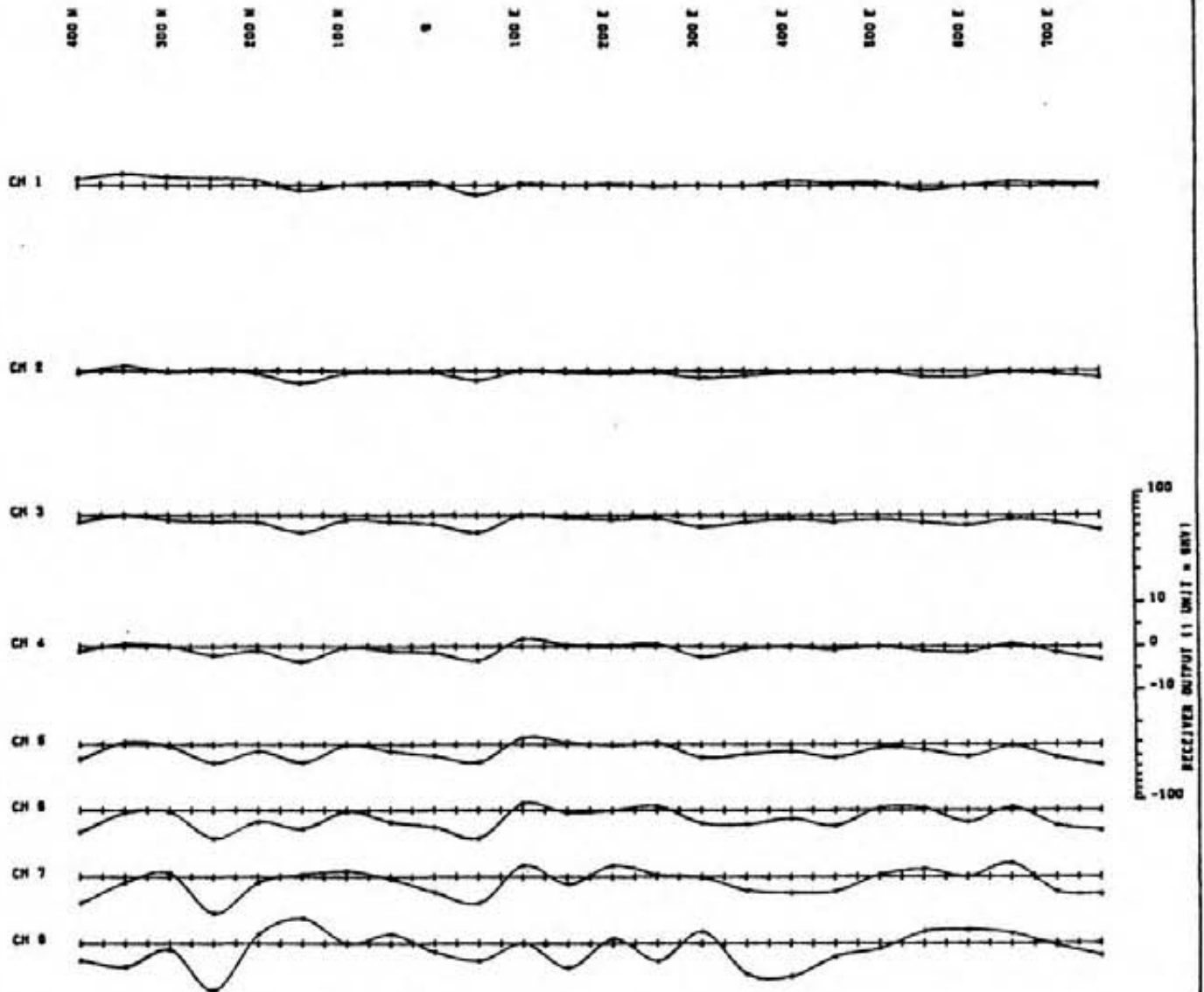
**PEM**  
**MOVING COILS SURVEY**  
**RECEIVER OUTPUT VOLTAGE**




COIL SPACING	: 100 M
TX LOOP SIZE	: 15.0 M DIAMETER
TIME BASE	: 10.8 MS
HORIZONTAL SCALE	: 1:7500
SURVEYED BY	: AS.TT.
DATE	: OCT / 1981

	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTERREX LTD.	85-907
CLIENT	: CHEVRON STANDARD LTD.	
AREA	: IRON MOUNTAIN PROJECT	
GRID CODE	: B.	
LINE	: 6300N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

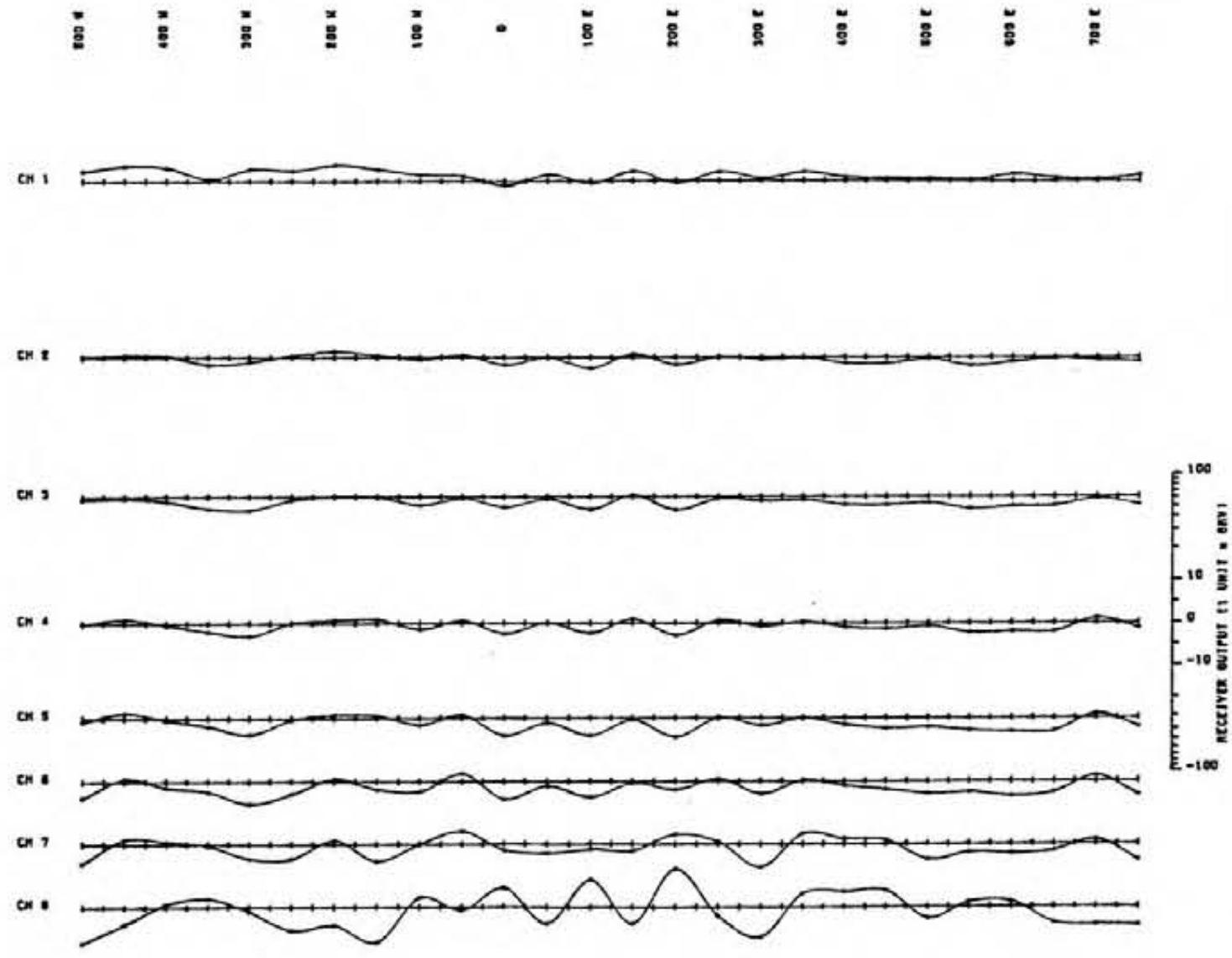


COIL SPACING	: 100 M
TX LOOP SIZE	: 15.0 M DIAMETER
TIME BASE	: 10.8 MS
HORIZONTAL SCALE	: 1:7500
SURVEYED BY	: AS.TT.
DATE	: OCT / 1981

	SURVEYED & COMPILED BY GEOTERREX LTD.		PROJECT NO. 85-907
	CLIENT	: CHEVRON STANDARD LTD.	
	AREA	: IRON MOUNTAIN PROJECT	
	GRID CODE	: B.	
	LINE	: 6400N	




PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

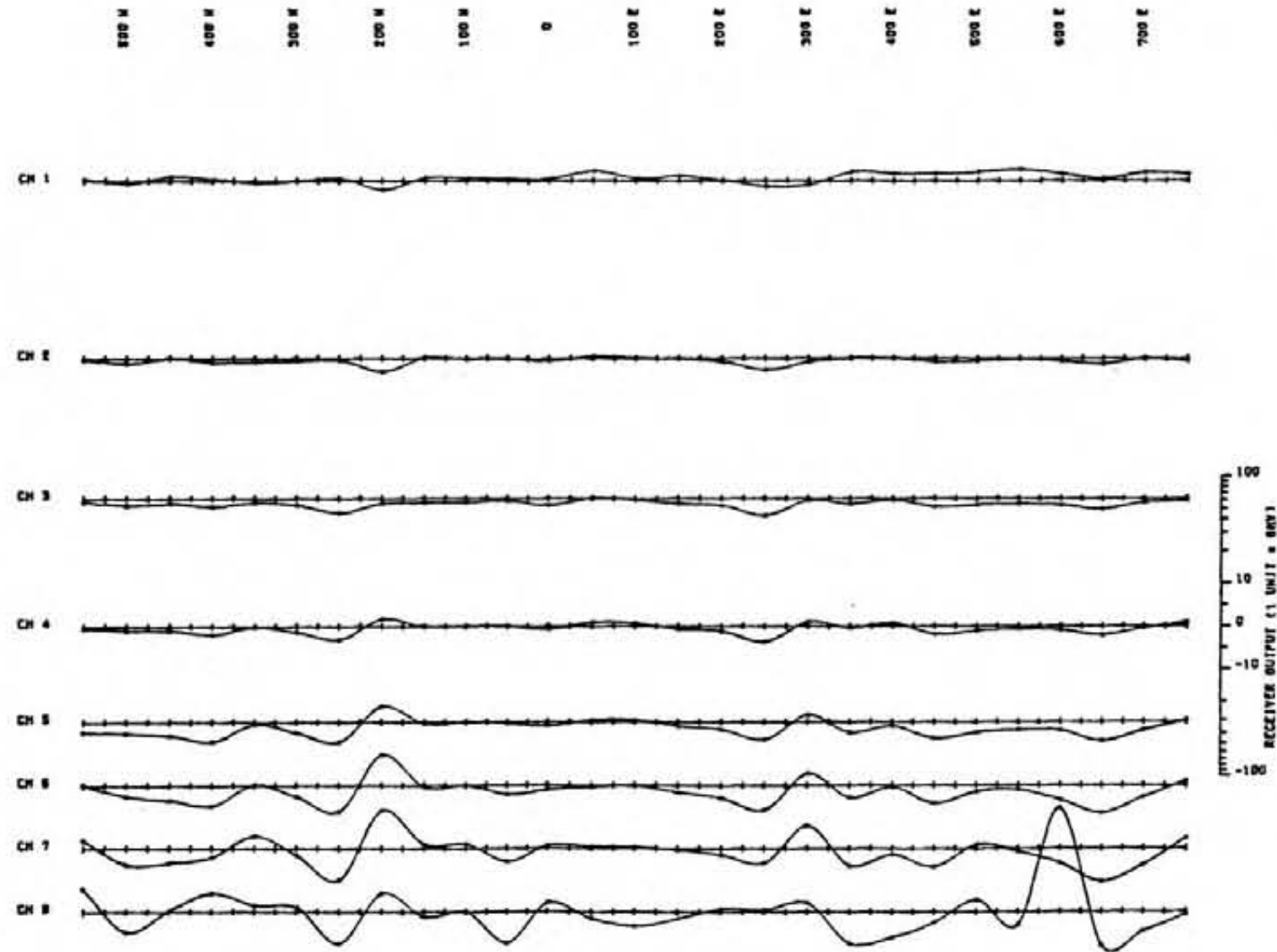


10,114

COIL SPACING : 100 M  
TX LOOP SIZE : 15.0 M DIAMETER  
TIME BASE : 10.8 MS  
HORIZONTAL SCALE : 1:7500  
SURVEYED BY : AS.TT.  
DATE : OCT / 1981


	SURVEYED & COMPILED BY		PROJECT NO.
	GEOTERREX LTD.		85-907
CLIENT		: CHEVRON STANDARD LTD.	
AREA		: IRON MOUNTAIN PROJECT	
GRID CODE		: B.	
LINE		: 6600N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE

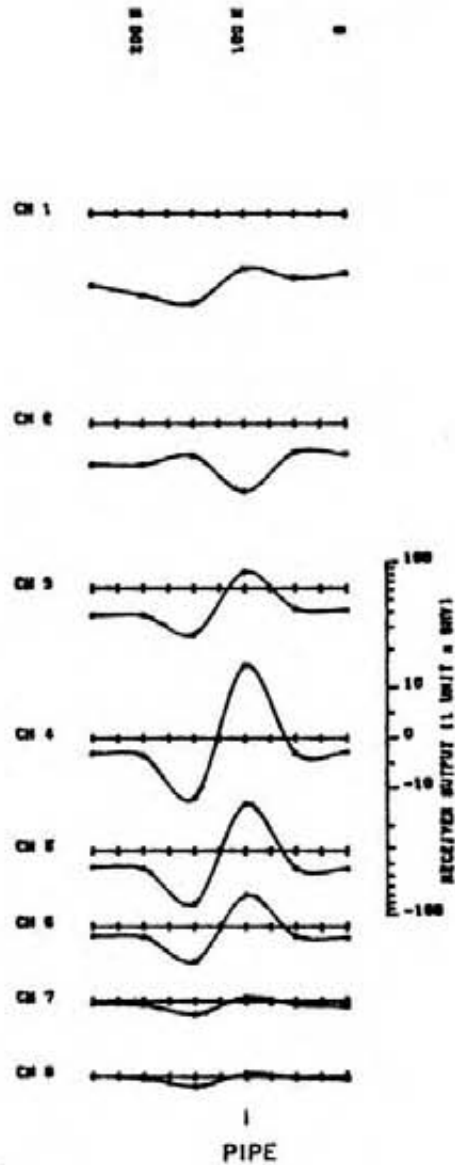


10,114


COIL SPACING : 100 M  
TX LOOP SIZE : 15.0 M DIAMETER  
TIME BASE : 10.8 MS  
HORIZONTAL SCALE : 1:7500  
SURVEYED BY : AS.TT.  
DATE : OCT / 1981

	SURVEYED & COMPILED BY	PROJECT NO.
	GEOTREX LTD.	85-907
CLIENT	CHEVRON STANDARD LTD.	
AREA	IRON MOUNTAIN PROJECT	
GRID CODE	B.	
LINE	6800N	

PEM  
MOVING COILS SURVEY  
RECEIVER OUTPUT VOLTAGE



COIL SPACING : 50 M  
 TX LOOP SIZE : 15.0 M DIAMETER  
 TIME BASE : 10.8 MS  
 HORIZONTAL SCALE : 1:7500  
 SURVEYED BY : AS.TT.  
 DATE : 9/24/81

	SURVEYED & COMPILED BY GEOTREX LTD.	PROJECT NO. 85-907
	CLIENT : CHEVRON STANDARD LTD	AREA : IRON MOUNTAIN PROJECT
LINE : TEST		

## GEOLOGY DESCRIPTIONS

### GENERAL GEOLOGY

The general geology of Iron Mountain is volcanic pyroclastics with lesser amounts of flows and intrusives of an apparently wide compositional range. Periods of less igneous activity are represented by immature clastic sediments and limestone with some rhyolite muds. Broadly, the units tend NNE-SSW ( $\approx 030^{\circ}$ ) and from the occasional graded beds the sequence youngs to the E. These rocks are part of the Triassic Nichola Group volcanics.

### DETAILED GEOLOGY (Descriptions by Mark Brewster)

1. The westernmost unit appears to be a dark pyroclastic and flow unit of dark green-grey or black tuffs and lapilli tuffs with largely monolithic, probably andesitic, and occasional crystal fragments, the lithic fragments often rimmed with chlorite. The flows are porphyritic to glomeroporphyritic (feldspar phenocrysts 2 - 3 mm.) and amygdaloidal partly filled with calcite and/or quartz, and acicular amphibole. In places the matrix has been heavily hematitized.
2. DARK GREY TUFF: Overlying the last unit is a varied sedimentary unit characterized by a very hard siliceous dark blue-grey or black fine grained tuff. There may be euhedral or fragmental feldspar and quartz crystals and the occasional larger dark lithic fragment ( $\leq 1$  cm.) including occasional Jasper fragments. Generally massive, the character changes only gradually over an outcrop. This may be an aquagene tuff. Intermittent extrusive volcanism produced several porphyritic to glomeroporphyritic (feldspar xtals - 2mm.), dark grey flows and fine grained tuffs. To the south this unit thickens considerably and contains a

small pocket of purple and green mottled tuff similar to the purple-green lapilli tuff. This unit ends abruptly against an andesitic lapilli tuff.

3. PURPLE-GREEN LAPILLI TUFF: This is a largely andesitic (?) unit characterized by a dark-purple matrix and an abundance of dark green chlorite fragments. Fragments are generally 2 - 3 cm. but may be 4 cm.+ Chlorite fragments may show a yellow/green streaked appearance not seen in other units. Other fragments are usually dark grey/purple or red/brown, porphyritic to fine grained and angular to subangular volcanic, and occasionally jasper. Much less frequent felsic intrusive and extrusive fragments may be found, and fragments usually touch each other. Commonly the matrix and lithic fragments are very siliceous, but not the chlorite fragments. However, it may vary from being entirely chloritic to entirely silicified.

A green volcanic arkose unit appears in places near or at the top of this unit. It is poorly sorted (fragments generally  $\leq$  2mm.) and variable in thickness, and is more important to the south as the lapilli tuffs thin out and laterally progress into a more sedimentary facies. Near where this unit changes from predominantly pyroclastic to predominantly sedimentary facies there is a small pocket of gypsum.

4. SOUTH WEST SEDIMENTS: A small package of sediments lies to the south of and stratigraphically equivalent to the PURPLE GREEN LAPILLI TUFF. It consists of argillites and impure sandstones with variable amounts of crystal fragments and subrounded lithic fragments. The argillites

are black and variably siliceous; the coarser sediments are mineralogically and texturally immature arkosic sandstones, medium green/grey with dark green chlorite spots. ( $\approx$  1 mm.).

There are several basic to felsic tuff to lapilli tuff beds. Alteration of this unit makes many of the rocks difficult to identify.

This sediment unit is separated from the next unit by a thin finger of the PURPLE GREEN LAPILLI TUFF which shows a gradational change over 10 - 20 m. into the WISPY CHLORITE UNIT.

4. WISPY CHLORITE UNIT: This light green unit can be traced across the property until the south end, where it thins out against the sediment pile. It is an acidic tuff to lapilli tuff with a fine grained matrix in which are scattered without touching each other, dark green sub-angular chloritic fragments and wisps and bright red Jasper fragments ( $\leq$  1cm.). Crystal fragments are usually pink feldspar and less often quartz. Although hard, this unit is not extremely siliceous.

Within this lapilli tuff are occasional gritty to argillaceous sediments (brown/grey flecked with chlorite), and an andesite (?) tuff. Overlying this unit is a massive domal rhyolite unit.

5. RHYOLITE: Variably light green/grey or cream to a dark blue/grey when fresh, it weathers a characteristic yellow rust orange and is very fractured. It appears to be a predominantly pyroclastic unit, generally lapilli tuff (6 - 7 cm.) with finer tuffs or flows. Fragments are an-

gular and poorly sorted and often difficult to see. In one place there is bedding and laths of feldspar are aligned parallel to bedding, with one large (1 cm.) rhyolite pebble, indicating some of this unit was subaqueous during deposition.

This unit has been heavily altered in areas and silicification may have made more basic rocks look like part of this unit. There are several sediment beds within this unit.

6. PURPLE ARKOSE: The purple arkose occurs in the SSW part of the mapped area and starts approximately where the RHYOLITE (5) unit pinches out. The PURPLE ARKOSE lies directly above the WISPY CHLORITE UNIT. Generally a red/purple silt to sandstone with occasional feldspar fragments ( $\approx$  1mm.) and green/black chlorite flecks.

It is massive to thinly bedded, mineralogically and texturally immature (arkose) with small pods ( $\leq$  40m. long) of massive or bedded Jasper. There is quite frequent specularite veining and quartz veining with associated silicification.

One area of this unit is not purple but a brown/green, and it is this, together with essentially the same sediment type, which may mean that the PURPLE ARKOSE and the next unit, the GREEN GRIT, are the same unit.

7. GREEN GRIT: A rapidly southwards thickening clastic unit overlies the PURPLE ARKOSE, and the RHYOLITE (5) interfingers for several hundred metres between the ARKOSE and GRIT units. Usually a medium green/grey or blue/grey and flecked with chlorite spots (2 mm.). Fragments of quartz

and feldspar crystals are visible and the occasional red Jasper fragment.

Slight alteration by epidotization is often common along fractures and the whole rock may or may not be silicified.

A characteristic feature of this unit is the abundance of angular voids throughout up to 7 mm. which have subsequently been filled or partially filled by calcite and/or quartz.

There are minor amounts of black siliceous argillite, usually with white feldspar crystals visible in the matrix.

8. ANDESITE LAPILLI TUFFS: In the centre of the map is a unit of dark green/blue-grey or maroon andesitic lapilli tuff. Thickest 700 m. south of the summit, it thins both to the north and south, eventually pinching out. It is a massive fragmental unit. The constituents are generally dark basic, grey-black with occasional lighter felsic fragments and very occasional outcrops of a more felsic nature. Fragments are generally angular and  $\leq 1$  cm. and consist of both lithic and crystal types. Crystal fragments can be up to 10% of the rock and lithic fragments - 30 to 40%. Quite often there are quartz and calcite filled voids, both irregular and spherical (amygdales ?). Chloritic and Jasper fragments are also common.

There are a number of fine grained dark argillic tuffs, fine silts and gritty beds. In places there are areas on fractures and between fragments of bright red and ferruginous chert.

9. ANDESITE (?) FLOWS: This is a small unit of light purple/red to dark purple/



green flows and tuffs to lapilli tuffs. Generally massive with subangular red and/or light green fragments. Flows are amygdaloidal and banding may be present. There are several pods of banded Jasper and Jasper quartz veins, and hematitization is variable throughout. This is a poorly defined unit and although it is similar to the PURPLE/GREEN LAPILLI TUFF, it was mapped originally as rhyolitic, and that the hematitization had given it a darker colour.

10. SEDIMENTS AND TUFFS: A mixed sedimentary, and felsic-basic clastic unit which interfingers with or possibly is a lateral facies change from SEDIMENTS (11). These sediments are usually sandstones and siltstones with pyroclastic fragments. There are approximately equivalent amounts within the pyroclasts of felsic and basic material.

Pyroclastic material is generally angular, lapilli tuff to fine grained tuff and may be well sorted. Basic material may be chloritic.

11. SEDIMENTS: This unit is predominantly sedimentary with some pyroclastic materials. Sediments are generally grey or brown sandstones, siltstones, bedded, poorly sorted and immature mineralogically. There are occasional beds of argillite and grey limestone and some of the beds are fairly calcareous. Many of the beds have occasional larger fragments of volcanic material and one bed has clastic sulphides. To the extreme north there is a small pocket of limestone which may be part of the unit or of the LIMY SEDIMENT UNIT (14a).

There are several beds of dark green or purple/brown lapilli tuffs with basic angular fragments  $\leq 2$  cm. that are chloritized and silicified in places.

12. LIGHT GREEN SILICEOUS TUFF: Although a fairly thin unit, like the RED SILTSTONE (13), it outcrops continuously across the map and both form distinctive marker units. Both these units - (12) and (13) - are to the south separated from each other by a maroon-green lapilli tuff very similar to ANDESITE LAPILLI TUFFS (8), so that it is very possible that these two units should be included as part of (8).

This is an acidic, light green, highly siliceous tuff to lapilli tuff with a fine grained matrix, set in which, without touching each other, are a number of coloured fragments, the most distinctive being chloritic and red hematite stained and/or Jasper fragments. Fragment size is  $< 1.5$  cm. and generally is  $\approx 2 - 4$  mm. and usually angular.

This unit is occasionally chloritic and at first glance looks exactly like the WISPY CHLORITE UNIT, only the latter is coarser and less siliceous.

13. RED SILTSTONE: This is a uniform, reasonably sorted dark red/purple silty sandstone. It does not appear to be well bedded and is finer grained than the PURPLE ARKOSE. It is hard without being entirely siliceous, and there may be small chlorite wisps, but these are the only fragments in this unit.

Overlying the double marker beds is a predominantly calcareous sediment sequence which has been divided into two parts. A limestone unit and a mixed limestone and calcareous clastic and pyroclastic unit.

14. GREY LIMESTONE: The limestone unit is to the south of the A fault, with a

possible small wedge immediately north of the fault, and it is separated from the marker beds by a thin unit of ANDESITE LAPILLI TUFFS (8).

It is massive, grey, fossiliferous, calcargillite to calcarenite, with a common clastic impurity of feldspar crystals. In places the limestone is coarsely crystalline, possibly due to local heating and recrystallization. It is regularly cut by thin calcite, chlorite and occasionally quartz veins. Fossils are primarily brachiopods, with a lot of bioclastic debris ( $\leq 2$  mm.). There is a minor amount of purple andesite tuff beds, which include jasper fragments and feldspar crystals, and there is a thin green/grey gritty arkose.

- 14a. LIMY SEDIMENTS: The limy sediment unit is both north and south of the A fault. To the north, this unit lies at first against the two marker beds and then nearer the A fault it becomes separated from the marker bed by a wedge of ANDESITE LAPILLI TUFF. To the south of the A fault, the LIMY SEDIMENTS are at first against the massive GREY LIMESTONE unit, but they soon become separated by a rapidly thickening wedge of rhyolite and andesite tuffs and lapilli tuffs - (15) and (16).

Graded beds show clearly a younging eastwards, and the majority of this unit is made up of alternating impure calcarenite or calcargillite, with less frequent calcareous to non-calcareous sandstones, siltstones, greywackes and lithic-crystal tuffs. There are beds of pure blue/grey limestone (bioclastic), but their extent is limited. Fossils include brachiopods and bryozoan remains. A characteristic bed in the north is a red rounded pebble crystal tuff, and in this same area this unit has a distinctive golden colour. Argillaceous beds, including light green siliceous fine grained aquagene tuffs and cherty beds, are also present.

Pyroclastic material is largely dark purple/green andesitic tuff with occasional amygdaloidal flows. Fragmental rocks are generally lithic, with some crystal tuffs, with some beds of lapilli tuff.

Within this unit are horizons in which there are massive sulphide (pyrite) clasts up to 1.5 cm., usually in a dark green/grey gritty arkosic bed.

Their sediment facies and rapid alternating indicates a fairly high energy environment in which there were frequent changes in current velocity and material supply, and it seems likely that a shallow basin or shelf had developed, during a quiescent volcanic period, which deepened to the south, allowing for a quieter environment in which limestone (14) could be deposited.

15. SOUTH EAST RHYOLITE: This is a thick taco-shaped body of rhyolite overlying the GREY LIMESTONE. To the north it pinches out between the two limestone units, and to the south it pinches out between the underlying andesite lapilli tuff (16) and the overlying GREY LIMESTONE. Commonly a blue-grey to green fine grained siliceous rock, often very uniform, without evidence of fragments and only a few feldspar phenocrysts, and there are no quartz eyes, so that this may be a more intermediate volcanic. Feldspar phenocrysts, when present, may be up to 5 mm. long, and in the larger crystal sizes may show a parallel orientation. The rhyolite changes abruptly into a basic pyroclastic unit.
16. ANDESITE LAPILLI TUFF: This is a dark grey-purple and mottled green, angular, lithic and crystal tuff to lapilli tuff. The rock may be

entirely chloritic or siliceous but commonly has a silicified matrix and chloritic fragments. Some of the dark lithic fragments have porphyritic feldspar, and there are occasional fragments ( $\leq 2$  cm.).

There are occasional beds within this unit of green volcanic siltstone to coarse sandstone, with lesser amounts of black silicated argillite and green/grey fine grained aquagene tuff, commonly bedded and graded (tops to SE).

The andesitic lapilli tuffs interfinger with and grade into a small sedimentary package (16a) which shows similar rock types as seen in the lapilli tuffs but shows a cyclic nature in the sequence of beds.

16b. The very SE corner of the map shows the beginning of another rhyolite sequence, in which there is a bed of black argillite. Part of this rhyolite has been intensely altered to a bleached sericitized, clay altered rock type very similar to the altered rock on the top of Iron Mountain.

17. COTTAGE CHEESE LAPILLI TUFF: A rather irregularly shaped unit of lapilli tuff overlies part of the LIMY SEDIMENT UNIT. It is grey/green with fragments  $\leq 1$  cm. making up to 60% of the rock set in a finer grained calcareous matrix. Fragments are subangular to sub-rounded and may be chloritic. Some areas are fine grained tuffs.

18. RHYOLITE DYKE AND FLOWS: This is a distinctive hummock just to the east of the access road on the north side of the mountain, and it is a rhyolitic intrusive and possibly some extrusive material (as flows).

There is no fragmental material. Throughout, the unit is a light grey-green, highly siliceous matrix with quartz eyes ( $\leq 1$ mm.). It weathers characteristically a cream-grey, with parallel rusty brown streaks, possibly a flow banding or fine jointing related to cooling.

On the south end of this hummock is a classic example of hexagonal columnar jointing, of the same rock type, and possibly representing a dyke for the surrounding rhyolite flows and RHYOLITIC MUDS (19).

19. RHYOLITE MUD: Partly surrounding and overlying the RHYOLITE DYKE AND FLOWS is an extensive area of very uniform aquagene tuff. It is a very fine grained argillic rhyolite mud varying in colour from green to black and it is highly siliceous.

Fragments are not common, but chloritic fragments and quartz eyes (10%) do occur, and there are a few beds of andesitic tuff to lapilli tuff (fragments  $\leq 1$  cm.).

20. PURPLE ANDESITE BRECCIA: The green rhyolitic muds grade into a green grey lapilli tuff (20a) with fragments  $\leq 1$  cm. and up to 40% chloritic fragments, and this is probably the unhematitized part of the ANDESITE BRECCIA. The ANDESITE BRECCIA is a deep purple with fragments up to 9 cm., although more commonly  $\leq 5$  cm., which make up 70% of the rock and are set in a very dark purple matrix. Most fragments appeared to be andesitic pyroclastics and flows, but there were sedimentary and crystal fragments also.

21. RED LIMESTONE: One outcrop of a red, highly fossiliferous (reef) hematite

stained limestone.

- D. DIORITE: These occur as small bodies (maximum  $\approx$  350 m.) of medium to coarse grained stocks. Generally fairly irregular in outline, these intrusions have caused local hornfels contact metamorphism.
- J. JASPER: The jasper on Iron Mountain typically occurs in discontinuous pods and thin beds up to 15 m. long and several metres thick. Usually thinly bedded ( $\leq$  0.75 cm.) and very often brecciated to various degrees, there may also be some pre-lithification slump features. The main jasper "horizon" is not confined to any one unit or boundary between units. It does broadly run along strike and is generally stratigraphically above the WISPY CHLORITE UNIT. Although it appears to transgress this unit to the north, this may be another jasper horizon below the WISPY CHLORITE UNIT (like the jasper west of the WISPY CHLORITE at the old antennae site).

There are several other jasper occurrences both above and below the main horizon which would indicate that the hydrothermal activity occurred intermittently through the basic volcanics and that the rhyolites mark the end of a volcanic phase and with it the jasper deposition.

During discussion with Jay Hodgson this summer, he indicated that many of the jasper horizons associated with Japanese massive sulphide deposits overlies a feeder zone of heavy specularite veining. Such a situation appears to occur on Iron Mountain. In the SW corner of the area mapped there is an area in which many of the outcrops have specu-

larite veins from  $\ll$  1 mm. to 0.75 m. These veins are rarely present above the major jasper horizon and have often caused heavy alteration (sericitization, silicification and some epidotization) in the rocks below the PURPLE ARKOSE.

It is also possible that the PURPLE ARKOSE is the same as the GREEN GRIT but that it was deposited during heavy ferrigenous silica hydrothermal activity.

- V. VOLCANIC VENT: There is one 50 m. wide resistant plug, bounded on the southeast by a fault, and on most of the other sides by steep faces. It forms a steep-sided hummock and is crudely circular. It is a volcanic breccia with fragments in excess of 7 cm., both igneous and pyroclastic nature with a finer matrix. Its dip into the mountain is unknown.

FRAGMENTAL SULPHIDES: Further evidence of mineralization of a strata-form massive sulphide type comes from the presence with the LIMY SEDIMENT UNIT (14a) of beds with clasts of pyrite up to 1.5 cm. - variably rounded, and occasionally bedded. There are, however, no clasts of basic metal sulphides. Nor has it been possible from the available information to determine any direction in which the fragments become larger.

## STRUCTURE

The Iron Mountain sequence appears to be broadly striking SSW-NNE, although to the north this changes to SW-NE. It appears to be result of a gentle



fold. The beds dip generally to the east. However, within the volcanics, bedding is less reliable, with more variation. Perhaps 50% of the readings indicate bedding dips to the east and, often within 50 - 100 m. of each other, another reading for an opposite dip, so it would appear that there is small scale folding as well.

The beds dip moderately steeply,  $56^{\circ}$  -  $90^{\circ}$  in the south and more gently in the north ( $30^{\circ}$  -  $60^{\circ}$ ), and occasional trough cross-bedding and grading indicate a younging to the east.

A major fault (A) cuts the entire sequence of rocks, and it would appear to have been downthrown on the south side, but the amount of movement is not known.

A second smaller fault (B) further south shows a movement possibly on the north side. If this is the case, then the Lucky Todd and ST(1) vein would appear to be in a small downthrown block. There also appears to be some transform movement along these faults which has lead to some drag folds developing along the fault.

#### MINERALIZATION

Iron Mountain has been so named because of the extensive hematite and specularite mineralization (already described) which has occurred near the top of the mountain and on which in the past a large amount of blasting has occurred.

Galena, sphalerite, barite and occasionally copper mineralization is present in three places as what appear to be veins. The major vein (the Lucky Todd) was 2 m. wide and located at a rhyolite-sediment contact.

This was worked during 1927-28, when sample yields gave:

Ag	1 - 2 oz.
Pb	8 - 18%
Zn	2 - 3 %.

The other two veins have been trenched in the past and samples taken from these gave the following results:

	ST 2	SAMPLE NO. SM 198	ST 1	SAMPLE NO. SM 58
Cu		184		1,050
Pb	>	10,000	>	10,000
Zn	>	10,000		8,750
Ba	>	10,000	>	10,000

These veins are spaced across the property and do not lead to large anomalous soil assay zones. The veins are within rhyolites or, in the case of ST 2, in sediments (14a?).

Copper (malachite, azurite) occurs as minor mineralization in heavily altered silicified and sericitized zones. Some of these zones exist around the diorite intrusions, and mineralization is related to these. Elsewhere the copper has no obvious explanation.

## ALTERATION

CHLORITIZATION: This has taken place extensively within many of the basic tuffs and lapilli tuff fragments, and less often through the entire rock. It has also occurred with fragments in the more acidic tuff and lapilli tuff units, notably the WISPY CHLORITE UNIT and the LIGHT GREEN SILICEOUS TUFF. In several places chlorite veins were noted and the diorite stocks usually show chlorite alteration. The entire belt of Nicola rocks have been metamorphosed so that the use of chlorite-sericite alteration zones, common near other polymetallic deposits, as an indicator is not possible.

SERICITIZATION AND SILICIFICATION: This has occurred in a number of discrete areas, often as a zone around the diorite intrusions, where in addition to the above, there is some copper mineralization.

Hydrothermal, iron-rich solutions have heavily altered parts of the country rock cut by specularite veins. The extent of alteration is such that it is often not possible to recognize the rock type any longer.

This type of alteration has also occurred very near an andesite intrusive. Silicification is more intense than that associated with the specularite veining, and there is also some copper mineralization (malachite). It is not certain whether the intrusive and the alteration are related.

CLAY ALTERATION: This has taken place in two places, one on the top of Iron Mountain near the micro-wave tower and the other at  $\approx$  38 N and 63E

(SE corner of the map). In both cases a rhyolitic unit has been bleached, with some iron staining and probably also sericitization and silicification. The alteration is, however, very limited (one outcrop in each case).

SILICIFICATION: There is a broad division NE-SW, west of which varying degrees of silicification are common and east of which it is essentially absent. In addition to this there is an area in which heavy silicification occurs quite frequently. This last area is closely associated with the jasper horizon and perhaps represents silica precipitation due to pressure and temperature drop at the exit of the hydrothermal system which led to the formation of the major jasper horizon.

STATEMENT OF QUALIFICATIONS

I, Mark Brewster, am a graduate geologist temporarily employed with Chevron Standard at 901 - 355 Burrard St., Vancouver, B.C. V6C 2G8.

I am a graduate of the University of Manchester (B.Sc. (Hon.) 1981) and have worked in mineral exploration for three summer seasons.

A handwritten signature in cursive script that reads "Mark Anton Brewster".

Mark Anton Brewster

November 1981

IRON MOUNTAIN  
THIN SECTIONS

- SM-74      Dark grey dacite fragmental flow.  
Alteration products: chlorite, epidote and carbonate.
- SM-114     Brown calcareous andesite lapilli tuff.  
Alteration products: hematite, carbonate and chlorite.  
The clasts represent a range in volcanic textures as well as  
in lithologies.
- MB-199     Rhyolite tuff.  
Alteration products: hematite, carbonate, and chlorite.  
Numerous opaques (pyrite) occur within the matrix and in places  
appear to be replacing feldspar fragments in this framework  
supported tuff.
- MB-244     Rhyolite fragmental flow.  
Alteration products: chlorite and some hematite.  
Angular volcanic fragments are moderately spaced within a  
uniform rhyolite matrix.
- MB-282     Dark purple and green lapilli tuff (K-poor).  
Alteration products: chlorite and hematite.  
Clasts are very irregular angular volcanic fragments.  
The rock is heavily chloritized.
- MB-208     Highly altered tuff (K-poor).  
Alteration product: saussurite.  
Uniform and highly altered rock exhibits a relict  
pyroclastic texture. No K-feldspar is present.
- BC-71      Rhyolite fragmental flow.  
Alteration product: chlorite and carbonate.  
Wisps of chlorite as seen in handspecimen are chloritized  
areas around fragments.
- TS-63      Highly altered grey-green flow or crystal tuff (K-poor).  
Alteration products: chlorite, epidote and carbonate.
- TS-97      Grey-green tuff (K-poor).  
Alteration products: carbonate, epidote and chlorite.  
A highly altered tuffaceous matrix contains a few scattered  
plagioclase phenocrysts.
- TS-216     Green highly siliceous flow rock (K-poor).  
Alteration products: chlorite, carbonate and hematite.  
Glomero-phenocrysts and small plagioclase crystals in the  
matrix are preferentially oriented and define the flow  
texture in this sample.

- TS-231 Flow banded rhyolite porphyry.  
Alteration products: carbonate, chlorite and epidote.
- TS-240 Flow banded rhyolite.  
Alteration products: hematite, carbonate and sericite.  
Weak banding is visible.
- PF-7 Purple andesite - basalt fragmental flow.  
Alteration products: carbonate, chlorite, epidote and hematite.  
Epidote and chlorite lined vesicles are filled with carbonate.  
Subrounded lithic fragments and subhedral phenocrysts are contained  
in a matrix that exhibits flow textures around some of the crystals.
- PF-38 Diorite.  
Alteration products: chlorite, sericite, carbonate and epidote.
- PF-42 Porphyritic diorite.  
Alteration products: carbonate, sericite and chlorite.  
Large pyroxene phenocrysts occur throughout the diorite and are  
rimmed by amphibole.
- PF-73 Rhyolite crystal tuff.  
Alteration products: chlorite and sericite.
- PF-84 Purple rhyolite lapilli tuff.  
Alteration products: chlorite, carbonate, hematite and sericite.  
The volcanic clasts span a wide range of textures and compositions.
- PF-91 Light grey lapilli tuff (K-poor).  
Alteration products: carbonate, sericite and chlorite.  
Irregularly shaped fragments are often altered previously to  
chlorite.
- PF-107 Fine grained chlorite porphyry (probably a dyke rock).  
Alteration products: chlorite and epidote.  
Garnets occur within highly altered areas.
- PF-124 Pale purple grey highly altered lapilli tuff.  
Alteration product: sericite.
- PF-131 Rhyolite lapilli tuff.  
Alteration product: sericite.
- PF-186 Brecciated vitric tuff in contact with andesite crystal tuff.  
Alteration products: sericite, carbonate and chlorite.

- PF-188 Dark grey andesite lapilli tuff.  
Alteration products: carbonate chlorite and epidote.
- PF-205 Diorite.  
Alteration products: chlorite, epidote and carbonate.  
The diorite is locally brecciated and probably represents  
a dyke rock.

*S. G. McAllister*

S. G. McAllister

January, 1982



GEOCHEMICAL PREPARATION  
and  
ANALYTICAL PROCEDURES

1. Geochemical samples (soils, silts) are dried at 80°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% HClO<sub>4</sub> and concentrated HNO<sub>3</sub>. Digestion time = 2 hours.
3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.
4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper	-	1 ppm
Molybdenum	-	1 ppm
Zinc	-	1 ppm
* Silver	-	0.2 ppm
* Lead	-	1 ppm
* Nickel	-	1 ppm
Chromium	-	5 ppm
- \* Ag, Pb & Ni are corrected for background absorption.
5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

BARIUM:

A 0.20 gm sample is digested with a mixture of HF-HClO<sub>4</sub> - HNO<sub>3</sub> acids to dryness. The baked residue is leached with 25 ml of 10% HCl with NaCl added to reduce ionization effects in the A.A. flame. Analysis is by AAS using a N<sub>2</sub>O-C<sub>2</sub>H<sub>2</sub> gas mixture.

IRON



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BARRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

# 10,114

CERT. # : AB112472-001-A  
INVOICE # : I8112472  
DATE : 01-AUG-81  
P.O. # : NJNE  
M491

ATTN: D. ARSCOTT CC W.A. HOWELL, JMT SERVICES CORP.

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
40N 43+00E	201	50	4	95	700	--	--
40N 43+50E	201	39	6	118	660	--	--
40N 44+00E	201	42	5	116	780	--	--
40N 44+50E	201	41	4	70	720	--	--
40N 45+00E	201	47	5	78	740	--	--
40N 45+50E	201	54	2	52	860	--	--
40N 46+00E	201	46	2	58	800	--	--
40N 46+50E	201	22	4	60	720	--	--
40N 47+00E	201	52	5	198	760	--	--
40N 47+50E	201	40	5	110	700	--	--
40N 48+00E	201	57	4	78	680	--	--
40N 48+50E	201	50	4	57	680	--	--
40N 49+00E	201	29	2	140	780	--	--
40N 49+50E	201	20	2	76	720	--	--
40N 50+00E	201	29	3	54	660	--	--
40N 50+50E	201	35	2	67	680	--	--
40N 51+00E	201	81	3	30	640	--	--
40N 51+50E	201	28	2	64	760	--	--
41N 43+00E	201	46	5	70	660	--	--
41N 43+50E	201	34	4	108	860	--	--
41N 44+00E	201	64	5	150	1360	--	--
41N 44+50E	201	36	3	50	680	--	--
41N 45+00E	201	165	5	62	820	--	--
41N 45+50E	201	50	4	74	800	--	--
41N 46+00E	201	40	5	130	860	--	--
41N 46+50E	201	40	2	138	840	--	--
41N 47+00E	201	48	3	78	760	--	--
41N 47+50E	201	85	6	288	860	--	--
41N 48+00E	201	27	5	118	840	--	--
41N 48+50E	201	25	2	95	800	--	--
41N 49+00E	201	42	4	100	760	--	--
41N 49+50E	201	57	3	90	820	--	--
41N 50+00E	201	52	1	53	740	--	--
41N 50+50E	201	25	2	98	740	--	--
41N 51+00E	201	51	8	90	780	--	--
42N 43+00E	201	31	2	72	820	--	--
42N 43+50E	201	93	5	210	1580	--	--
42N 44+00E	201	52	2	77	720	--	--
42N 44+50E	201	53	4	100	820	--	--
42N 45+00E	201	40	1	85	800	--	--

Certified by *Hart Bickler*





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V6C 2S8

CERT. # : AB112472-002-A  
 INVOICE # : 18112472  
 DATE : 01-AUG-81  
 P.O. # : NJNE  
 4491

ATTN: D. ARSCOTT CC W.A. HOWELL, JMT SERVICES CORP.

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
42N 45+50E	201	50	8	121	960	--	--
42N 46+00E	201	38	5	188	1000	--	--
42N 46+50E	201	25	3	46	700	--	--
42N 47+00E	201	55	4	86	920	--	--
42N 47+50E	201	18	5	345	1000	--	--
42N 48+00E	201	35	4	76	680	--	--
42N 48+50E	201	45	5	120	620	--	--
42N 49+00E	201	36	5	76	620	--	--
42N 49+50E	201	61	4	75	820	--	--
42N 50+00E	201	36	4	76	940	--	--
43N 43+00E	201	22	3	58	700	--	--
43N 43+50E	201	22	6	150	780	--	--
43N 44+00E	201	30	5	200	740	--	--
43N 44+50E	201	12	4	40	760	--	--
43N 45+00E	201	22	5	95	820	--	--
43N 45+50E	201	58	12	158	1200	--	--
43N 46+00E	201	56	4	100	920	--	--
43N 46+50E	201	30	3	110	700	--	--
43N 47+00E	201	32	3	102	820	--	--
43N 47+50E	201	28	4	175	1140	--	--
43N 48+00E	201	44	6	92	860	--	--
43N 48+50E	201	37	2	122	840	--	--
43N 49+00E	201	40	3	88	820	--	--
43N 49+50E	201	70	5	105	960	--	--
43N 50+00E	201	45	10	104	940	--	--
44N 43+00E	201	51	3	70	820	--	--
44N 43+50E	201	29	3	75	760	--	--
44N 44+00E	201	26	2	100	740	--	--
44N 44+50E	201	41	2	100	720	--	--
44N 45+00E	201	29	4	90	820	--	--
44N 45+50E	201	46	10	160	860	--	--
44N 46+00E	201	26	2	95	800	--	--
44N 46+50E	201	25	5	85	780	--	--
44N 47+00E	201	49	5	108	820	--	--
44N 47+50E	201	52	4	83	840	--	--
44N 48+00E	201	70	5	158	1060	--	--
44N 48+50E	201	275	32	205	1520	--	--
44N 49+00E	201	30	6	135	900	--	--
44N 49+50E	201	36	2	110	780	--	--
44N 50+00E	201	46	3	65	840	--	--

Certified by *Hart Bickler* .....





# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V5C 2G8

CERT. # : AB112472-003-A  
 INVOICE # : 18112472  
 DATE : 01-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ARSCOTT CC W.A. HOWELL, JMT SERVICES CORP.

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
44N 50+50E	201	21	5	55	780	--	--
44N 51+00E	201	33	5	55	820	--	--
44N 51+50E	201	18	5	80	780	--	--
44N 52+00E	201	25	3	85	740	--	--
44N 52+50E	201	16	5	108	600	--	--
44N 53+00E	201	19	5	73	560	--	--
44N 53+50E	201	35	8	78	500	--	--
44N 54+00E	201	26	5	108	560	--	--
44N 54+50E	201	20	4	56	760	--	--
44N 55E	201	15	5	78	740	--	--
44N 55+00E	201	11	5	82	620	--	--
44N 55+50E	201	25	5	55	560	--	--
44N 56+00E	201	27	4	105	620	--	--
44N 56+50E	201	36	5	80	640	--	--
44N 57+00E	201	15	5	180	480	--	--
44N 57+50E	201	18	4	75	540	--	--
44N 58+00E	201	26	5	90	600	--	--
44N 58+50E	201	45	4	130	380	--	--
44N 59+00E	201	24	4	85	480	--	--
44N 59+50E	201	20	10	103	580	--	--
44N 50+00E	201	31	7	73	520	--	--
44N 50+50E	201	24	5	100	600	--	--
44N 61+00E	201	43	5	84	640	--	--
44N 61+50E	201	45	4	180	460	--	--
44N 62+00E	201	50	2	50	700	--	--
44N 62+50E	201	34	2	51	640	--	--
44N 63+00E	201	18	2	34	820	--	--
45N 43+00E	201	37	3	90	560	--	--
45N 43+50E	201	52	2	58	680	--	--
45N 44+00E	201	30	2	102	820	--	--
45N 44+50E	201	41	5	130	660	--	--
45N 45+00E	201	27	2	90	780	--	--
45N 45+50E	201	71	5	144	860	--	--
45N 46+00E	201	29	3	58	1020	--	--
45N 46+50E	201	103	4	92	720	--	--
45N 47+00E	201	31	3	90	860	--	--
45N 47+50E	201	39	5	115	680	--	--
45N 48+00E	201	98	5	130	640	--	--
45N 48+50E	201	23	9	410	1300	--	--
45N 49+00E	201	36	10	200	1400	--	--

Certified by *Hart Bichler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V5C 2S8

CERT. # : A8112472-004-A  
 INVOICE # : 18112472  
 DATE : 01-AUG-81  
 P.O. # : NCNE  
 M491

ATTN: D. ARSCOTT CC W.A. HOWELL, JMT SERVICES CORP.

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
45N 49+50E	201	37	10	130	1180	--	--
45N 50+00E	201	39	5	210	860	--	--
45N 50+50E	201	29	2	90	820	--	--
45N 51+00E	201	26	8	200	650	--	--
45N 51+50E	201	34	4	150	760	--	--
45N 52+00E	201	18	5	75	720	--	--
45N 52+50E	201	17	3	56	760	--	--
45N 53+00E	201	26	4	80	700	--	--
45N 53+50E	201	38	2	59	620	--	--
45N 54+00E	201	17	2	38	620	--	--
45N 54+50E	201	35	3	80	720	--	--
45N 55E	201	18	5	92	600	--	--
45N 55+00E	201	24	5	90	600	--	--
45N 55+50E	201	10	4	98	660	--	--
45N 56+00E	201	33	3	62	580	--	--
45N 56+50E	201	28	2	45	720	--	--
45N 57+00E	201	23	2	68	600	--	--
45N 57+50E	201	20	1	78	700	--	--
45N 58+00E	201	24	5	70	740	--	--
45N 58+50E	201	21	3	85	780	--	--
45N 59+00E	201	17	2	52	660	--	--
45N 59+50E	201	24	3	78	580	--	--
45N 50+00E	201	16	6	248	740	--	--
45N 50+50E	201	17	5	255	820	--	--
45N 51+00E	201	30	5	100	700	--	--
45N 51+50E	201	13	5	108	580	--	--
45N 52+00E	201	18	5	104	800	--	--
45N 52+50E	201	19	2	75	640	--	--
45N 53+00E	201	16	2	62	640	--	--
45N 43+00E	201	20	18	186	520	--	--
45N 43+50E	201	24	4	92	700	--	--
45N 44+00E	201	33	4	115	680	--	--
45N 44+50E	201	37	2	90	760	--	--
45N 45+00E	201	117	4	370	640	--	--
45N 45+50E	201	59	4	155	660	--	--
45N 46+00E	201	99	7	370	1300	--	--
45N 46+50E	201	23	3	105	740	--	--
45N 47+00E	201	37	5	105	560	--	--
45N 47+50E	201	19	5	135	1060	--	--
45N 48+00E	201	17	2	76	880	--	--

Certified by *Hart Bickler*





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : AB112472-005-A  
 INVOICE # : IB112472  
 DATE : 01-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ARSCOTT CC W.A. DONNELL, JMT SERVICES CORP.

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
45N 48+50E	201	8	4	120	640	--	--
45N 49+00E	201	28	5	240	1080	--	--
45N 49+50E	201	50	9	540	1200	--	--
45N 50+00E	201	40	24	443	1080	--	--
45N 50+50E	201	33	3	116	1180	--	--
45N 51+00E	201	29	5	220	820	--	--
45N 51+50E	201	44	2	92	1040	--	--
45N 52+00E	201	23	3	60	660	--	--
45N 52+50E	201	22	2	100	840	--	--
45N 53+00E	201	27	3	130	720	--	--
45N 53+50E	201	28	1	58	780	--	--
45N 54+00E	201	21	2	75	700	--	--
45N 54+50E	201	26	2	61	720	--	--
45N 55A	201	26	3	85	740	--	--
45N 55B	201	23	1	75	740	--	--
45N 55+50E	201	23	2	90	820	--	--
45N 56+00E	201	18	1	66	700	--	--
45N 56+50E	201	27	1	82	620	--	--
45N 57+00E	201	20	3	82	660	--	--
45N 57+50E	201	23	4	78	640	--	--
45N 58+00E	201	20	2	105	540	--	--
45N 58+50E	201	21	2	82	720	--	--
45N 59+00E	201	22	2	88	660	--	--
45N 59+50E	201	30	3	118	540	--	--
45N 60+00E	201	24	4	148	620	--	--
45N 60+50E	201	21	5	104	680	--	--
45N 61+00E	201	19	2	95	700	--	--
45N 61+50E	201	16	1	82	700	--	--
45N 62+00E	201	18	1	62	700	--	--
45N 62+50E	201	28	1	55	540	--	--
45N 63+00E	201	18	2	80	680	--	--
47N 43+00E	201	28	2	56	600	--	--
47N 43+50E	201	29	2	98	680	--	--
47N 44+00E	201	31	2	74	660	--	--
47N 44+50E	201	13	2	140	540	--	--
47N 45+00E	201	94	5	590	700	--	--
47N 45+50E	201	27	2	130	700	--	--
47N 46+00E	201	30	3	150	720	--	--
47N 46+50E	201	126	5	140	640	--	--
47N 47+00E	201	14	10	260	1300	--	--

*Hart Bisher*

Certified by .....



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER B C  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURNARD ST.  
 VANCOUVER, B.C.  
 V6C 2S8

CERT. # : A8112472-006-A  
 INVOICE # : I8112472.  
 DATE : 01-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ARSCOTT CC W.A. HOWELL, JMT SERVICES CORP.

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	3a ppm		
47N 47+50E	201	81	7	123	500	--	--
47N 48+00E	201	22	2	65	680	--	--
47N 48+50E	201	19	10	133	1620	--	--
47N 49+00E	201	22	5	135	1040	--	--
47N 49+50E	201	24	20	350	1260	--	--
47N 50+00E	201	35	32	535	1520	--	--
47N 50+50E	201	82	8	190	1100	--	--
47N 51+00E	201	40	4	120	820	--	--
47N 51+50E	201	35	2	80	700	--	--
47N 52+00E	201	32	1	62	700	--	--
47N 52+50E	201	31	2	60	740	--	--
47N 53+00E	201	29	1	73	760	--	--
47N 53+50E	201	24	2	80	740	--	--
47N 54+00E	201	23	1	70	660	--	--
47N 54+50E	201	20	1	105	620	--	--
47N 55A	201	35	1	42	540	--	--
47N 55B	201	42	1	68	860	--	--
47N 55C	201	27	1	66	680	--	--
47N 55+50	201	35	2	95	800	--	--
47N 56+00	201	33	1	58	740	--	--
47N 56+50	201	32	1	70	600	--	--
47N 57+00	201	49	1	49	840	--	--
47N 57+50	201	27	1	80	720	--	--
47N 58+00	201	24	1	45	620	--	--
47N 58+50	201	23	1	45	700	--	--
47N 59+00	201	22	1	60	620	--	--
47N 59+50	201	17	1	30	600	--	--
47N 60+00	201	34	1	60	540	--	--
47N 60+50	201	26	1	45	680	--	--
47N 61+00	201	61	2	65	580	--	--
47N 61+50	201	21	1	55	640	--	--
47N 62+00	201	20	1	50	620	--	--
47N 62+50	201	17	1	58	700	--	--
47N 63+00	201	25	1	55	720	--	--
48N 43+00	201	40	3	145	540	--	--
48N 43+50	201	31	2	107	620	--	--
48N 44+00	201	34	3	142	660	--	--
48N 44+50	201	23	1	72	720	--	--
48N 45+00	201	26	2	80	680	--	--
48N 45+50	201	24	2	165	700	--	--

Certified by *Hart Bickler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

IRON



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112473-001-A  
INVOICE # :  
DATE : 06-AUG-81  
P.O. # : NONE  
M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
48N 46+00E	201	26	4	190	640	--	--
48N 46+50E	201	33	2	115	620	--	--
48N 47+00E	201	39	3	90	880	--	--
48N 47+50E	201	32	2	160	780	--	--
48N 48+00E	201	25	3	85	640	--	--
48N 48+50E	201	26	4	98	620	--	--
48N 49+00E	201	28	5	116	960	--	--
48N 49+50E	201	25	14	300	820	--	--
48N 50+00E	201	30	160	378	2000	--	--
48N 50+50E	201	37	48	204	1040	--	--
48N 51+50E	201	18	2	65	580	--	--
48N 52+00E	201	26	2	82	760	--	--
48N 52+50E	201	24	2	72	700	--	--
48N 53+00E	201	20	1	83	620	--	--
48N 53+50E	201	29	4	106	760	--	--
48N 54+00E	201	27	2	55	720	--	--
48N 54+50E	201	26	1	42	660	--	--
48N 55+00E	201	24	2	58	660	--	--
48N 55+50E	201	18	1	96	580	--	--
48N 56+00E	201	23	3	85	660	--	--
48N 56+50E	201	26	1	51	660	--	--
48N 57+00E	201	24	1	47	600	--	--
48N 57+50E	201	24	1	46	840	--	--
48N 58+00E	201	27	1	46	720	--	--
48N 58+50E	201	17	1	42	720	--	--
48N 59+00E	201	16	130	57	600	--	--
48N 59+50E	201	18	2	72	620	--	--
48N 60+00E	201	18	1	59	640	--	--
48N 60+50E	201	17	1	48	640	--	--
48N 61+00E	201	29	1	48	660	--	--
48N 61+50E	201	22	1	60	660	--	--
48N 62+00E	201	27	1	40	700	--	--
48N 62+50E	201	25	2	82	700	--	--
48N 63+00E	201	18	1	76	620	--	--
49N 43+00E	201	29	1	70	660	--	--
49N 44+50E	201	29	3	75	720	--	--
49N 45+00E	201	46	4	108	640	--	--
49N 45+50E	201	39	4	90	700	--	--
49N 46+00E	201	24	2	115	700	--	--
49N 46+50E	201	32	2	195	660	--	--

Certified by *Hart Bichler*

*llm*







# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112473-002-A  
INVOICE # :  
DATE : 06-AUG-81  
P.O. # : NONE  
M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
49N 47+00E	201	37	2	76	680	--	--
49N 47+50E	201	41	3	106	700	--	--
49N 48+00E	201	40	11	152	760	--	--
49N 48+50E	201	46	44	410	2000	--	--
49N 49+00E	201	27	6	95	640	--	--
49N 49+50E	201	44	13	550	700	--	--
49N 50+00E	201	34	3	280	460	--	--
49N 50+50E	201	33	16	655	1620	--	--
49N 51+00E	201	43	4	92	980	--	--
49N 55+00E	201	27	2	45	620	--	--
49N 55+50E	201	21	2	80	680	--	--
49N 56+00E	201	26	1	65	600	--	--
49N 56+50E	201	51	3	55	520	--	--
49N 57+00E	201	37	2	42	640	--	--
49N 57+50E	201	27	1	52	600	--	--
49N 58+00E	201	17	1	34	560	--	--
49N 58+50E	201	17	2	40	520	--	--
49N 59+00E	201	16	2	57	580	--	--
49N 59+50E	201	17	1	48	620	--	--
49N 60+00E	201	34	1	75	620	--	--
49N 60+50E	201	18	1	34	600	--	--
49N 61+00E	201	14	1	58	520	--	--
49N 61+50E	201	13	1	62	560	--	--
49N 62+00E	201	28	2	70	640	--	--
49N 62+50E	201	35	2	45	620	--	--
49N 63+00E	201	21	1	58	540	--	--
50N 43+00E	201	35	1	48	640	--	--
50N 43+50E	201	26	2	73	580	--	--
50N 44+00E	201	33	2	94	500	--	--
50N 44+50E	201	31	3	70	500	--	--
50N 45+00E	201	42	3	72	640	--	--
50N 45+50E	201	39	3	140	600	--	--
50N 46+00E	201	46	4	210	540	--	--
50N 46+50E	201	44	3	95	560	--	--
50N 47+00E	201	39	6	270	760	--	--
50N 47+50E	201	34	3	73	540	--	--
50N 48+00E	201	41	2	74	560	--	--
50N 48+50E	201	43	2	102	560	--	--
50N 49+00E	201	32	4	120	700	--	--
50N 49+50E	201	28	21	180	720	--	--

Certified by *Hart Bichler* .....





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112473-003-A  
 INVOICE # :  
 DATE : 06-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
50N 50+00E	201	30	5	130	640	--	--
51N 43+00E	201	17	2	88	580	--	--
51N 43+50E	201	24	2	55	640	--	--
51N 44+00E	201	23	2	55	620	--	--
51N 44+50E	201	27	2	70	600	--	--
51N 45+00E	201	34	3	90	580	--	--
51N 45+50E	201	25	2	72	600	--	--
51N 46+00E	201	25	4	168	460	--	--
51N 46+50E	201	28	6	114	520	--	--
51N 47+00E	201	35	3	80	700	--	--
51N 47+50E	201	31	3	82	560	--	--
51N 48+00E	201	31	4	148	520	--	--
51N 48+50E	201	36	8	390	700	--	--
51N 49+00E	201	25	6	405	880	--	--
51N 49+50E	201	33	6	218	820	--	--
51N 50+00E	201	38	42	830	1940	--	--
52N 43+00E	201	28	4	72	800	--	--
52N 43+50E	201	18	1	58	560	--	--
52N 44+00E	201	30	2	65	680	--	--
52N 44+50E	201	64	6	172	620	--	--
52N 45+00E	201	21	4	145	600	--	--
52N 45+50E	201	50	4	102	580	--	--
52N 46+00E	201	33	2	72	700	--	--
52N 46+50E	201	23	1	80	620	--	--
52N 47+00E	201	32	1	54	700	--	--
52N 47+50E	201	41	3	114	900	--	--
52N 48+00E	201	34	2	110	780	--	--
52N 48+50E	201	29	5	248	920	--	--
52N 49+00E	201	40	3	148	820	--	--
52N 49+50E	201	20	8	235	820	--	--
52N 50+00E	201	34	16	315	1460	--	--
52N 50+50E	201	26	6	430	920	--	--
52N 51+00E	201	25	1	90	680	--	--
52N 51+50E	201	17	2	110	720	--	--
52N 52+00E	201	41	5	115	500	--	--
52N 52+50E	201	20	5	185	880	--	--
52N 53+00E	201	31	2	105	800	--	--
52N 53+50E	201	27	1	90	780	--	--
52N 54+00E	201	24	8	115	920	--	--
52N 54+50E	201	29	11	135	2000	--	--

Certified by *Hart Bichler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112473-004-A  
 INVOICE # :  
 DATE : 06-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
53N 43+50E	201	26	4	80	660	--	--
53N 44+00E	201	31	2	74	640	--	--
53N 44+50E	201	17	1	78	700	--	--
53N 45+00E	201	27	3	98	740	--	--
53N 45+50E	201	24	3	180	720	--	--
53N 46+00E	201	35	1	108	640	--	--
53N 46+50E	201	33	1	135	860	--	--
53N 47+00E	201	44	2	78	640	--	--
53N 47+50E	201	23	1	230	620	--	--
53N 48+00E	201	18	4	100	900	--	--
53N 48+50E	201	62	4	175	720	--	--
53N 49+00E	201	18	2	200	760	--	--
53N 49+50E	201	25	5	255	700	--	--
53N 50+00E	201	33	7	265	760	--	--
53N 50+50E	201	13	2	65	920	--	--
53N 51+00E	201	30	18	170	1140	--	--
53N 51+50E	201	100	6	45	260	--	--
53N 52+00E	201	38	3	110	840	--	--
53N 52+50E	201	22	4	160	760	--	--
53N 53+00E	201	41	5	170	980	--	--
53N 53+50E	201	19	3	160	780	--	--
53N 54+00E	201	30	4	105	1160	--	--
53N 54+50E	201	41	11	165	1640	--	--
54N 43+00E	201	37	4	78	800	--	--
54N 43+50E	201	35	5	88	660	--	--
54N 44+00E	201	22	4	95	580	--	--
54N 44+50E	201	22	11	166	640	--	--
54N 45+00E	201	25	4	70	620	--	--
54N 45+50E	201	44	6	70	640	--	--
54N 46+00E	201	40	3	98	800	--	--
54N 46+50E	201	22	4	225	660	--	--
54N 47+00E	201	41	5	130	640	--	--
54N 47+50E	201	36	11	125	640	--	--
54N 48+00E	201	25	5	225	700	--	--
54N 48+50E	201	27	6	150	660	--	--
54N 49+00E	201	23	3	145	820	--	--
54N 49+50E	201	13	6	190	800	--	--
54N 50+00E	201	32	9	98	1000	--	--
54N 50+50E	201	31	8	355	620	--	--
54N 51+00E	201	37	5	155	680	--	--



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

Certified by *Heather Bushman*.....



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER B.C.  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112473-005-A  
INVOICE # :  
DATE : 06-AUG-81  
P.O. # : NONE  
M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
54N 51+50E	201	70	7	180	860	--	--
54N 52+00E	201	8	6	100	300	--	--
54N 52+50E	201	37	6	165	600	--	--
54N 53+00E	201	36	6	218	880	--	--
54N 53+50E	201	23	7	165	960	--	--
54N 54+00E	201	38	20	500	1920	--	--
54N 54+50E	201	37	28	300	1740	--	--
55N 43+00E	201	83	5	110	580	--	--
55N 43+50E	201	27	4	88	700	--	--
55N 44+00E	201	34	5	97	660	--	--
55N 44+50E	201	48	29	65	660	--	--
55N 45+00E	201	34	5	110	640	--	--
55N 45+50E	201	65	3	126	600	--	--
55N 46+00E	201	31	2	85	680	--	--
55N 46+50E	201	18	4	90	520	--	--
55N 47+00E	201	41	3	95	660	--	--
55N 47+50E	201	25	4	90	660	--	--
55N 48+00E	201	40	3	76	680	--	--
55N 48+50E	201	33	4	82	620	--	--
55N 49+00E	201	23	2	70	640	--	--
55N 49+50E	201	29	4	122	660	--	--
55N 50+00E	201	27	3	120	800	--	--
55N 50+50E	201	66	2	93	760	--	--
55N 51+00E	201	42	1	105	680	--	--
55N 51+50E	201	33	4	195	900	--	--
55N 52+00E	201	27	2	195	820	--	--
55N 52+50E	201	27	3	425	800	--	--
55N 53+00E	201	53	86	1600	1540	--	--
55N 53+50E	201	51	10	640	1420	--	--
55N 54+00E	201	20	1	110	820	--	--
55N 54+50E	201	19	1	70	760	--	--
55N 55+00E	201	22	1	64	640	--	--
56N 43+00E	201	51	3	70	700	--	--
56N 43+50E	201	47	2	78	760	--	--
56N 44+00E	201	34	6	270	560	--	--
56N 44+50E	201	37	1	95	660	--	--
56N 45+00E	201	22	3	74	620	--	--
56N 45+50E	201	25	2	85	680	--	--
56N 46+00E	203	19	10	138	700	--	--
56N 46+50E	201	25	3	135	640	--	--

Certified by *Hart Richler*



MEMBER  
CANADIAN TESTING  
ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER B.C.  
CANADA V7J 2C1  
TELEPHONE: (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BARRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112473-001-A  
INVOICE # : I8112473  
DATE : 09-AUG-81  
P.O. # : NONE  
M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
48V 46+00E	201	26	4	190	640	--	--
48N 46+50E	201	33	2	115	620	--	--
48N 47+00E	201	39	3	90	880	--	--
48N 47+50E	201	32	2	160	780	--	--
48N 48+00E	201	25	3	85	640	--	--
48N 48+50E	201	26	4	98	620	--	--
48N 49+00E	201	28	5	116	960	--	--
48N 49+50E	201	25	14	300	820	--	--
48N 50+00E	201	30	160	378	2000	--	--
48N 50+50E	201	37	48	204	1040	--	--
48N 51+50E	201	18	2	65	580	--	--
48N 52+00E	201	26	2	82	760	--	--
48N 52+50E	201	24	2	72	700	--	--
48N 53+00E	201	20	1	83	620	--	--
48N 53+50E	201	29	4	106	760	--	--
48N 54+00E	201	27	2	55	720	--	--
48N 54+50E	201	26	1	42	660	--	--
48N 55+00E	201	24	2	58	660	--	--
48N 55+50E	201	18	1	96	580	--	--
48N 56+00E	201	23	3	85	660	--	--
48N 56+50E	201	26	1	51	660	--	--
48N 57+00E	201	24	1	47	600	--	--
48N 57+50E	201	24	1	46	840	--	--
48N 58+00E	201	27	1	46	720	--	--
48N 58+50E	201	17	1	42	720	--	--
48N 59+00E	201	16	130	57	600	--	--
48N 59+50E	201	18	2	72	620	--	--
48N 60+00E	201	18	1	59	640	--	--
48N 60+50E	201	17	1	48	640	--	--
48N 61+00E	201	29	1	48	660	--	--
48N 61+50E	201	22	1	60	660	--	--
48N 62+00E	201	27	1	40	700	--	--
48N 62+50E	201	25	2	82	700	--	--
48N 63+00E	201	18	1	76	620	--	--
49N 43+00E	201	29	1	70	660	--	--
49N 44+50E	201	29	3	75	720	--	--
49N 45+00E	201	46	4	108	640	--	--
49N 45+50E	201	39	4	90	700	--	--
49N 46+00E	201	24	2	115	700	--	--
49N 46+50E	201	32	2	195	660	--	--

Certified by *Hart Bichler* .....





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112473-002-A  
 INVOICE # : I8112473  
 DATE : 09-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
49N 47+00E	201	37	2	76	680	--	--
49N 47+50E	201	41	3	106	700	--	--
49N 48+00E	201	40	11	152	760	--	--
49N 48+50E	201	46	44	410	2000	--	--
49N 49+00E	201	27	6	95	640	--	--
49N 49+50E	201	44	13	550	700	--	--
49N 50+00E	201	34	3	280	460	--	--
49N 50+50E	201	33	16	655	1620	--	--
49N 51+00E	201	43	4	92	980	--	--
49N 55+00E	201	27	2	45	620	--	--
49N 55+50E	201	21	2	80	680	--	--
49N 56+00E	201	26	1	65	600	--	--
49N 56+50E	201	51	3	55	520	--	--
49N 57+00E	201	37	2	42	640	--	--
49N 57+50E	201	27	1	52	600	--	--
49N 58+00E	201	17	1	34	560	--	--
49N 58+50E	201	17	2	40	520	--	--
49N 59+00E	201	16	2	57	580	--	--
49N 59+50E	201	17	1	48	620	--	--
49N 60+00E	201	34	1	75	620	--	--
49N 60+50E	201	18	1	34	600	--	--
49N 61+00E	201	14	1	58	520	--	--
49N 61+50E	201	13	1	62	560	--	--
49N 62+00E	201	28	2	70	640	--	--
49N 62+50E	201	35	2	45	620	--	--
49N 63+00E	201	21	1	58	540	--	--
50N 43+00E	201	35	1	48	640	--	--
50N 43+50E	201	26	2	73	580	--	--
50N 44+00E	201	33	2	94	500	--	--
50N 44+50E	201	31	3	70	500	--	--
50N 45+00E	201	42	3	72	640	--	--
50N 45+50E	201	39	3	140	600	--	--
50N 46+00E	201	46	4	210	540	--	--
50N 46+50E	201	44	3	95	560	--	--
50N 47+00E	201	39	6	270	760	--	--
50N 47+50E	201	34	3	73	540	--	--
50N 48+00E	201	41	2	74	560	--	--
50N 48+50E	201	43	2	102	560	--	--
50N 49+00E	201	32	4	120	700	--	--
50N 49+50E	201	28	21	180	720	--	--

Certified by *Hart Bickler*





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112473-003-A  
 INVOICE # : I8112473.  
 DATE : 09-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
50N 50+00E	201	30	5	130	640	--	--
51N 43+00E	201	17	2	88	580	--	--
51N 43+50E	201	24	2	55	640	--	--
51N 44+00E	201	23	2	55	620	--	--
51N 44+50E	201	27	2	70	600	--	--
51N 45+00E	201	34	3	90	580	--	--
51N 45+50E	201	25	2	72	600	--	--
51N 46+00E	201	25	4	168	460	--	--
51N 46+50E	201	28	6	114	520	--	--
51N 47+00E	201	35	3	80	700	--	--
51N 47+50E	201	31	3	82	560	--	--
51N 48+00E	201	31	4	148	520	--	--
51N 48+50E	201	36	8	390	700	--	--
51N 49+00E	201	25	6	405	880	--	--
51N 49+50E	201	33	6	218	820	--	--
51N 50+00E	201	38	42	830	1940	--	--
52N 43+00E	201	28	4	72	800	--	--
52N 43+50E	201	18	1	58	560	--	--
52N 44+00E	201	30	2	65	680	--	--
52N 44+50E	201	64	6	172	620	--	--
52N 45+00E	201	21	4	145	600	--	--
52N 45+50E	201	50	4	102	580	--	--
52N 46+00E	201	33	2	72	700	--	--
52N 46+50E	201	23	1	80	620	--	--
52N 47+00E	201	32	1	54	700	--	--
52N 47+50E	201	41	3	114	900	--	--
52N 48+00E	201	34	2	110	780	--	--
52N 48+50E	201	29	5	248	920	--	--
52N 49+00E	201	40	3	148	820	--	--
52N 49+50E	201	20	8	235	820	--	--
52N 50+00E	201	34	16	315	1460	--	--
52N 50+50E	201	26	6	430	920	--	--
52N 51+00E	201	25	1	90	680	--	--
52N 51+50E	201	17	2	110	720	--	--
52N 52+00E	201	41	5	115	500	--	--
52N 52+50E	201	20	5	135	880	--	--
52N 53+00E	201	31	2	105	800	--	--
52N 53+50E	201	27	1	90	780	--	--
52N 54+00E	201	24	8	115	920	--	--
52N 54+50E	201	29	11	135	2000	--	--

Certified by *Hart Bickler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : AB112473-004-A  
 INVOICE # : 18112473  
 DATE : 09-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
53N 43+50E	201	26	4	80	660	--	--
53N 44+00E	201	31	2	74	640	--	--
53N 44+50E	201	17	1	78	700	--	--
53N 45+00E	201	27	3	98	740	--	--
53N 45+50E	201	24	3	180	720	--	--
53N 46+00E	201	35	1	108	640	--	--
53N 46+50E	201	33	1	135	860	--	--
53N 47+00E	201	44	2	78	640	--	--
53N 47+50E	201	23	1	230	620	--	--
53N 48+00E	201	18	4	100	900	--	--
53N 48+50E	201	62	4	175	720	--	--
53N 49+00E	201	18	2	200	760	--	--
53N 49+50E	201	25	5	255	700	--	--
53N 50+00E	201	33	7	265	760	--	--
53N 50+50E	201	13	2	65	920	--	--
53N 51+00E	201	30	18	170	1140	--	--
53N 51+50E	201	100	6	45	260	--	--
53N 52+00E	201	38	3	110	840	--	--
53N 52+50E	201	22	4	160	760	--	--
53N 53+00E	201	41	5	170	980	--	--
53N 53+50E	201	19	3	160	780	--	--
53N 54+00E	201	30	4	105	1160	--	--
53N 54+50E	201	41	11	165	1640	--	--
54N 43+00E	201	37	4	78	800	--	--
54N 43+50E	201	35	5	88	660	--	--
54N 44+00E	201	22	4	95	580	--	--
54N 44+50E	201	22	11	166	640	--	--
54N 45+00E	201	25	4	70	620	--	--
54N 45+50E	201	44	6	70	640	--	--
54N 46+00E	201	40	3	98	800	--	--
54N 46+50E	201	22	4	225	660	--	--
54N 47+00E	201	41	5	130	640	--	--
54N 47+50E	201	36	11	125	640	--	--
54N 48+00E	201	25	5	225	700	--	--
54N 48+50E	201	27	6	150	660	--	--
54N 49+00E	201	23	3	145	820	--	--
54N 49+50E	201	13	6	190	800	--	--
54N 50+00E	201	32	9	98	1000	--	--
54N 50+50E	201	31	8	355	620	--	--
54N 51+00E	201	37	5	155	680	--	--

Certified by *Hart Bickler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112473-005-A  
 INVOICE # : I8112473  
 DATE : 09-AUG-81  
 P.O. # : NONE  
 M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
54N 51+50E	201	70	7	180	860	--	--
54N 52+00E	201	9	6	100	300	--	--
54N 52+50E	201	37	6	165	600	--	--
54N 53+00E	201	36	6	218	880	--	--
54N 53+50E	201	23	7	165	960	--	--
54N 54+00E	201	38	20	500	1920	--	--
54N 54+50E	201	37	28	300	1740	--	--
55N 43+00E	201	83	5	110	580	--	--
55N 43+50E	201	27	4	88	700	--	--
55N 44+00E	201	34	5	97	660	--	--
55N 44+50E	201	48	29	65	660	--	--
55N 45+00E	201	34	5	110	640	--	--
55N 45+50E	201	65	3	126	600	--	--
55N 46+00E	201	31	2	85	680	--	--
55N 46+50E	201	18	4	90	520	--	--
55N 47+00E	201	41	3	95	660	--	--
55N 47+50E	201	25	4	90	660	--	--
55N 48+00E	201	40	3	76	680	--	--
55N 48+50E	201	33	4	82	620	--	--
55N 49+00E	201	23	2	70	640	--	--
55N 49+50E	201	29	4	122	660	--	--
55N 50+00E	201	27	3	120	800	--	--
55N 50+50E	201	66	2	93	760	--	--
55N 51+00E	201	42	1	105	680	--	--
55N 51+50E	201	33	4	195	900	--	--
55N 52+00E	201	27	2	195	820	--	--
55N 52+50E	201	27	3	425	800	--	--
55N 53+00E	201	53	86	1600	1540	--	--
55N 53+50E	201	51	10	640	1420	--	--
55N 54+00E	201	20	1	110	820	--	--
55N 54+50E	201	19	1	70	760	--	--
55N 55+00E	201	22	1	64	640	--	--
56N 43+00E	201	51	3	70	700	--	--
56N 43+50E	201	47	2	78	760	--	--
56N 44+00E	201	34	6	270	560	--	--
56N 44+50E	201	37	1	95	660	--	--
56N 45+00E	201	22	3	74	620	--	--
56N 45+50E	201	25	2	85	680	--	--
56N 46+00E	203	19	10	138	700	--	--
56N 46+50E	201	25	3	135	640	--	--

Certified by *Hart Bickler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BARRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112473-006-A  
INVOICE # : I8112473  
DATE : 09-AUG-81  
P.O. # : NONE  
M491

ATTN: D. ANSCOTT CC W.A. HOWELL, JMT SERVICES CORP

Sample description	Prep code	Cu ppm	Pd ppm	Zn ppm	Ba ppm		
56N 47+00E	201	23	6	210	600	--	--
56N 47+50E	201	27	3	160	780	--	--
56N 48+00E	201	15	2	220	960	--	--
56N 48+50E	201	27	1	130	800	--	--
56N 49+00E	201	19	2	188	660	--	--
56N 49+50E	201	28	13	210	660	--	--
56N 50+00E	201	34	10	268	840	--	--
56N 50+50E	201	55	1	70	840	--	--
56N 51+00E	201	26	1	95	660	--	--
56N 51+50E	201	86	18	330	520	--	--
56N 52+00E	201	30	6	280	680	--	--
56N 52+50E	201	25	2	133	740	--	--
56N 53+00E	201	39	8	180	1200	--	--
56N 53+50E	201	23	2	135	840	--	--
56N 54+00E	201	18	2	80	720	--	--
56N 54+50E	201	14	3	78	700	--	--
56N 55+00E	201	17	2	145	600	--	--
57N 43+00E	201	22	2	120	760	--	--
57N 43+50E	201	82	2	110	620	--	--
57N 44+00E	201	16	3	84	720	--	--
57N 44+50E	201	35	2	82	600	--	--
57N 45+00E	201	24	2	130	660	--	--
57N 45+50E	201	12	3	220	720	--	--
57N 46+00E	201	20	1	85	700	--	--
57N 46+50E	201	12	2	215	560	--	--
57N 47+00E	201	29	4	210	640	--	--
57N 47+50E	201	13	2	75	620	--	--
57N 48+00E	201	18	7	230	760	--	--
57N 48+50E	201	13	5	170	620	--	--
57N 49+00E	201	12	3	135	640	--	--
57N 49+50E	203	65	4	90	640	--	--
57N 50+00E	201	20	2	120	600	--	--
58N 43+00E	201	25	1	50	760	--	--
58N 43+50E	201	26	2	68	740	--	--
58N 44+00E	201	21	1	40	700	--	--
58N 44+50E	201	28	3	75	660	--	--
58N 45+00E	201	13	3	67	620	--	--
58N 45+50E	201	27	3	62	670	--	--
58N 46+00E	201	13	3	145	660	--	--

Certified by *Hart Bickler*



## CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : AB112474-001-A  
INVOICE # : I8112474  
DATE : 09-AUG-81  
P.O. # : NONE

ATTN: D ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
58N 46+50E	201	8	5	185	490	--	--
58N 47+00E	201	19	5	82	560	--	--
58N 47+50E	201	35	6	140	540	--	--
58N 48+00E	201	23	4	105	640	--	--
58N 48+50E	201	23	5	90	670	--	--
58N 49+00E	201	25	12	160	560	--	--
58N 49+50E	201	18	7	165	700	--	--
58N 50+00E	201	17	4	86	650	--	--
59N 43+00E	201	19	4	76	710	--	--
59N 43+50E	201	26	2	38	760	--	--
59N 44+00E	201	31	2	70	730	--	--
59N 44+50E	201	26	1	33	860	--	--
59N 45+00E	201	20	1	70	730	--	--
59N 45+50E	201	15	3	105	640	--	--
59N 46+00E	201	20	5	105	470	--	--
59N 46+50E	201	34	2	115	630	--	--
59N 47+00E	201	23	7	142	640	--	--
59N 47+50E	201	28	2	52	720	--	--
59N 48+00E	201	28	6	90	580	--	--
59N 48+50E	201	34	11	170	660	--	--
59N 49+00E	201	28	6	75	530	--	--
59N 49+50E	201	28	15	60	780	--	--
60N 43+00E	201	24	5	60	720	--	--
60N 43+50E	201	30	4	72	700	--	--
60N 44+00E	201	19	3	40	720	--	--
60N 44+50E	203	79	6	76	650	--	--
60N 45+00E	201	23	3	110	640	--	--
60N 45+50E	201	16	4	175	530	--	--
60N 46+00E	201	29	4	115	600	--	--
60N 46+50E	201	38	8	135	500	--	--
60N 47+00E	201	24	8	140	660	--	--
60N 47+50E	201	28	4	88	620	--	--
60N 48+00E	201	31	3	115	740	--	--
60N 48+50E	201	25	2	50	620	--	--
60N 49+00E	201	23	5	112	750	--	--
60N 49+50E	201	23	4	135	820	--	--
60N 50+00E	201	87	6	290	1340	--	--
60N 50+50E	201	21	5	170	660	--	--
60N 51+00E	201	29	4	145	700	--	--
60N 51+50E	201	96	10	250	1060	--	--

Certified by *Hart Bisher*.....

MEMBER  
CANADIAN TESTING  
ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112474-002-A  
 INVOICE # : I8112474  
 DATE : 09-AUG-81  
 P.O. # : NONE

ATTN: D ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
60N 52+00E	201	19	5	110	780	--	--
60N 52+50E	201	24	4	70	740	--	--
60N 53+00E	201	33	5	102	750	--	--
60N 53+50E	201	24	2	82	660	--	--
60N 54+00E	201	22	2	50	620	--	--
60N 54+50E	201	23	6	152	680	--	--
61N 43+00E	201	17	15	470	1000	--	--
61N 43+50E	201	19	4	130	600	--	--
61N 44+00E	201	13	3	80	540	--	--
61N 44+50E	201	13	4	82	560	--	--
61N 45+00E	201	25	3	290	550	--	--
61N 45+50E	201	34	5	98	560	--	--
61N 46+00E	201	34	6	115	580	--	--
61N 46+50E	201	32	103	690	620	--	--
61N 47+00E	201	20	58	245	740	--	--
61N 47+50E	201	7	3	130	630	--	--
61N 48+00E	201	29	2	46	680	--	--
61N 48+50E	201	39	3	50	780	--	--
61N 49+00E	201	23	3	50	780	--	--
61N 49+50E	201	37	4	80	660	--	--
61N 50+00E	201	30	5	70	620	--	--
61N 50+50E	201	33	6	145	820	--	--
61N 51+00E	201	31	6	145	870	--	--
62N 43+00E	201	20	4	115	680	--	--
62N 43+50E	201	7	6	64	580	--	--
62N 44+00E	201	26	2	130	790	--	--
62N 44+50E	201	11	3	82	610	--	--
62N 45+00E	201	28	4	80	620	--	--
62N 45+50E	201	21	3	50	620	--	--
62N 46+00E	201	39	4	70	640	--	--
62N 46+50E	201	35	6	115	600	--	--
62N 47+00E	201	25	33	290	660	--	--
62N 47+50E	201	19	2	112	580	--	--
62N 48+00E	201	29	3	62	650	--	--
62N 48+50E	203	16	20	125	430	--	--
62N 55+50E	201	23	3	60	800	--	--
62N 56+00E	201	37	8	270	1200	--	--
62N 56+50E	201	28	14	145	1440	--	--
62N 57+00E	201	21	5	115	860	--	--
62N 57+50E	201	48	11	212	860	--	--

Certified by *Hart Bichler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112474-003-A  
 INVOICE # : 18112474  
 DATE : 09-AUG-81  
 P.O. # : NJNE

ATTN: D ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
62N 58+00E	201	24	2	42	760	--	--
62N 58+50E	201	38	2	65	800	--	--
62N 59+00E	201	16	3	73	760	--	--
62N 59+50E	201	22	2	65	720	--	--
62N 60+00E	201	21	6	80	520	--	--
62N 60+50E	201	17	2	28	580	--	--
62N 61+00E	201	21	2	41	600	--	--
62N 61+50E	201	15	4	70	600	--	--
62N 62+00E	201	21	4	78	520	--	--
62N 62+50E	201	17	4	85	640	--	--
62N 63+00E	201	15	2	90	800	--	--
63N 42+00E	201	26	4	72	830	--	--
63N 42+50E	201	21	4	72	690	--	--
63N 43+00E	201	18	2	71	820	--	--
63N 43+50E	201	18	2	57	640	--	--
63N 44+00E	201	26	4	70	720	--	--
63N 44+50E	201	22	3	270	660	--	--
63N 45+00E	201	23	2	45	720	--	--
63N 45+50E	201	13	2	47	520	--	--
63N 46+00E	201	25	5	118	600	--	--
63N 46+50E	201	39	3	85	780	--	--
63N 47+00E	201	23	4	40	720	--	--
63N 47+50E	201	27	5	52	660	--	--
63N 48+00E	201	12	6	390	780	--	--
63N 48+50E	201	29	4	112	680	--	--
63N 49+00E	201	45	5	70	760	--	--
63N 49+50E	201	13	5	130	580	--	--
63N 50+00E A	201	15	8	153	580	--	--
63N 50+00E B	201	11	13	155	1060	--	--
63N 50+50E	201	34	7	80	720	--	--
63N 51+00E	201	62	5	180	880	--	--
63N 51+50E	201	34	8	300	840	--	--
63N 52+00E	201	57	7	155	780	--	--
63N 52+50E	201	24	4	185	780	--	--
63N 53+00E	201	18	2	47	800	--	--
63N 53+50E	201	21	4	140	660	--	--
63N 54+00E	201	27	5	120	700	--	--
63N 54+50E	201	41	7	110	580	--	--
63N 55+00E	201	25	2	66	680	--	--
63N 55+50E	201	28	3	80	660	--	--

Certified by *Hart Biche*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112474-004-A  
 INVOICE # : I8112474  
 DATE : 09-AUG-81  
 P.O. # : NONE

ATTN: D ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
63N 56+00E	201	29	5	98	980	--	--
63N 56+50E	201	23	6	170	1080	--	--
63N 57+00E	201	24	5	67	800	--	--
63N 57+50E	201	19	2	60	650	--	--
63N 58+00E	201	19	3	82	660	--	--
63N 58+50E	201	36	4	65	680	--	--
63N 59+00E	201	32	3	85	680	--	--
63N 59+50E	201	31	6	106	620	--	--
63N 60+00E	201	24	1	75	740	--	--
63N 60+50E	201	30	3	46	750	--	--
63N 61+00E	201	30	2	43	780	--	--
63N 61+50E	201	36	3	45	800	--	--
63N 62+00E	201	27	2	50	800	--	--
63N 62+50E	201	18	3	120	560	--	--
63N 63+00E	201	29	3	90	640	--	--
64N 42+00E	201	17	6	90	670	--	--
64N 42+50E	201	32	4	80	600	--	--
64N 43+00E	201	32	4	60	560	--	--
64N 43+50E	201	13	3	102	600	--	--
64N 44+00E	201	29	3	75	760	--	--
64N 44+50E	201	17	1	76	680	--	--
64N 45+00E	201	12	3	77	650	--	--
64N 45+50E	201	17	4	118	570	--	--
64N 46+00E	201	27	3	50	630	--	--
64N 46+50E	201	37	5	160	780	--	--
64N 47+00E	201	27	3	90	570	--	--
64N 47+50E	201	22	3	62	620	--	--
64N 48+00E	201	16	5	150	620	--	--
64N 48+50E	201	59	6	102	640	--	--
64N 49+00E	201	12	3	105	550	--	--
64N 49+50E	201	365	4	53	580	--	--
64N 50+00E	A 201	12	5	55	870	--	--
64N 50+00E	B 201	37	4	110	640	--	--
64N 50+50E	201	58	6	73	790	--	--
64N 51+00E	201	45	2	80	660	--	--
64N 51+50E	201	122	67	220	1360	--	--
64N 52+00E	201	22	2	65	660	--	--
64N 52+50E	201	200	10	174	740	--	--
64N 53+00E	201	18	6	70	680	--	--
64N 53+50E	201	255	7	230	1100	--	--

Certified by *Hart Bisher*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112474-005-A  
 INVOICE # : 18112474  
 DATE : 09-AUG-81  
 P.O. # : NONE

ATTN: D ARSCOTT

Sample description	Prep code	Cu ppm	Po ppm	Zn ppm	Ba ppm		
64N 54+00E	203	62	21	205	1020	--	--
64N 54+50E	201	120	4	55	900	--	--
64N 55+00E	201	24	2	38	600	--	--
64N 55+50E	201	22	4	85	700	--	--
64N 56+00E	201	63	3	118	880	--	--
64N 56+50E	201	64	6	85	760	--	--
64N 57+00E	201	19	6	185	670	--	--
64N 57+50E	201	25	6	145	740	--	--
64N 58+00E	201	31	3	78	680	--	--
64N 58+50E	201	18	5	90	780	--	--
64N 59+00E	201	29	11	105	680	--	--
64N 59+50E	201	30	9	92	760	--	--
64N 60+00E	201	20	3	98	670	--	--
64N 60+50E	201	18	2	60	640	--	--
64N 61+00E	201	21	3	85	640	--	--
64N 61+50E	201	23	4	64	620	--	--
64N 62+00E	201	94	5	55	770	--	--
64N 62+50E	201	33	5	85	730	--	--
64N 63+00E	201	14	5	58	620	--	--
65N 50+00E	201	35	5	78	480	--	--
65N 50+50E	201	19	5	80	720	--	--
65N 51+00E	201	21	8	120	700	--	--
65N 51+50E	201	29	3	70	800	--	--
65N 52+00E	201	62	4	80	700	--	--
65N 52+50E	201	30	4	58	680	--	--
65N 53+00E	201	45	5	65	650	--	--
65N 53+50E	201	17	8	195	600	--	--
65N 54+00E	201	17	2	62	500	--	--
65N 54+50E	201	20	2	94	620	--	--
65N 55+00E	201	18	6	72	600	--	--
65N 55+50E	201	25	32	240	810	--	--
65N 56+00E	201	21	4	55	1200	--	--
65N 56+50E	201	20	2	105	750	--	--
65N 57+00E	201	19	32	180	590	--	--
65N 57+50E	201	18	4	122	570	--	--
65N 58+00E	201	48	2	190	400	--	--
65N 58+50E	201	23	2	60	730	--	--
65N 59+00E	201	24	2	74	720	--	--
65N 59+50E	201	24	5	110	840	--	--
65N 60+00E	201	23	1	50	760	--	--

Certified by *Hart Bisher*.....



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER B.C.  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112474-006-A  
INVOICE # : I8112474  
DATE : 09-AUG-81  
P.O. # : NONE

ATTN: D ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
65N 60+50E	201	31	1	63	660	--	--
65N 61+00E	201	23	1	70	550	--	--
65N 61+50E	201	16	3	115	680	--	--
65N 62+00E	201	24	2	98	780	--	--
65N 62+50E	201	18	1	60	640	--	--
65N 63+00E	201	46	1	42	800	--	--
66N 55+00E	201	32	1	60	600	--	--
66N 55+50E	201	11	4	125	560	--	--
66N 56+00E	201	24	4	140	900	--	--
66N 56+50E	201	13	1	66	800	--	--
66N 57+00E	201	22	5	84	670	--	--
66N 57+50E	201	23	2	142	660	--	--
66N 58+00E	201	13	3	128	680	--	--
66N 58+50E	201	28	6	132	790	--	--
66N 59+00E	201	22	2	105	730	--	--
66N 59+50E	201	29	2	72	580	--	--
66N 60+00E	201	23	1	45	620	--	--
66N 60+50E	201	76	3	85	500	--	--
66N 61+00E	201	22	1	50	700	--	--
66N 61+50E	201	22	1	115	620	--	--
66N 62+00E	201	32	3	150	860	--	--
66N 62+50E	201	20	1	55	710	--	--
66N 63+00E	201	25	1	84	660	--	--
67N 55+00E	201	25	1	92	740	--	--
67N 55+50E	201	33	3	72	660	--	--
67N 56+00E	201	27	1	105	660	--	--
67N 56+50E	201	21	2	115	580	--	--
67N 57+00E	201	20	10	282	600	--	--
67N 57+50E	201	21	4	220	540	--	--
67N 58+00E	201	28	4	120	590	--	--
67N 58+50E	201	26	2	90	670	--	--
67N 59+00E	201	18	4	280	690	--	--
67N 59+50E	201	21	2	80	600	--	--
67N 60+00E	201	15	1	50	510	--	--
67N 60+50E	201	22	3	172	790	--	--
67N 61+00E	201	11	3	148	780	--	--
67N 61+50E	201	21	3	105	880	--	--
67N 62+00E	201	16	2	138	640	--	--
67N 62+50E	201	20	3	60	660	--	--
67N 63+00E	201	10	1	60	640	--	--

Certified by *Hart Bisher*



MEMBER  
CANADIAN TESTING  
ASSOCIATION



Plotted Cu, Zn.



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER B.C.  
CANADA V7J 2G1  
TELEPHONE (604)984-0221  
TELEX 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112475-001-A  
INVOICE # : I8112475  
DATE : 09-AUG-81  
P.O. # : NONE  
#491

ATTN. D ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
68N 55+00E	201	21	4	90	560	--	--
68N 55+50E	201	17	2	48	680	--	--
68N 56+00E	201	27	3	58	650	--	--
68N 56+50E	201	32	3	55	580	--	--
68N 57+00E	201	14	3	100	550	--	--
68N 57+50E	201	25	2	62	760	--	--
68N 58+00E	201	38	1	38	690	--	--
68N 58+50E	201	39	2	145	570	--	--
68N 59+00E	201	14	3	150	520	--	--
68N 59+50E	201	15	1	72	630	--	--
66N 60+00E	201	31	13	125	680	--	--
68N 60+50E	201	27	22	165	800	--	--
68N 61+00E	201	26	9	138	740	--	--
68N 61+50E	201	36	3	72	620	--	--
68N 62+00E	201	23	5	125	590	--	--
68N 62+50E	201	28	2	74	660	--	--
68N 63+00E	201	36	5	95	740	--	--
69N 60+00E	201	21	3	110	560	--	--
69N 60+50E	201	23	5	130	740	--	--
69N 61+00E	201	22	1	140	660	--	--
69N 61+50E	201	32	4	118	640	--	--
69N 62+00E	201	18	1	50	640	--	--
69N 62+50E	201	20	2	90	540	--	--
69N 63+00E	201	27	2	60	640	--	--
70N 55+00E	201	24	2	58	640	--	--
70N 55+50E	201	19	1	82	700	--	--
70N 56+00E	201	27	3	48	780	--	--
70N 56+50E	201	28	2	80	650	--	--
70N 57+00E	201	29	1	60	640	--	--
70N 57+50E	201	22	1	44	750	--	--
70N 58+00E	201	46	2	42	660	--	--
70N 58+50E	201	22	3	175	640	--	--
70N 59+00E	201	20	1	110	660	--	--
70N 59+50E	201	31	2	65	600	--	--
70N 60+00E	201	18	6	220	720	--	--
70N 60+50E	201	23	2	60	560	--	--
70N 61+00E	201	14	2	115	640	--	--
70N 61+50E	201	22	1	54	800	--	--
70N 62+00E	201	17	1	44	620	--	--
70N 62+50E	201	17	1	118	710	--	--

Certified by *Hart Bisher*.....



MEMBER  
CANADIAN TESTING  
ASSOCIATION

Petres Co Zn



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER B.C  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112475-002-A  
INVOICE # : 18112475  
DATE : 09-AUG-81  
P.O. # : NONE  
M491

ATTN. D ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
70N 63+00N	201	18	2	74	610	--	--
81B 758	201	34	2	36	680	--	--



MEMBER  
CANADIAN TESTING  
ASSOCIATION

Certified by *Hart Bisher*



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112476-001-A  
 INVOICE # : 18112476  
 DATE : 09-AUG-81  
 P.O. # : M491  
 M491

ATTN: D. ARSCOTT C/C W.A. HOWELL, JMT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
41N 47E	205	700	13	450	50	--	--
60N 55E	205	35	12	76	700	--	--
PF 8	205	62	19	265	1220	--	--
PF 61	205	29	1	75	380	--	--
✓ SM-01	205	7	5	165	930	--	--
✓ SM-02	205	16	61	24	2400	--	--
✓ SM-03	205	15	6	200	3400	--	--
✓ SM-04	205	425	55	750	560	--	--
✓ SM-05	205	17	13	1020	1640	--	--
✓ SM-06	205	66	68	400	1940	--	--
✓ SM-07	205	27	6	130	1680	--	--
✓ SM-08	205	17	7	210	900	--	--
✓ SM-09	205	6	5	265	1280	--	--
✓ SM-20	205	78	4	88	910	--	--
✓ SM-25	205	27	1	110	350	--	--
✓ SM-34	205	16	1	92	720	--	--
✓ SM-41	205	20	2	76	420	--	--
✓ SM-57	205	6	12	67	1220	--	--
✓ SM-58	205	1050	>10000	8750	>10000	--	--
✓ SM-63	205	72	5000	585	1100	--	--
✓ SM-68	205	19	1300	220	640	--	--
✓ SM-76	205	7	500	440	1180	--	--
✓ SM-77	205	13	1100	350	1260	--	--
✓ SM-79	205	7	285	35	200	--	--
TS-01	205	12	385	43	3900	--	--
TS-02	205	19	90	65	5600	--	--
TS-03	205	16	108	52	1600	--	--
TS-04	205	7	25	50	580	--	--
TS-05	205	7	75	150	880	--	--
TS-06	205	6	115	225	1460	--	--
TS-39	205	7	25	130	500	--	--
TS-58	205	8	56	84	320	--	--
TS-60	205	9	10	66	200	--	--
TS-63	205	21	25	43	240	--	--
TS-65	205	23	8	72	280	--	--
TS-80	205	12	36	89	520	--	--
TS-82	205	7	9	70	460	--	--
TS-93	205	8	10	44	700	--	--
TS-101	205	7	6	105	1480	--	--
TS-104	205	5	6	105	340	--	--

Certified by *Grant Bichler*....





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112476-002-A  
INVOICE # : I8112476  
DATE : 09-AUG-81  
P.O. # : M491  
M491

ATTN: D. ARSCOTT C/C W.A. HOWELL, JMT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
TS-122	205	33	1	89	380	--	--
TS-136	205	62	14	90	4000	--	--
TS-140	205	8	27	160	2000	--	--
TS-141	205	6	8	220	340	--	--
TS-152	205	18	11	310	1440	--	--
TS-161	205	13	14	380	1700	--	--
TS-165	205	89	2	125	580	--	--
TS-185	205	13	3	160	1000	--	--
TS-201	205	48	1	55	280	--	--
TS-212	205	7	2	120	380	--	--
TS-214	205	6	2	58	260	--	--
TS-216	205	6	2	68	460	--	--



MEMBER  
CANADIAN TESTING  
ASSOCIATION

Certified by *Hart Bickler*



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER B.C.  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 GURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : AB112839-004-A  
INVOICE # : IS112939  
DATE : 14-AUG-81  
P.O. # : S6809  
M491

ATTN: D. ARSCOTT CO: W.A. HOWELL

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
M491 38N 55EE	201	24	5	98	680	--	--
M491 38N 55.5E	201	62	3	95	620	--	--
M491 38N 56.0E	201	44	9	176	730	--	--
M491 38N 56.5E	201	59	4	72	750	--	--
M491 38N 57.0E	201	51	5	135	760	--	--
M491 38N 57.5E	201	46	3	100	680	--	--
M491 38N 58EE	201	56	3	148	500	--	--
M491 38N 58.5E	201	44	7	95	800	--	--
M491 38N 59.0E	201	24	6	205	700	--	--
M491 38N 59.5E	201	45	7	60	580	--	--
M491 38N 60.0E	201	52	5	115	580	--	--
M491 38N 60.5E	201	43	6	97	760	--	--
M491 38N 61.0E	201	47	3	75	760	--	--
M491 38N 61.5E	201	56	3	132	820	--	--
M491 38N 62.0E	201	45	5	75	840	--	--
M491 38N 62.5E	201	47	4	75	660	--	--
M491 38N 63.0E	201	34	4	54	620	--	--
M491 39N 55.0E	201	17	3	52	660	--	--
M491 39N 55.5E	201	24	5	68	720	--	--
M491 39N 56.0E	201	40	6	78	680	--	--
M491 39N 56.5E	201	34	6	88	740	--	--
M491 39N 57.0E	201	58	7	68	720	--	--
M491 39N 57.5E	201	54	3	75	800	--	--
M491 39N 58.0E	201	29	2	88	840	--	--
M491 39N 58.5E	201	23	4	64	780	--	--
M491 39N 59.0E	201	43	5	140	720	--	--
M491 39N 59.5E	201	38	3	94	740	--	--
M491 39N 60.0E	201	52	2	70	700	--	--
M491 39N 60.5E	201	40	1	125	740	--	--
M491 39N 61.0E	201	58	4	85	790	--	--
M491 39N 61.5E	201	56	5	98	780	--	--
M491 39N 62.0E	201	39	1	62	600	--	--
M491 39N 62.5E	201	35	4	110	740	--	--
M491 39N 63.0E	201	32	2	120	740	--	--
M491 40N 39.0E	201	48	4	165	750	--	--
M491 40N 39.5E	201	32	4	205	1080	--	--
M491 40N 40.0E	201	35	5	175	920	--	--
M491 40N 40.5E	201	35	5	98	800	--	--
M491 40N 41.0E	201	42	6	130	700	--	--
M491 40N 41.5E	201	41	9	290	1020	--	--

Certified by *Hart Bisher*.....





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BARRARD ST.  
VANCOUVER, B.C.  
V6C 2G3

CERT. # : A8112839-005-A  
INVOICE # : I8112839  
DATE : 14-AUG-81  
P.O. # : S6809  
M-91

ATTN: D. ARSCOTT CC: W.A. HJWELL

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Sa ppm		
M491 40N 42.0E	201	25	6	104	700	--	--
M491 40N 42.5E	201	59	7	135	680	--	--
M491 40N 52.5E	201	26	5	65	660	--	--
M491 40N 53.0E	201	42	3	66	760	--	--
M491 40N 53.5E	201	24	4	84	720	--	--
M491 40N 54.0E	201	19	4	52	720	--	--
M491 40N 54.5E	201	26	5	75	800	--	--
M491 40N 55.0E	201	15	4	66	670	--	--
M491 40N 55.0EE	201	16	5	68	700	--	--
M491 40N 55.5EE	201	16	4	58	660	--	--
M491 40N 56.0EE	201	18	4	130	680	--	--
M491 40N 56.5EE	201	24	7	65	670	--	--
M491 40N 57.0EE	201	86	3	73	620	--	--
M491 40N 58.5EE	201	53	3	68	600	--	--
M491 40N 59.0EE	201	35	4	108	560	--	--
M491 40N 59.5EE	201	25	3	75	640	--	--
M491 40N 60.0EE	201	40	5	105	540	--	--
M491 40N 60.5EE	201	38	5	140	660	--	--
M491 40N 61.0EE	201	44	4	163	640	--	--
M491 40N 61.5EE	201	36	4	86	540	--	--
M491 40N 62.0EE	201	34	4	56	520	--	--
M491 40N 62.5EE	201	43	12	87	540	--	--
M491 40N 63.0EE	201	34	6	72	560	--	--
M491 41N 39.0E	201	45	3	135	750	--	--
M491 41N 39.5E	201	34	3	110	680	--	--
M491 41N 40.0E	201	53	4	92	800	--	--
M491 41N 40.5E	201	27	6	155	760	--	--
M491 41N 41.0E	201	30	5	100	660	--	--
M491 41N 41.5E	201	90	4	138	680	--	--
M491 41N 42.0E	201	54	3	106	820	--	--
M491 41N 42.5E	201	60	2	108	840	--	--
M491 41N 51.5E	201	31	2	76	710	--	--
M491 41N 52.0E	201	23	4	78	680	--	--
M491 41N 52.5E	201	17	3	91	600	--	--
M491 41N 53.0E	201	29	5	150	660	--	--
M491 41N 53.5E	201	21	3	96	600	--	--
M491 41N 54.0E	201	12	5	175	570	--	--
M491 41N 55.0EE	201	17	5	74	660	--	--
M491 41N 55.5EE	201	20	4	65	700	--	--
M491 41N 56.0EE	201	18	3	62	680	--	--

Certified by *Hantschler*



MEMBER  
CANADIAN TESTING  
ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 4901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112839-006-A  
 INVOICE # : 16112839  
 DATE : 14-AUG-81  
 P.O. # : 56809  
 M491

ATTN: D. ARSCOTT CC: W.A. HOWELL

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
M491 41N 56.5EE	201	29	8	110	680	--	--
M491 41N 57.0EE	201	53	5	57	720	--	--
M491 41N 57.5EE	201	31	4	83	700	--	--
M491 41N 59.0EE	201	24	3	63	680	--	--
M491 41N 59.5EE	201	22	10	124	430	--	--
M491 41N 60.0EE	201	26	4	57	660	--	--
M491 41N 60.5EE	201	27	8	75	650	--	--
M491 41N 61.0EE	201	15	4	72	640	--	--
M491 41N 61.5EE	201	21	4	78	680	--	--
M491 41N 62.0EE	201	25	4	39	720	--	--
M491 42N 39.0E	201	25	2	73	780	--	--
M491 42N 39.5E	201	32	3	80	660	--	--
M491 42N 40.0E	201	25	3	58	740	--	--
M491 42N 40.5E	201	34	4	84	680	--	--
M491 42N 41.0E	201	21	3	50	620	--	--
M491 42N 41.5E	201	25	4	90	640	--	--
M491 42N 42.0E	201	84	16	81	780	--	--
M491 42N 42.5E	201	33	5	70	760	--	--
M491 42N 51.5E	201	43	5	116	850	--	--
M491 42N 52.0E	201	26	3	55	600	--	--
M491 42N 52.5E	201	80	4	53	840	--	--
M491 42N 53.0E	201	15	3	52	670	--	--
M491 42N 53.5E	201	110	5	78	660	--	--
M491 42N 54.0E	201	26	4	70	670	--	--
M491 42N 54.5E	201	17	6	100	820	--	--
M491 42N 55.0E	201	25	3	48	760	--	--
M491 42N 55.0EE	201	70	4	46	800	--	--
M491 42N 55.5EE	201	14	4	58	680	--	--
M491 42N 56.0EE	201	21	4	80	660	--	--
M491 42N 56.5EE	201	24	7	92	680	--	--
M491 42N 57.0EE	201	25	4	64	730	--	--
M491 42N 57.5EE	201	29	5	55	660	--	--
M491 42N 58.0EE	201	24	7	88	650	--	--
M491 42N 58.5EE	201	23	17	150	620	--	--
M491 42N 59.0EE	201	16	6	74	600	--	--
M491 42N 59.5EE	201	19	3	125	620	--	--
M491 42N 60.0EE	201	24	5	73	760	--	--
M491 42N 60.5EE	201	28	5	115	650	--	--
M491 42N 61.0EE	201	42	7	125	680	--	--
M491 42N 61.5EE	201	30	7	170	660	--	--

Certified by *Hart Rieher*





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112339-001-A  
 INVOICE # : I8112339  
 DATE : 14-AUG-81  
 P.O. # : S6809  
 M491

ATTN: D. ARSCOTT CC: W.A. HOWELL

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Sa ppm		
M491 42N 62EE	201	12	5	93	580	--	--
M491 43N 39.0E	201	53	4	290	800	--	--
M491 43N 39.5E	201	29	6	93	620	--	--
M491 43N 40.0E	201	42	4	95	540	--	--
M491 43N 40.5E	201	22	4	100	620	--	--
M491 43N 41.0E	201	27	5	128	620	--	--
M491 43N 41.5E	201	25	4	75	640	--	--
M491 43N 42.0E	203	34	1	165	580	--	--
M491 43N 42.5E	201	500	5	76	640	--	--
M491 43N 51.0E	201	41	4	125	700	--	--
M491 43N 51.5E	201	30	6	95	670	--	--
M491 43N 52.0E	201	32	2	65	700	--	--
M491 43N 52.5E	201	27	5	72	580	--	--
M491 43N 53.0E	201	19	4	82	640	--	--
M491 43N 53.5E	201	28	5	80	710	--	--
M491 43N 54.0E	201	25	5	62	770	--	--
M491 43N 54.5E	201	22	6	74	640	--	--
M491 43N 55.0E	201	18	7	92	620	--	--
M491 43N 55.5E	201	22	4	90	640	--	--
M491 43N 56.0E	201	18	6	85	660	--	--
M491 43N 56.5E	201	28	4	95	630	--	--
M491 43N 57.0E	201	24	7	102	580	--	--
M491 43N 57.5E	201	19	5	60	710	--	--
M491 43N 58.0E	201	22	4	96	560	--	--
M491 43N 58.35E	201	35	9	118	600	--	--
M491 43N 58.5E	201	27	8	125	560	--	--
M491 43N 59.0E	201	44	3	70	840	--	--
M491 43N 59.5E	201	26	6	98	660	--	--
M491 43N 60.0E	201	22	7	106	840	--	--
M491 43N 60.5E	201	27	5	65	660	--	--
M491 43N 61.0E	201	32	21	216	940	--	--
M491 43N 61.5E	201	33	12	160	760	--	--
M491 43N 62.0E	201	62	4	62	840	--	--
M491 43N 62.5E	201	51	6	168	1000	--	--
M491 43N 63.0E	201	37	4	40	750	--	--
M491 44N 39.0E	201	45	5	112	690	--	--
M491 44N 39.5E	201	26	4	142	680	--	--
M491 44N 40.0E	201	51	5	98	700	--	--
M491 44N 40.5E	201	28	5	90	580	--	--
M491 44N 41.0E	201	31	6	140	660	--	--

Certified by *Hart Riebler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112839-002-A  
 INVOICE # : I8112839  
 DATE : 14-AUG-81  
 P.O. # : 56809  
 M491

ATTN: D. ARSCOTT CC: W.A. HOWELL

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Sa ppm		
M491 44N 41.5E	201	22	4	62	640	--	--
M491 44N 42.0E	201	33	5	75	700	--	--
M491 44N 42.5E	201	30	3	92	670	--	--
M491 45N 39.0E	201	14	5	83	540	--	--
M491 45N 39.5E	201	22	5	75	660	--	--
M491 45N 40.0E	201	140	4	72	720	--	--
M491 45N 40.5E	201	62	5	40	680	--	--
M491 45N 41.0E	201	52	4	62	660	--	--
M491 45N 41.5E	201	38	2	74	660	--	--
M491 45N 42.0E	201	23	4	78	610	--	--
M491 45N 42.5E	201	24	5	84	620	--	--
M491 46N 39.0E	201	47	5	115	620	--	--
M491 46N 39.5E	201	20	7	130	690	--	--
M491 46N 40.0E	201	25	3	65	650	--	--
M491 46N 40.5E	201	50	5	47	720	--	--
M491 46N 41.0E	201	22	4	53	680	--	--
M491 46N 41.5E	201	26	4	58	680	--	--
M491 46N 42.0E	201	29	5	120	760	--	--
M491 46N 42.5E	201	23	2	58	680	--	--
M491 47N 39.0E	201	27	2	94	620	--	--
M491 47N 39.5E	201	42	7	130	520	--	--
M491 47N 40.0E	201	33	5	120	670	--	--
M491 47N 40.5E	201	43	6	135	520	--	--
M491 47N 41.0E	201	37	6	68	600	--	--
M491 47N 41.5E	201	23	4	92	660	--	--
M491 47N 42.0E	201	10	6	98	520	--	--
M491 47N 42.5E	201	27	5	88	700	--	--
M491 48N 39.0E	201	37	5	95	520	--	--
M491 48N 39.5E	201	15	5	46	660	--	--
M491 48N 40.0E	201	15	5	112	700	--	--
M491 48N 40.5E	201	22	2	70	720	--	--
M491 48N 41.0E	201	38	4	88	600	--	--
M491 48N 41.5E	201	52	4	64	700	--	--
M491 48N 42.0E	201	35	3	52	720	--	--
M491 48N 42.5E	201	36	6	95	640	--	--
M491 49N 39.0E	201	66	5	118	580	--	--
M491 49N 39.5E	201	20	2	44	570	--	--
M491 49N 40.0E	201	25	3	65	660	--	--
M491 49N 40.5E	201	25	2	50	680	--	--
M491 49N 41.0E	201	65	3	76	600	--	--

Certified by *Hart Bickler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

1 Ron  
 212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112839-003-A  
 INVOICE # : 18112839  
 DATE : 14-AUG-81  
 P.O. # : 56809  
 M491

ATTN: D. ARSCOTT CC: W.A. HOWELL

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
M491 49N 41.5E	201	72	5	100	660	--	--
M491 49N 42.0E	201	56	7	120	820	--	--
M491 49N 42.5E	201	31	6	113	620	--	--
M491 62N 48.0E	201	20	5	42	760	--	--
M491 62N 48.5E	201	40	4	71	730	--	--
M491 62N 49.0E	201	36	5	72	620	--	--
M491 62N 49.5E	201	50	9	720	730	--	--
M491 62N 50.0E	201	36	3	80	700	--	--
M491 65N 44.0E	201	18	5	116	560	--	--
M491 65N 44.5E	201	15	4	100	590	--	--
M491 65N 45.0E	201	31	4	96	660	--	--
M491 65N 45.5E	201	34	5	68	560	--	--
M491 65N 46.0E	201	31	5	150	700	--	--
M491 65N 46.5E	201	50	5	110	620	--	--
M491 65N 47.0E	201	53	7	190	860	--	--
M491 65N 47.5E	201	30	7	70	800	--	--
M491 65N 48.0E	201	21	3	70	700	--	--
M491 65N 48.5E	201	11	86	385	540	--	--
M491 65N 49.0E	201	32	2	90	560	--	--
M491 65N 49.5E	201	22	4	70	660	--	--
M491 66N 49.0E	201	22	2	65	660	--	--
M491 66N 50.0E	201	22	5	78	640	--	--
M491 66N 50.5E	201	28	3	68	520	--	--
M491 66N 51.0E	201	24	13	70	800	--	--
M491 66N 51.5E	201	32	2	125	780	--	--
M491 66N 52.0E	201	18	3	102	760	--	--
M491 66N 52.5E	201	23	3	98	920	--	--
M491 66N 53.0E	201	27	5	155	840	--	--
M491 66N 53.5E	201	20	3	62	700	--	--
M491 66N 54.0E	201	22	6	78	750	--	--
M491 66N 54.5E	201	23	2	74	720	--	--
M491 66N 55.0E	201	24	3	55	730	--	--
M491 67N 49.0E	201	25	4	110	540	--	--
M491 67N 49.7E	201	45	6	98	680	--	--
M491 67N 50.58E	201	21	3	65	640	--	--
M491 67N 51.4E	201	24	3	105	680	--	--
M491 67N 52.07E	201	46	4	90	720	--	--
M491 67N 52.75E	201	30	8	190	1020	--	--
M491 67N 53.47E	201	19	4	120	600	--	--
M491 67N 54.11E	201	58	5	56	1380	--	--

Certified by *Hart Bickler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

IRON

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

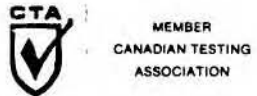
TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
4901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112840-001-A  
INVOICE # : I6112840  
DATE : 18-AUG-81  
P.O. # : 56809  
M491

ATTN: D. ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
M491 67N 54.55E	201	24	6	55	590	--	--
M491 67N 55.6E	201	24	6	55	560	--	--
M491 68N 48.0E	201	10	3	48	560	--	--
M491 68N 48.5E	201	23	4	48	600	--	--
M491 68N 49.0E	201	32	5	56	660	--	--
M491 68N 49.5E	201	11	5	82	520	--	--
M491 68N 50.0E	201	27	4	78	640	--	--
M491 68N 50.5E	201	40	6	115	800	--	--
M491 68N 51.0E	201	15	7	132	700	--	--
M491 68N 51.5E	201	15	6	195	750	--	--
M491 68N 52.0E	201	21	5	178	700	--	--
M491 68N 52.5E	201	25	3	41	750	--	--
M491 68N 53.0E	201	26	6	108	640	--	--
M491 68N 53.5E	201	27	6	73	560	--	--
M491 68N 54.0E	201	8	3	70	640	--	--
M491 68N 54.5E	201	40	5	76	920	--	--
M491 68N 55.0E	201	11	6	100	600	--	--
M491 69N 49.0E	201	39	3	85	550	--	--
M491 69N 49.5E	201	13	6	72	520	--	--
M491 69N 50.0E	201	19	16	38	530	--	--
M491 69N 50.5E	201	41	4	44	920	--	--
M491 69N 51.0E	201	22	4	115	660	--	--
M491 69N 51.5E	201	14	6	122	560	--	--
M491 69N 52.0E	201	20	5	82	660	--	--
M491 69N 52.5E	201	25	5	108	800	--	--
M491 69N 53.0E	201	27	4	118	760	--	--
M491 69N 53.5E	201	25	5	95	740	--	--
M491 69N 54.0E	201	38	4	52	760	--	--
M491 69N 54.5E	201	21	6	148	640	--	--
M491 69N 55.0E	201	66	70	1350	640	--	--
M491 69N 55.5E	201	31	5	85	580	--	--
M491 69N 56.0E	201	13	3	45	600	--	--
M491 70N 49.0E	201	1	1	1	460	--	--
M491 70N 49.5E	201	32	4	46	740	--	--
M491 70N 50.0E	201	29	4	58	740	--	--
M491 70N 50.5E	201	34	2	39	730	--	--
M491 70N 51.0E	201	37	3	50	780	--	--
M491 70N 51.5E	201	34	5	68	820	--	--
M491 70N 52.0E	201	13	4	56	700	--	--
M491 70N 52.5E	201	13	3	92	720	--	--

Certified by *Hart Bichler* .....





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112340-002-A  
 INVOICE # : I8112340  
 DATE : 16-AUG-81  
 P.O. # : 56809  
 M491

ATTN: D. ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Sa ppm		
M491 70N 53.5E	201	11	4	86	680	--	--
M491 70N 54.0E	201	8	4	63	660	--	--
M491 70N 54.5E	201	25	5	76	740	--	--
M491 70N 55.0E	201	24	9	273	660	--	--
M491 70N 55.5E	201	21	6	110	620	--	--
M491 70N 56.0E	201	14	8	120	580	--	--
M491 70N 56.5E	201	37	5	88	660	--	--
M491 71N 48.0E	201	23	4	63	670	--	--
M491 71N 48.5E	201	26	4	57	690	--	--
M491 71N 49.0E	201	15	2	54	610	--	--
M491 71N 49.5E	201	27	3	59	660	--	--
M491 71N 50.0E	201	25	4	72	680	--	--
M491 71N 50.5E	201	12	6	108	560	--	--
M491 71N 51.0E	201	9	8	98	600	--	--
M491 71N 51.5E	201	16	4	85	690	--	--
M491 71N 52.0E	201	25	5	95	620	--	--
M491 71N 52.5E	201	22	4	103	780	--	--
M491 71N 53.0E	201	11	2	65	640	--	--
M491 71N 53.5E	201	22	4	70	660	--	--
M491 71N 54.0E	201	32	12	250	720	--	--
M491 71N 54.5E	201	28	4	120	650	--	--
M491 71N 55.0E	201	45	5	100	520	--	--
M491 71N 55.5E	201	26	9	138	660	--	--
M491 71N 56.0E	201	32	2	78	740	--	--
M491 71N 56.5E	201	32	3	62	640	--	--
M491 71N 57.0E	201	17	4	67	640	--	--
M491 71N 57.5E	201	25	5	85	620	--	--
M491 71N 58.0E	201	23	4	113	690	--	--
M491 71N 58.5E	201	38	5	60	700	--	--
M491 71N 59.0E	201	20	5	110	620	--	--
M491 71N 59.5E	201	21	7	150	620	--	--
M491 71N 60.0E	201	19	4	108	640	--	--
M491 71N 60.5E	201	23	5	110	600	--	--
M491 71N 61.0E	201	21	4	65	660	--	--
M491 71N 61.5E	201	24	3	40	560	--	--
M491 71N 62.0E	201	24	7	128	700	--	--
M491 72N 48.0E	201	16	2	45	650	--	--
M491 72N 48.5E	201	24	4	32	680	--	--
M491 72N 49.0E	201	37	2	46	660	--	--
M491 72N 49.5E	201	32	3	36	710	--	--

Certified by *Hart Bickler*





# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

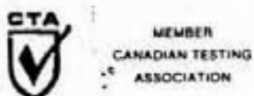
TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BARRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A8112340-003-A  
 INVOICE # : I2112340  
 DATE : 16-AUG-81  
 P.O. # : 56809  
 M491

ATTN: D. ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	3a ppm		
M491 72N 50.0E	201	19	4	73	520	--	--
M491 72N 50.5E	201	24	4	36	700	--	--
M491 72N 51.0E	201	19	3	50	400	--	--
M491 72N 51.5E	201	16	2	45	710	--	--
M491 72N 52.0E	201	42	3	40	720	--	--
M491 72N 52.5E	201	28	3	68	660	--	--
M491 72N 53.0E	201	25	3	50	580	--	--
M491 72N 53.5E	201	25	7	150	640	--	--
M491 72N 54.0E	201	46	4	47	700	--	--
M491 72N 54.5E	201	20	5	206	560	--	--
M491 72N 55.0E	201	27	5	108	560	--	--
M491 72N 55.5E	201	18	5	100	580	--	--
M491 72N 56.0E	201	15	5	100	650	--	--
M491 72N 56.5E	201	25	6	100	740	--	--
M491 72N 57.0E	201	26	11	98	680	--	--
M491 72N 57.5E	201	24	7	97	520	--	--
M491 72N 58.0E	201	33	5	58	580	--	--
M491 72N 58.5E	201	19	2	59	600	--	--
M491 72N 59.0E	201	20	3	185	460	--	--
M491 72N 59.5E	201	19	6	120	500	--	--
M491 72N 60.0E	201	20	3	105	620	--	--
M491 72N 60.5E	201	15	3	33	560	--	--
M491 72N 61.0E	201	15	7	120	680	--	--
M491 72N 61.5E	201	21	10	105	560	--	--
M491 72N 62.0E	201	17	9	255	580	--	--
M491 73N 47.5E	201	10	4	50	540	--	--
M491 73N 48.0E	201	18	4	70	570	--	--
M491 73N 48.5E	201	30	4	48	550	--	--
M491 73N 49.0E	201	10	5	32	580	--	--
M491 73N 49.5E	201	16	4	93	500	--	--
M491 73N 50.0E	201	25	3	42	600	--	--
M491 73N 50.5E	201	25	8	100	520	--	--
M491 73N 51.0E	201	32	3	78	580	--	--
M491 73N 51.5E	201	18	3	105	680	--	--
M491 73N 52.0E	201	23	4	65	720	--	--
M491 73N 52.5E	201	24	8	144	680	--	--
M491 73N 53.0E	201	15	2	110	620	--	--
M491 73N 53.5E	201	43	1	75	740	--	--
M491 73N 54.0E	201	17	1	46	640	--	--
M491 73N 54.5E	201	20	4	62	620	--	--

Certified by *Hart Bichler*





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURNARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : A3112840-004-A  
 INVOICE # : I8112840  
 DATE : 15-AUG-81  
 P.O. # : 56809  
 M491

ATTN: D. ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
M491 73N 55.0EE	201	18	5	195	600	--	--
M491 73N 55.5EE	201	22	1	42	720	--	--
M491 73N 56.0EE	201	33	5	68	770	--	--
M491 73N 56.5EE	201	27	6	84	630	--	--
M491 73N 57.0EE	201	24	3	45	560	--	--
M491 73N 57.5EE	201	47	5	73	600	--	--
M491 73N 58.0EE	201	24	3	75	640	--	--
M491 73N 58.5EE	201	25	3	35	670	--	--
M491 73N 59.0EE	201	20	3	66	590	--	--
M491 73N 59.5EE	201	22	6	130	660	--	--
M491 73N 60.0EE	201	19	5	245	660	--	--
M491 73N 60.5EE	201	20	12	160	680	--	--
M491 73N 61.0EE	201	19	10	170	730	--	--
M491 73N 61.5EE	201	19	8	140	620	--	--
M491 73N 62.0EE	201	24	5	54	620	--	--
M491 74N 47.5EE	201	35	3	32	680	--	--
M491 74N 48.0EE	201	20	2	42	690	--	--
M491 74N 48.5EE	201	16	2	42	620	--	--
M491 74N 49.0EE	201	49	1	40	630	--	--
M491 74N 49.5EE	201	33	5	76	650	--	--
M491 74N 50.0EE	201	19	4	65	580	--	--
M491 74N 50.5EE	201	25	2	72	690	--	--
M491 74N 51.0EE	201	32	2	45	740	--	--
M491 74N 51.5EE	201	9	4	63	640	--	--
M491 74N 52.0EE	201	19	3	112	520	--	--
M491 74N 52.5EE	201	12	2	60	500	--	--
M491 74N 53.0EE	201	11	2	73	540	--	--
M491 74N 53.5EE	201	17	3	98	600	--	--
M491 74N 54.0EE	201	8	2	140	530	--	--
M491 74N 54.5EE	201	38	14	290	720	--	--
M491 74N 55.0EE	201	29	8	240	600	--	--
M491 74N 55.5EE	201	39	3	105	650	--	--
M491 74N 56.0EE	201	105	5	60	760	--	--
M491 74N 56.5EE	201	34	3	60	640	--	--
M491 74N 57.0EE	201	50	4	32	610	--	--
M491 74N 57.5EE	201	24	4	45	540	--	--
M491 74N 58.0EE	201	22	2	76	620	--	--
M491 74N 58.5EE	201	48	3	65	640	--	--
M491 74N 59.0EE	201	44	2	55	680	--	--
M491 74N 59.5EE	201	22	5	106	510	--	--

Certified by *Hart Bickler*



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: (604)984-0221  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS
-------------------------

TO : CHEVRON STANDARD LIMITED  
 MINERALS STAFF  
 #901 - 355 BURRARD ST.  
 VANCOUVER, B.C.  
 V6C 2G8

CERT. # : 48112840-075-A  
 INVOICE # : 18112340  
 DATE : 15-AUG-31  
 P.O. # : 56309  
 M491

ATTN: D. ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
M491 74N 60.0EE	201	52	3	58	600	--	--
M491 74N 60.5EE	201	25	8	176	700	--	--
M491 74N 61.0EE	201	21	7	236	590	--	--
M491 74N 61.5EE	201	14	6	110	550	--	--
M491 74N 62.0EE	201	50	9	135	520	--	--
M491 75N 55.0EE	201	13	3	215	520	--	--
M491 75N 55.5EE	201	31	4	153	600	--	--
M491 75N 56.0EE	201	14	1	120	570	--	--
M491 75N 56.5EE	201	38	3	190	570	--	--
M491 75N 57.0EE	201	20	1	270	620	--	--
M491 75N 57.5EE	201	44	4	58	560	--	--
M491 75N 58.0EE	201	24	2	50	700	--	--
M491 75N 58.5EE	201	25	5	230	1000	--	--
M491 75N 59.0EE	201	25	3	74	920	--	--
M491 75N 59.5EE	201	32	4	64	760	--	--
M491 75N 60.0EE	201	17	5	118	740	--	--
M491 75N 60.5EE	201	21	7	142	700	--	--
M491 75N 61.0EE	201	27	20	158	670	--	--
M491 75N 61.5EE	201	36	5	60	660	--	--
M491 75N 62.0EE	201	150	3	52	640	--	--
M491 76N 55.0EE	201	23	7	253	760	--	--
M491 76N 55.5EE	201	11	1	118	540	--	--
M491 76N 56.0EE	201	22	75	372	1000	--	--
M491 76N 56.5EE	201	20	43	308	740	--	--
M491 76N 57.0EE	201	23	10	150	590	--	--
M491 76N 57.5EE	201	28	7	120	620	--	--
M491 76N 58.0EE	201	59	9	575	700	--	--
M491 76N 58.5EE	201	90	145	1300	2000	--	--
M491 76N 59.0EE	201	19	32	355	770	--	--
M491 76N 59.5EE	201	23	6	178	520	--	--
M491 76N 60.0EE	201	50	9	55	880	--	--
M491 76N 60.5EE	201	19	3	234	1080	--	--
M491 76N 61.0EE	201	18	5	100	890	--	--
M491 76N 61.5EE	201	21	3	60	750	--	--
M491 76N 62.0EE	201	34	12	115	900	--	--

Certified by *Hart Bickler* .....





# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURREARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112987-001-A  
INVOICE # : 18112987  
DATE : 16-AUG-81  
P.O. # : S60309  
M491

C/O W.A. HOWELL ATTN: D. ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Pu ppm		
M491 75N 48+00E	201	69	3	42	640	--	--
M491 75N 48+50E	201	16	1	30	740	--	--
M491 75N 49+00E	201	36	3	42	650	--	--
M491 75N 49+50E	201	14	2	48	700	--	--
M491 75N 50+00E	201	35	1	43	740	--	--
M491 75N 50+50E	201	25	3	75	710	--	--
M491 75N 51+00E	201	14	3	52	620	--	--
M491 75N 51+50E	201	25	2	50	680	--	--
M491 75N 52+00E	201	3	2	54	590	--	--
M491 75N 52+50E	201	9	2	118	570	--	--
M491 75N 53+00E	201	16	1	56	680	--	--
M491 75N 53+50E	201	10	3	268	800	--	--
M491 75N 54+00E	201	8	2	196	600	--	--
M491 75N 54+50E	201	16	2	135	560	--	--
M491 75N 55+00E	201	86	3	86	520	--	--
M491 78N 55+00EE	201	59	24	343	700	--	--
M491 78N 55+50EE	201	30	18	178	770	--	--
M491 78N 56+00EE	201	19	4	137	630	--	--
M491 78N 56+50EE	201	21	4	148	670	--	--
M491 78N 57+00EE	201	23	14	108	860	--	--
M491 78N 57+50EE	201	18	3	78	700	--	--
M491 78N 58+00EE	201	16	2	60	640	--	--
M491 78N 58+50EE	201	52	1	48	740	--	--
M491 78N 59+00EE	201	21	5	350	640	--	--
M491 78N 59+50EE	201	51	1	68	840	--	--
M491 78N 60+00EE	201	26	1	172	650	--	--
M491 78N 60+50EE	201	17	1	485	580	--	--
M491 78N 61+00EE	201	26	1	175	700	--	--
M491 78N 61+50EE	201	24	1	105	640	--	--
M491 78N 62+00EE	201	17	4	185	980	--	--

Certified by *Hart Bickler*







# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: (604)984-0221  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BURRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

CERT. # : A8112988-001-A  
INVOICE # : 18112988  
DATE : 17-AUG-81  
P.O. # : 56809  
M491

C/C W.A. HOWELL ATTN: B. ARSCOTT

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
M491 SM 95	205	63	2	118	980	--	--
M491 SM 97	205	67	1	77	1600	--	--
M491 SM 131	205	299	3	11	520	--	--
M491 SM 138A	205	6	2	4	180	--	--
M491 SM 138B	205	3	6	42	180	--	--
M491 SM 138C	205	2	28	6	480	--	--
M491 SM 144	205	11	4	66	530	--	--
M491 SM 147	205	72	6	110	700	--	--
M491 SM 198	205	184	>10000	>10000	>10000	--	--
M491 SM 199	205	6	153	2250	>10000	--	--
M491 SM 200	205	29	5100	6150	10000	--	--
M491 PF 114	205	8	155	330	2400	--	--
M491 PF 120	205	3	38	48	580	--	--
M491 PF 125	205	23	14	24	260	--	--
M491 TS 233	205	6	16	89	260	--	--
M491 TS 236	205	5	7	50	300	--	--
M491 TS 238	205	39	9	56	480	--	--
M491 TS 269	205	12	15	153	580	--	--
M491 TS 279	205	3	19	165	1240	--	--

Certified by *Hart + Biddle*



MEMBER  
CANADIAN TESTING  
ASSOCIATION



# CHEMEX LABS LTD.

*IRON MT.*

212 BROOKSBANK AVE  
NORTH VANCOUVER B C  
CANADA V7J 2C1  
TELEPHONE (604)984-0221  
TELEX 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : CHEVRON STANDARD LIMITED  
MINERALS STAFF  
#901 - 355 BARRARD ST.  
VANCOUVER, B.C.  
V6C 2G8

*10,114*

CERT. # : A8113079-001-A  
INVOICE # : I8113079  
DATE : 21-AUG-81  
P.O. # : S6809  
4491

c.c. W.A. HOWELL, JMT SERVICES CORP.

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm	Ba ppm		
81-3-793	201	39	5	210	780	--	--
81-3-799	201	105	7	145	760	--	--
81-3-800	201	55	12	195	720	--	--



MEMBER  
CANADIAN TESTING  
ASSOCIATION

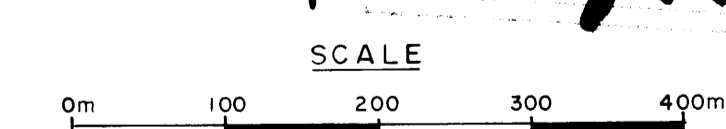
Certified by *Frank Biddle*



LEGEND

- |   |   |
|---|---|
| 1 WESTERN ANDESITIC LAPILLI TUFFS AND TUFFS | 14 GREY LIMESTONE                           |
| 2 DARK GREY TUFF                            | 14a LIMEY SEDIMENTS                         |
| 3 PURPLE GREEN LAPILLI TUFF                 | 15 S.E. RHYOLITE                            |
| 3a S.W. SEDIMENTS                           | 15a S.E. THE START OF ANOTHER RHYOLITE UNIT |
| 4 WISPY CHLORITE UNIT                       | 16 ANDESITE LAPILLI TUFF                    |
| 5 RHYOLITE                                  | 17 COTTAGE CHEESE LAPILLI TUFF              |
| 6 PURPLE ARKOSE                             | 18 RHYOLITE DYKE AND FLOWS                  |
| 7 GREEN GRIT                                | 19 RHYOLITE MUD                             |
| 8 ANDESITE LAPILLI TUFFS                    | 20 PURPLE ANDESITE BRECCIA                  |
| 9 ANDESITE FLOWS AND TUFFS                  | 21 RED LIMESTONE                            |
| 10 SEDIMENTS AND TUFF                       | 22 NORTH LIMESTONE                          |
| 11 NORTH SEDIMENTS                          | D DIORITE                                   |
| 12 LIGHT GREEN SILICEOUS TUFF               | J JASPER                                    |
| 13 RED SILSTONE                             | V VOLCANIC VENT                             |

PART  
1 & 2 10, 114



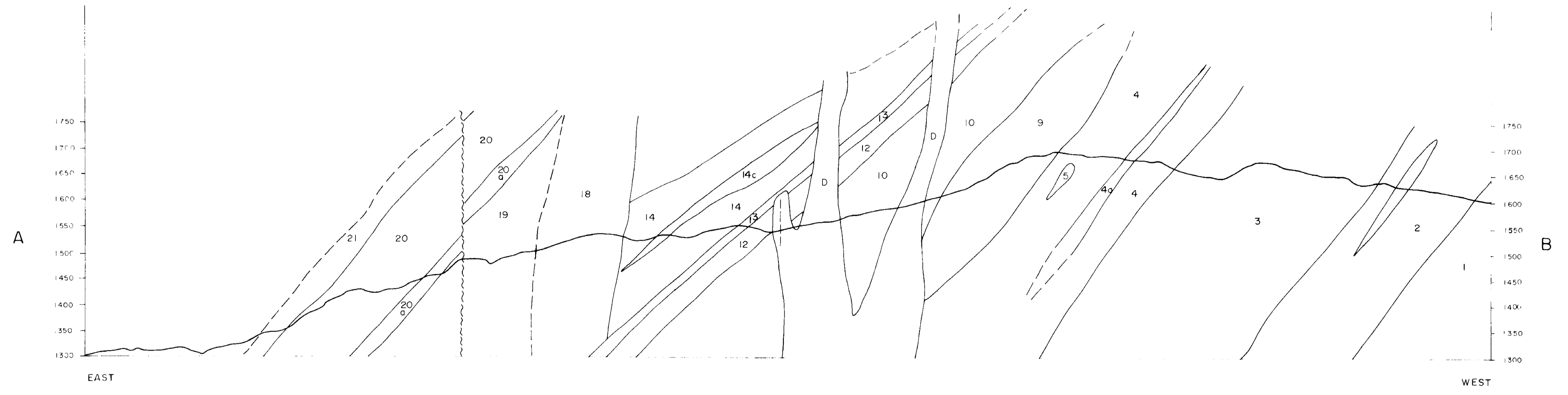
Chevron Standard Limited  
Minerals Staff

### IRON MOUNTAIN GEOLOGY

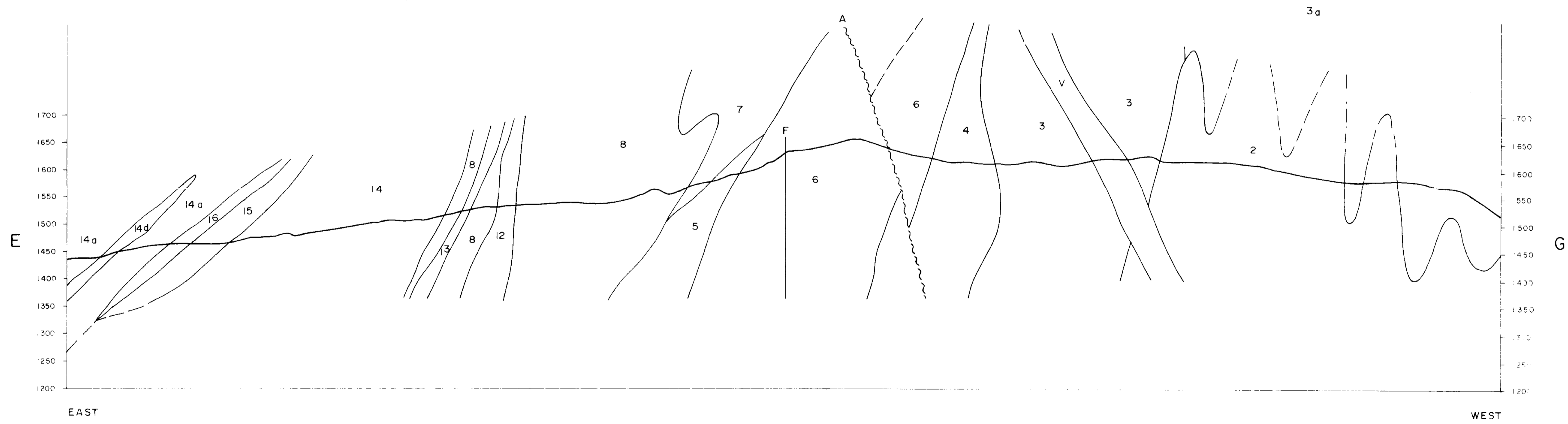
MAPPED BY:  
MARK BREWSTER  
SANDY MCALISTER  
TIM SANDBERG

BRUCE COATES  
COLIN BRADLEY  
PAUL FAGERLUND

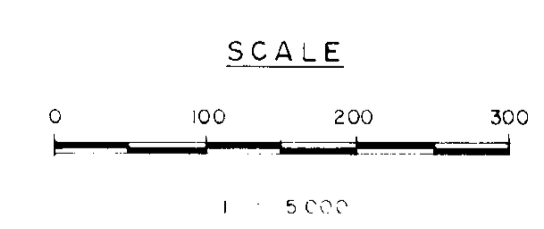
2	M 491
4 NOV 1981	1:5000
92 112	G-1
M. B.	



CROSS SECTION A-B



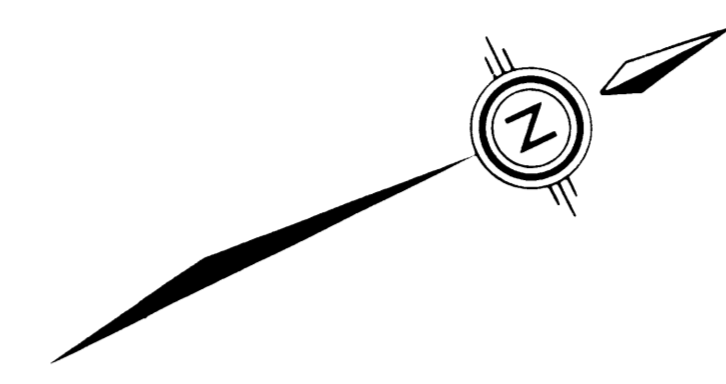
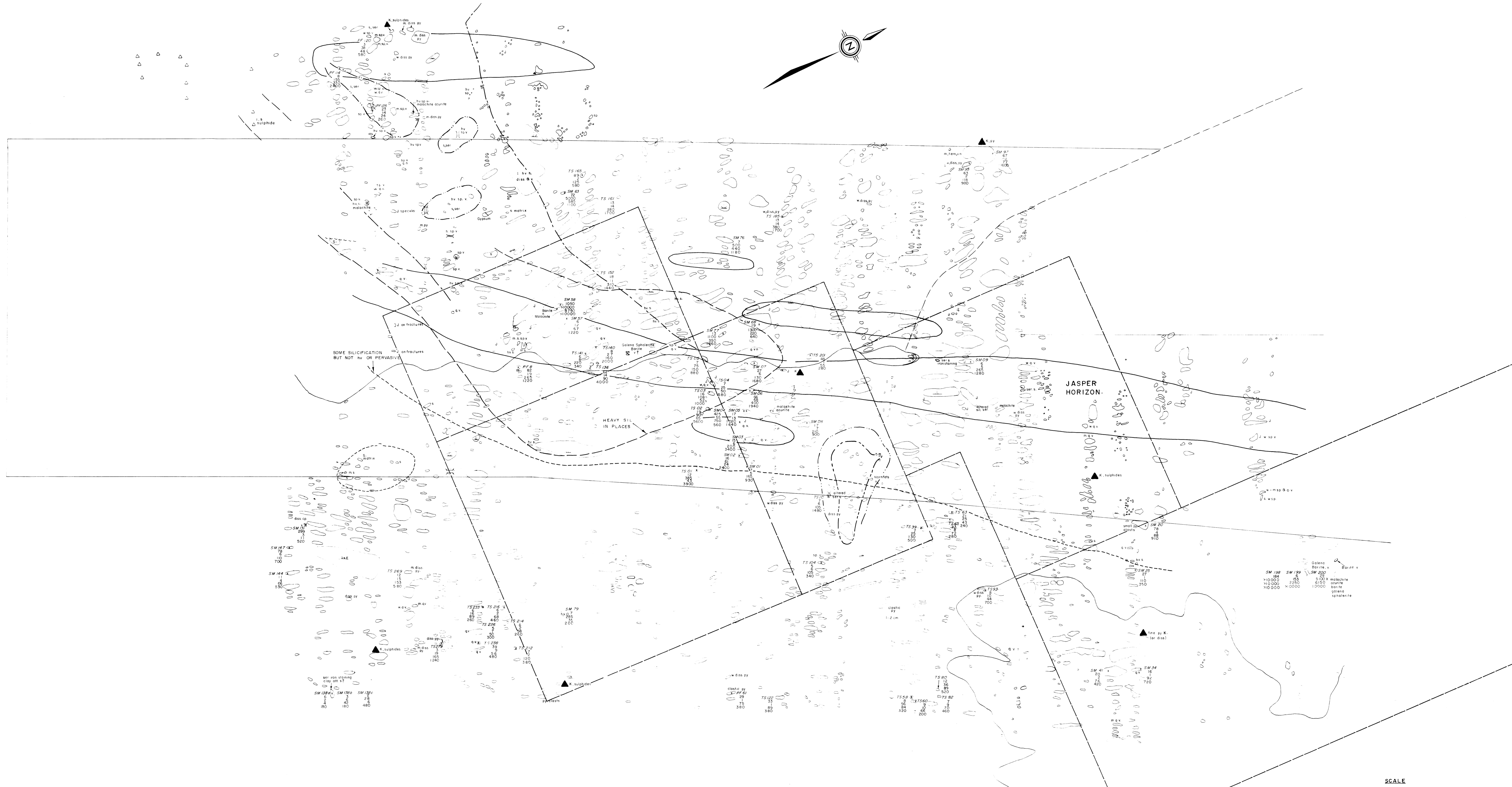
CROSS SECTION E-G



NOTE: For Rock Types see Legend on GEOLOGY MAP.

PART 1 of 2 10,114

<b>Chevron Standard Limited</b> Minerals Staff	
<h2>IRON MOUNTAIN</h2> <h3>CROSS SECTION A-B, E-G.</h3>	
FIGURE No. 3	PROJECT No. M 491
DATE NOV 5, 1981	REVISIONS
NTS No. 92 1/2	FILE No. G-2
COMPILED BY M.B.	



- LEGEND:**
- J (Jasper)
  - - - Sil. Ser (Silicification, Sericitization)
  - D (Diorite)
  - - - Sp v. (Specularite veining)
  - - - h.sil (Heavy silicification)
  - - - w.m.sil (weak to moderate silicification)

- LEGEND:**
- s silicification
  - q quartz
  - py pyrite
  - cp chalcopyrite
  - h hematite
  - ser sericite
  - sp specularite
  - v vein
  - ▲ K fragmental
  - w weak
  - m moderate
  - hv strong
  - l local
  - ( ) trench
  - x rock sample
  - 28 Cu
  - l Pb
  - 75 Zn
  - 380 Ba

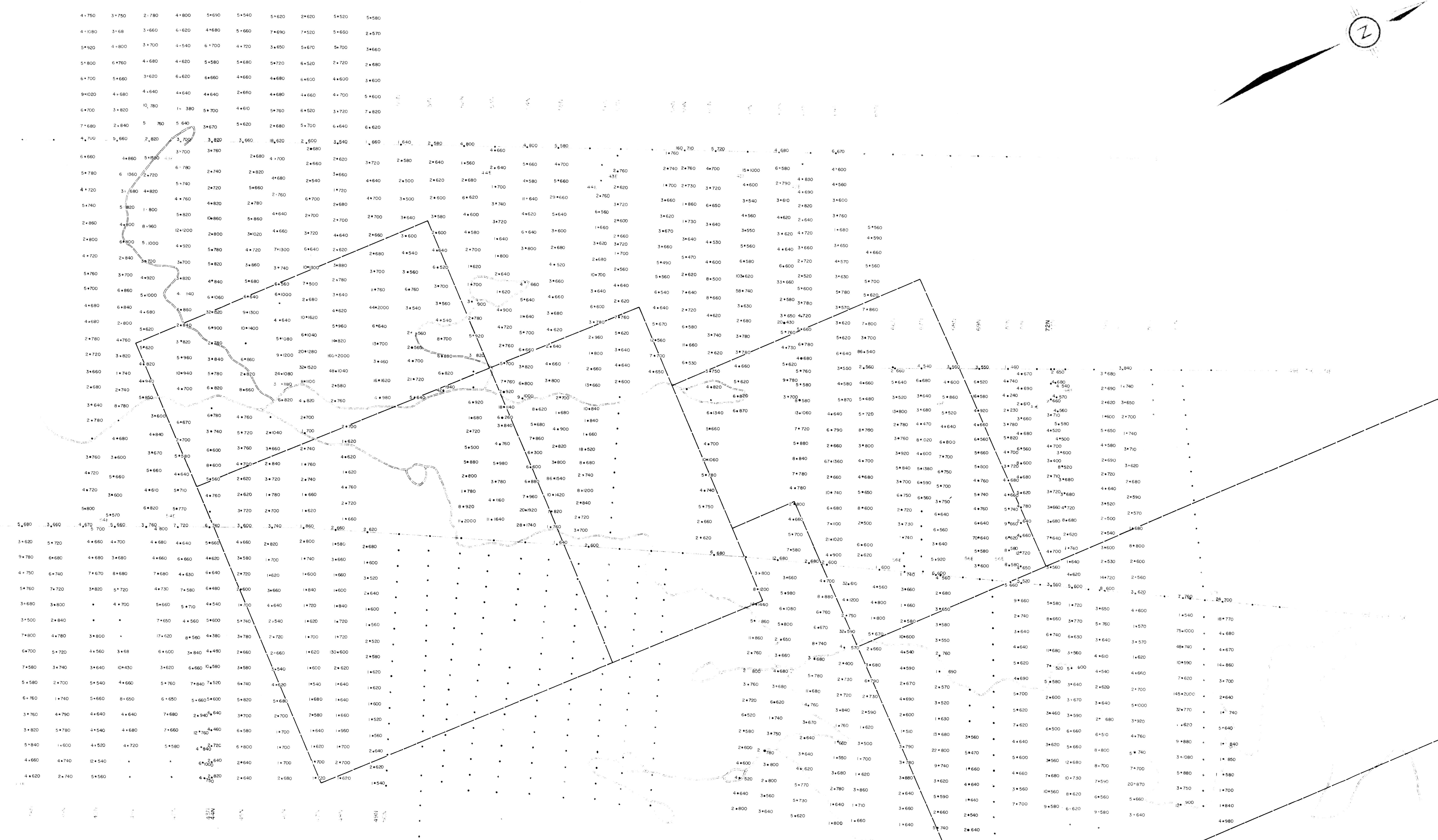
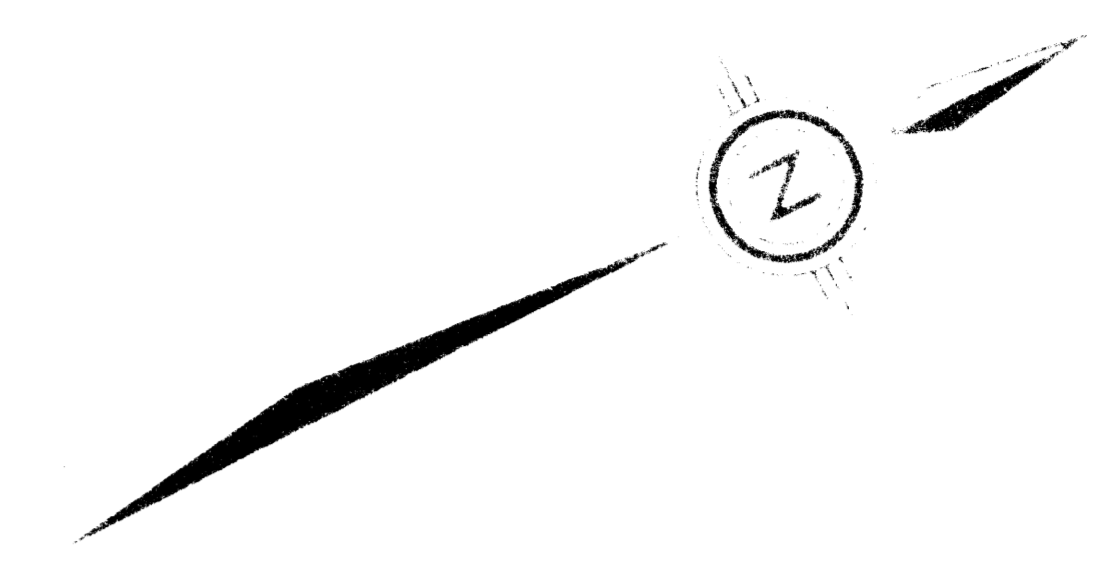
SCALE  
0m 100 200 300m

10,114 PART 1 of 2

**Chevron Standard Limited Minerals Staff**

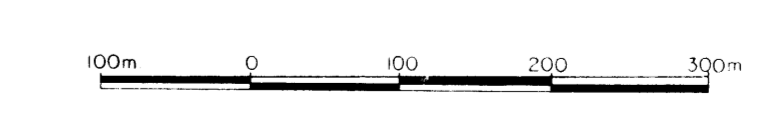
**IRON MTN.**  
ALTERNATIONS, JASPER HORIZON  
VENING & CLASTIC SULPHIDES

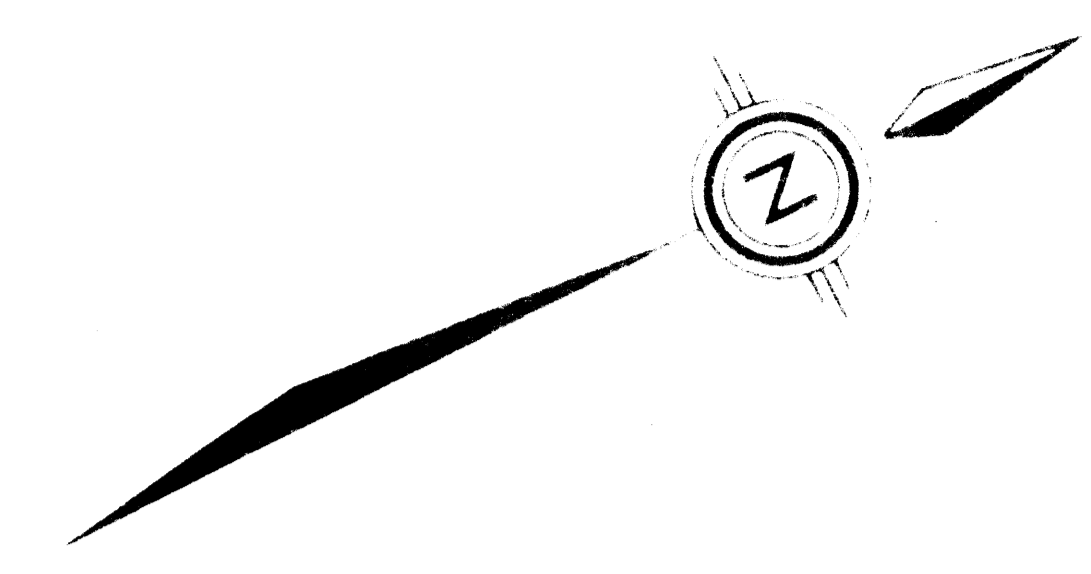
FIGURE No 4	PROJECT No M 491
DATE NOV 9, 1961	SCALE 1:5 000
REV 92 1/2	
BY M.B.	63



10114 PART  
1082

CHEVRON STANDARD LIMITED			
IRON MOUNTAIN			
GEOCHEMISTRY Pb.ppm. Ba.ppm.			
Sheet No. 5	PROJECT No. M 491		
NOV 81			15000
92 1/2			
MB			C-1





10,114 PART 1 of 2

LEGEND  
Zn • Cu  
ppm

**Chevron Standard Limited**  
Minerals Staff

**GEOCHEMICAL Cu,Zn**  
**IRON MOUNTAIN**

6 PROJECT No. M491

SCALE 1:5 000

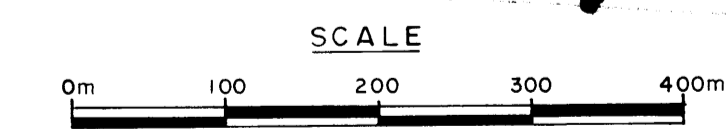
92/112 FILE No. C2



LEGEND

- |   |   |
|---|---|
| 1 WESTERN ANDESITIC LAPILLI TUFFS AND TUFFS | 14 GREY LIMESTONE                           |
| 2 DARK GREY TUFF                            | 14a LIMEY SEDIMENTS                         |
| 3 PURPLE GREEN LAPILLI TUFF                 | 15 S.E. RHYOLITE                            |
| 3a S.W. SEDIMENTS                           | 15a S.E. THE START OF ANOTHER RHYOLITE UNIT |
| 4 WISPY CHLORITE UNIT                       | 16 ANDESITE LAPILLI TUFF                    |
| 5 RHYOLITE                                  | 17 COTTAGE CHEESE LAPILLI TUFF              |
| 6 PURPLE ARKOSE                             | 18 RHYOLITE DYKE AND FLOWS                  |
| 7 GREEN GRIT                                | 19 RHYOLITE MUD                             |
| 8 ANDESITE LAPILLI TUFFS                    | 20 PURPLE ANDESITE BRECCIA                  |
| 9 ANDESITE FLOWS AND TUFFS                  | 21 RED LIMESTONE                            |
| 10 SEDIMENTS AND TUFF                       | 22 NORTH LIMESTONE                          |
| 11 NORTH SEDIMENTS                          | D DIORITE                                   |
| 12 LIGHT GREEN SILICEOUS TUFF               | J JASPER                                    |
| 13 RED SILSTONE                             | V VOLCANIC VENT                             |

PART  
1 & 2 10, 114



Chevron Standard Limited  
Minerals Staff

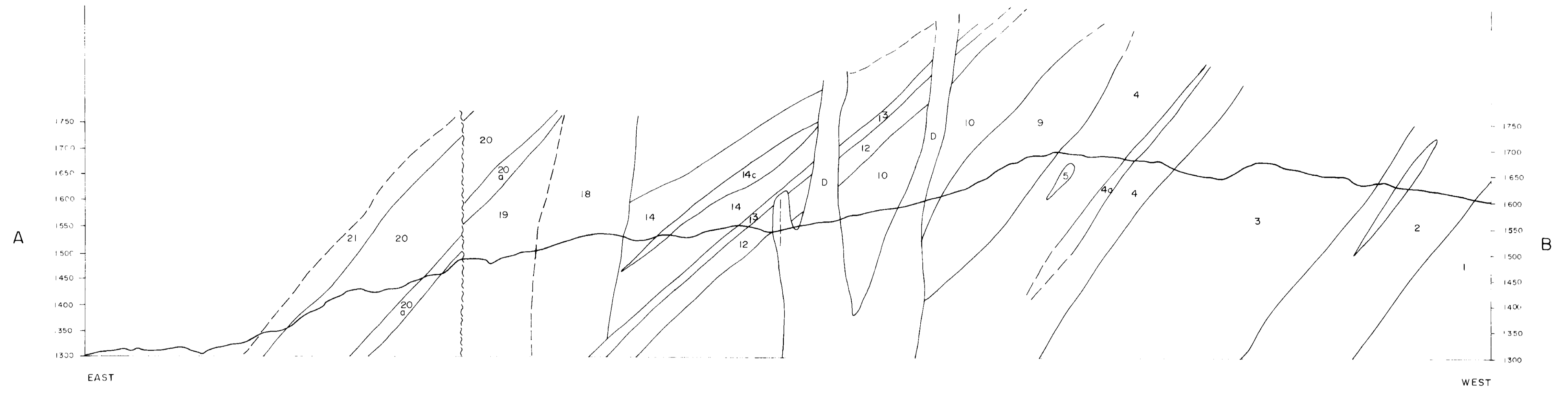
### IRON MOUNTAIN GEOLOGY

MAPPED BY:  
MARK BREWSTER  
SANDY MCALISTER  
TIM SANDBERG

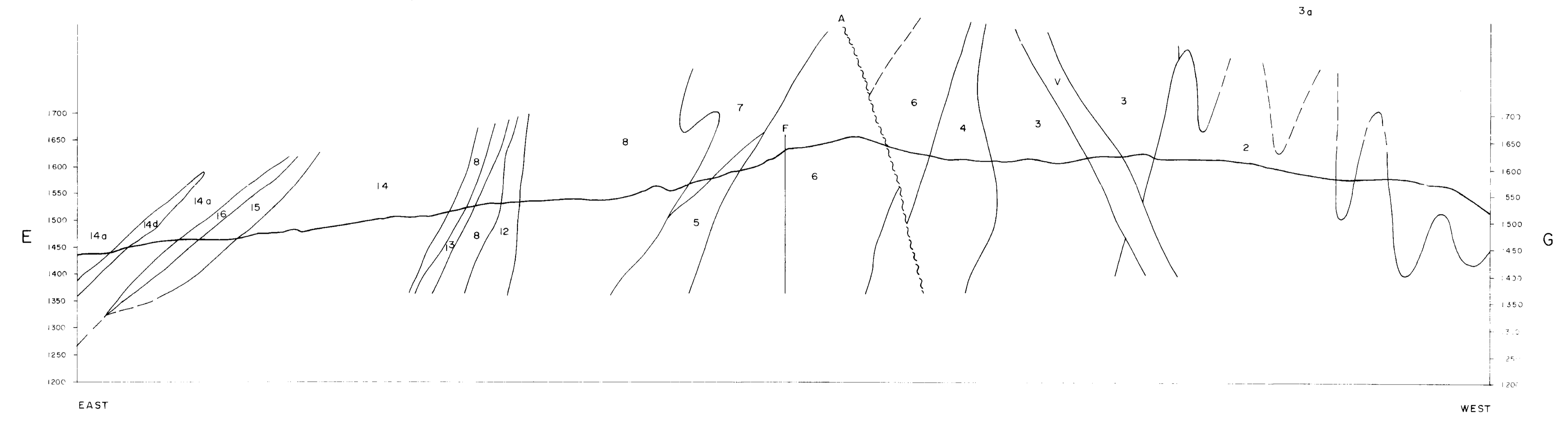
BRUCE COATES  
COLIN BRADLEY  
PAUL FAGERLUND

2	M 491
4 NOV 1981	1:5000
92 112	G-1
M. B.	

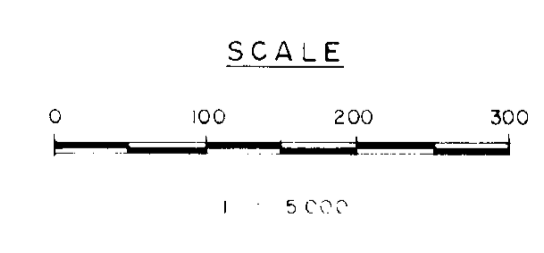




CROSS SECTION A-B



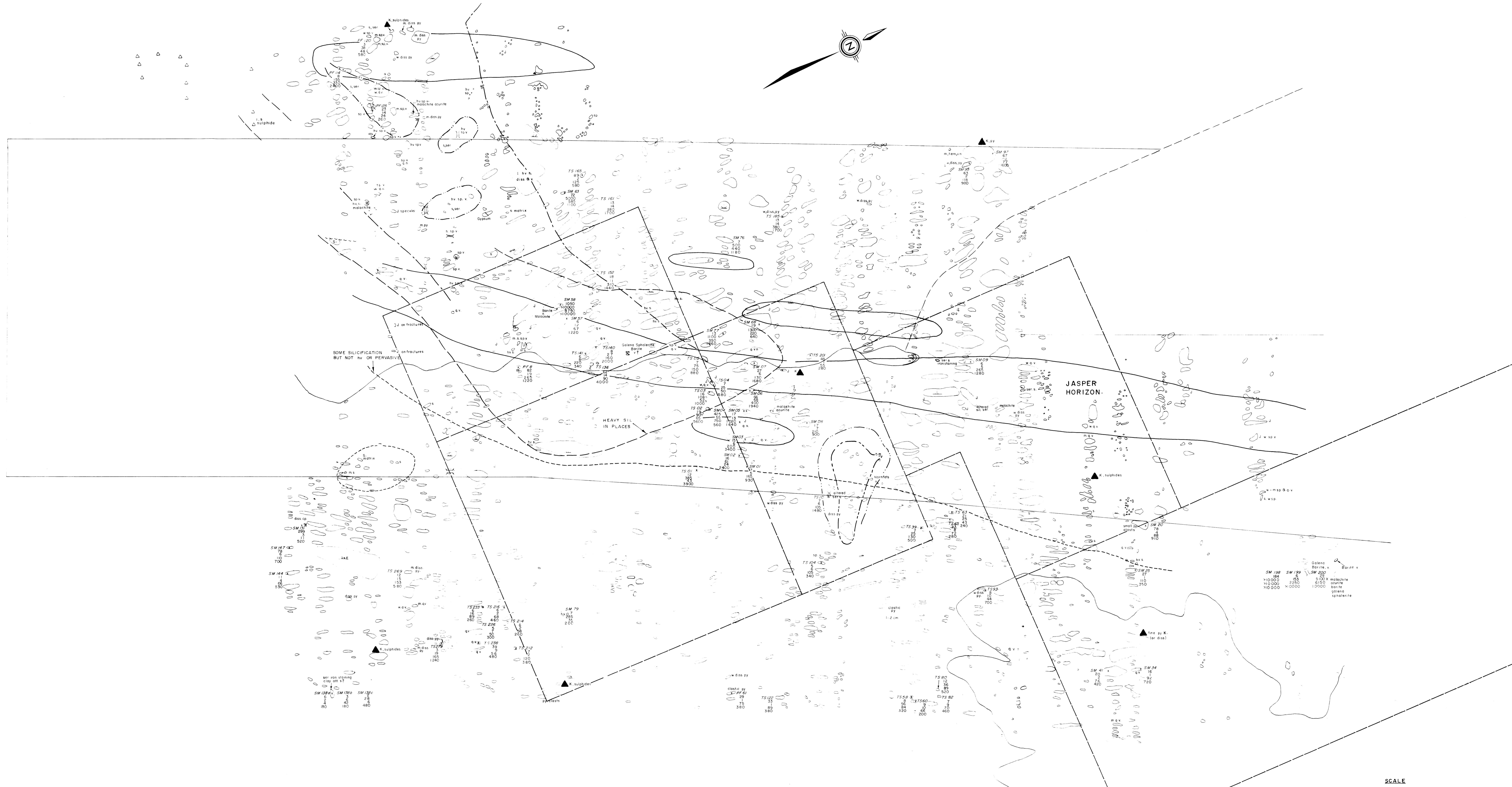
CROSS SECTION E-G



NOTE: For Rock Types see Legend on GEOLOGY MAP.

PART 1 of 2 10,114

<b>Chevron Standard Limited</b> Minerals Staff	
<h2>IRON MOUNTAIN</h2> <h3>CROSS SECTION A-B, E-G.</h3>	
FIGURE No. 3	PROJECT No. M 491
DATE NOV 5, 1981	REVISIONS
NTS No. 92 1/2	FILE No. G-2
COMPILED BY M.B.	



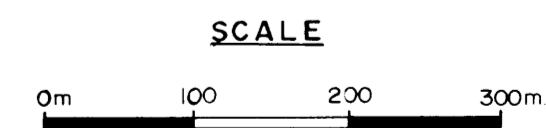
**LEGEND:**

- J (Jasper)
- - - Sil. Ser (Silicification, Sericitization)
- D (Diorite)
- - - Sp v. (Specularite veining)
- h.sil (Heavy silicification)
- - - w.m.sil (weak to moderate silicification)

**LEGEND:**

- s silicification
- q quartz
- py pyrite
- cp chalcopyrite
- h hematite
- ser sericite
- sp specularite
- v vein
- ▲ K fragmental
- w weak
- m moderate
- hv strong
- l local
- ( ) trench
- x rock sample
- 28 Cu
- l Pb
- 75 Zn
- 380 Ba

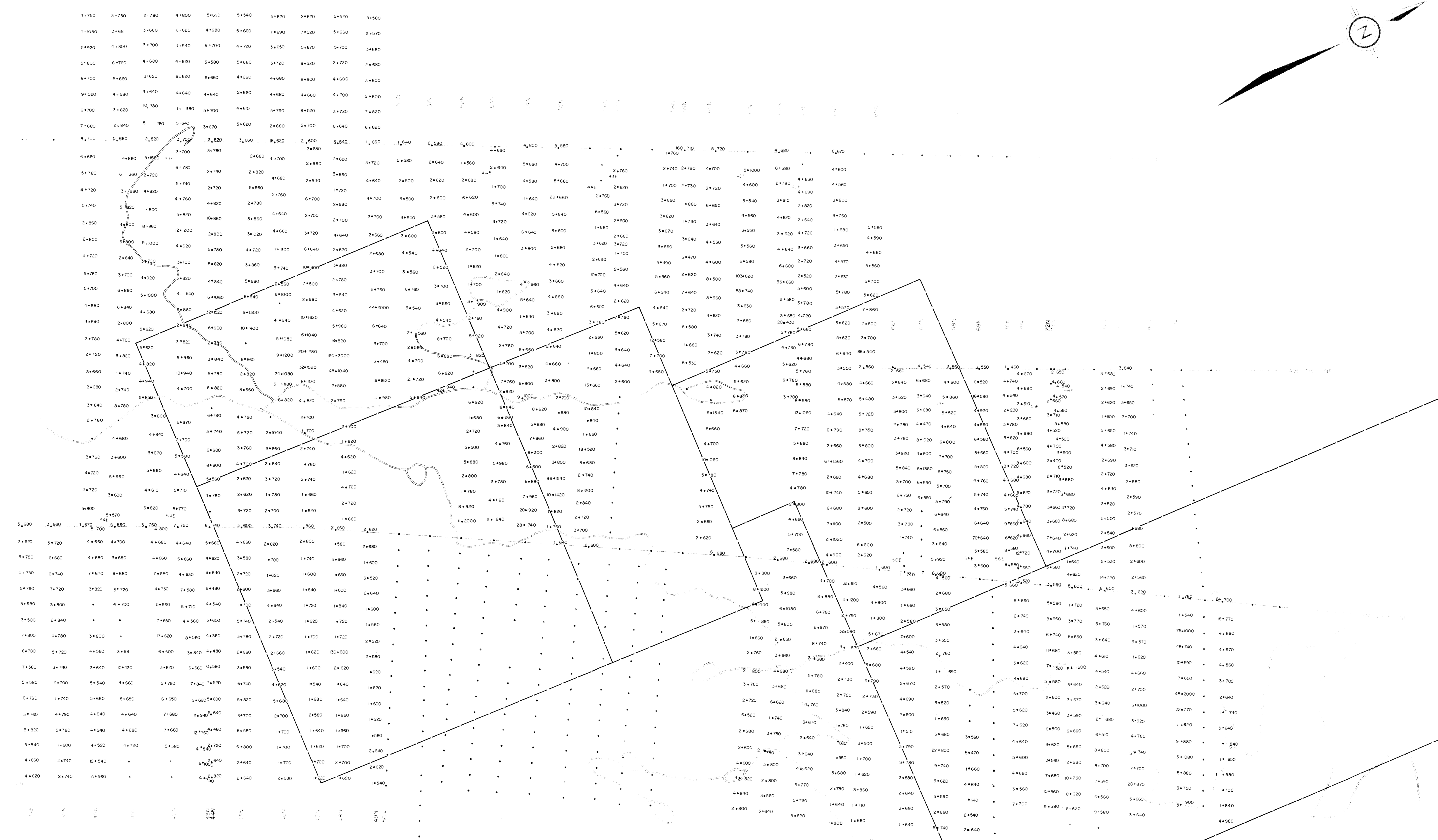
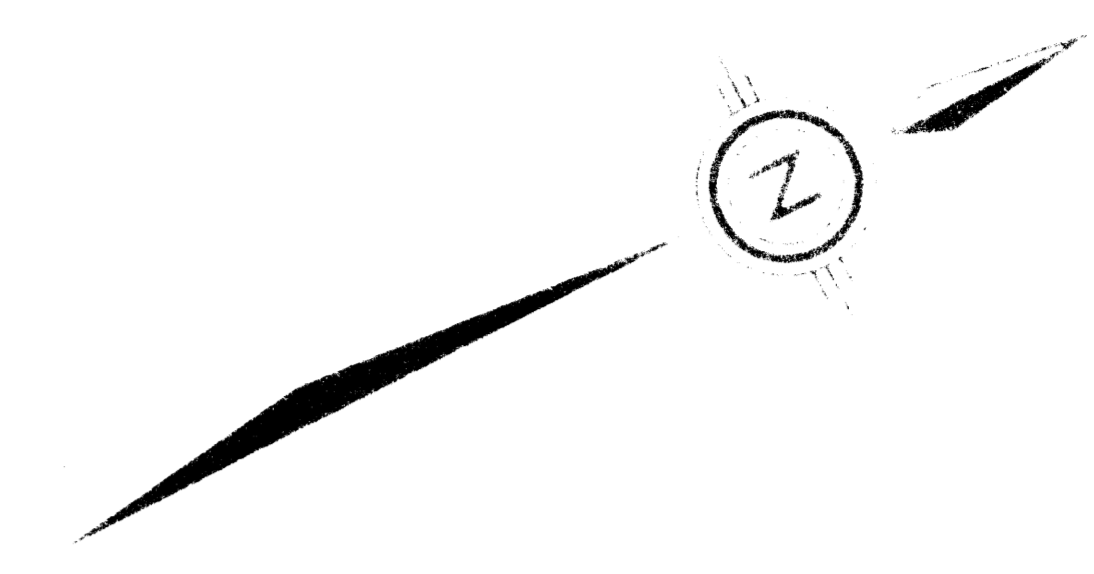
10,114 PART 1 of 2



Chevron Standard Limited  
Minerals Staff

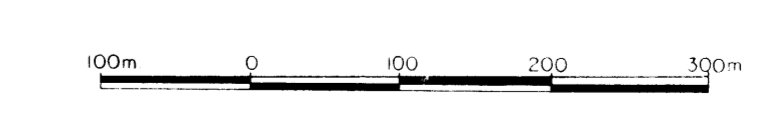
**IRON MTN.**  
ALTERNATIONS, JASPER HORIZON  
VENING & CLASTIC SULPHIDES

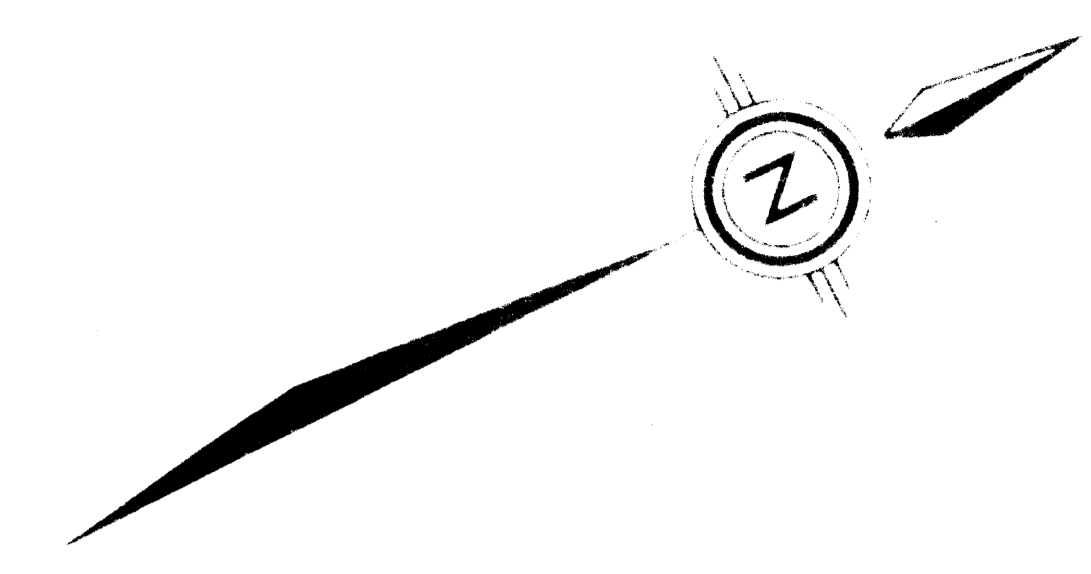
FIGURE No 4	PROJECT No M 491
NOV 9, 1961	SCALE 1:5 000
92 1/2	G 3
M.B.	



10114 PART  
1082

CHEVRON STANDARD LIMITED	
IRON MOUNTAIN GEOCHEMISTRY Pb.ppm. Ba.ppm.	
NOV 81	15000
92 1/2	C-1





10,114 PART 1 of 2

LEGEND  
Zn • Cu  
ppm

Chevron Standard Limited Minerals Staff	
GEOCHEMICAL Cu,Zn IRON MOUNTAIN	
6	PROJECT No. M491
92/112	SCALE 1:5 000
M.B.	FILE No. C2