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DIAMOND DRILLING, GEOLOGY AND GEOCHEMISTRY

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REPORT ON

GOATFELL PROPERTY

Goat Group and Sky Group

Fort Steele and Nelson Mining Divisions

N.T.S. 82F/1

Latitude 49° 08' N

Longitude 116° 12' W

by

Zlata Rebic, B.Sc.

for

Chevron Minerals Ltd.

and

Formosa Resources Corporation

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,701

Vancouver, B. C.

October, 1989

Frontispiece. Newly-discovered tourmaline-sulphide zone on the Sky mineral claim.

TABLE OF CONTENTS

		Page
1.0	SUMMARY	1
2.0	INTRODUCTION	3
	2.1 Purpose	3
	2.2 Location, Access and Topography	3
	2.3 Claim Status and Ownership	4
3.0	PREVIOUS WORK	6
4.0	1989 WORK PROGRAM SUMMARY	11
5.0	REGIONAL GEOLOGY	13
	5.1 Lithology	13
	5.2 Metamorphism	16
	5.3 Structure	17
6.0	PROPERTY GEOLOGY	19
	6.1 Introduction	19
	6.2 Lithology	19
	6.2.1 Lower Aldridge Formation	20
	6.2.2 Middle Aldridge Formation	20
	6.2.3 Moyie Intrusive Rocks	22
	6.2.4 Lamprophyre Rocks	22
	6.3 Structure	23
	6.4 Alteration and Mineralization	25
7.0	DIAMOND DRILLING	34
	7.1 Diamond Drill Hole G3	34
	7.2 Diamond Drill Hole G4	36
8.0	GEOCHEMISTRY	40
	8.1 Sampling and Analytical Procedures	40
	8.2 Analytical Results	42
	8.2.1 Soil sample analyses	42
	8.2.2 Rock sample analyses	43
9.0	CONCLUSIONS	46
10.0	RECOMMENDATIONS	48
11.0	BIBLIOGRAPHY	53

LIST OF TABLES

		Page
I.	Claim Status	5

LIST OF FIGURES

1.	Goatfell Project Location Map	after page 3
2.	Goatfell Project Claim Map	after page 5
3.	Regional Geology	after page 13
4.	Goatfell Project Geology - North Sheet	in pocket
5.	Goatfell Project Geology - South Sheet	in pocket
6.	Goatfell Project Geochemistry - North Sheet	in pocket
7.	Goatfell Project Geochemistry - South Sheet	in pocket

LIST OF APPENDICES

I	Statement of Qualifications
II	Cost Statement
III	Petrographic Report on Samples from Goatfell Property (1989) by J.S. Getsinger, Oct. 10, 1989
IV	Petrographic Report on Two Samples from Sky Mineral Claim by J.G. Payne, Sept. 1989
V	Lithogeochemical Report on Goatfell Property by F.R. Edmunds, Oct. 1989
VI	Summary of Rock Samples
VII	Analytical Procedures
VIII	Analytical Results
IX	Diamond Drill Logs
X	Statements of Work - Cash Payment

1.0 SUMMARY

The Goatfell Project is a joint venture between Chevron Minerals Ltd. and Formosa Resources Corporation, formed to explore the Goatfell Property for a Sullivan-type stratabound lead-zinc deposit. The project is managed by Chevron Minerals Ltd. on behalf of the joint venture. The purpose was to conduct some of the work recommended as a result of the 1988 exploration program.

An exploration program was conducted from June 26, 1989 to September 15, 1989. The program consisted of: 1,161.59 metres of diamond drilling in two holes; 53.5 line kilometres of flagged grid; collecting 1,008 soil samples, 29 rock grab samples and 37 diamond drill core samples for geochemical analyses; collecting 20 rock samples for petrographic studies; a limited lithogeochemical study; and a limited surface mapping.

The two 1989 diamond drill holes did not penetrate the stratigraphic level of the Sullivan Mine; however, they intersected hydrothermally altered zones with some quartz veins that contain elevated gold and copper values.

A tourmaline-sulphide zone was discovered during the 1989 field season in an outcrop on the Sky mineral claim. Tourmaline, arsenopyrite, pyrrhotite, pyrite and chalcopyrite mineralization occurs in the vicinity of the projected lower-middle Aldridge Formation contact. The metasedimentary rocks that host the

tourmaline-sulphide zone were subjected to several episodes of deformation and alteration. This zone is three metres wide and contains elevated lead, zinc, copper and gold values.

Surface mapping, based on the stratigraphic markers within the middle Aldridge Formation, indicates that the lower - middle Aldridge Formation contact occurs on the Barb and Sky mineral claims; therefore, the stratigraphy in this area is favourable for a Sullivan-type stratabound lead-zinc deposit.

Geological observations indicate that hydrothermal sericite-chlorite-quartz ± pyrite alteration is more widespread than indicated by previous workers. It is clearly post-metamorphic and cannot be used as a tool in exploring for Sullivan-type deposits.

Additional work is required to evaluate the Goatfell Property. Because of the claim ownership situation, two independent exploration programs are recommended: one for Goat 1, Goat 2 and Goat 3 mineral claims; the other for Sky, Sky 2, Sky 3 and Barb mineral claims. The recommended work includes: detailed surface mapping and prospecting; geochemical and geophysical surveys; lithogeochemical and petrographic studies; and trenching. An estimated cost of the exploration program for Goat 1, Goat 2 and Goat 3 mineral claims is $52,000. The cost of the recommended exploration program for the Sky, Sky 2, Sky 3 and Barb mineral claims is estimated at $130,000.

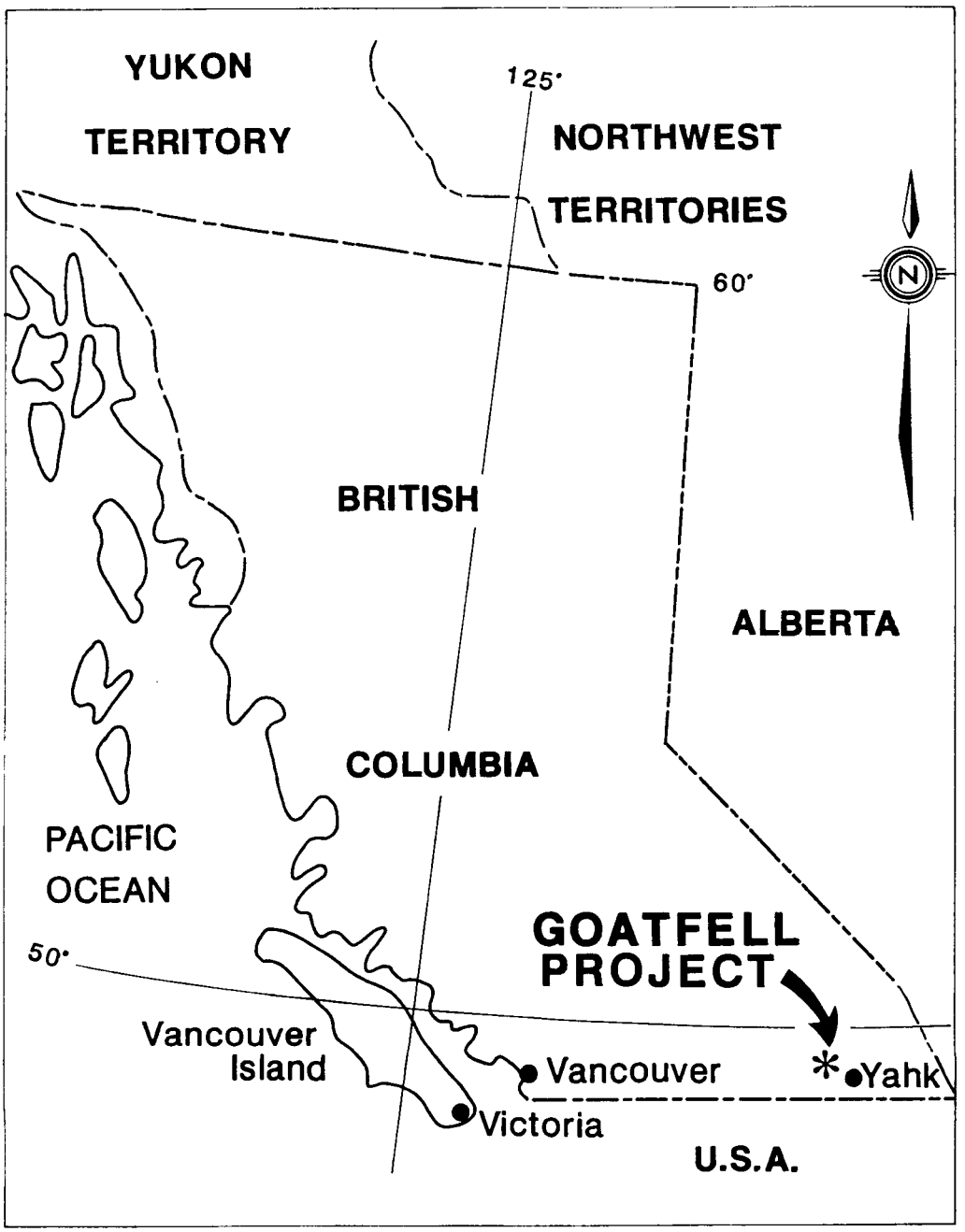
2.0 INTRODUCTION

2.1 Purpose

The Goatfell Project is a joint venture between Chevron Minerals Ltd. and Formosa Resources Corporation, formed to explore the Goatfell Property for a Sullivan-type stratabound lead-zinc deposit. The purpose of the 1989 exploration program was to conduct some of the work recommended as a result of the 1988 exploration program on the Goatfell Property (Hitzman, 1989). The 1989 exploration program, managed by Chevron Minerals Ltd. on behalf of the joint venture, focused on testing the Sullivan Mine horizon by diamond drilling, and on improving an understanding of the stratigraphy and the alteration on the property.

2.2 Location, Access and Topography

The Goatfell Property is approximately 10 km northwest of Yahk in southeastern British Columbia (Figure 1). It is centered approximately at latitude 49°08'N, longitude 116°12'W, within the National Topographic Series map sheet 82F/1. The Canadian Pacific Railway and a natural gas pipeline cross the central portion of the property; one must seek permission for crossing the gas pipeline corridor with oversized vehicles. In addition, a number of forestry and private roads cross the property; the latter can be used with a permission from owners. A high-voltage transmission



SCALE 1:10,000,000

0 400 km

Chevron Minerals Ltd.

GOATFELL PROJECT

LOCATION MAP

FIGURE No 1		PROJECT No M-586
DATE Oct. 89	REVISIONS	
NTS No 82F/1		
COMPILED BY Z.R.		

line lies approximately seven kilometres west of the Goatfell Property.

Elevations on the Goatfell Property range from approximately 760 m to 1,440 m. Moderate to cliff-forming slopes with broad U-shaped valleys, occasionally incised, are typical of the region. The vegetation consists mostly of conifers, with lesser deciduous trees at lower elevations. Small portions of the forested areas were cleared recently. Farming is developed in the Kitchener Creek valley.

2.3 Claim Status and Ownership

The Goatfell Property straddles the boundary of the Nelson and Fort Steele Mining Divisions (Figure 2). Table I lists the claim names, number of units, record numbers and expiry dates for all claims comprising the Goatfell Property.

Goat 1, Goat 2 and Goat 3 mineral claims are owned by Mr. Gordon Leask and are under option to Chevron Minerals Ltd. Sky, Sky 2 and Sky 3 mineral claims are owned by Mr. David Wiklund and Mr. Harry Davies and are also under option to Chevron Minerals Ltd. Barb mineral claim is owned by Chevron Minerals Ltd. Prior to recording work documented in this report, Goat 1, Sky, Sky 2, Sky 3 and Barb mineral claims will be grouped as the Sky Group; Goat 2 and Goat 3 mineral claims as the Goat Group.

Table I

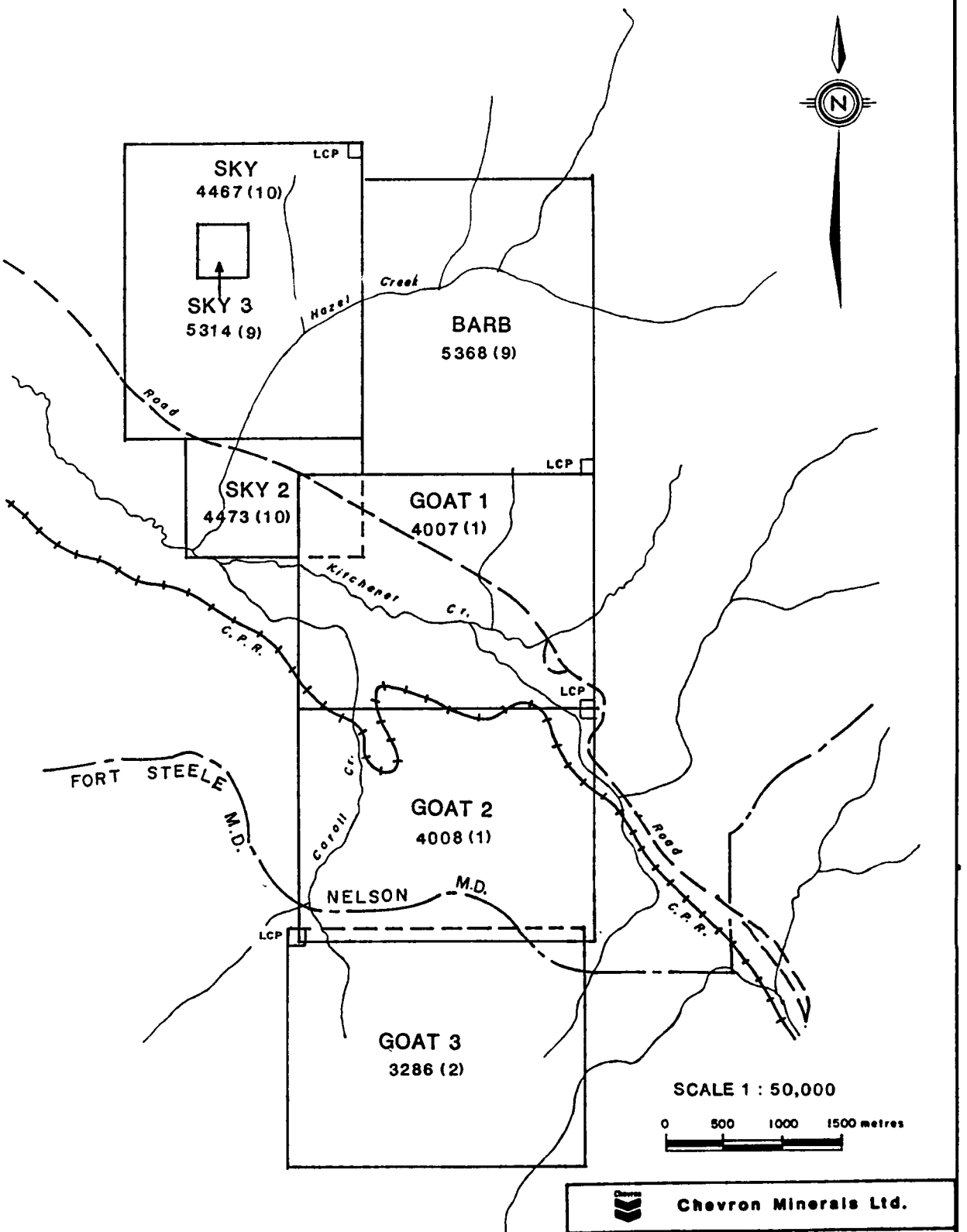
CLAIM STATUS

Claim Name	Record No.	Mining Division	Units	Expiry Date (after recording work documented in this report)
Goat 1	4007	Nelson/ Fort Steele	20	January 29, 1999
Goat 2	4008	Fort Steele/ Nelson	20	January 29, 1999
Goat 3	3286	Fort Steele	20	February 7, 1999
Barb	5368	Nelson	20	September 9, 1999
Sky	4467	Nelson	20	October 17, 1999
Sky 2	4473	Nelson	6	October 29, 1999
Sky 3	5314	Nelson	1	September 2, 1999

*Sky mineral claim encompasses Sky 3, a 1 unit mineral claim.

*Goat Group comprises Goat 2 and Goat 3 mineral claims.

*Sky Group comprises Goat 1, Barb, Sky, Sky 2 and Sky 3 mineral claims.



Chevron Minerals Ltd.

GOATFELL PROJECT
CLAIM MAP

FIGURE No 2		PROJECT No M586	
DATE OCT. '89	REVISIONS		SCALE 1:50,000
NTS No 82F/1			FILE No.
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3.0 PREVIOUS WORK

Geological mapping has been conducted in portions of the Aldridge Formation by the British Columbia Ministry of Energy, Mines and Petroleum Resources (Rice, 1940; Reesor, 1981; Höy and Diakow, 1982; Höy, 1984). However, a recent geological map that covers the Goatfell Property and surrounding area does not exist. The occurrence of tourmalinite along the Canadian Pacific Railway at Goatfell has been known for a number of years (Ethier and Campbell, 1977). Although the relationship between tourmalinite and the mineralization at the Sullivan Mine has been documented well, the Goatfell occurrence remained unclaimed until 1985 when it was staked by Mr. Gordon Leask.

During the summer of 1985, Mr. Gordon Leask conducted prospecting and limited geological mapping on the property. The prospecting revealed a "high-angle zone of carbonate-manganese breccia", with traces of sphalerite and galena on the west bank of Hazel Creek near its junction with the Kitchener valley on the Sky mineral claim. Prospecting also located what was thought to be a siliceous pyritic exhalite within thick metasandstones near the railway loop on the Goat 1 mineral claim (Leask, 1985).

The goal of geological mapping during 1986 and 1987 was to determine the depth to the lower - middle Aldridge Formation boundary, which roughly coincides with the Sullivan Mine horizon. It was determined through use of marker beds that the Sullivan Mine

horizon occurs at a depth of less than one thousand metres in the central portion of the property.

Hitzman (1989) summarized the 1986 and 1987 program as follows:

> "Besides the obvious tourmaline alteration in the pipe-like body cropping out along the railway, tourmaline alteration was also inferred from abundant float in the area of the Carroll Creek forestry road, immediately east of the Goat 3 LCP. An indistinct alteration was noted by Leask to the west of the tourmalinite pipe along the railway loop. The siltstones and sandstones in this area were noted to be bleached. Leask interpreted this alteration type as "albitic." Based on the distribution of alteration and a supposed thickening of bedding in the exposures along the railway, Leask proposed a one kilometer wide graben trending ENE and straddling the Goat 1 and 2 claim boundary."

Leask recommended geophysical surveys and three diamond drill holes to test the Sullivan Mine horizon within the outlined graben.

Hitzman (1989) summarized the 1987 geophysical program as follows:

> "A transient electromagnetic and magnetic survey was conducted over much of the Goat 1 and 2 claims during July, 1987 by Orequest Ltd. and Quantech Consulting Inc.

to test for conductors in the proposed graben (LeBel and Morrison, 1987). The EM-37 data was contaminated by culture sources, primarily the railway line and the pipeline. Within the existing coverage, no strong anomalies were located. However, finite, formational-appearing conductor was located in the southern portion of the grid. The magnetic coverage revealed a pronounced magnetic anomaly over the Moyie sill exposed to the west of the high angle, north-south trending fault. The poorly outcropping sill to the east does not show an anomaly, however."

Because of the low conductivity thickness and a questionable nature of the anomaly in the southern portion of the grid, it was recommended that it would be worth testing the conductor if a drill hole were planned in the vicinity based on geological considerations (Lebel and Morrison, 1987).

In August 1987, a limited lithogeochemical survey was undertaken on the property (Edmunds, 1987). Hitzman (1989) summarized the program as follows:

"Forty-eight samples were taken along a traverse through the lower Aldridge in the area of the railway loop. The method utilized involved collecting clusters of samples along traverses across strike and analyzing the samples for Pb, Zn and Hg. A sample score was calculated that

is a combination of these three elements, and that score was evaluated against a cut-off value established from work on known mineralized systems. Values for all forty-eight samples were close to background levels. The conclusion from the survey was that significant stratiform mineralization is not present for at least 5 kilometers in the sampled stratigraphic sequence."

The 1988 exploration program consisted of geological mapping, 1.9 kilometres of a magnetometer and VLF-EM survey, road repair for drill access, a total of 844.14 m of diamond drilling in two NQ holes, and petrographic studies. The geological mapping and three short lines of geophysical work delineated the Spider Creek fault in the central portion of the property. Two distinctive styles of alteration were delineated on the property, tourmalinite alteration and quartz-chlorite-pyrite alteration. Hitzman (1989) states that both diamond drill holes penetrated the lower-middle Aldridge Formation contact but encountered the Spider Creek fault zone before testing the Sullivan Mine horizon. Alteration and weak mineralization were encountered throughout both holes. The mineralization consists of pyrite and sphalerite with traces of galena. None of the drill core was submitted for a geochemical analysis. The recommendations from the 1988 exploration program consisted of: geological mapping of the entire Goatfell Property at scale of 1:5,000; detailed mapping (1:2,500) and lithogeochemistry of the ridge between Hazel Creek and Kitchener Creek; geochemical soil survey; detailed mapping (1:2,500) of the

tourmalinite pipe on the railway; petrographic studies; and diamond drilling to test the Sullivan Mine horizon.

4.0 1989 WORK PROGRAM SUMMARY

An exploration program was conducted on the Goatfell Property from June 26, 1989 to September 16, 1989 by Chevron Minerals Ltd. The field crew consisted of a field supervisor for diamond drilling, and two geologists who had only a few days of overlap on the property. Dr. M. Hitzman supervised the 1989 exploration program and commenced the logging of the core. Z. Rebic was contracted on July 11, 1989, to do the surface mapping; however, as Dr. Hitzman was absent from the Goatfell Property much of the time, Z. Rebic logged the remainder of the core. The crew operated from Fiddlers of Ambleside Motel at Yahk, B. C.

The diamond drilling program consisted of 1,161.59 m of diamond drilling in two holes: 277.67 m of HQ core and 385.88 m of NQ core in diamond drill hole G3; and 498.04 m of HQ core in diamond drill hole G4. Diamond drill hole G4 was supposed to be drilled to a depth of approximately 1,100 m; however, the hole had to be abandoned at 498.04 m because of jammed rods. The diamond drilling was conducted by Tonto Drilling of Burnaby, B.C., using a Boyles 56A drill.

A geochemical soil survey was conducted on the property by Kootenay Geo-Services. Two grids, totalling 53.5 line kilometres, were flagged in using a hip-chain and a compass for control. Only sample sites were flagged and identified with a number. A total

of 1,008 soil samples was collected and submitted for geochemical analyses.

A lithogeochemical study was conducted on the Barb and Sky mineral claims by Edmunds and Associates. The lithogeochemical report prepared by Dr. F. R. Edmunds is in Appendix V.

A limited mapping and prospecting program was conducted on the Barb and the Sky mineral claims, and in the vicinity of the 1989 drill sites on the Goat 1 and Goat 2 mineral claims. The objective of this program was to enhance the geological understanding of the property, with a specific focus on the stratigraphy and alteration. Twenty-nine grab samples of rocks were taken and submitted for geochemical analyses. Twenty rock samples were taken for petrographic work.

The 1989 field work was terminated on September 15, 1989, because the joint venture partners had made a decision to discontinue the program.

5.0 REGIONAL GEOLOGY

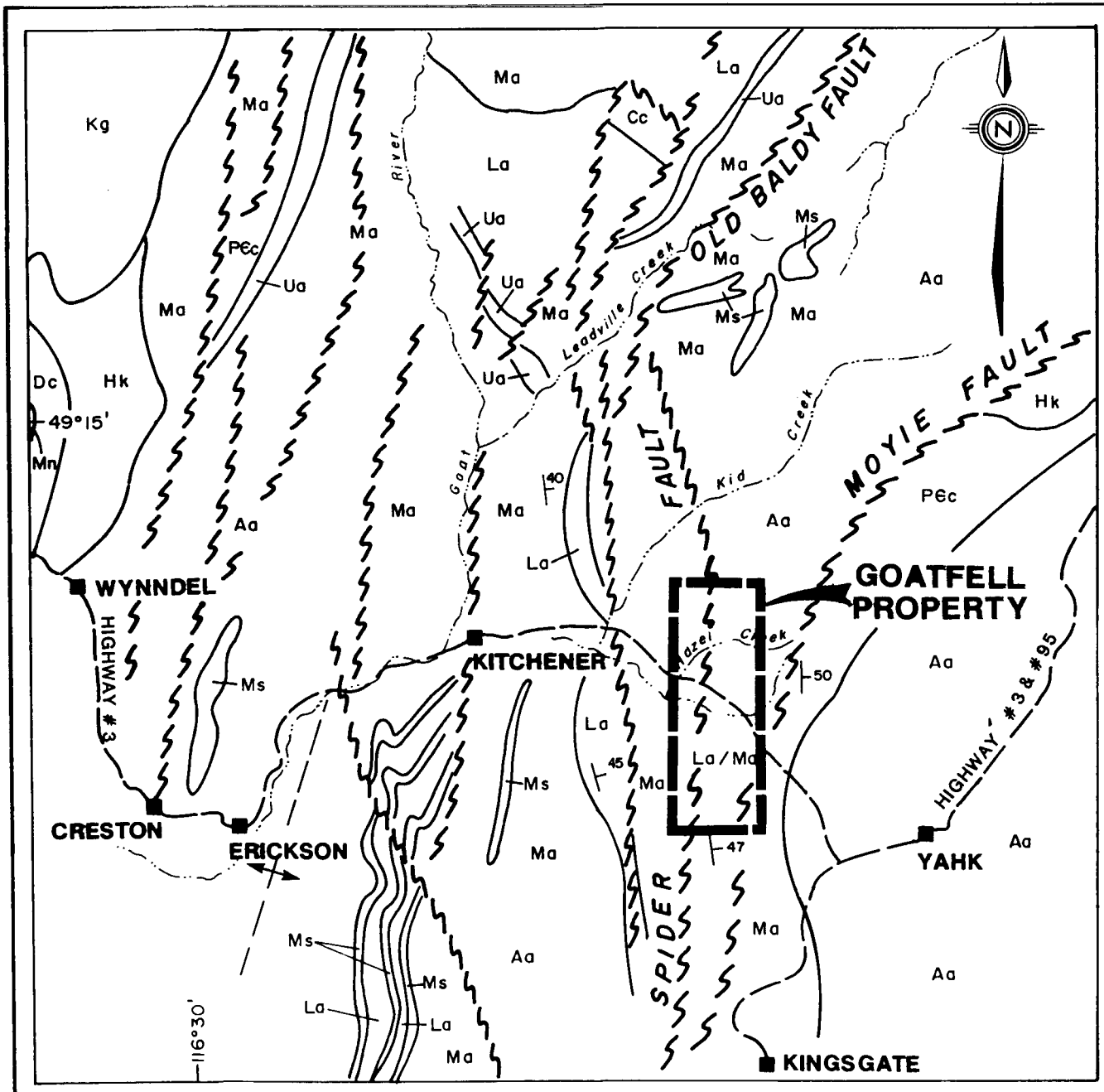
5.1 Lithology

The Goatfell Property is entirely underlain by middle Proterozoic rocks of the Belt-Purcell Supergroup. Cambrian rocks are exposed north of Leadville Creek, approximately twenty kilometres north of the Goatfell property. A Cretaceous intrusion crops out approximately thirty kilometres northwest of the property. A simplified version of the geology of the region is presented in Figure 3.

The Goatfell area is underlain predominantly by the Aldridge Formation, which in the Purcell Mountains forms the lowest exposed member of the Belt-Purcell Supergroup. The Aldridge Formation in the southern Purcell Mountains is in excess of 4,200 metres thick, and consists of three members: lower, middle and upper.

The lower Aldridge Formation comprises rusty-weathering, laminated to thinly-bedded quartzite, argillite and silty argillite. Pyrrhotite is common within the black argillite. The lower Aldridge Formation has a maximum exposed thickness of approximately 1,000 m in the southern Purcell Mountains (Reesor, 1958; Edmunds, 1977). The base of the lower Aldridge Formation is not exposed.

The overlying middle Aldridge Formation is distinguished from the underlying lower Aldridge Formation by the predominance of grey



LEGEND

CRETACEOUS

- Kg — Granite

CAMBRIAN

- Cc — Cranbrook Formation

HELIKAN

PURCELL SUPERGROUP

- Ms — Moyie Intrusions
- Mn — Mount Nelson Formation
- Dc — Dutch Creek Formation
- Hk — Kitchener Formation
- PEc — Creston Formation

ALDRIDGE FORMATION

- Aa — Undivided Aldridge
- Ua — Upper Aldridge
- Ma — Middle Aldridge
- La — Lower Aldridge
- Contact (approximate)
- 50 — Bedding (strike and dip)
- Fault
- Anticline

Modified from G.S.C. Open File 820, G.S.C. Memoir 228, and Chevron work.

0 5 10Km

Chevron Minerals Ltd.

REGIONAL GEOLOGY
FIGURE 3

FIGURE No 3		PROJECT No M-586	
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argillaceous quartzite. The member is characterized by thinly- to thickly-bedded, fine-grained quartzite, and argillaceous quartzite interbedded with massive to laminated, or ripple cross-laminated, siltstone and minor laminated argillite. The quartzite and siltstone beds contain sedimentary structures that indicate that they are turbidite deposits. Twenty-two marker beds, noted by Cominco geologists, occur within siltstones and argillites of the middle Aldridge Formation. They can be traced throughout the Purcell Mountains and southward into Idaho and Montana. Recognition and correlation of these markers are the key to understanding the stratigraphy of the middle Aldridge Formation.

The upper Aldridge Formation consists of thinly-bedded, rusty-weathering, dark to medium-grey argillite and siltstone. It grades transitionally upwards into the Creston Formation, which comprises varicoloured argillaceous quartzite, siltstone, and argillite; rare quartzite lenses containing abundant shallow water depositional textures are also present.

The Creston Formation is overlain by the Kitchener Formation, which is composed of green argillite and siltstone with interbeds of buff to brown silty dolomite and dolomitic argillite. The upper part of the Kitchener Formation comprises black argillite, buff to brown silty dolomite and dolomite, and grey to reddish siltstone (Reesor, 1981).

The Dutch Creek Formation and Mount Nelson Formation are members of the upper Purcell Supergroup (Rice, 1941). The Dutch Creek Formation comprises black, grey and brown thinly-bedded argillite and siltstone, which conformably overlie the Kitchener Formation. The Mount Nelson Formation conformably overlies the Dutch Creek Formation. The Mount Nelson Formation consists of grey, green and black laminated argillite, magnesian limestone, argillaceous limestone, and quartzite. Each rock type has its counterpart in the Dutch Creek Formation as the two formations are very alike (Rice, 1941). These two formations are exposed in the vicinity of the Cretaceous intrusion approximately thirty kilometres northwest of the Goatfell Property.

The earliest known intrusions in the region are metadiorite to metagabbro sills and dykes, which range in age from 1,665 Ma (Hunt, 1962) to 760 Ma (Obradovich and Peterman, 1968). They are known as the Moyie Intrusions, and are common throughout the region.

The Lower Cambrian Cranbrook Formation is exposed approximately twenty kilometres north of the Goatfell Property. It comprises: siliceous white, purple and green quartzite; purple argillite and argillaceous quartzite; and gritty quartzite pebble and cobble conglomerate (Reesor, 1981).

The Cretaceous Bayonne batholith crops out north of the town of Wynndel approximately twenty-five kilometres northwest of the

Goatfell Property (Figure 3). It varies in composition from a granite to a calcic granodiorite; the average composition is of an alkaline granodiorite (Rice, 1941). Coarse-grained and fine-grained, porphyritic and equigranular, pink and light grey phases of the batholith may occur in a single outcrop (Rice, 1941). In addition, similar batholiths crop out in northern Idaho; the closest one is less than ten kilometres south of the Goatfell Property.

5.2 Metamorphism

Rocks of the Belt-Purcell Supergroup have undergone static metamorphism up to the biotite isograd of the greenschist facies (McMechan and Price, 1982; Maxwell and Hower, 1967). The metamorphism resulted in only a weak foliation in clay- and mica-rich rocks and minor recrystallization of quartz grains.

A localized intense metamorphism occurs adjacent to some of the Moyie sills, and in the vicinity of the granitic bodies (Rice, 1941). In the vicinity of faults and folds, the sedimentary rocks are commonly sheared and altered to chlorite and biotite schist. These zones of shearing may be of considerable width with all sedimentary structures destroyed (Rice, 1941).

5.3 Structure

The Goatfell Property lies on the western flank of the Purcell Anticlinorium in the southern Purcell Mountains. The property straddles the Moyie-Dibble Creek fault, a steeply westerly-dipping Laramide thrust fault with an estimated movement of ten to fifteen kilometres in the southeasterly direction (Benvenuto and Price, 1979). The Yahk block to the east of the Moyie fault appears to be structurally simple; it forms a broad anticline with its culmination in the Mt. Mahon area. The area west of the Moyie fault is block-faulted. The regional structure of the Goatfell Property area has been summarized by Hitzman (1989) as follows:

> "On the Goatfell Property the next major fault to the west of the Moyie fault is a high-angle, reverse fault, termed the Spider Creek fault, which appears to be a backthrust. The Spider Creek fault is cut out by the Moyie thrust to the south near Kingsgate and dies out or is cut out by the Old Baldy fault to the north of the Chevron Kydd property. The Old Baldy fault is a high-angle, reverse fault with an offset similar, but of less magnitude, than the Moyie and St. Mary faults. The Old Baldy fault can be traced into the Kidd Creek area but is cut by a series of high-angle normal faults to the west. These north-trending normal faults define a major north-trending syncline situated between the Creston valley anticline and the Purcell anticline. The age of

these faults is not known with certainty but is believed to be late Laramide to Tertiary. The effect of the faults is significant for exploration in bringing the lowermost middle Aldridge Formation near the surface in a number of locations between Creston and Yahk."

6.0 PROPERTY GEOLOGY

6.1 Introduction

A limited geological mapping of the Goatfell Property was conducted intermittently from July 12, 1989 to September 15, 1989. An area of approximately eight square kilometres was mapped focusing on the stratigraphic marker beds, the structure, and the nature of alteration and its economic significance. An album of photographs of the markers, which originated from Mr. J. Leask, proved useful only in identifying the uppermost markers.

6.2 Lithology

The Goatfell Property is underlain predominantly by metasedimentary rocks of the middle Aldridge Formation,with the exception of an area immediately to the east of the Spider fault, which is underlain by metasedimentary rocks of the lower Aldridge Formation. Metagabbroic Moyie sills are common throughout the property. One lamprophyre sill and one lamprophyre dyke crop out along the railway loop on the Goat 2 mineral claim. The geology of the Goatfell Property is presented in Figures 4 and 5. Areas with detailed work were mapped during the 1989 field season; the remainder was compiled from the previous work (Hitzman, 1989; Wiklund, 1988; Leask, 1985).

6.2.1 Lower Aldridge Formation

The lower Aldridge Formation comprises thinly-bedded, rusty-weathering argillite, metasiltstone, metawacke and quartzite. It is exposed immediately to the east of the Spider fault (Figures 4 and 5). It should be emphasized that the lower Aldridge Formation on the property is difficult to distinguish from the middle Aldridge Formation. The reason is that the lower Aldridge Formation contains successions of grey quartzite beds that resemble those that characterize the middle Aldridge Formation. Regionally, the lower - middle Aldridge Formation contact is generally located where the grey quartzite begins to predominate. However, on the Goatfell Property it is impossible to locate this contact based on the lithological changes. Consequently, the lower - middle Aldridge Formation contact on the Goatfell Property is approximated by measuring distances from identified markers within the middle Aldridge Formation on the Barb mineral claim. A stratigraphic section based on the markers is included in Figure 4. Based on the stratigraphic markers, there is clearly plenty of room in the section for the lower Aldridge Formation to occur east of the projected Spider fault.

6.2.2 Middle Aldridge Formation

The middle Aldridge Formation underlies most of the Goatfell Property (Figures 4 and 5). It comprises thick metaturbidite deposits consisting of grey quartzite, metawacke, metasiltstone and

lesser argillite. The quartzite and metawacke are the most common rock types within the middle Aldridge Formation on the property. The bedding thickness ranges from 0.25 m to 1.5 m in the areas mapped during the 1989 field season. However, beds of up to four metres in thickness were noted by previous workers (Hitzman, 1989; Leask, 1985). Beds of similar thickness were noted in the core from the 1989 drilling. Markers comprising dark and light laminated silty and argillaceous sequences occur within the thinly-bedded, interbedded metasiltstone and argillite. They can be matched lamination for lamination across distances of several hundred kilometres (Bishop et al., 1970; Edmunds, 1973). On the "Hazel Ridge", the Sundown and Moyie markers were identified with a certainty. The former occurs at 918 m above the stratigraphic position of the Sullivan orebody; the latter at 817 m. In addition to these two markers, another marker was observed on the "Hazel Ridge", at approximately 637 m above the stratigraphic position of the Sullivan orebody. This is the approximate stratigraphic position of the Park marker. Although not observed, the remainder of the stratigraphic markers within the lower portion of the middle Aldridge Formation are shown in section A-A' on Figure 4. It should be emphasized that the middle Aldridge Formation comprises a thick succession of metaturbidites, and without the stratigraphic markers it is impossible to tell which portions of the middle Aldridge Formation one is looking at.

The upper Aldridge Formation was not encountered in mapping during the 1989 field season, and therefore, will not be discussed here.

6.2.3 Moyie Intrusive Rocks

Metagabbroic to metadioritic Moyie sills are common in the metasedimentary rocks of the Aldridge Formation on the Goatfell Property (Figures 4 and 5). They are dark green to dark greenish-grey, fine to coarse-grained rocks. Although their mineralogy is variable, the majority of these sills contain 40% - 60% hornblende, 15% - 40% plagioclase, 10% - 20% quartz with accessory biotite, garnet, magnetite, apatite, sphene, rutile, leucoxcene, carbonate minerals and epidote-clinozoisite (Hitzman, 1989).

Moyie sills on the Goatfell Property occur at irregular intervals throughout the middle Aldridge Formation. The sills range in thickness from several metres up to one hundred metres.

6.2.4 Lamprophyre Rocks

A lamprophyre sill, one metre thick, and a lamprophyre dyke, thirty centimetres wide, were noted along the railway tracks on the Goat 2 mineral claim. They appear to contain phenocrysts of biotite, amphibole and pyroxene(?) in a fine-grained dark matrix. Similar rocks noted by Rice (1941) in the region were believed by him to be Tertiary in age.

6.3 Structure

The structure of the Goatfell Property has been summarized by Hitzman (1989). He states:

> "The Goatfell Property may be divided into three structural blocks. To the east of the Moyie thrust rocks of the Belt-Purcell Supergroup strike nearly north-south and dip moderately (40-45) to the west. Between the Moyie thrust and the Spider Creek backthrust the middle Aldridge metasediments strike approximately north-south and dip 45 - 60 (average 55) to the east. To the west of the Spider Creek fault uppermost middle Aldridge rocks strike NNW and dip 60 - 80 to the east. An offset on the Moyie fault has not been determined on the Goatfell Property but regional work suggests the fault has 12 - 15 kilometers of southeasterly directed displacement. Offset on the Spider Creek backthrust fault has been calculated at approximately 3,000 m based on offset of marker beds within the middle Aldridge. The Spider Creek fault forms a topographic low. Drilling and surface mapping indicates the fault zone is at least 50 m in width and is composed of sheared argillaceous material containing floating blocks of quartzite."

The 1989 surface mapping in the area of the railway loop on the Goat 2 mineral claim indicates that a fault in that area and to the

north of there occurs from several hundred metres up to one kilometre to the east of where the Spider fault was shown by previous workers. At the railway loop, a fault closely follows Carroll Creek, or else it is coincident with the railway tracks west of Carroll Creek (Figure 5). This fault is labelled as the Spider fault because its southern extension coincides with the Spider fault outlined by 1988 work. A brief mapping of the first outcrop along the railway tracks west of Carroll Creek indicates that the rocks on the west side of the tracks are phyllites with a dip of approximately ten degrees steeper than that of the more normal-looking metaturbidites on the east side of the tracks. Two northwesterly-trending shear zones up to several metres in width, which are probably splays of the main zone, were observed in the same outcrop. One westerly-trending shear zone noted in the same outcrop, if extended to the west, happens to pass through an area where a left-lateral offset of one of the Moyie sills was outlined by geophysical work (LeBel and Morrison, 1987). This indicates that easterly-trending structures are present on the property.

An airphotograph study shows that additional easterly-trending lineaments exist south of the railway loop (Figure 5). Two are in the vicinity of the 1989 drill site G4. Observations of the core indicate that some of these lineaments are faults. Several northeasterly-trending lineaments occur immediately south of the G4 drill site. A northeasterly-trending topographic low, which occurs less than one hundred metres south of the G4 drill site, does not show up as a sharp lineament on airphotographs but as a

less well-defined feature. The area bounded by this feature, by the easterly-trending fault south of the railway loop, and by the Spider fault contains much broken rock and fault gouge as indicted by diamond drilling. This triangular area clearly was affected by faults trending northerly and easterly, and perhaps northeasterly.

North of the Highway 3 on the Barb and Sky mineral claims, the Spider fault is extrapolated based on airphotograph lineaments, although no evidence of faulting was noted from the surface mapping of that area (Figure 4). However, north of the Sky mineral claim on Chevron's Kydd property, mapping by F. R. Edmunds (personal communication, 1989) indicates that the Moyie marker is displaced approximately 2,500 metres along a fault which is on strike with the lineaments on the Sky and Barb mineral claims. This is comparable to the displacement of 3,000 metres on the Goat 1 and Goat 2 mineral claims (Hitzman, 1989).

Minor folding was noted on the Sky mineral claim in the vicinity of the tourmaline-sulphide showing. Some folding was noted in the 1989 diamond drill core. Other structural features on the property include: bedding, cross bedding, graded bedding, slump features, boudinaged beds, mylonitization and foliation.

6.4 Alteration and Mineralization

Previous workers (Hitzman, 1989; Leask, 1985) recognized two distinctive styles of alteration on the Goatfell Property:

tourmalinization and quartz - chlorite - pyrite. Hitzman (1989) summarized the first type of alteration as follows:

> "Tourmalinization appears to be present in at least two areas on the claim block. The best known is an oval area (500 x 300m) centered on the railway line immediately west of the Goat 1,2 LCP. The degree of tourmalinization within this zone appears variable (Edmunds and Rodgers, 1987). In weakly altered zones, the rocks are darker grey than normal and somewhat more difficult to break with a hammer than is typical. In thin section these rocks show fine-grained, olive to brown tourmaline needles interstitial to quartz grains (Ethier and Campbell, 1977). More thoroughly altered rocks are jet black, extremely hard and break with a semi-conchoidal fracture. Bedding features are commonly obscured in the most altered rocks. Quartz veins are typical of the most altered zones presumably due to brittle fracture during metamorphism and later deformation. Detailed mapping of this tourmaline pipe together with geochemical studies (Beaty et al., 1988) will be undertaken during the 1989 field season. Tourmalinite has also been found as abundant float along the forestry road connecting Highway 3 with Carroll Creek, near the Goat 2 and 3 claim boundary. This tourmalinite is similar to that exposed along the railway. The occurrence has not been mapped in detail."

With regard to the second type of alteration recognized on the Goatfell Property, Hitzman (1989) stated:

> "Earlier workers (Leask, 1988 per. comm; and Edmunds and Rodgers, 1987) noted "bleached," pale quartzites and siltites in the vicinity of the railroad loop and assumed they were albite-rich, based on analogies with the albite-rich assemblage present immediately above the massive portion of the Sullivan mineralized lense. Mapping during the 1988 season indicated that this alteration type, termed quartz-chlorite-pyrite alteration, covers a roughly triangular area. The alteration extends approximately 1.2 kilometres along the Spider Creek fault and appears to narrow in width upwards toward the tourmalinite pipe on the railway. This alteration type is present throughout almost the entire length of drill holes Goat 1 and 2. Data from drilling and surface exposures indicate it effects at least 500 m of stratigraphic section. Weakly altered, grey to dark grey quartzites within the alteration zone contain hairline to centimeter wide greenish veins which generally cut bedding at a high angle. Pale greenish bleaching extends out irregularly from these veins into bedding, producing a jagged irregular edge to the bleached zone. In thin section it is apparent that many of the veins have calcite cores. The bleached, green coloration is caused by muscovite/sericite, minor

chlorite and carbonate. This type of alteration appears to grade into a pervasive bleaching typical of much of the altered zone."

Based on petrographic studies, Hitzman (1989) stated:

"Thin section examination of pervasively bleached rocks (Appendix III) shows that the bleaching involves removal of biotite and some opaques as well as recrystallization of quartz and fine-grained mica into larger, less turbid crystals and addition of carbonate. Bleaching is better developed in quartzites than siltites or argillites. Although albite was sought in the thin sections there is little evidence of greater than 1-3% in any of the rocks examined to date."

Based on the geological mapping and diamond drilling during the 1989 field season, the metasedimentary rocks of the Aldridge Formation, both lower and middle, appear altered wherever examined on the Goatfell Property. Geological observations from the surface mapping and from logging core indicate that at least three major types of alteration affected the rocks on the property: metamorphic, hydrothermal and metasomatic. The metamorphic alteration consists of static, thermal and dynamic types; the hydrothermal of a sericite-quartz-chlorite ± pyrite type; and the metasomatic of tourmaline-sulphide metasomatism. As the previously known areas of tourmalinization were not examined during the 1989

field season, no additional information can be added to what exists already.

The metasedimentary rocks of the lower and middle Aldridge Formation on the Goatfell Property were affected by static metamorphism without deformation, approximating conditions of upper greenschist facies, or perhaps hornblende hornfels facies (Getsinger, 1988). The most diagnostic mineral assemblage observed was garnet-biotite-muscovite ± quartz ± sphene ± tourmaline (Getsinger, 1988). However, field observations from the 1989 field work suggest that the rocks had undergone thermal metamorphism as indicated by fine biotite, which gives them a dark purplish-brown appearance typical of hornfels. The rocks were probably subjected to a typical static or burial metamorphism first, followed by thermal metamorphism. If this is the case, it may be difficult, or impossible, to separate the effects of these two types of metamorphism on these rocks. Dynamic metamorphism was noted in the sheared and faulted rocks along the railway tracks west of Carroll Creek, and in extremely faulted rocks in diamond drill hole G4, and to a lesser extent in diamond drill hole G3.

Hydrothermal alteration recognized in the lower and middle Aldridge Formation on the Goatfell Property is superimposed on the metamorphic alteration. Sericite and chlorite were formed at the expense of metamorphic biotite and muscovite. In addition, quartz in the altered rocks is recrystallized. Abundant disseminated and fracture-controlled pyrite was noted in hydrothermally altered

rocks in the railway loop area and on the "Hazel Ridge" (Figures 4 and 5). Hydrothermal alteration generally appears patchy, but is ubiquitous in the areas examined during the 1989 field season. In some outcrops, and in some of the 1989 drill core, hydrothermal alteration is clearly fracture-controlled. This alteration is recognized more easily on a fresh wet rock surface rather than a dry surface. On a wet surface, the hydrothermal alteration appears very pale greenish-grey to greenish-buff. Whether the biotite is of a static or thermal metamorphic origin does not change the fact that the hydrothermal alteration is post-metamorphic.

Previous workers (Hitzman, 1989; Leask, 1985) focused on the area with hydrothermally altered rocks in the vicinity of the railway loop on the Goat 1 and Goat 2 mineral claims. The belief was that this was the extent of this alteration. The pale greenish alteration in this area is easily recognized because of a colour contrast with the metamorphic biotite, much of which remains unaffected by the hydrothermal alteration. In contrast to the railway loop area, the metasedimentary rocks on the "Hazel Ridge" do not contain much metamorphic biotite; however, they contain muscovite. Only rare biotite-rich purplish-brown patches were noted after smashing much of the rock. Pale greenish hydrothermal alteration envelopes around the fractures were observed to crosscut the rare biotite-rich patches. This alteration on the "Hazel Ridge" looked identical to the alteration in the vicinity of the railway loop. Clearly, the scarcity of colour contrast on the

"Hazel Ridge" makes it difficult to recognize this hydrothermal alteration. In addition, if the metasedimentary rocks on the "Hazel Ridge" contained mostly metamorphic muscovite rather than metamorphic biotite, it would be impossible to distinguish metamorphic muscovite from hydrothermal sericite or muscovite.

Metasomatic alteration occurs in a newly-discovered tourmaline-sulphide zone on the Sky mineral claim. It is hosted by quartzite, meta-arkose and metawacke, which were affected by tourmaline-sulphide metasomatism to produce rocks commonly known as greisens (Payne, 1989 - Appendix IV). This zone is approximately three metres wide and appears to have a dip which averages approximately ten degrees shallower than the surrounding rocks. Although the attitude of contacts is variable and not conformable to the bedding, this zone is of interest because it is mineralized with arsenopyrite, pyrite, pyrrhotite and chalcopyrite, and contains elevated Pb, Zn, Au and Cu values. The tourmaline content is up to fifty percent in the centre of the rusty zone, and grades outward into rocks that do not contain any visible tourmaline. The rusty zone contains large cavities (see frontispiece) that represent leached out sulphides, or perhaps other readily-weathered minerals.

Petrographic studies of the tourmaline-sulphide zone by Getsinger (1989) indicate that tourmaline alteration occurred early in the history of this zone. Later the rocks in this zone were deformed, subjected to pervasive alkali metasomatism and deformed again.

Quartz veining followed the second stage of deformation. These quartz veins also show deformation textures. A petrographic report prepared by Getsinger (1989) is in Appendix III.

In addition to the tourmaline-sulphide mineralization discovered during the 1989 field season, several other types of mineralization were noted on the Goatfell Property. Argillite and metasiltstone of lower and middle Aldridge Formation contain minor amounts of finely-laminated or disseminated weakly magnetic pyrrhotite. Quartzite and metawacke in the vicinity of the railway loop and in one area on the "Hazel Ridge" on the Barb mineral claim contain up to twenty percent disseminated and fracture-controlled pyrite.

Quartz veins, up to thirty centimetres, occur in the core from the 1989 diamond drilling. Most of these veins are mineralized with pyrite; some contain lesser chalcopyrite and elevated Au values. Reddish-brown sphalerite filling hairline fractures was noted occasionally in the core, although it is not common. A couple of isolated specks of a silvery metallic mineral noted in the core might be galena, tetrahedrite or arsenopyrite.

On the northwest bank of Hazel Creek, north of Highway 3, a one metre wide quartz vein was excavated in the past. The mineralization consists of sphalerite, galena and pyrite.

In the northwest corner of the Sky mineral claim, trenched quartz veins within metagabbro are mineralized with scheelite (D. Wiklund, personal communication, 1989). Only one trench was examined briefly during the 1989 field season. The vein is up to one metre wide and contains minor pyrite.

7.0 DIAMOND DRILLING

7.1 Diamond Drill Hole G3

During July 1989, one diamond drill hole, G3, was drilled on the Goat 1 mineral claim. The purpose was to test the Sullivan Mine horizon in the area of the sericite-quartz-chlorite-pyrite alteration zone. The hole was drilled to a depth of 663.55 metres. Dr. M. Hitzman set up the logging system and logged the first 80 metres, and also the interval between 175 metres and 300 metres. Z. Rebic logged the remainder of the core. The core is stored in a warehouse in Cranbrook, B. C.

Diamond drill hole G3 is at 49°07'36"N latitude and 116°12'17"W longitude (Figure 5). It was collared in the metasedimentary rocks of the middle Aldridge Formation and drilled at a bearing of 252° and an inclination of 85°. Five down-hole orientation tests were taken using a Sperry-Sun instrument. The Sperry-Sun tests showed that the hole deviated only a couple of degrees from the original bearing; however, the inclination decreased to 55° at the bottom of the hole. The diamond drill log is in Appendix IX.

The rocks throughout the hole comprise interbedded quartzite to metawacke with lesser metasiltstone and minor argillite, intruded by metagabbro sills up to four metres thick. The metasedimentary rocks are generally medium to thickly-bedded with only small laminated to thinly-bedded portions within the metasiltstone and

argillite. Pale greenish fracture-controlled and pervasive alteration is common throughout the hole, although it is more easily recognized within the quartzite. The metasiltstone is commonly altered to sericite and chlorite. The pale greenish alteration has a tendency to be patchy. It clearly crosscuts the purplish-brown biotite, which is of a metamorphic origin. Fine-grained purplish-brown biotite-rich areas occur throughout most of the quartzite beds and have an appearance typical of a hornfels. The rocks and the alteration in the core are similar to those observed during the surface mapping of the property.

The metasedimentary rocks in the diamond drill hole G3 are well-bedded, and locally exhibit cross-bedding, foliation, slumping, folding, shearing and faulting. Several marker beds were recognized but not identified. Minor shearing and fault-gouge were noted throughout the hole. The last twenty-five metres of the core has more shearing, fault-gouge and broken rock; however, this does not appear significant enough to account for a major fault. The hole was terminated at 663.55 metres in thickly-bedded quartzite interbedded with lesser metasiltstone.

The lowest known marker in the middle Aldridge Formation occurs 207 metres stratigraphically above the Sullivan orebody. The last marker noted in the core occurs twenty-two metres above the bottom of the hole. The presence of this marker near the bottom of the hole indicates that the hole did not penetrate the lower - middle

Aldridge Formation contact, and consequently did not reach the stratigraphic level of the Sullivan Mine.

The mineralization consists of minor fracture-controlled reddish-brown sphalerite and a couple of specks of a silvery metallic mineral, which may be galena, tetrahedrite or arsenopyrite. Disseminated to thinly-laminated pyrrhotite and fracture-controlled pyrite were noted in the core. Some of the quartz veins are mineralized with pyrite, pyrrhotite and minor chalcopyrite.

7.2 Diamond Drill Hole G4

A diamond drill hole, G4, was drilled from August 1, 1989 to September 6, 1989 on the Goat 2 mineral claim. The purpose was to drill to a depth of approximately 1,100 metres to test the Sullivan Mine horizon and a weak geophysical anomaly delineated by the 1987 geophysical program (LeBel and Morrison, 1987). Unfortunately, the hole was drilled only to a depth of 498.04 metres; it was abandoned because of jammed rods, which had to be left in the hole. The core is stored in a warehouse in Cranbrook, B. C.

Diamond drill hole G4 is at 49°07'05"N latitude and 116°12'04"W longitude (Figure 5). It was collared in the metasedimentary rocks of the middle Aldridge Formation and was drilled at a bearing of 252° and an inclination of 85°. Four down-hole orientation tests were taken using a Sperry-Sun instrument. The Sperry-Sun tests

showed that the hole deviated eleven degrees from the original bearing; ten degrees of this deviation occurred between 279.50 metres and 370.94 metres. The inclination decreased only by 5°30' from the original inclination of 85°. The diamond drill log is in Appendix IX.

The rocks throughout the hole comprise interbedded quartzite to metawacke with lesser metasiltstone and minor argillite. Several metagabbroic to metadioritic sills were intersected down to a depth of 318.50 metres. These sills range in thickness from 40 centimetres up to 97.50 metres. Sills were not noted in the core below a depth of 318.50 metres.

The metasedimentary rocks are generally medium to thickly-bedded quartzite to metawacke with some intervals of thinly-bedded metasiltstone and argillite. The rocks are generally similar to those encountered in diamond drill hole G3. Pale greenish fracture-controlled and pervasive alteration is common in the hole. It clearly crosscuts the purplish-brown metamorphic biotite as it does in diamond drill hole G3. Iron-carbonate veining with associated alteration of the host rocks is common from approximately 320 to 393 metres. Several beds of spotted metasedimentary rocks were noted in the core within the same interval. These spotted rocks have the appearance of a spotted hornfels. The spots vary from black to dark green, to greyish buff; some do not appear homogenous in colour. Petrographic

studies by Getsinger (1989) indicate that the spots are polycrystalline aggregates of quartz.

The metasedimentary rocks in diamond drill hole G4 are well-bedded and exhibit cross-bedding, foliation, slumping, folding, shearing and faulting. Shearing and faulting are intense in this hole compared to the diamond drill hole G3. Intervals of up to 40 metres of fault-gouge and broken rock occur in the core. Some of the faulting is clearly subparallel to the core axis; however, most faults are at 30° to 60° to the core axis. Many of the fracture surfaces are chloritic and exhibit slickensides. An intense mylonitization occurs at a depth of approximately 415 metres as indicated by smeared, streaky rocks. Abundant fault gouge and dynamically metamorphosed rocks in the diamond drill hole G4 indicate that the rocks in this area are cut by major faults.

Marker beds were noted at approximately 285 metres, 327 metres, 337 metres and 343 metres; however, none were identified. The hole terminated in metasiltstone interbedded with lesser quartzite to metawacke. Because of the intense faulting in this hole and a lack of resources to identify the markers, it is impossible to determine which portions of the middle Aldridge Formation the hole penetrated. However, the rocks and the hydrothermal alteration in the lower portion of the hole resemble those intersected in the diamond drill hole G3.

The mineralization consists of rare traces of reddish-brown sphalerite and perhaps galena. Pyrrhotite, disseminated and to a lesser extent thinly-laminated, was noted in the core. Some quartz veins, up to thirty centimetres in width, are mineralized with pyrite and pyrrhotite, and less commonly chalcopyrite. Elevated Au values are associated with chalcopyrite in some quartz veins.

8.0 GEOCHEMISTRY

8.1 Sampling and Analytical Procedures

The soil sampling program consisted of collecting 1,008 soil samples on 53.5 line kilometres of flagged grid. Grid lines were 100 metres apart with stations at intervals of 50 metres along the lines. A total of 326 soil samples was collected on 20.05 kilometres of grid on the Barb, Sky and Sky 2 mineral claims; 682 samples on the Goat 1 and Goat 2 mineral claims. The soil sampling program was conducted by Kootenay Geo-Services of Skookumchuck, B.C. Samples were obtained using a mattock and placed into numbered Kraft sample bags. They were taken from the B horizon at a depth of ten to twenty-five centimetres. In areas where the B horizon was absent, talus fines or stream silt samples were taken if material was available; otherwise, no sample was taken. The soils were generally a mixture of tan, light-brown, orange-brown, red-brown and ochre clay and silt.

A total of twenty-nine rock grab samples was collected on the Goatfell Property. Seventeen of these are on the Sky mineral claim; three on the Goat 1 mineral claim; and eight on the Goat 2 mineral claim. One rock grab sample was collected from a rusty boulder on Henrie Road, 2.35 kilometres north of Highway 3, east of the Barb mineral claim.

A total of thirty-seven samples of core was taken. Eighteen of these are from the diamond drill hole G3; nineteen from the diamond drill hole G4.

All soil samples were submitted to Chemex Labs Ltd. of North Vancouver, B. C. They were analyzed for Ag, Co, Cu, Fe, Mn, Mo, Ni, Pb and Zn. Rock samples also were submitted to Chemex Labs Ltd. of North Vancouver, B. C. The samples, with an exception of one, were analyzed for Al, Ag, As, Ba, Be, Bi, Ca, Cd, Co, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sc, Sr, Ti, Tl, U, V, W and Zn by Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP-AES) after digestion in nitric-aqua regia acid. The samples were analyzed also for Au by Atomic Absorption Spectrophotometry (AAS) after fire-assaying and digestion with nitric-hydrochloric acid. One rock sample (400124) was submitted for a whole rock analysis.

Detailed analytical procedures are given in Appendix VII; analytical results in Appendix VIII. Soil sample locations and analyses for Zn, Pb, Cu and Mn are plotted on Figures 6 and 7. Rock grab sample locations also are shown on Figures 6 and 7. For diamond drill core, sample intervals are indicated in the drill logs in Appendix IX. Brief descriptions of all rock samples are in Appendix VI.

8.2 Analytical Results

8.2.1 Soil Sample Analyses

Soil sample analyses range up to 1 ppm Ag, 116 ppm Co, 205 ppm Cu, 8.02% Fe, >10,000 ppm Mn, 6 ppm Mo, 88 ppm Ni, 185 ppm Pb and 886 ppm Zn. Zn, Pb, Cu and Mn are plotted on Figures 6 and 7.

Analytical results for soil samples taken on the Sky Group (Figure 6) indicate that elevated Zn values are most common in the eastern portion of the grid. Pb values are generally low with an exception of a few elevated values, which occur mostly in the eastern portion of the grid. Elevated Cu values tend to occur as isolated anomalies throughout the grid. Elevated Mn values are more common in the eastern portion of the grid. No obvious correlation exists among Zn, Pb, Cu and Mn. None of the anomalies are significant enough to warrant follow-up work.

Soil sample analyses taken on the Goat Group (Figure 7) indicate that some Zn values are slightly elevated; however, they occur generally as isolated anomalies. Elevated Pb values are not common; they generally occur in the vicinity of the Canadian Pacific Railway and the roads. A couple of isolated Pb anomalies occurs in areas away from the roads. The majority of elevated Cu values occur in the northwestern portion of the grid west of Carroll Creek; most of them are isolated. Elevated Mn values occur as small clusters or as isolated occurrences throughout the

grid. No obvious correlation exists among Zn, Pb, Cu and Mn. None of the anomalies are significant enough to warrant follow-up work.

8.2.2 Rock Sample Analyses

Fourteen rock grab samples (400113 - 400118 and 400151 - 400158) were taken from the newly-discovered tourmaline-sulphide zone on the Sky mineral claim (Figure 6). Seven of these samples returned elevated Au values ranging from 30 ppb to 290 ppb. Arsenic is >10,000 ppm for all seven samples. Cu values range up to 909 ppm and generally are associated with high Au values. Pb values range up to 254 ppm with higher values associated with Au and As. Sb ranges up to 330 ppm and also is associated with Au and As. Zn ranges up to 790 ppm; Ag up to 1.2 ppm.

Two rock grab samples (400138 - 400139) were taken from a previously known mineral occurrence north of Highway 3 on the northwest bank of Hazel Creek on the Sky mineral claim. These two samples returned up to 15 ppb Au, 9.8 ppm Ag, 120 ppm As, 590 ppm Ba, 294 ppm Bi, 12.60% Ca, 140 ppm Ga, 7,410 ppm Mn, >10,000 ppm P, 6,320 ppm Pb, 6,510 ppm Sr, 196 ppm V and 3,920 ppm Zn.

One rock grab sample (400150) was taken from the pyritic rusty zone on "Hazel Ridge" on the Sky mineral claim. None of the elements are considered anomalous.

Eight rock grab samples (400111, 400143 - 400149) were taken on the Goat 2 mineral claim. The only noteworthy analysis for sample 400111 is Pb at 186 ppm. Samples 400143 to 400149 generally had background level analyses with an exception of three samples that returned up to 130 ppm Ba, 38 ppm Co, 235 ppm Cr, 100 ppm Cu, 1,320 ppm P and 60 ppm Pb.

Three rock grab samples (400140 - 400142) were taken in the vicinity of the railway tracks on the Goat 1 mineral claim. They returned up to 78 ppm Cu, 1,490 ppm P, 58 ppm Pb, 41 ppm V and 138 ppm Zn.

One rock grab sample (400137) was taken from a rusty boulder on Henrie Road, 2.35 kilometres north of Highway 3. It returned 250 ppm Ba, 341 ppm Cu, 293 ppm V and 104 ppm Zn. The sample site is not shown on the figures as they do not cover that area.

Eighteen core samples (400101 - 400110 and 116403 - 116410) from diamond drill hole G3 were submitted for analysis. Sample 400101 returned 35 ppb Au, 405 ppm As, and 70 ppm Pb; sample 400110 returned 75 ppm Cu. Samples 116403 to 116410 returned up to 426 ppm Cu, 172 ppm Pb and 1,795 ppm Zn.

Nineteen core samples (400112 and 400119 - 400136) from diamond drill hole G4 were submitted for analysis. Samples 400119 and 400120 returned up to 195 ppb Au, 2.2 ppm Ag, 215 ppm As, 4,680 ppm Cu, 56 ppm Pb and 242 ppm Zn. The other noteworthy analyses are:

sample 400121 with 212 ppm Cu and 40 ppm Pb; sample 400125 with 580 ppm Pb and 392 ppm Zn; sample 400126 with 168 ppm Pb and 454 ppm Zn; and sample 400127 with 173 ppm Cu.

Sample 400124 from the diamond drill hole G4 contained a lens of hard black material. A whole rock analysis for this sample does not indicate what the black lens may be composed of.

9.0 CONCLUSIONS

The rocks of the Aldridge Formation were deposited in a turbiditic environment as indicated by cross-bedding, graded bedding and slump features. Following lithification, the rocks of the lower and middle Aldridge Formation on the Goatfell Property were affected by three types of metamorphism: static, thermal and dynamic. Static metamorphism without deformation occurred at conditions approximating upper greenschist facies. Thermal metamorphism affected the rocks as indicated by the presence of dark purplish-brown fine-grained biotite, which gives them the appearance of a hornfels. Although no known intrusions, with an exception of the Moyie sills, occur in the vicinity of the Goatfell Property, the presence of batholiths within less than ten kilometres suggests that similar unmapped or buried intrusions may exist in the area. These intrusions may account for the thermally metamorphosed rocks on the Goatfell Property. In addition to the static and thermal metamorphism, local dynamic metamorphism affected the rocks; it is confined to the sheared and faulted areas on the Goatfell Property.

Hydrothermal alteration, consisting of sericite-quartz-chlorite ± pyrite is more widespread than indicated by previous workers. This alteration is clearly fracture-controlled and postdates the metamorphic biotite. Some quartz veins, associated with the hydrothermal alteration in the diamond drill core, contain elevated Au and Cu values.

The discovery of the tourmaline-sulphide zone on the Sky mineral claim indicates that tourmaline-sulphide metasomatism is present in the area. Petrographic studies suggest that the tourmaline alteration, which is associated with sulphide mineralization that contains elevated Pb, Zn, Au and Cu values, occurred early in the history of this zone. In addition, the 1989 geological mapping indicates that the lower - middle Aldridge Formation contact occurs on the Sky mineral claim in the vicinity of the tourmaline-sulphide zone; therefore, the stratigraphy in that area is favourable for a Sullivan-type stratabound lead-zinc deposit.

If one is to look for a Sullivan-type deposit on the Goatfell property, one must focus on the stratigraphy, markers and structure, rather than the hydrothermal alteration that is clearly post-metamorphic and is more widespread than indicated by previous workers. In addition to the Sullivan-type target, the property has a potential for an epigenetic target as indicated by elevated Au and Cu values in quartz veins and the tourmaline-sulphide zone.

10.0 RECOMMENDATIONS

The geological observations indicate that additional work is required on the Goatfell Property. Because of the claim ownership situation, two independent exploration programs are recommended: one for Goat 1, Goat 2 and Goat 3 mineral claims; the other for Sky, Sky 2, Sky 3 and Barb mineral claims.

The exploration program recommended for Goat 1, Goat 2 and Goat 3 mineral claims consists of geological mapping, lithogeochemical and petrographic studies. The mapping should cover the entire claims at a scale of 1:5,000. Areas of tourmalinite should be mapped at a scale of 1:2,000. The purpose of this mapping program would be to understand the zoning and the geometry of the tourmalinite on the railway, and its significance. In addition, the source of the tourmalinite float on the Goat 2 and Goat 3 mineral claims should be determined. Chemical and isotopic comparisons with other tourmalinite occurrences in the Belt-Purcell Supergroup may reveal whether the tourmalinite on the Goat mineral claims shares similarities with mineralized or barren tourmalinite occurrences in the Supergroup. One should focus on the stratigraphy, structure and alteration while mapping the claims.

Trace element lithogeochemical studies on the Goat 1, Goat 2 and Goat 3 mineral claims should be done in areas of the lower - middle Aldridge Formation contact. The diamond drill core from 1988 should be sampled from approximately fifty metres above the

lower - middle Aldridge Formation contact to the end of the holes, and submitted for lithogeochemical analyses. The purpose of sampling the 1988 core would be to determine the lithogeochemical signature of the rocks that are stratigraphically in the vicinity of the interpreted level of the Sullivan Mine. The lithogeochemical signature would give an indication whether a possibility of a Sullivan-type mineralization on the Goat 1 and Goat 2 mineral claims does, or does not exist.

The exploration program recommended for the Sky, Sky 2, Sky 3 and Barb mineral claims consists of geological mapping, prospecting, geochemical and geophysical surveys, petrographic studies and trenching. The entire area west of the Moyie marker on the Barb and Sky mineral claims should be mapped at a scale of 1:5,000. It would be beneficial to extend the existing grid over the area to be mapped in order to improve the mapping control. The lines should be one hundred metres apart and flagged at intervals of fifty metres. The mapping would focus on the stratigraphy, structure and alteration as well as prospecting for other mineral occurrences. Major lineaments would be mapped and prospected.

The geochemical soil survey would consist of a tighter grid over the newly-discovered tourmaline-sulphide zone on the Sky mineral claim. The grid lines would be five hundred metres long and fifty metres apart with soil samples taken at intervals of twenty metres. The surface area covered by the grid would be approximately 0.5 km x 1.0 km. Geophysical work consisting of VLF-EM and

magnetometer surveys should be conducted on this grid. The grid should be mapped in detail at a scale of 1:2,000. In addition, it may be worthwhile to do a couple of long lines of a VLF-EM survey from the area of the projected Spider fault across the tourmaline-sulphide zone, past the first creek east of the zone. Mapping of the faults would be an important tool in locating mineralized areas.

A trace element lithogeochemical survey in the area of the tourmaline-sulphide zone and along its strike may prove useful as the projected lower - middle Aldridge Formation contact happens to pass in the vicinity of the tourmaline-sulphide zone.

Additional petrographic studies may assist in interpretation of the geological history of the tourmaline-sulphide zone and the surrounding area.

Trenching and rock sampling of the tourmaline-sulphide zone should be done also. Chemical and isotopic comparisons of tourmaline from the tourmaline-sulphide zone with tourmalinite occurrences elsewhere in the Belt-Purcell Supergroup may prove useful.

An estimated cost for the exploration program for Goat 1, Goat 2 and Goat 3 mineral claims is $52,000. The cost of the recommended exploration program for the Sky, Sky 2, Sky 3 and Barb mineral claims is estimated at $130,000. The budgets for the two proposed programs are shown on the following pages.

PROPOSED BUDGET

Goat 1, Goat 2 and Goat 3 Mineral Claims

Salaries, Wages, Burden		
1 Geologist -	50 days at $350/day	$ 17,500
1 Assistant -	35 days at $150/day	5,250
Analyses		7,000
Petrographic Studies		2,000
Copying		500
Drafting		1,800
Freight		600
Travel Expenses		2,000
Communications		400
Vehicle Rental, Fuel, Repair		3,000
Field Equipment and Supplies		1,000
Room and Board	- 70 man days at $80/day	5,600
	Subtotal	$ 46,650
	Contingency (approximately 11%)	5,350
	TOTAL	$ 52,000

PROPOSED BUDGET

Sky, Sky 2, Sky 3 and Barb Mineral Claims

Salaries, Wages, Burden	
1 Geologist - 120 days at $350/day	$ 42,000
1 Assistant - 90 days at $150/day	13,500
Grid flagging, geochemical and geophysical surveys - 45 man days at $200/day	9,000
Trenching	1,000
Analyses	12,000
Petrographic Studies	3,000
Copying	800
Drafting	2,500
Freight	1,000
Travel Expenses	4,000
Communications	1,000
Vehicle Rental, Fuel, Repair	7,000
Field Equipment and Supplies	2,000
Room and Board - 225 man days at $80/day	18,000
Subtotal	$116,800
Contingency (approximately 11%)	13,200
TOTAL	$130,000

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APPENDIX I

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Zlata Rebic, hereby certify that:

1. I am a graduate of University of Toronto (B.Sc., Honours Geology, 1978).

2. I have practised within the geological profession for the past twelve years.

3. The opinions, conclusions and recommendations contained herein are based on the fieldwork conducted by me from July 11, 1989 to September 15, 1989 on the Goatfell Property.

4. I do not own direct, indirect, or contingent interests or shares, or securities of Chevron Minerals Ltd., or Formosa Resources Corporation, or associated companies.

Zlata Rebic

Zlata Rebic, B.Sc.

Vancouver, B. C.
October 1989

a2a/hitz/rpt/22

APPENDIX II

Cost Statement

GOATFELL PROPERTY

1989 Cost Statement

Salaries, Wages	$ 54,104.28
Disbursements	54,363.63
Diamond Drilling	209,779.28
TOTAL COST	$318,247.19
Amount spent on Goat Group (amount claimed = $155,043.47)	155,043.47
Amount spent on Sky Group (amount claimed = $92,885.00)	$163,203.72

GOATFELL PROPERTY

1989 Salaries and Wages

	Field Dates	Field Days	Office Days	
F. Edmunds	July 20, Aug. 21-23, Aug. 30	5	1	$ 1,354.84
P. Henry	July 22-31, Aug. 1-8, Aug. 10-31, Sept.1-7, Sept.10-16	54	3	17,105.70
M. Hitzman	June 26-30, July 1-15, July 24-31, Aug. 21-23	31	30	16,243.74
Z. Rebic	July 11-25, July 31, Aug. 1-22, Aug. 24-31, Sept.1-16	62	35	19,400.00
		TOTAL		$54,104.28

GOATFELL PROPERTY

1989 Disbursements

Assays	$ 9,899.45
Petrographic Studies	2,724.00
Camp Equipment and Supplies	492.14
Communications	399.18
Drafting and Reproductions	1,346.78
Freight	975.22
Soil Sampling Contractor	5,601.50
Faller	112.00
Road Building and Repairs (D7C & Operator)	12,230.00
Room and Board	7,414.99
Travel	8,308.37
Truck Rental	2,710.00
Equipment Rental	550.00
Fuel	1,000.00
Groceries	600.00
TOTAL	$54,363.63

GOATFELL PROPERTY

1989 Diamond Drilling Costs

Mobilization/Demobilization		$ 5,000.00
Drilling		
DDH G3	663.55 m @$100.91/m	66,958.83
DDH G4	498.04 m @$138.77/m	69,115.22
Drill Moves/Set up/Standby		
DDH G3	14.50 man hrs. @$75.00	1,087.50
	20.00 man hrs. @$27.50	550.00
	drill transport	1,560.00
DDH G4	12.00 man hrs. @$75.00	900.00
	24.00 man hrs. @$27.50	660.00
	drill transport	2,178.00
Other		
Drilling Materials		31,763.95
Sperry Sun Rental		4,934.00
Room and Board		15,398.24
Core boxes		9,673.54
	TOTAL	$209,779.28

APPENDIX III

Petrographic Report
on Samples from Goatfell Property (1989)
by
J. S. Getsinger, October 10, 1989

PETROGRAPHIC REPORT ON

SAMPLES FROM GOATFELL PROPERTY (1989)

FOR

CHEVRON MINERALS LTD.

BY

J.S. GETSINGER, Ph.D., F.G.A.C.

OCTOBER 10, 1989

TABLE OF CONTENTS

	PAGE
SUMMARY OF PETROGRAPHY OF 18 SAMPLES FROM GOATFELL PROPERTY	1
REFERENCES	6
STATEMENT OF QUALIFICATIONS - J.S. GETSINGER, Ph.D., F.G.A.C.	7
APPENDIX I - PETROGRAPHIC DESCRIPTIONS OF SAMPLES FROM GOATFELL PROPERTY	8

Sample	Appendix Page
G3 - 666'	1
G3 - 1226.5'A	3
G3 - 1226.5'B	5
G3 - 1863'	7
G4 - 263	9
G4 - 1097.5	10
G4 - 1098.5	12
G4 - 1125.3	14
G4 - 1267	16
G4 - 1483	18
B-1(A)	20
B-1(B)	22
B-2	24
B-3	25
B-4	27
B-5	28
S-1 (1989)	30
S-2 (1989)	32

SUMMARY OF PETROGRAPHY OF 18 SAMPLES FROM GOATFELL PROPERTY

Eighteen samples were selected for thin section interpretation from the 1989 exploration program on the Goatfell Property by Z. Rebic for Chevron Minerals Ltd. Four samples are from drill hole 3, six from drill hole 4, and eight from surface outcrops (six from area B and two from area S). A list of the sample numbers is included in the Table of Contents and in Appendix I. Petrographic descriptions for each sample are included in Appendix I.

The geological history of the Goatfell area, as based on petrographic analysis of this sample suite, starts with the deposition of siltstones and fine sandstones of the Proterozoic Aldridge Fm. They represent the deeper water facies of the Purcell Supergroup, which include argillaceous to turbiditic rocks, similar to those hosting Sullivan-type stratabound lead-zinc deposits. For more information on stratigraphy and geological setting, refer to articles by Ethier and others (1976) and Hoy (1982). For a history based on a smaller sample suite from the Goatfell area, refer to Getsinger (1988). References to previous work by Chevron Minerals Ltd. and other companies in the same area are also given in Getsinger (1988).

All of the samples in this suite appear to have had a fine-grained, clastic sedimentary protolith, mainly siltstone to fine sandstone, with minor interbedded argillite. Detrital minerals include primarily quartz, with lesser feldspar (both alkali feldspar and plagioclase were identified), biotite, and muscovite. Accessory minerals identified are sphene, zircon, tourmaline, and opaques. Grains were probably originally rounded to subrounded, as they are mainly equant in the recrystallized but poorly deformed metasiltstones; and texture ranged from poorly sorted to well-sorted, within the size range for siltstone or fine sandstone. Bedding is more obvious in the siltstones, and may be absent in the sandstones; however, sample size is very small (offcut chips are up to 1 x 2 x 4 cm in size).

Crystallization of reddish-brown biotite and rare garnet or hornblendic amphibole must have been early in the history of these rocks, as textures indicate they predate most of the alteration and deformation events recorded in this sample suite. These minerals usually signify amphibolite facies regional metamorphism or hornblende-hornfels facies contact metamorphism. Because clastic sedimentary textures are so well preserved in the more abundant minerals, such as quartz and feldspar, it is suggested that the sediments were derived from a metamorphic provenance. Textures are not conclusive on this point, however. If an early, medium to higher temperature regional metamorphic event is represented, it was probably a relatively static rather than dynamic metamorphism, without forming a penetrative crystallization foliation. Evidence for a regional metamorphic event in the Purcell Supergroup prior to 1 Ga (around 1350 to 1300 Ma), as well as an episode of lower grade regional metamorphism and deformation around 900 to 800 Ma, is discussed in McMechan and Price (1982).

Most of the rocks in the sample suite show evidence for at least one regional low grade metamorphic and deformational event involving formation of a muscovite foliation. The rest of the alteration and deformational history, although generally consistent, varies from place to place, indicating local

alteration and deformation events. Therefore, the sample suite has been divided into four groups for summary discussion: drill hole 3 (four G3 samples), drill hole 4 (six G4 samples), B area (six samples, B1(A), B1(b), and B2 to B5), and S area (samples S-1 and S-2).

Samples from Drill Hole 3

Samples investigated from drill hole 3 are G3-666', G3-1226.5'A, G3-1226.5'B, and G3-1863', all altered metasiltstone. The first three samples show layer-parallel muscovite/sericite foliation, which may have developed during low grade regional metamorphism and deformation. Feldspar is detrital, with both albitic and alkali feldspar varieties recognized. Sample G3-1226.5'A has one bed featuring augen-shaped, poikilitic feldspar porphyroclasts, suggesting local cataclastic deformation. Biotite is partially altered to chlorite. Samples G3-666' and G3-1226.5'B have abundant epidote/clinozoisite alteration after feldspar, and (in sample G3-666') after hornblende or actinolitic amphibole, and (in sample G3-1226.5'B) after incompletely isotropic garnet (grossular altering to clinozoisite). Chlorite and carbonate (calcite +_ Fe-bearing carbonate) fill late fractures and microfaults. Minor pyrite mineralization is associated with these features as well as with epidote alteration.

Farther down the hole, evidence for metamorphic and/or cataclastic deformation has disappeared in sample G3-1863. Mineralization has increased to about 5% pyrrhotite and/or pyrite. Epidote has disappeared as well, but alkali feldspar (with tartan twinning) has started to form layer-parallel and crosscutting veins associated with opaques. Chlorite replaces biotite and also occurs in crosscutting veins with quartz or calcite. Recrystallization during hydrothermal alteration may have obliterated deformational textures.

None of the samples from drill hole 3 has significant tourmaline (all <1%).

Samples from Drill Hole 4

Six samples from drill hole 4 were investigated: G4-263 (hand specimen only), G4-1097.5, G4-1098.5, G4-1125.3, G4-1267, and G4-1483. All are altered metasiltstone with varying types of alteration.

Sample G4-263 shows a white alteration, garnet, and a black mineral that may be amphibole, biotite, or tourmaline (no thin section), associated with minor pyrrhotite(?) mineralization. Calcite alteration occurs near sulphides.

The next three samples (G4-1097.5, G4-1098.5, and G4-1125.3) all resemble spotted hornfels, with dark, fine-grained groundmass and oval or lensoid "spots" (10-15%). These lenses look macroscopically like porphyroblasts (such as andalusite or cordierite), but are elongate polycrystalline aggregates composed of recrystallized quartz plus biotite, with opaques occurring along the rims with biotite. They do not appear to be altered porphyroblasts or relict porphyroclasts, although in one sample (G4-1125.3) they seem to be relict lenses of less deformed metasiltstone surrounded by a more foliated matrix in what may be an annealed cataclastic texture. Evidence in the other

two samples would also be consistent with some kind of recrystallized sedimentary oolithic feature.

These samples also show tourmaline alteration to various extents, and sample G4-1098.5 shows postkinematic recrystallization of poikilitic alkali feldspar. The sample with the most tourmaline alteration is G4-1125.3, which contains a layer that resembles spotted argillite hornfels in hand specimen, but is composed of 30-40% tourmaline among quartz, foliated muscovite, and opaques. The tourmaline occurs as tiny individual subhedral grains (0.01 mm) arranged in a random mat superimposed on the metasiltstone textures. Most of the tourmaline in this entire sample suite has approximately the same pleochroic formula: O = olive greenish brown to bluish green, E = colourless to pale tan, O > E, and it is easily distinguished from biotite, having the greatest absorption when oriented perpendicular to the polarizer. The tourmaline altered layer runs parallel to the foliation, as does a quartz - carbonate - pyrrhotite vein.

The next sample (G4-1267) also contains what looks like a thin black argillite layer, and in this case it is a sedimentary bed rather than a tourmalinized layer. A dark grey bed about 0.5 cm thick is composed of up to 50% opaque dust (carbonaceous material?), 10-15% chlorite, 5-10% muscovite, and 20-25% carbonate alteration. The carbonate fills in pull-aparts on late normal microfaults.

The last sample in drill hole 4 (sample G4-1483) shows the relationship between veins and alteration. The slide covers an area crosscut by a veinlet about 0.5 mm wide with a light-coloured alteration zone up to 7 mm on either side, beyond which is less altered metasiltstone. The siltstone is composed mainly of quartz, with lesser feldspar, biotite, foliation-forming muscovite, and epidote/clinozoisite and chlorite alteration. In the altered area near the vein, biotite has been completely replaced by chlorite, and there is more muscovite, making the rock look more foliated there. The vein is very straight, but discontinuous, composed entirely of crystalline clinozoisite, with gaps filled by strained, elongated, foliated quartz and chlorite. Although the strained quartz, and hence the foliation, crosscuts the vein, the vein is not displaced. The discontinuous nature of the vein, and crosscutting relationships with the foliation suggest that hydrothermal alteration was actually premetamorphic and prekinematic. The clinozoisite may represent a metamorphosed zeolite mineral such as stilbite or heulandite, as seen in unmetamorphosed samples B1(A) and B1(B).

Samples from area B

The six sandstone samples from area B are among the least altered and metamorphosed rocks in the sample suite. They are coarser grained than the siltstones (grain size up to 0.5 mm), and range from poorly sorted to moderately well sorted. Most show no bedding but weak muscovite foliation, whereas sample B-5 is unfoliated. Metasandstones tend to show fewer foliations than more argillaceous rocks, even in multiply deformed areas, and develop fewer diagnostic index minerals during metamorphism, so this does not necessarily imply that the area has not undergone the same events as surrounding rocks. However, these rocks have probably undergone only one major regional low grade metamorphic event, that which produced the muscovite

foliation. Crosscutting zeolite(?) - chlorite veins are straight and undeformed in samples B1(A) and B1(B). The vein mineral has very low birefringence, negative relief, wavy extinction, possible cleavage, and a vague negative 2V; it could be stilbite, or a similar zeolite. Supporting evidence for such a composition is the similar, but apparently metamorphosed, vein in sample G4-1483, where the vein mineral is pure clinozoisite. In samples B-1(A) and B1(B), alteration of biotite to chlorite is clearly related to the zeolite - chlorite vein, which also crosscuts muscovite foliation. Sample G4-1483, therefore, may have undergone two periods of metamorphism and deformation, with the alteration episode in between.

No significant mineralization or tourmaline alteration was noted in the B area samples, although minor tourmaline was observed. Feldspar was apparently detrital, and is partly altered to clinozoisite and/or sericite (saussuritization). The rocks have been recrystallized to some extent, as shown by textures involving quartz grains. Quartz grains are enlarged, interlocking, with lobate boundaries, and some triple junctions (120 degree intersections), suggesting advanced quartz cementation or recrystallization through heating. Sample B-3 contains areas where quartz grains appear to have enlarged and amalgamated, and remobilized into incipient quartz veins, which crosscut foliation.

Samples from area S

Two final samples, S-1 and S-2, were taken from an area with tourmaline altered and mineralized siltstone; these samples were chosen for determining the alteration history, and are not well mineralized.

Sample S-1 was probably originally a fine sandstone or siltstone, but now it is composed mainly of large rectangular feldspar grains (2 mm) which are poikiloblastic with the original siltstone minerals as inclusions: quartz, muscovite, biotite altered to chlorite, opaques, and tourmaline. The feldspar alteration has penetrated the entire rock, making up about 60% of it and forming a groundmass for the other minerals. The best way to observe the feldspar grains is by using the gypsum plate to differentiate the areas with the same optical orientation. Poorly developed length-slow polysynthetic twinning (pericline?) and tartan twinning, as well as negative relief and negative optic sign, suggest a composition of alkali feldspar.

About 5-10% of the rock is tourmaline, occurring as subhedral, poikiloblastic, embayed grains, intergrown with skeletal opaques, in places aligned. It is locally microboudinaged, with chlorite infillings, within the larger feldspar grains.

From textural relations, it is clear that hydrothermal alteration involving introduction of tourmaline and sulphides was followed by deformation, and then feldspar metasomatism. The relationship between tourmaline alteration and low grade metamorphism is not conclusively shown in this rock. Minor fracturing with chlorite alteration postdates the feldspar alteration.

The history of sample S-2 is even more complex. As in sample S-1, feldspar forms pervasive, poikiloblastic grains, but now it occurs as rounded, porphyroclastic augen in a matrix of cataclastically foliated muscovite.

Tourmaline makes up about 25-30% of the rock, occurring as small, subidioblastic, poikiloblastic grains. The pleochroic formula is as for most of the tourmaline seen in the sample suite: O = olive green to brown, E = pale tan, O > E. Locally, within a quartz vein, tourmaline has been altered to a pale blue variety, with O = light greenish blue, E = colourless to pale tan, O > E. This is a minor change, but shows that quartz veining postdates tourmaline alteration. Many of the tourmaline grains are triangular in form, indicating that tourmaline forms a metamorphic mineral lineation perpendicular to the thin section. Prismatic grains are commonly microboudinaged within poikiloblastic feldspar.

Once a typical metasiltstone, sample S-2 has undergone repeated metasomatism and deformation in addition to low grade regional metamorphism. Tourmaline alteration (boron metasomatism) associated with sulphide mineralization occurred early in this history. Deformation which microboudinaged and aligned tourmaline grains on a lineation preceded pervasive alkali feldspar metasomatism. Following feldspar alteration, cataclastic deformation (mylonitization?) formed a new muscovite foliation wrapping around poikiloblastic feldspar porphyroclasts and resistant tourmaline grains. Quartz veins parallel and crosscut the cataclastic foliation, and show deformation textures within the quartz as well.

In summary, the rocks with the most episodes of deformation and alteration appear to be the most favorable to mineralization. Mineralization is clearly related to tourmalinization, as at the Sullivan orebody and other massive sulphide deposits (Ethier and others, 1976; Robinson, 1989). The role of feldspar alteration is unclear. Much of the alteration can be shown to be related to local veining, and is therefore of hydrothermal origin and not regional metamorphic alteration. Rocks with local deformation, in particular cataclastic deformation, are the most altered and mineralized. This suggests that mapping faults in the field would be an important tool in locating mineralized areas.

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STATEMENT OF QUALIFICATIONS

I, Jennifer S. Getsinger, do hereby certify:

1. That I am a consulting geologist with offices at 2150 MacDonald Street, Vancouver, B.C. V6K 3Y4.

2. That I have studied geology at Harvard University (A.B. 1974), and have graduate degrees in geology from the University of Washington, Seattle (M.S. 1978), and from the University of British Columbia, Vancouver (Ph.D. 1985).

3. That I have practiced within the geological profession since 1974.

4. That I am a Fellow of the Geological Association of Canada and a member of the Geological Society of America.

5. That the opinions, conclusions, and recommendations contained herein are based on petrographic analysis and research done by me.

6. That I hold no direct, indirect, or contingent interest in the subject property, or in any shares or securities of the owner or operator of the property, or in any associated companies.

7. That this report may be utilized for inclusion in a Prospectus or Statement of Material Facts.

Signed J. S. Getsinger

GEOLOGICAL ASSOCIATION OF CANADA
J. S. GETSINGER
FELLOW

Jennifer S. Getsinger, Ph.D., F.G.A.C.

October 10, 1989
Vancouver, B.C.

APPENDIX I

PETROGRAPHIC DESCRIPTIONS OF

SAMPLES FROM GOATFELL PROPERTY

Sample	Appendix Page
G3 - 666'	1
G3 - 1226.5'A	3
G3 - 1226.5'B	5
G3 - 1863'	7
G4 - 263	9
G4 - 1097.5	10
G4 - 1098.5	12
G4 - 1125.3	14
G4 - 1267	16
G4 - 1483	18
B-1(A)	20
B-1(B)	22
B-2	24
B-3	25
B-4	27
B-5	28
S-1 (1989)	30
S-2 (1989)	32

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G3 - 666' Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C. DDH3 - 666' (203 m).

ROCK TYPE: Altered siltstone

HAND SPECIMEN: Thin section offcut chip (0.5 x 2.0 x 3.2 cm, broken) is cut perpendicular to compositional layering (bedding), defined by light and dark colour changes, although layer boundaries appear somewhat vague. Grain size is < 0.1 mm, silt to very fine sand. Thin fracture (<1 mm) (parallel to broken corner of chip) crosscuts bedding at 45 degree angle. Dark green patches somewhat conformable to layering on either side may be composed of chlorite. White, bleached areas extend 2 cm into grey host rock. Irregularly disseminated, fine-grained (< 0.5 mm), non-magnetic pyrrhotite or pyrite mineralization lies mainly within 0.5 cm of fracture (1%). Mineralization, chlorite patches, and bleached areas associated with fracture appear to be superimposed on compositional layering. Fracture reacts strongly in HCl, indicating calcite filling.

THIN SECTION (Polished T.S., but not observed in reflected light):

% (Approx.) MINERALS

70-75 Quartz - Grains are elongate in direction of bedding, but not crystallographically oriented. Undulose extinction indicates some cataclastic deformation and possibly rotation of grains into bedding-parallel foliation.

1 Biotite - Brown, with pleochroic haloes, in less altered part of section; otherwise mainly replaced by chlorite.

<1 Hornblende/Actinolite - Fine-grained amphibole: Z = bluish-green, Y = green, X = pale yellowish-green; Z > Y > X ; Z' to c = 19 degrees. Large (-)2V. Ragged, embayed, elongate grains are associated with larger epidote grains.

10-15 Epidote/Clinozoisite - Med.-high relief, anomalous blue and yellow biref., colourless to pale yellowish pleochroism; higher biref. grains (epidote) are associated with opaques, whereas masses of smaller grains forming network among quartz grains are clinozoisite (high (+)2V), and likely replacing plagioclase (?).

5 Chlorite - Anomalous blue biref., pale green pleochroic, associated with epidote and elongate along calcite vein, locally with pleochroic haloes, altering after biotite.

5 Sericite - Colourless mica, med. biref., fine-grained flakes define foliation.

<1 Opaques (Pyrite and/or pyrrhotite) - Skeletal masses associated with carbonate vein and intergrown with epidote alteration.

1-2 Carbonate - Calcite occurs in small vein; possible carbonate grains with all positive relief occur within alteration zone around vein as well.

ROCK TEXTURES/STRUCTURES: Primary sedimentary texture, bedding defined by grain size sorting in bands. Quartz is smeared toward calcite vein, indicating local shearing. Undulose extinction in quartz and foliation in chlorite and sericite indicate some deformation, but recrystallization is mainly restricted to sericite.

PROTOLITH: Siltstone

ALTERATION/MINERALIZATION: An alteration zone extends outward from veinlet, which is filled with calcite. Chlorite has largely replaced biotite. Clinozoisite alteration may be replacing plagioclase. Epidote / clinozoisite alteration is related to mineralization of pyrite and/or pyrrhotite. Carbonate alteration occurs as calcite in veinlet and possibly other carbonate minerals in the alteration zone around it.

CONDITIONS OF FORMATION/HISTORY: Deposition of siltstone. Regional (?) metamorphism produced red-brown biotite and amphibole, or these minerals are detrital from metamorphic rocks. Sericite recrystallized during deformation possibly associated with metamorphism. Chlorite and epidote alteration were associated with weak cataclastic deformation, followed by calcite veining.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J. S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G3 - 1226.5'A Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C. DDH3 - 1226.5'A (374 m).

ROCK TYPE: Metasiltstone

HAND SPECIMEN: Thin section offcut chip (0.5 x 2.0 x 3.3 cm) is cut perpendicular to bedding, which is defined by lighter greenish-grey and darker grey layers 0.5 to 1 cm thick. Grain size is < 0.1 mm (silt) throughout, although darker layers may be slightly coarser-grained than lighter layers. Mineralogy of lighter layers appears to be dominantly quartz and lesser fine-grained muscovite (sericite); darker layers may include chlorite. Rock is non-magnetic. Mineralization consists of sparsely disseminated (<< 1%), very fine-grained sulphide (pyrite?), some of which is associated with calcite veinlet (< 0.5 mm; reacts in HCl) crosscutting bedding at about 45 degrees.

THIN SECTION:

% (Approx.) MINERALS

60-70 Quartz - Elongate in layering plane, ribbon-grains somewhat smeared out along foliation, and curved at microfault. In the feldspar-rich layer, rare quartz clasts show undulose extinction.

5 Biotite - Red-brown, fine-grained flakes occur in one layer only, with strained quartz, minor feldspar (rare twinning suggests some plagioclase), and muscovite. Near calcite veinlet in microfault, biotite is altered to chlorite. Biotite grains are lensoidal in shape, suggesting prekinematic crystallization.

10-15 Muscovite/sericite - Fine-grained, colouress mica; biref. to first order red (section is a little thin); defines foliation.

5-10 Feldspar (Alkali feldspar or Albite) - In one layer, larger feldspar augen (15-20% of bed) in foliated matrix of fine-grained quartz and muscovite/sericite. Grains are rounded, equant to asymmetrical augen-shaped porphyroclasts, poikilitic with 10-15% tiny inclusions (quartz, sericite, chlorite?). Rare, vague tartan (?) twinning suggests alkali feldspar, but most grains are untwinned. Negative relief is consistent with K-feldspar and/or albite.

3-5 Chlorite - Very pale greenish phyllosilicate, low biref.

3 Opaques - Anhedral to skeletal grains, finely disseminated

1-2 Opaque dust (carbon?) - Occurs very finely disseminated, more in some layers than others.

<1 Tourmaline - Rounded, subhedral grains; O = greenish-brown; E = pale greenish brown; O > E.

Veinlet - Occurs along crosscutting microfault, filled with calcite and very fine-grained opaques.

ROCK TEXTURES/STRUCTURES: Bedding is defined by changes in grain size, texture, and compositional differences, including relative amounts of opaque dust. Foliation is parallel to bedding, and is defined by subparallel alignment of muscovite/sericite, as well as elongation of quartz grains. Microfaults filled with calcite and fine-grained opaques have displaced bedding up to 2 mm and caused drag in quartz grains.

PROTOLITH: Thin-bedded siltstone, with locally arkosic layers

ALTERATION/MINERALIZATION: Recrystallization of sericite in weak crystallization foliation may have been synkinematic during regional metamorphism and deformation. Biotite is locally altered to chlorite, and calcite alteration occurs along crosscutting veinlets.

CONDITIONS OF FORMATION/HISTORY: Deposition of fine-grained sediment, possibly from granitic or metamorphic provenance (red-brown biotite and feldspar augen may be detrital). Low-grade regional metamorphism and deformation resulted in sericitic foliation. Alteration of biotite to chlorite occurred during the same event or later brittle deformation and hydrothermal alteration. Calcite veinlets came in on microfaulted fractures.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G3 - 1226.5'B Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C. DDH3 - 1226.5'B (374 m).

ROCK TYPE: Altered metasiltstone

HAND SPECIMEN: Thin section offcut chip (0.6 x 2.0 x 3.5 cm) is cut perpendicular to compositional layering, defined by light and dark greenish grey and white layers 0.5 to 1 cm thick. Bedding contacts are indistinct. Minerals are apparently mainly fine-grained quartz (+ feldspar?), and muscovite, biotite, and chlorite. Grain size is mainly in the silt range (< 0.1 mm), but dark green to black grains (chlorite?) and pink blebs (garnet?) are up to 0.5 to 1 mm in the longest dimension. A white band in the centre of the chip contains about 5% pink areas (garnet?) elongate parallel to layering. Brown speckles may be biotite. Very fine-grained pyrite (< 0.1 mm; << 1%) occurs within darker patches and layers. Rock is non-magnetic. Reactions to HCl, indicating presence of calcite, occur in a greenish grey layer adjacent to the white layer, in localized areas within the white layer, and in tiny veinlets across all layers.

THIN SECTION: Grey beds are siltstone similar to sample G3 - 1226.5'A, so only the alteration is described (white bands with intervening darker band).

% (Approx.) MINERALS

WHITE BANDS:
Composition is similar but grain size is finer than outlying siltstone.

60-70 Quartz - Somewhat deformed clastic grains, elongated on bedding / foliation, lensoidal, with undulose extinction

15-20 Epidote/Clinozoisite - Med.-high relief, subhedral, colourless to pale tan, biref. to first order orange, occurs as individual grains or aggregates disseminated throughout fabric of deformed quartz.

2-3 Biotite - Brown mica altering to pale green chlorite

2-3 Chlorite - Alteration after biotite; anom. purple biref.

3-5 Leucoxene(?) alteration - Semi-opaque, high relief, brownish mat-like aggregates associated with epidote/clinozoisite alteration; may include some sphene or carbonate.

1-2 Garnet - High relief, isotropic areas near darker altered layer; not entirely isotropic, may be grossular, mostly altered to clinozoisite. Occurs as aggregates of smaller grains rather than as euhedral crystals.

2-3 Carbonate - Late alteration

CENTRAL DARK BAND:
Altered, foliated dark greenish grey layer < 1 cm contains the mineralization.

40-50 Quartz - Elongate and lensoid clastic grains with undulose extinction, smeared along cataclastic foliation

15-20 Epidote/Clinozoisite - Med.-high relief, equant grains in aggregates, low to med. biref., colourless to pale brownish

5 Biotite - Large brown flakes are bent, kinked, and smeared out on foliation, and partly altered to chlorite. Tiny zircon inclusions have pleochroic haloes.

5-10 Chlorite - Pale green, with anomalous blue biref., replacing biotite along cleavage; forming foliated matrix to epidote alteration

1-2 Garnet - As in whiter layer, garnet is only partly isotropic, and mostly altered to clinozoisite, suggesting grossular composition. Occurs as skeletal aggregates of small grains.

1? Sphene (?) - High relief, high biref., small brownish grains, mixed in with epidote and garnet alteration; some leucoxene.

2-3 Opaques - Irregular networks and skeletal aggregates are intergrown with epidote, garnet, and chlorite alteration; appears prekinematic to latest cataclastic deformation.

ROCK TEXTURES/STRUCTURES: Clastic sedimentary bedding has been enhanced by superimposed foliation, with cataclastic features such as bent and kinked biotite, undulose extinction and ribbon shape of quartz grains, and broken up skeletal aggregates of epidote, garnet, and opaques. Crosscutting microfaults show later local brittle deformation.

PROTOLITH: Thin-bedded siltstone, with calcareous component

ALTERATION/MINERALIZATION: Possible metamorphic minerals are biotite and garnet. Garnet is altered to clinozoisitic epidote; biotite is altered to chlorite. Late alteration also includes carbonate.

CONDITIONS OF FORMATION/HISTORY: Deposition of fine-grained, quartz-rich sediment. Garnet and biotite were formed as early metamorphic porphyroblasts or were detrital from metamorphic provenance. Metamorphic grade represented in textures and minerals now present is greenschist facies. Alteration of biotite to chlorite and garnet to epidote (grossular to clinozoisite) was either low grade metamorphic or hydrothermal, involving influx of hydrous fluid. Opaques appear to be contemporaneous with epidote alteration. Deformation with little associated recrystallization caused cataclastic foliation. Late crosscutting microfaults were filled with calcite alteration.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G3 - 1863' Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C. DDH3 - 1863' (568 m).

ROCK TYPE: Altered metasiltstone with pyrite

HAND SPECIMEN: Thin section offcut chip (0.4 x 2.1 x 3.5 cm, with 2 broken corners). Medium greenish grey siltstone has consistent grain size around 0.1 mm, with about 50% light coloured (quartz, feldspar?) and 50% dark coloured (chlorite?) minerals. One end of chip is lighter, with possibly more quartz, and contains about 15% square to anhedral pyrite and/or pyrrhotite (up to 1 mm) (non-magnetic). Rest of rock contains about 2% very finely disseminated pyrite and/or pyrrhotite (<0.5 mm). No reaction to HCl except for very tiny crosscutting calcite veinlet in mineralized area.

THIN SECTION (2 sections; polished T.S. was not observed in reflected light):

% (Approx.)	MINERALS
40-50	Quartz - Clastic silt grains and in some veinlets with feldspar
15-20	Muscovite/sericite - Fine to med. grained colourless, med. biref. mica flakes, random orientation
10-15	Chlorite - Green pleochroic, randomly distributed flakes intergrown with muscovite; may be replacing biotite; also occurs in crosscutting veins with quartz.
10-15	Feldspar - (1) Alkali feldspar - Rare tartan twinning; poikiloblastic with sericite, quartz; larger grained. Occurs in thin bedding parallel layers and in curved veinlets with associated opaques. Relief similar to balsam or slightly negative.
5	(2) Plagioclase - Albite twinning, Carlsbad twinning; smaller, fresher grains, clearer than K-feldspar
5	Opaques - Pyrite, pyrrhotite; disseminated, irregular wisps, and in a large, skeletal bleb at one end of slide.
Trace	Zircon - Tiny square grains with pleochroic haloes in chlorite
Trace	Sphene - High relief brownish grains, sparse; may be associated with feldspar alteration

ROCK TEXTURES/STRUCTURES: Random texture in muscovite and chlorite indicate either static recrystallization, or slide is cut parallel to bedding or foliation. Chlorite veinlets crosscut vague layering.

PROTOLITH: Siltstone

ALTERATION/MINERALIZATION: Sericite recystallization may have occurred during pervasive alkali feldspar alteration; chlorite may be replacing primary biotite. Opaques are possibly related to feldspar and/or chlorite veinlets.

CONDITIONS OF FORMATION/HISTORY: Siltstone has been recrystallized with minerals such as muscovite and chlorite which are consistent with greenschist facies metamorphism. However, feldspar textures suggest some potassic alteration as well. Pyrite and/or pyrrhotite mineralization may be related to feldspar or chlorite alteration.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G4 - 263 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Altered siltstone

HAND SPECIMEN: Thin section offcut chip (0.5 x 2.2 x 3.7 cm). No layering. Grey, white, black and pink mottled rock is composed of very fine-grained grey quartzite or siltstone with superimposed alteration consisting of white areas of quartz + feldspar(?)(50%), pink patches that may be garnet (5%), and black patches and selvages of acicular black amphibole or tourmaline (up to 3 mm long, 1 mm wide; 5-10%). Mineralization consists of irregularly disseminated non-magnetic pyrrhotite (?) (< 0.5 mm; < 1%) associated with amphibole (?). Minor reactions to HCl indicate some calcite alteration near sulphides and elsewhere, but tiny grey veinlets (< 0.5 mm) do not react, and may be quartz.

THIN SECTION: (No thin section)

% (Approx.) MINERALS

ROCK TEXTURES/STRUCTURES:

PROTOLITH:

ALTERATION/MINERALIZATION:

CONDITIONS OF FORMATION/HISTORY:

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G4 - 1097.5 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Spotted metasiltstone

HAND SPECIMEN: Thin section offcut chip (0.4 x 1.7 x 3.0 cm, with one curved side, from drill core). No visible layering, but foliation is defined by elongation of porphyroblasts (?). Very fine-grained (< 0.1 mm) grey siltstone or quartzite is composed of mainly quartz and brown biotite. About 10-15% oval grey grains with darker rims average 1 x 2 mm, and are elongate along a poorly developed foliation (see Lenses, below). Mineralization consists of very fine, sparsely disseminated pyrite (<< 1%). No reaction to HCl; non-magnetic.

THIN SECTION: A matrix with crystallization foliation contains ovoid lenses which are crystalline aggregates rather than porphyroblasts.

% (Approx.) MINERALS

MATRIX:

50-60 Quartz - Anhedral, equant to elongate grains in relict clastic texture; some undulose extinction

5-10 Biotite - Small, brown mica flakes with zircon in pleochroic haloes predate muscovite; locally altered to green chlorite

15-20 Muscovite - Colourless mica; defines weak foliation

1-2 Chlorite - Pale green alteration of biotite

<1 Epidote/clinozoisite - Local aggregates of med.-high relief grains, low to med. biref.

2-4 Tourmaline - Zoned, O = blue-green to olive, E = colourless to tan, O > E; uniaxial (-). Small disseminated subhedral grains.

1-2 Opaques - Anhedral to rectangular grains, sparsely disseminated; also as finer opaque dust, especially associated with biotite altering to chlorite; may include iron oxides or ilmenite.

LENSES:

70-80 Quartz - Recrystallized, with 120 degree grain boundaries, other indistinct boundaries

15-20 Biotite - Brown to light brown pleochroic

Trace Zircon - Tiny high relief square grains with pleochroic haloes in biotite

2-3 Opaques (Pyrite?) - Skeletal, large grains along rims of lenses

ROCK TEXTURES/STRUCTURES: Lenses of coarser-grained quartz plus biotite look macroscopically like porphyroblasts, but are elongate polycrystalline aggregates along a weak foliation. Quartz, biotite, and muscovite are metamorphically recrystallized. Muscovite foliation and tapering shape of lenses are evidence of synmetamorphic deformation.

PROTOLITH: Siltstone

ALTERATION/MINERALIZATION: Biotite and muscovite are metamorphic. Biotite is locally altered to chlorite. Minor epidote alteration was noted. Pyrite mineralization is spatially associated with biotite along rims of coarser grained lenses.

CONDITIONS OF FORMATION/HISTORY: Deposition of siltstone. The coarser lenses may be recrystallized forms of some sedimentary oolithic feature. Regional metamorphism with accompanying deformation resulted in recrystallization of biotite, muscovite, and quartz in foliated texture with coarser, mineralized lenses. These lenses do not appear to be altered porphyroblasts or relict porphyroclasts, unless the metamorphism has nearly completely obliterated primary features. Tourmaline also appears to be metamorphic from sedimentary components rather than a later hydrothermal alteration.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J. S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G4 - 1098.5 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Altered spotted metasiltstone

HAND SPECIMEN: Thin section offcut chip (0.5 x 2.2 x 3.5 cm) is cut perpendicular to poor foliation defined by elongation of larger grains. Rock is light grey, very fine-grained (siltstone to very fine sandstone) with about 15% larger rectangular to oval grains (0.5 to 1 mm wide by 1 to 2 mm long) with dark grey rims and light grey cores. Fine-grained minerals are quartz, feldspar (?), biotite, and pyrite (< 1%). Two tiny veinlets (< 0.5 mm) cross each other at right angles and foliation at about 45 degrees in one corner of section; weak reaction to HCl indicates they contain calcite.

THIN SECTION (2 sections):

% (Approx.) MINERALS

MATRIX:

60-65 Quartz - Somewhat recrystallized, anhedral grains

5 Feldspar (Alkali feldspar) - Poikilitic, subrectangular grains have local tartan twinning (microcline); optical continuity among neighboring grains suggests postkinematic synchronous crystallization (late alteration?).

10-15 Muscovite - Colourless mica, med. biref., forms foliation

10 Chlorite - Pale green pleochroic; low biref.

3-5 Tourmaline - Pale olive green pleochroic; O = olive to green, E = colourless to pale tan, O > E. Some zoned blue-green to olive green. Finely disseminated subhedral grains.

1-2 Opaques - Finely disseminated, ragged grains

LENSES:

75-85	Quartz - Interlocking, anhedral grains are coarser than in surrounding matrix
10	Chlorite - Pale green pleochroic, with opaque inclusions; probably replacing biotite
5	Muscovite - Colourless mica flakes, aligned with foliation
1-2	Tourmaline - Olive green to tan pleochroic; small subhedral grains
1	Opaques - Pyrite, and may include Fe-Ti minerals such as ilmenite

VEINLETS: Narrow carbonate (calcite) veinlets cross in one corner of slide (both slides show the same veins).

ROCK TEXTURES/STRUCTURES: Texture is very similar to sample G4-1097.5. Foliated metasiltstone has coarser grained lenses containing higher proportion of quartz than surrounding matrix. In addition, there are crosscutting calcite veinlets.

PROTOLITH: Siltstone

ALTERATION/MINERALIZATION: Rock is more altered than similar sample G4-1097.5. Chlorite has completely replaced biotite. Alkali feldspar was not noted in G4-1097.5, so it may be an alteration here. Calcite veinlets have some associated opaques. Pyrite mineralization is minor.

CONDITIONS OF FORMATION/HISTORY: Fine-grained sediment may have included some kind of quartz-rich ooliths. Regional metamorphism and deformation (greenschist facies?) resulted in mica foliation surrounding quartz-rich lenses. Biotite (?) was totally altered to chlorite. Poikilitic alkali feldspar may be a superimposed alteration feature. Late calcite veining and pyrite mineralization were fairly minor.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G4 - 1125.3 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C. DDH4, 1125.3

ROCK TYPE: Spotted metasiltstone with quartz-pyrrhotite vein

HAND SPECIMEN: Thin section offcut chip (0.8 x 2.1 x 3.8 cm) is mainly aphanitic black meta-argillite (?) with one corner of grey metasiltstone. Foliation runs about 30 degrees from direction of compositional differences and vein orientation. Rock is composed of about 20% light grey, oval grains (?) averaging 1 mm in long direction. Fine-grained minerals are grey quartz, white feldspar (?), and brown biotite. Grey quartz veinlet, subparallel to layering, is 2 mm thick and contains weakly magnetic pyrrhotite and some pyrite. Vein and finely disseminated pyrrhotite and/or pyrite make up to 1-2%. No reaction to HCl.

THIN SECTION:

% (Approx.) MINERALS

SILTSTONE:

50-60 Quartz - Varying grain size, angular to subrounded, poorly sorted, equant to elongate grains with ragged boundaries

1-2 Feldspar (Plagioclase) - Rare albite twinning indicates some plagioclase grains among quartz

10-15 Muscovite - Colourless mica flakes oriented in foliation

3-5 Chlorite - Pale green pleochroic, aligned with foliation

5 Tourmaline - Very fine-grained, euhedral to subhedral, random. O = olive green, E = pale tan, O > E. Alteration.

3-5 Opaques - Blocky to ragged skeletal grains associated with tourmaline, and smaller anhedral masses with chlorite alteration.

BLACK "ARGILLITE":

The "spots" are lenses of relict metasiltstone, as above. The black part is a very fine-grained, superimposed alteration consisting of mainly:

30-40 Tourmaline - Tiny (0.01 mm) subhedral grains in random mat superimposed on metasiltstone. O = olive brown to green, E = colourless to pale tan, O > E.

Other minerals are quartz, muscovite, and opaques.

VEIN: Parallel to foliation in tourmaline-altered siltstone.

70-80 Quartz - Coarse-grained, strained, undulose extinction, sutured boundaries

3-5 Muscovite - Bent flakes at vein selvages intergrown with carbonate

5 Carbonate - Mainly near edges of vein

10 Opaques - Pyrrohotite +_ pyrite, large, blocky to skeletal grains

ROCK TEXTURES/STRUCTURES: Metasiltstone is foliated, with semi-massive tourmaline alteration following foliation, leaving relict lenses of metasiltstone. Quartz-pyrrhotite vein runs parallel to foliation. Tourmaline texture is a fine-grained, random arrangement of euhedral to subhedral grains, mainly postkinematic.

PROTOLITH: Siltstone

ALTERATION/MINERALIZATION: Metamorphic alteration consists of muscovite and minor chlorite. Dominant alteration is superimposed tourmaline (about 30%). Mineralization consists of pyrrhotite and/or pyrite in quartz carbonate vein.

CONDITIONS OF FORMATION/HISTORY: Deposition of siltstone. Metamorphism to greenschist (?) facies formed muscovite foliation. Hydrothermal alteration during further deformation brought extensive tourmaline alteration, and quartz carbonate veins with pyrrhotite and/or pyrite.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G4 - 1267 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C. DDH4, 1267

ROCK TYPE: Altered siltstone with interbedded argillite

HAND SPECIMEN: Thin section offcut chip from drill core (0.6 x 1.6 x 3.8 cm) is cut perpendicular to bedding. Rock is dominantly grey siltstone with grain size 0.1 mm, with interbed of black, aphanitic argillite 0.5 cm thick. Siltstone is superimposed with about 50% cream-coloured alteration, partly along bedding planes and partly along crosscutting microfaults. Argillite bed is displaced 1.5 mm in a normal sense along microfault at 55 degree angle to bedding. Minerals in siltstone and argillite include grey quartz, white feldspar (?), and black or brown biotite; the black grains are nearly absent in the altered zones. Very minor reaction to HCl indicates sparse calcite. Pyrite may be present as very fine, rare grains.

THIN SECTION:

% (Approx.) MINERALS

SILTSTONE:

60-70 Quartz - Rounded to interlocking grains, with some 120 degree grain boundaries indicating recrystallization; only very weak undulose extinction

10 Biotite - Brown flakes, about 50% altered to chlorite, with pleochroic haloes around zircon inclusions

5-10 Chlorite - Pale green pleochroic, altering from biotite

5 Muscovite - Colourless mica; some larger flakes, and as sericitic alteration of feldspar

5-10 Feldspar - Occurs between quartz grains, poikilitic with sericitic alteration; untwinned; slight negative relief, close to balsam.

1-2 Opaques - Finely disseminated, anhedral grains; many appear to be iron oxide from biotite altering to chlorite.

3-5 Carbonate - As alteration of feldspar (?) nearer to black layer

ARGILLITE BED:

40-50 Opaque dust (carbon?) - Extremely fine opaque dust disseminated throughout

10-15 Chlorite - Low biref., very pale green

5-10 Muscovite/sericite - Med. biref., colourless mica, very fine-grained

20-25 Carbonate - Occurs as high relief, high biref. alteration throughout and on crosscutting veinlets and filling in pull-aparts on normal microfaults

ROCK TEXTURES/STRUCTURES: Primary layering is well preserved; deformation textures are minor, and mainly restricted to crosscutting microfaults with normal offset. Quartz appears somewhat recrystallized.

PROTOLITH: Siltstone with interbedded argillite

ALTERATION/MINERALIZATION: Biotite is altered to chlorite. Feldspar is sericitized with local carbonate alteration. Carbonate veinlets crosscut bedding, and fill spaces along microfaults across the argillite bed. Pyrite mineralization is very minor.

CONDITIONS OF FORMATION/HISTORY: Siltstone with interbedded argillite has been somewhat statically metamorphosed with little deformation. Alteration is primarily hydrous, with biotite going to chlorite, feldspar to sericite. Late carbonate alteration and veinlets affected mainly the argillite layer.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J. S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: G4 - 1483 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C. DDH4, 1483

ROCK TYPE: Altered siltstone or metasiltstone

HAND SPECIMEN: Thin section offcut chip (0.4 x 2.2 x 3.6 cm). Rock is hard, grey and uniformly fine grained, with grain size about 0.1 mm. Minerals are grey quartz, white feldspar (?), black biotite, and silvery muscovite. White veinlet 0.5 mm wide crosscuts chip diagonally. Lighter coloured alteration zone up to 7 mm on either side of veinlet contains minor disseminated pyrite and sparse calcite (minor reaction to HCl). Two grains of pyrite (1 mm) occur 1.5 cm apart along vein, which is composed mainly of quartz and minor calcite. Total pyrite is < 1%. Non-magnetic.

THIN SECTION (2 Sections):

% (Approx.) MINERALS

FOLIATED SILTSTONE:

65-75 Quartz - Equant, various grain sizes, smaller to larger

3-5 Feldspar - Poikilitic, untwinned

5-10 Muscovite - Colourless mica, forms foliation

5 Biotite - Brown pleochroic

2-3 Epidote/clinozoisite - High relief, blocky, (+) sign, med. biref., parallel extinction, length slow

1-2 Chlorite - Pale green, alteration of biotite

Trace Sphene - Tiny, high relief, brown grains

<1 Opaques - Disseminated, fine-grained

Trace Tourmaline - A few subhedral grains, O = blue-green to olive, E = pale tan, O > E.

ALTERED SILTSTONE (near Vein, and more foliated):

60-70 Quartz - Variable grain size; elongate to rounded; undulose extinction; some elongate grains appear to cut across clinozoisite vein, although vein orientation lies across quartz fabric.

2-3 Feldspar - Poikilitic, embayed, locally oriented across foliation

10-15 Muscovite - Colourless mica, well foliated

5 Chlorite - Pale green, completely replacing biotite

3-5 Epidote/clinozoisite - Med.-high relief grains, low to med. biref.

Trace Sphene - Subhedral, high relief brownish grains occur near vein

<1 Opaques - Disseminated, fine-grained; includes iron oxide reaction products from breakdown of biotite to chlorite

VEIN:

100 Clinozoisite - Anom. blue biref., med.-high relief, pale greenish to yellowish brown; twinned; (+)2V, med. Occurs as discontinuous line of clinozoisite grains across foliation, with strained quartz grains appearing to crosscut it, although the clinozoisite does not show strain.

ROCK TEXTURES/STRUCTURES: Siltstone is metamorphically foliated, with biotite and muscovite defining foliation. There is one main vein 0.5 mm wide discontinuously crosscutting the foliation, but it is apparently undeformed.

PROTOLITH: Siltstone

ALTERATION/MINERALIZATION: A clinozoisite vein is surrounded by an alteration zone in which all biotite has been altered to chlorite, and there is additional clinozoisite and muscovite in this zone. No mineralization was observed along the vein in thin section, but 2 grains of pyrite were seen in hand specimen. Other, disseminated opaques indicate only extremely limited mineralization.

CONDITIONS OF FORMATION/HISTORY: Deposition of siltstone. Hydrothermal alteration may have predated metamorphism and formation of biotite-muscovite foliation, indicated by the discontinuous nature of the vein, and the way the foliation crosscuts the vein locally. The clinozoisite may represent a metamorphosed zeolite(?) mineral such as those in veins in samples B1(A) and B1(B). Further hydrothermal alteration, and minor pyrite mineralization, may have followed.

PETROGRAPHIC REPORT by J.S. Gotsinger, PhD

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: B-1(A) Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Altered fine sandstone

HAND SPECIMEN: Thin section offcut chip (0.2 x 2.0 x 3.5 cm, broken). Rock is uniformly fine-grained, with grain size up to 0.2 mm (silt to very fine sand), mostly grey, with darker grey patch that suggests most of rock is altered from a darker grey protolith. Minerals include grey quartz, white feldspar (?), brown biotite, silvery muscovite. Rusty spots may be weathered or altered sulphides or iron oxides. Straight, 0.5 mm white veinlet across one end of slide has dark selvages.

THIN SECTION:

% (Approx.) MINERALS

LESS ALTERED SANDSTONE:

70-80 Quartz - Clastic texture, grains from very fine to sand size, ragged, cemented edges

2-4 Feldspar - Similar relief to quartz; more poikilitic

10-15 Biotite - Brown, random orientation

1 Muscovite - A few large flakes of colourless mica

1-2 Opaques - Very fine dust, with a few larger, squarish grains (pyrite?)

ALTERED SANDSTONE:

70-80 Quartz - Variable grain size, somewhat recrystallized

10-15 Muscovite - Small to large flakes of colourless mica; random to weakly oriented

2-3 Biotite - Brown, altering to green chlorite

5-10 Chlorite - Pale green; from altered biotite

1-2 Tourmaline - Individual, tiny, subhedral grains, possibly some detrital. O = blue-green to olive, E = pale tan, O > E.

1-2 Opaques - Small grains associated with chlorite (iron oxides?)

VEIN: Very straight, even-sided vein 0.5 mm.

80-90 Zeolite (?) - Very low birefringent mineral with negative relief; feathery extinction; no twinning; vague cleavage (length fast). Interference figure difficult to obtain in spite of large grain size; uncertain biaxial figures with either (+) or (-) sign were obtained. Does not look like feldspar. Possibly heulandite(+) or stilbite(-), both CaAl zeolites.

5-10 Chlorite or Pumpellyite - Low biref., pale green pleochroic radiating sprays make up selvage of vein

ROCK TEXTURES/STRUCTURES: No deformation textures, although muscovite is slightly aligned. Chlorite replaces biotite along cleavage flakes. Crosscutting vein is very straight.

PROTOLITH: Fine sandstone

ALTERATION/MINERALIZATION: Biotite altered to chlorite plus iron oxide(?); addition of sericite (potassic component may be from altered biotite). No significant mineralization. Vein minerals are chlorite and zeolite(?).

CONDITIONS OF FORMATION/HISTORY: Deposition of fine sandstone, with detrital brown biotite. Alteration of biotite to chlorite and muscovite did not affect entire rock so is not likely to be metamorphic, but rather hydrothermal. Crosscutting vein with chlorite and zeolite(?) cannot be positively related to alteration in rock, and may postdate it.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: B-1(B) Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Altered sandstone

HAND SPECIMEN: Thin section offcut chip (0.8 x 2.1 x 4.0 cm). Hard, slightly greenish grey sandstone with no layering. One black veinlet or fracture filling (< 0.5 mm) crosses chip. Grain size is well-sorted, about 0.1 mm. Minerals include grey quartz, white feldspar (?), brown biotite (20%) and possible muscovite. Brown splotches and stains up to 1 cm surround relict (altered) iron sulphides (?). Very minor reaction to HCl indicates sparse calcite. Non-magnetic.

THIN SECTION:

% (Approx.)	MINERALS
60-70	Quartz - Grain size varies from small to 0.1 mm; grain boundaries are irregular, interlocking
Trace	Plagioclase - Feldspar with poor albite twinning, similar relief to quartz
10	Biotite - Brown pleochroic, altering to chlorite; does not occur near vein
10	Chlorite - Green, from altered biotite, especially near vein; and in vein as radiating clusters
10	Muscovite - Colourless mica, med. biref., small flakes throughout
Trace	Tourmaline - A few large grains. O = olive to green, E = pale greenish brown.
Trace	Sphene - Fine-grained, high relief, brownish mineral assoc. with chlorite and opaques

VEIN: Straight vein across one end of slide, 0.5 mm thick.

50	Chlorite - Pale green pleochroic, radiating clusters along vein selvages
50	Zeolite(?) - Low biref., negative relief, wavy extinction, possible vague twinning(?); mod. (-)2V, r > v. Possibly stilbite.

ROCK TEXTURES/STRUCTURES: No bedding, no deformation textures. Rock is apparently only slightly recrystallized sandstone. Vein cuts straight across with consistent thickness, and is continuous.

PROTOLITH: Fine sandstone

ALTERATION/MINERALIZATION: Biotite is altered to chlorite, particularly near chlorite-zeolite(?) vein. Muscovite may be low-grade metamorphic. No significant mineralization.

CONDITIONS OF FORMATION/HISTORY: Deposition of fine sandstone; biotite may have been detrital. Alteration of biotite to chlorite is clearly related to chlorite-zeolite(?) veining in this case.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J. S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: B-2 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Altered sandstone; micaceous quartzite

HAND SPECIMEN: Thin section offcut chip (wedge 0 to 0.5 cm thick by 2.3 x 3.5 cm). Hard, grey sandstone has grain size mainly around 0.2 to 0.5 mm. Minerals include abundant grey quartz, white feldspar (?), about 15-20% brown biotite, and < 1% finely disseminated pyrite (mainly oxidized). Dark minerals define poor foliation parallel to length of chip, whereas slight grey colour variations run in vague bands (1 cm) across the chip. No reaction to HCl; non-magnetic.

THIN SECTION:

% (Approx.)	MINERALS
50-60	Quartz - Equant but irregular-shaped grains with interlocking grain boundaries. Some undulose extinction. Rims may have been recrystallized or have quartz cement, shown with gypsum plate.
10-20	Feldspar - Poikilitic with fine-grained quartz and sericite
10	Biotite - Brown, not well aligned; locally altered to chlorite
5-10	Chlorite - Pale green pleochroic; locally replaces biotite
5	Muscovite - Large flakes of colourless mica, med. biref.
<1	Opaques (pyrite?) - Square to anhedral grains, sparsely disseminated
Trace	Tourmaline - Zoned blue-green and olive
Trace	Zircon - Square, high relief grains, either alone or in biotite

ROCK TEXTURES/STRUCTURES: Even, clastic sedimentary texture, with slightly recrystallized grains. No layering or deformation textures observed, except some undulose extinction in quartz.

PROTOLITH: Very fine sandstone

ALTERATION/MINERALIZATION: Biotite has been altered to chlorite. Minor pyrite mineralization.

CONDITIONS OF FORMATION/HISTORY: Deposition of fine clastic sediment, from high-grade metamorphic or granitic provenance. Present metamorphic grade is probably no higher than greenschist facies.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: B-3 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Altered (?) sandstone

HAND SPECIMEN: Thin section offcut chip (0.5 x 2.3 x 4 cm) of hard, grey, brown speckled micaceous sandstone. No bedding was noted; although dark grey areas look finer grained, on closer inspection they appear to be superimposed quartz cement or alteration. Grains are medium well sorted, about 0.1 to 0.4 mm. Minerals include grey quartz, white feldspar (?), brown biotite, possible muscovite, and very finely disseminated, sparse pyrite (<< 1%). No reaction to HCl; non-magnetic.

THIN SECTION:

% (Approx.)	MINERALS
50-60	Quartz - Poorly sorted grains up to 0.5 mm. Equant, originally rounded grains with ragged, interlocking, and serrated grain boundaries; some undulose extinction. In part of slide, coarse-grained quartz has formed incipient veins.
10-15	Biotite - Olive brown to light tan pleochroic; equant flakes; some colour change across slide from browner to greener biotite (not chlorite).
5	Muscovite - Colourless flakes of med. biref. mica, finer-grained and more foliated than biotite
5-10	Feldspar (Plagioclase) - Rare albite twinning in rounded clastic grains; some feldspar is untwinned and finer grained, interstitial to quartz.
<1	Tourmaline - Bluish-olive green (O) to pale tan (E); O >E. Subhedral grains, sparsely disseminated.
Trace	Zircon - Pleochroic haloes in biotite

ROCK TEXTURES/STRUCTURES: Poorly sorted clastic grains are well preserved, but no bedding was observed. Original rounded grains now have interlocking edges where they became cemented together during recrystallization. A weak foliation is defined by muscovite flakes. Quartz veins are forming by amalgamation of coarser quartz grains during recrystallization.

PROTOLITH: Poorly sorted fine sandstone with rounded quartz and feldspar

ALTERATION/MINERALIZATION: Biotite colour varies somewhat across section, but it does not appear to be altered to chlorite. Quartz is recrystallized and beginning to form veins. No significant mineralization.

CONDITIONS OF FORMATION/HISTORY: Deposition of clastic sediment (quartz, feldspar, biotite). Weak foliation may have been developed during metamorphism. Quartz veining occurred across foliation.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J. S. Getsinger

For: Chevron Minerals Ltd.
Project: Goatfell - M586
Sample: B-4

Date: 89-10
Collector: Z. Rebic
Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Fine sandstone

HAND SPECIMEN: Thin section offcut chip (0.5 x 2.1 x 3.8 cm) shows no layering. Hard, medium grey, well-sorted (grain size 0.1 to 0.3 mm) sandstone is composed of grey quartz, white feldspar (?), brown biotite, and very finely disseminated, sparse pyrite (<< 1%). No reaction to HCl; non-magnetic. Rusty zone at edge of chip as well as rusty fractures indicate weathering.

THIN SECTION:

% (Approx.) MINERALS

50-60 Quartz - Poorly sorted (all under 0.3 mm), equant clastic grains; weak undulose extinction locally; recrystallized with triple 120 degree grain boundaries in places. Some larger grains may have formed from blending of smaller ones during recrystallization.

<5 Feldspar - Poikilitic, untwinned; difficult to distinguish from quartz

10-15 Biotite - Reddish-brown flakes to equant, subrounded grains; somewhat aligned with muscovite, but may be detrital

20-25 Muscovite - Colourless mica flakes defining foliation, superimposed on quartz texture

<1 Opaques - Fine, anhedral grains and dust, finely disseminated

ROCK TEXTURES/STRUCTURES: Primary clastic sedimentary texture is preserved in range of quartz grain sizes (relatively poor sorting). Bedding and/or foliation is defined by alignment of muscovite.

PROTOLITH: Silty sandstone, possibly from metamorphic/granitic provenance

ALTERATION/MINERALIZATION: Muscovite may be metamorphic, and quartz and biotite may be somewhat metamorphically recrystallized. Rock is relatively unaltered, and there is no significant mineralization.

CONDITIONS OF FORMATION/HISTORY: Deposition of fine grained clastic sediment. Formation of weak muscovite foliation may have occurred during metamorphism. Grade of metamorphism could be greenschist or amphibolite facies, depending on origin of biotite.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: B-5 Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Quartzite (metasandstone)

HAND SPECIMEN: Thin section offcut chip (1.0 x 2.3 x 4.0 cm) has lichen on one side, indicating surface sample. Hard, light grey sandstone is composed mainly of quartz, with lesser feldspar (?) and biotite. Broken end of chip shows quartz broken across grains. Grain size is 0.1 to 0.5 mm (fine to medium sand); medium well sorted. No obvious bedding or foliation was observed. Rock is non-magnetic; no reaction to HCl. Very finely disseminated pyrite makes up << 1%.

THIN SECTION:

% (Approx.)	MINERALS
70-80	Quartz - Triple 120 degree grain boundaries indicate metamorphic recrystallization. Grains are equant, rounded, with some lobate boundaries suggesting merging of quartz grains together and/or with quartz cement.
5-10	Feldspar (Albite or Alkali feldspar) - Poikilitic with quartz and sericite, and partly saussuritized; interstitial to quartz grains; negative relief
3-5	Muscovite - Large flakes
2-3	Biotite - Brown to tan; paler grains are partly altered to chlorite
5-7	Chlorite - Pale green, from altered biotite
2-3	Clinozoisite - Med.-high relief, very fine-grained alteration of feldspar
Trace	Sphene - High relief, brownish, rounded grains
<1	Opaques - Very fine opaque dust and rare grains

ROCK TEXTURES/STRUCTURES: No bedding or foliation. Quartz is recrystallized and interlocking, but retains clastic sedimentary grain size variability. Biotite, chlorite, and muscovite are randomly oriented.

PROTOLITH: Quartzofeldspathic sandstone

ALTERATION/MINERALIZATION: Biotite has altered to chlorite; feldspar to sericite and clinozoisite. No significant mineralization.

CONDITIONS OF FORMATION/HISTORY: Deposition of mature, fine-grained quartz feldspar sandstone. Metamorphism (?) has caused recrystallization and/or advanced cementation of quartz grains and growth of muscovite. Alteration of biotite to chlorite and feldspar to clinozoisite plus sericite could be syn- to postmetamorphic.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: S-1 (1989) Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Tourmaline and feldspar altered sandstone

HAND SPECIMEN: Thin section offcut chip (0.9 x 2.2 x 4.2 cm) of hard, medium to dark grey meta-sandstone (?). From some angles, rock looks like typical sandstone with uniform grain size (0.1 to 0.5 mm), composed of grey quartz, whitish feldspar (?), and black biotite (10-15%). From other angles, larger, blocky grains with visible cleavage surfaces can be seen (about 2 mm rectangles), superimposed on the sandstone fabric, covering about 30% of the rock; they may be feldspar. No reaction to HCl. Mineralization consists of finely disseminated pyrrhotite or pyrite (0.1 to 0.5 mm; 2-3%; non-magnetic).

THIN SECTION:

% (Approx.)	MINERALS
10-15	Quartz - Equant, clear grains up to 0.5 mm, within feldspar poikiloblasts.
60	Feldspar (Albite or Alkali feldspar) - Large (2 mm) rectangular grains covering entire slide are poikiloblastic with inclusions of biotite, muscovite, tourmaline, opaques, and quartz. Grains are visible with gypsum plate. Poorly developed polysynthetic twinning is length-slow (pericline?); locally resembles tartan twinning. Negative relief.
5-10	Muscovite - Colourless mica flakes
5-10	Biotite - Pleochroic reddish-brown to tan
2-3	Chlorite - Pleochroic pale green, low biref., minor alteration of biotite or tourmaline; also occurs on late fractures
5-10	Tourmaline - Subhedral, poikiloblastic, embayed grains, intergrown with skeletal opaques; locally microboudinaged, with chlorite infillings. O = olive and bluish green, E = pale tan, O > E.
3-4	Opaques - Skeletal grains with associated tourmaline

ROCK TEXTURES/STRUCTURES: Superimposed poikiloblastic feldspar grains (2 mm) cover entire slide. Embayed tourmaline intergrown with skeletal opaques occurs in discontinuous lines (relict layers or veins?). Microboudinaged tourmaline indicates post-tourmaline deformation, but it is pre-feldspar alteration.

PROTOLITH: Fine sandstone

ALTERATION/MINERALIZATION: Sulphide (pyrrhotite and/or pyrite) mineralization (up to 4%) occurred contemporaneously with tourmalinization. Extensive feldspar replacement and alteration of biotite to chlorite were later.

CONDITIONS OF FORMATION/HISTORY: Deposition of fine-grained sandstone (quartz, biotite, feldspar?, muscovite?). Hydrothermal alteration involving influx of sulphides and boron resulted in pyrrhotite/pyrite mineralization associated with tourmaline alteration. Low-grade metamorphism may have occurred, with weak deformation. Feldspar metasomatism over entire rock was followed by minor fracturing with chlorite alteration.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd. Date: 89-10
Project: Goatfell - M586 Collector: Z. Rebic
Sample: S-2 (1989) Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Tourmaline-altered metasiltstone

HAND SPECIMEN: Thin section offcut chip 1 cm thick shaped like a parallelogram (2.2 x 3.3 cm), cut perpendicular to layer-parallel foliation. At one end, light grey sandstone or siltstone is composed of quartz, feldspar (?) and biotite. The rest of the rock has black aphanitic groundmass (argillite ?) with about 30% oval to elongate light grey shapes (1 mm by up to 5 mm) that look like porphyroblasts. However, looking more closely with the hand lens, they look like remnant augen-shaped porphyroclasts or lenses of fine sandstone in a fine-grained, foliated black matrix. These features suggest a mylonitic fabric. Extremely fine-grained silvery sparklies may be mica. Mineralization consists of very fine, sparse pyrite. Thin white veinlets along fractures are subparallel to foliation. No reaction to HCl; non-magnetic.

THIN SECTION:

% (Approx.) MINERALS

25-30 Tourmaline - (1) Euhedral to subhedral, poikiloblastic, brown grains; O = olive green to brown, E = pale tan, O > E. Abundant trigonal cross sections indicate tourmaline forms a metamorphic mineral lineation perpendicular to the section. Many grains were microboudinaged prior to inclusion in feldspar poikiloblasts.

(2) Locally in quartz vein, tourmaline has been altered to a pale blue form: O = light greenish blue, E = colourless to pale tan, O > E.

30-35 Feldspar (Albite or Alkali feldspar) - Relict poikiloblastic grains (as in sample S-1), now rounded augen, porphyroclastic, in a matrix of cataclastically foliated muscovite. Inclusions in feldspar are quartz, muscovite, and tourmaline. Feldspar has large (-)2V, negative relief.

20-25 Muscovite/sericite - Forms matrix between feldspar augen; defines foliation, which has cataclastic features, strained, bent, lensoidal grains. Muscovite flakes wrap around feldspar porphyroclasts and resistant tourmaline porphyroblasts.

10-15 Quartz - Occurs as relict inclusions in feldspar; also in veinlets which crosscut or parallel foliation: ribbon grains, undulose extinction.

1-2 Opaques - Platy, rectangular to anhedral grains and fine dust, disseminated

<1 Zircon - Square to rectangular, high relief, high biref., tiny grains

ROCK TEXTURES/STRUCTURES: Strained quartz vein; fine grain size, cataclastic textures indicate mylonitization

PROTOLITH: Siltstone

ALTERATION/MINERALIZATION: Tourmalinization. Feldspar alteration

CONDITIONS OF FORMATION/HISTORY: Tourmalinization precedes feldspar alteration, quartz veining, and mylonitization.

PETROGRAPHIC REPORT by J.S. Getsinger, PhD J.S. Getsinger

For: Chevron Minerals Ltd.
Project: Goatfell - M586
Sample: G4 - 263

Date: 89-10
Collector: Z. Rebic
Date Collected: 1989

LOCATION: Goatfell Project, southeastern B.C.

ROCK TYPE: Altered siltstone with garnet, amphibole, epidote, and pyrrhotite

HAND SPECIMEN: Thin section offcut chip (0.5 x 2.2 x 3.7 cm). No layering. Grey, white, black and pink mottled rock is composed of very fine-grained grey quartzite or siltstone with superimposed alteration consisting of white areas of quartz + feldspar(?)(50%), pink patches that may be garnet (5%), and black patches and selvages of acicular black amphibole or tourmaline (up to 3 mm long, 1 mm wide; 5-10%). Mineralization consists of irregularly disseminated non-magnetic pyrrhotite (?) (< 0.5 mm; < 1%) associated with amphibole (?). Minor reactions to HCl indicate some calcite alteration near sulphides and elsewhere, but tiny grey veinlets (< 0.5 mm) do not react, and may be quartz.

THIN SECTION:

% (Approx.) MINERALS

50-60 Quartz - Irregular to equant grains, with some straight and some interlocking grain boundaries, some 120 degree angles (metamorphic (?) recrystallization); grain size varies; not strained. Occurs throughout as groundmass, and as central to amphibole rosettes.

10-15 Amphibole (Actinolitic hornblende) - Coarse grained prisms arranged in random, radiating sprays; subhedral but embayed; associated with recrystallized quartz, minor carbonate; contains zircon pleochroic haloes. Z' to c = 18 degrees; Z = light bluish green, Y = light green, X = light greenish yellow; Z = Y > X; (-)2V > 85, r < v.

5-10 Epidote/clinozoisite - Med. high relief; anomalous blue and yellow biref.; slightly yellowish pleochroic; (-)2V indicates epidote but biref. suggests composition close to clinozoisite. Occurs as alteration of garnet, and in between quartz grains (alteration of former feldspar (?)), along with sphene and possible leucoxene, forms part of visible white alteration.

3-5 Garnet (Grossular with lesser Almandine component ?) - Skeletal, isotropic grains, altering to clinozoisitic epidote and carbonate, associated with opaques.

1-3 Chlorite - Low biref., paler green than amphibole, pseudomorphous after amphibole and biotite.

1-3 Muscovite - Colourless mica, med. biref., random, apparently late

1-2 Sphene - High relief, brownish grains, with leucoxene alteration

2 Leucoxene - Fine-grained, semi-opaque mat of high relief, alteration

1 Opaques (Pyrrhotite) - Skeletal, forming interstitial network with garnet (altering to epidote and carbonate), also occurring locally with amphibole and quartz, anhedral grains.

<1 Biotite - Brown to pale tan pleochroic; large, isolated flakes

1-3 Carbonate - Interstitial to amphibole and quartz, and as alteration of garnet, locally associated with opaques.

Trace Zircon - Tiny, square, high relief grains with pleochroic haloes, in amphibole, biotite, and chlorite

Trace Tourmaline - Bluish-green grain with epidote and opaques

ROCK TEXTURES/STRUCTURES: No bedding or foliation were noted. Texture is mainly random, as in a statically metamorphosed rock, vein or hydrothermally altered area. Amphibole occurs in radiating sprays in a well recrystallized quartz groundmass. Garnet is skeletal rather than idiomorphic, or perhaps a network-like aggregate of subidiomorphic grains. Opaques occur in an interstitial network along with garnet altering to epidote and carbonate.

PROTOLITH: Calcareous siltstone (?)

ALTERATION/MINERALIZATION: The sample represents almost entirely alteration material, with common alteration minerals quartz, amphibole, garnet, muscovite, epidote/clinozoisite, and chlorite, and lesser sphene, and leucoxene, and late carbonate. Pyrrhotite mineralization (1%) is associated with garnet, quartz, and amphibole alteration.

CONDITIONS OF FORMATION/HISTORY: Fine-grained sediment has been altered, metamorphically and/or hydrothermally, with alteration minerals quartz, amphibole (actinolitic hornblende), garnet, muscovite, epidote/clinozoisite, chlorite, and sphene/leucoxene. Conditions were low stress (no deformation), with temperatures in the range of upper greenschist to lower amphibolite facies, followed by lower temperatures and further alteration (chlorite, carbonate alteration).

APPENDIX IV

Petrographic Report
on Two Samples from Sky Mineral Claim
by
J. G. Payne, September, 1989

Vancouver Petrographics Ltd.

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Report for: **Zlata Rebic,**
Chevron Minerals,
1900 - 1055 West Hastings Street
VANCOUVER, B.C., V6E 2E9

Invoice 8504
September 1989

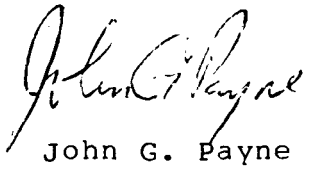
Samples: S-3, S-4

Summary:

The samples are of quartzite and arkose which were affected by tourmaline-sulfide metasomatism to produce rocks commonly known as greisens. Sulfides include arsenopyrite, pyrite, pyrrhotite, and chalcopyrite.

Sample S-3 is a metasomatised quartzite dominated by tourmaline and quartz and with minor biotite and abundant interstitial patches of pyrrhotite-chalcopyrite. Late veins are of limonite/jarosite with minor hematite.

Sample S-4 is a metasomatised arkose dominated by quartz and less plagioclase and microcline, with minor disseminated muscovite. Some bands and patches are dominated by plagioclase. Replacement minerals include disseminated tourmaline and patches of sulfides, dominated by arsenopyrite, with less pyrite and a trace of chalcopyrite. A few veins up to 2 mm wide are dominated by quartz with patches of pyrite and minor plagioclase, arsenopyrite, and chalcopyrite.



John G. Payne
604-986-2928

Sample S-3 **Tourmaline-Quartz-(Pyrrhotite-Chalcopyrite) Greisen**

The sample is dominated by tourmaline and quartz and with minor biotite and abundant interstitial patches of pyrrhotite-chalcopyrite. The original rock probably was a quartzite. Late veins are of limonite/jarosite with minor hematite.

tourmaline	45-50%
quartz	35-40
pyrrhotite	1- 2
chalcopyrite	1
carbonaceous(?) opaque	1- 2
biotite	Ø.2
arsenopyrite	trace
late veins	
limonite/jarosite	4- 5
hematite	Ø.3
cavities	4- 5

Tourmaline forms subhedral, generally stubby, prismatic grains averaging Ø.2-1 mm long. Pleochroism is from pale to medium/dark green, with moderate color zoning from paler cores to darker rims. Most grains have abundant inclusions of quartz averaging Ø.Ø1-Ø.Ø2 mm in size.

Quartz forms anhedral, equant, submosaic grains averaging Ø.Ø5-Ø.15 mm in grain size.

Biotite forms a few ragged flakes up to Ø.2 mm in size. Pleochroism is from pale to medium reddish brown. Some grains are fresh, and some are altered slightly to moderately to a paler brown mineral, whose composition probably is intermediate between those of biotite and muscovite.

Sulfides occur mainly in interstitial patches averaging Ø.1-Ø.3 mm in size. Chalcopyrite forms grains averaging Ø.Ø3-Ø.1 mm in size, and is fresh. Pyrrhotite forms grains of similar size, and is altered moderately to completely to Fe-oxides and minor secondary pyrite/marcasite, except for fresh, subrounded grains up to Ø.Ø3 mm in size which are included in quartz grains and were protected from weathering. Arsenopyrite forms a few clusters of grains averaging Ø.Ø3-Ø.Ø5 mm in size

Numerous interstitial patches averaging Ø.Ø3-Ø.15 mm in size are of a soft opaque mineral with low reflectivity. It may be carbonaceous opaque or may be secondary after pyrrhotite.

Cavities in the sample may represent leached sulfides or possibly other readily weathered minerals.

Veinlets averaging Ø.1-Ø.2 mm in width are of pale to medium orange limonite/jarosite, which commonly shows delicate colloform textures. Cores of a few veins are deeper colored and grade to of deep red hematite.

Sample S-4 **Tourmaline-Sulfide Greisen in Meta-arkose; Quartz-Sulfide Vein**
Sulfides: Arsenopyrite, Pyrite, minor Chalcopyrite

The sedimentary rock is dominated by quartz and less microcline and plagioclase, with minor disseminated muscovite. Some bands and patches are dominated by plagioclase. Replacement minerals include disseminated tourmaline and patches of sulfides, dominated by arsenopyrite, with less pyrite and a trace of chalcopyrite. A few veins up to 2 mm wide are dominated by quartz with patches of pyrite and minor plagioclase, arsenopyrite, and chalcopyrite.

quartz	40-45%
plagioclase	17-20
microcline	7- 8
tourmaline	8-10
arsenopyrite	7- 8
muscovite	1
ilmenite	0.5
pyrite	0.5
pyrrhotite	0.1
chalcopyrite	trace
zircon	trace

veins

quartz	8-10%
plagioclase	0.3
pyrite	1- 2
arsenopyrite	0.3
chalcopyrite	minor

Quartz forms equant grains averaging 0.05-0.15 mm in size. Feldspars commonly form interstitial grains averaging 0.03-0.05 mm in size. Plagioclase also forms ragged, equant grains up to 0.25 mm in size, which are concentrated in patches commonly with tourmaline. Microcline forms interstitial grains up to 0.25 mm in size.

Muscovite forms disseminated flakes averaging 0.05-0.15 mm in length, with a few up to 0.3 mm long.

Tourmaline forms disseminated subhedral to euhedral grains and clusters of anhedral grains averaging 0.1-0.5 mm in size, commonly associated with sulfides. Pleochroism is from pale to medium olive green, with slight color zoning to darker shades towards the rims of crystals. Some grains have a slight brownish tinge.

Arsenopyrite forms subhedral to euhedral, commonly elongate grains averaging 0.2-1 mm in size. Some are altered moderately to strongly to extremely fine grained scorodite or other secondary arsenic minerals.

Pyrite forms a few patches up to 1.5 mm in size associated with arsenopyrite. One large patch is altered strongly to cryptocrystalline limonite/hematite

Ilmenite forms a few clusters of platy grains from 0.2-0.4 mm in length and disseminated grains averaging 0.03-0.05 mm in size. A few act as foci for crystallization of arsenopyrite grains.

Pyrrhotite forms a few patches up to 0.2 mm in size. It is altered moderately to strongly to secondary Fe-sulfide and oxide.

Chalcopyrite forms one grain 0.05 mm across.

Zircon forms elongate prismatic grains up to 0.05 mm long.

In one corner of the section a band up to several mm wide is dominated by submosaic plagioclase grains averaging 0.05-0.2 mm in size. It also contains abundant disseminated, euhedral top subhedral tourmaline and patches of tourmaline-arsenopyrite. Along the border of the patch is a band up to 1 mm wide containing abundant muscovite flakes averaging 0.02-0.04 mm in size.

(continued)

One main vein up to 2 mm wide and a few smaller ones are dominated by very fine to medium grained quartz. Quartz grains were strained and partly recrystallized to much finer subgrains. Plagioclase forms scattered grains up to 0.7 mm in size along the border of the large vein. The large vein contains a few sulfide patches. One patch up to 3 mm across is dominated by pyrite grains averaging 0.03-0.08 mm in size, with a few grains of arsenopyrite up to 0.5 mm across and two adjacent grains of chalcopyrite from 0.15-0.25 mm across. Some of the arsenopyrite grains are altered completely to scorodite or other unidentified secondary arsenic minerals. A few other smaller patches consist of subhedral to euhedral arsenopyrite grains averaging 0.3-0.5 mm in size.

APPENDIX V

Lithogeochemical Report
on Goatfell Property
by
F. R. Edmunds
October 20, 1989

APPENDIX: GOAT Lithochemical Survey

A survey of the trace element composition of low Middle Aldridge and, if available, Lower Aldridge Formation sediments was planned as part of the 1989 Goat program. Within the area of the Claim Block, the best exposures of likely stratigraphy are those at the west end of Hazel Ridge. The sampling traverse is shown on Figure No A1.

Six days were spent on this work:

20 July	- reconnaissance
21-23 August	- sampling
30 August	- sampling
13 October	- reporting.

Rationale

Trace Pb, Zn and Hg in argillites of the Aldridge Formation are determined because elevated values of these elements are sufficient predictors of the trace element halo that extends for many kilometres along the bedding from the Sullivan deposit near Kimberley, B.C. Because of the large size of this halo, sample traverses may be as much as 5km apart, if good exposure can be close-sampled across strike. Then there is little probability of overlooking a similar target, even if it lies a kilometre or more beneath the surface.

The justification for the multi-element (multivariate) approach is that any number of geologic processes may affect the levels of individual trace elements. However, a single geologic process (eg. exhalative mineralization) may be characterized specifically by identification of the unique combination of affected elements. The statistical techniques of Factor Analysis are fundemental to identifying the critical trace elements. Associated routines are used to develop the methods of comparative scoring and establish confidence levels.

Method

The sample traverse was planned perpendicular to strike wherever possible. Sample spots were planned at horizontal intervals of 40m along traverses. At each spot, two samples were taken about 2m (stratigraphic) apart, and the location of the spot was marked with flagging bearing the number of the first sample of the pair. The sample is of argillite or argillaceous quartzite. Ideally, it spans 10cm of stratigraphy, and weighs about half a kilo.

At an elevation of 3850 feet on Hazel Ridge, about 40m of rusty argillites were encountered. These were sampled with 4 spots at 10m intervals (Samples FRE89-139 to -145 inclusive). Subsequently, three more single samples were taken between each of these spots. In Table A2.2 they are given decimal identification (eg. FRE89-139.1, -139.2, etc.). One sample, FRE89-186, was lost. The final sample set totals 104.

The set was analysed by Chemex Labs Ltd, North Vancouver. After standard preparation, Pb and Zn were determined using nitric aqua regia digestion and AA methods; and Hg was determined using specific digestion and flameless AA.

The Score given in Table A.2 is an estimate of the interpreted process of exhalative mineralization. It is developed from comparison with a set of training samples from a trace element halo. Values may range between about +3 and -3, with positive scores indicating the mineralizing process.

Results

In Table A1, the mean and standard deviation of the Goat Pb, Zn and Hg 'background' values are compared with some other surveys from the Aldridge and Prichard Formations. Unfortunately, three

Table A1

Summary Statistics for four Lithochemical Surveys in the Lower Belt after removal of Positive Responses (Anomalous Samples).

	N	Pb ppm		Zn ppm		Hg ppb	
		Mean	S.Dev	Mean	S.Dev	Mean	S.Dev
Project X	1536	10.86	20.46	55.86	27.27	5.74	4.12
Project Y	1794	11.42	31.61	67.22	26.66	5.06	0.92
Project Z	1826	16.83	20.65	48.92	40.72	43.32	16.62
Goat 1989	104	9.84	16.38	55.88	22.57	10.29	1.68

labs. are involved, invlidating Hg comparisons in particular. The Pb and Zn statistics, however, demonstrate the very slight regional variation between large blocks of Aldridge and Prichard Formations - with which the Goat data are quite consistent.

Table A1 also gives the 'background' against which the very few 'anomalous' Goat samples may be viewed. It provides the Scores of Table A2 with concrete meaning, and gives an idea of the sort of job done by the statistical technique.

Table A2 contains the raw data and the evaluation Scores. The 3 samples marked with an asterisk have the positive Scores that indicate possible trace element contributions from an exhalative event. However, they are barely positive and, alone, are statistically insignificant. For each sample, the other sample in the pair, which constitutes a check sample, is barren.

The sequence of rusty sediments that were close-sampled on Hazel Ridge contains no response whatever. This has been encountered before in exceptionally rusty, and even sulphide-bearing Aldridge Formation. It merely indicates euxinic sea-bottom conditions.

Certificate

I, Frederick R. Edmunds, hereby certify that:

1. I am a consulting geologist residing at 6840 Hycroft Road, West Vancouver, British Columbia V7W 2K8.

2. I am a graduate of Keele University, U.K. with the degree of BA (Geology, 1958), of Toronto University, Canada with the degree of MSc (Petrology, 1966) and of The Pennsylvania State University, U.S.A. with the degree of PhD (Mineralogy and Petrology, 1977).

3. I am registered with the Geological Association of Canada as a Fellow.

4. I have practiced my profession as a geologist for the past 32 years in Canada, USA, and parts of Europe.

5. I do not have, nor do I expect to have, directly or indirectly, any interest in the properties of Chevron Canada Resources and/or currently associated companies.

6. This report is based on my general knowledge of the Aldridge Formation and the results of the sampling I completed on the GOAT CLAIMS, Nelson M.D. during August, 1989.

7. I place no restriction on the lawful use of the material which I have certified.

Dated at West Vancouver, British Columbia,
20 October, 1989

F.R. Edmunds, PhD, FGAC

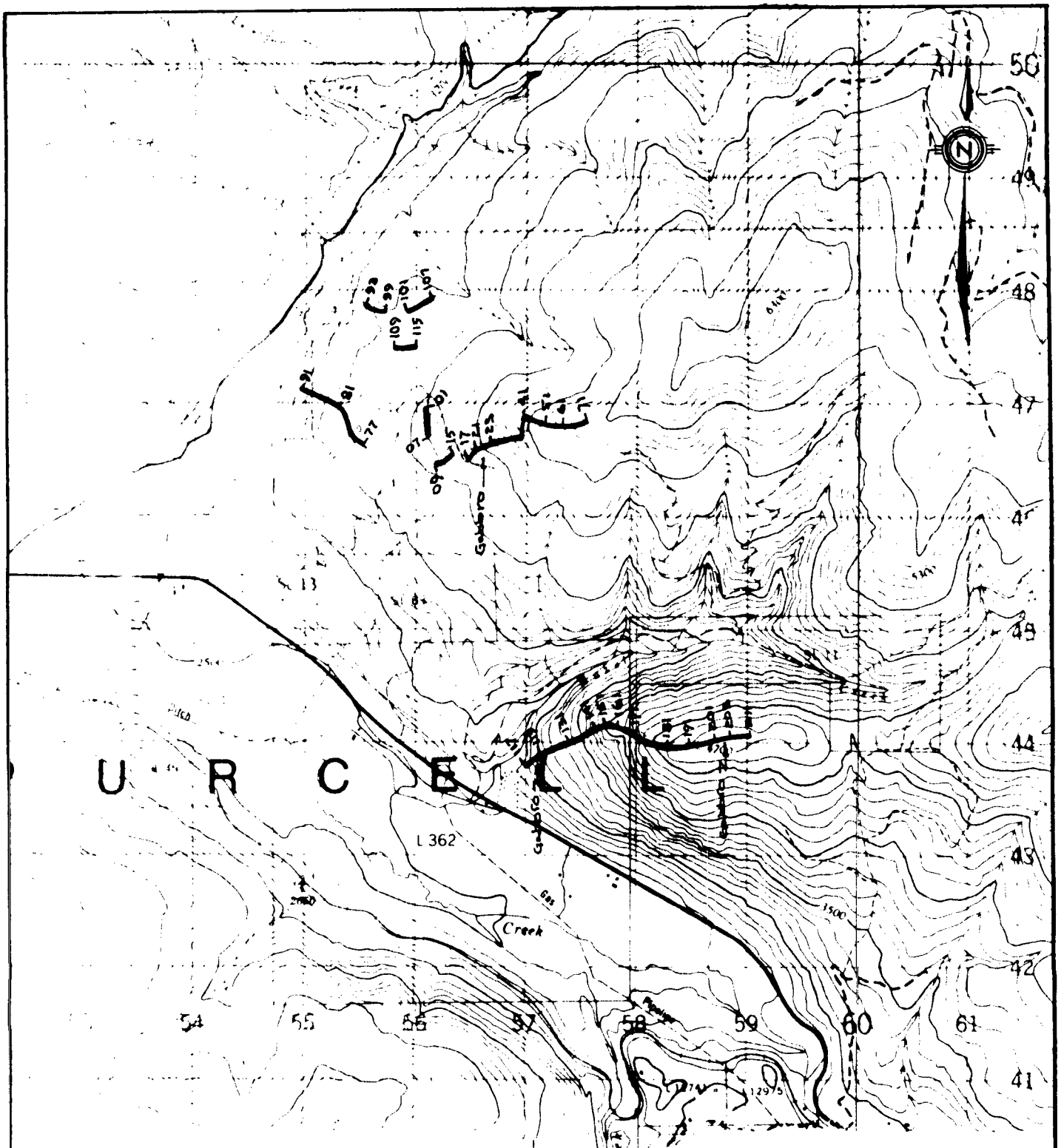
GEOLOGICAL ASSOCIATION OF CANADA
F. R. EDMUNDS, PhD
FELLOW

Table A2

Goat Lithochemical Survey: Table of Raw Values and Scores

#	Sample ID	Pb ppm	Zn ppm	Hg ppb	Score
001	FRE89-117	4	53	10	-1.0760
002	FRE89-118	6	50	10	-0.9689
003	FRE89-119	5	94	10	-0.7650
004	FRE89-120	13	53	10	-0.6889
005	FRE89-121	2	63	10	-1.2285
006	FRE89-122	10	71	10	-0.6498
007	FRE89-123	13	83	10	-0.5002
008	FRE89-124	12	46	10	-0.7793
009	FRE89-125	6	92	10	-0.7135
010	FRE89-126	3	95	10	-0.9286
011	FRE89-127	5	31	10	-1.2586
012	FRE89-128	7	46	10	-0.9563
013	FRE89-129	5	68	10	-0.8954
014	FRE89-130	8	53	10	-0.8483
015	FRE89-131	3	59	10	-1.1235
016	FRE89-132	8	56	10	-0.8241
017	FRE89-133	26	42	10	-0.5677
018	FRE89-134	3	66	10	-1.0757
019	FRE89-135	14	68	10	-0.5572
020	FRE89-136	15	68	10	-0.5345
021	FRE89-137	9	59	10	-0.7627
022	FRE89-138	4	53	10	-1.0760
023	FRE89-139.0	6	84	10	-0.7493
024	FRE89-139.1	27	11	20	-1.1299
025	FRE89-139.2	28	9	10	-1.4802
026	FRE89-139.3	36	14	10	-1.0746
027	FRE89-140	5	60	10	-0.9485
028	FRE89-141.0	5	36	10	-1.1835
029	FRE89-141.1	132	10	10	-0.8883
030	FRE89-141.2	17	24	10	-0.9932
031	FRE89-141.3	9	13	10	-1.5801
032	FRE89-142	19	10	10	-1.5249
033	FRE89-143.0	12	8	10	-1.8556
034	FRE89-143.1	16	38	10	-0.7750
035	FRE89-143.2	24	40	10	-0.6172
036	FRE89-143.3	7	31	10	-1.1481
037	FRE89-144	24	24	10	-0.8800
038	FRE89-145	23	44	10	-0.5862
039	FRE89-146	28	33	10	-0.6610
040	FRE89-147	5	25	10	-1.3727
041	FRE89-148	6	23	10	-1.3591
042	FRE89-149	7	37	10	-1.0595
043	FRE89-150	11	32	10	-0.9834
044	FRE89-151	7	60	10	-0.8380
045	FRE89-152	3	35	10	-1.3651
046	FRE89-153	5	66	10	-0.9079
047	FRE89-154	2	58	10	-1.2640
048	FRE89-155	21	90	10	-0.3106
049	FRE89-156	4	64	10	-0.9942

#	Sample ID	Pb ppm	Zn ppm	Hg ppb	Score	
050	FRE89-157	56	91	10	0.0158	*
051	FRE89-158	33	81	10	-0.2040	
052	FRE89-159	146	51	10	0.0883	*
053	FRE89-160	19	83	10	-0.3755	
054	FRE89-161	9	48	10	-0.8542	
055	FRE89-162	19	36	10	-0.7450	
056	FRE89-163	29	62	10	-0.3571	
057	FRE89-164	19	49	10	-0.5995	
058	FRE89-165	5	88	10	-0.7908	
059	FRE89-166	3	83	10	-0.9818	
060	FRE89-167	13	57	10	-0.6569	
061	FRE89-168	5	50	10	-1.0288	
062	FRE89-169	7	69	10	-0.7788	
063	FRE89-170	7	73	10	-0.7555	
064	FRE89-171	1	47	10	-1.5855	
065	FRE89-172	2	57	10	-1.2716	
066	FRE89-173	2	70	10	-1.1842	
067	FRE89-174	2	80	10	-1.1297	
068	FRE89-175	10	31	10	-1.0310	
069	FRE89-176	10	35	10	-0.9697	
070	FRE89-177	11	68	10	-0.6364	
071	FRE89-178	4	63	10	-1.0009	
072	FRE89-179	1	66	10	-1.4365	
073	FRE89-180	1	42	10	-1.6377	
074	FRE89-181	3	44	10	-1.2551	
075	FRE89-182	8	45	10	-0.9226	
076	FRE89-183	16	89	10	-0.4043	
077	FRE89-184	7	88	10	-0.6803	
078	FRE89-185	4	53	10	-1.0760	
079	FRE89-187	7	35	10	-1.0868	
080	FRE89-188	2	36	10	-1.4844	
081	FRE89-189	3	57	10	-1.1385	
082	FRE89-190	6	61	10	-0.8815	
083	FRE89-191	5	68	10	-0.8954	
084	FRE89-192	2	57	10	-1.2716	
085	FRE89-193	13	38	10	-0.8432	
086	FRE89-194	5	61	10	-0.9414	
087	FRE89-195	5	60	20	-0.7404	
088	FRE89-196	3	58	10	-1.1309	
089	FRE89-197	6	60	10	-0.8886	
090	FRE89-198	26	53	10	-0.4613	
091	FRE89-199	8	63	10	-0.7732	
092	FRE89-200	5	71	10	-0.8774	
093	FRE89-201	5	59	10	-0.9557	
094	FRE89-202	5	57	10	-0.9707	
095	FRE89-203	6	79	10	-0.7739	
096	FRE89-204	6	90	10	-0.7221	
097	FRE89-205	7	91	10	-0.6671	
098	FRE89-206	5	83	10	-0.8140	
099	FRE89-207	1	75	20	-1.1753	
100	FRE89-208	6	72	10	-0.8118	
101	FRE89-209	22	49	10	-0.5513	
102	FRE89-210	43	127	10	0.0548	*
103	FRE89-211	13	57	10	-0.6569	
104	FRE89-212	4	48	10	-1.1206	



Explanation:

Sampling traverse as heavy line.

Sampling points at beginning, within, and end of traverse as numbered ticks.

Two samples taken at each point

Thus 211 marks spot at which sample numbers FRE-211 and FRE-212 were taken.

Gabbro not sampled.

SCALE 1 : 50,000

0 1 2 Km

Chevron Minerals Ltd.

SKY LITHOCHEM SAMPLE LOCATIONS

FIGURE No A I		PROJECT No M-586	
DATE OCT. '89	REVISIONS		SCALE 1:50,000
NTS No 82 F			FILE No
COMPILED BY R.E.			

APPENDIX IX

Diamond Drill Logs

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. G3

SPERRY SUN TESTS		
	CORRECTED READINGS	
Footage m	Bearing	Inclination
91.44 m	250°	77°
182.88 m	250°	74°
274.32 m	248°	67°
487.68 m	252°	55° 30'
579.12 m	253°	55°

Hole No. G3 Sheet No. 1 of 10
Section
Date Begun
Date Finished

Lat. 49° 07' 36"
Long 116° 12' 17"
Bearing 252°
Inclin 85°

Total Depth 663.55 m
Logged By Z. Rebic
Claim Goat
Core Size HQ to 277.67 m; remainder NQ

DEPTH (m)	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
0 - 23.90	OVERBURDEN		
23.90 - 40.10	METASILTSTONE + LESSER QUARTZITE medium grey metasiltstone with intervals with thin bedding; chlorite alteration along beds; disseminated pyrrhotite; some calcite veinlets; pale greenish vein-type alteration with quartzite beds; minor fracture-controlled sphalerite and pyrite; locally garnet; bedding 45° to 50° degrees; minor shear zones and fault gouge; foliation at 50°		
40.10 - 42.40	METAGABBRO? + LESSER METASILTSTONE chloritic rock, sheared, mylonitized; probably sills; minor pyrrhotite, pyrite, sphalerite; crushed, mylonitized zone		
42.40 - 57.70	QUARTZITE INTERBEDDED WITH METASILTSTONE pale greenish grey quartzite; thick-bedded; pervasive bleaching; disseminated pyrrhotite, traces pyrite; metasiltstone contains		

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G3

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G3 Sheet No. 2 of 10 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 663.55m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	minor clasts of quartzite; disseminated pyrrhotite common in metasiltstone; bedding at 30° to 60°; foliation at 60° - 65°; MARKER? at 53.64-53.79; pale greenish vein-type alteration within quartzite near lower contact		
57.70 - 61.30	METAGABBRO - olive green with porphyritic anhedral plagioclase up to 1 cm in diameter; chloritic; crackled and locally foliated; lower contact sheared; minor pyrrhotite		
61.30 - 77.40	METASILTSTONE + LESSER QUARTZITE grey green to grey brown metasiltstone with intervals thinly bedded; chlorite along beds and as veins common; disseminated pyrrhotite; quartzite with pervasive bleaching and locally garnet; bedding at 55° to 70°; locally flame structures and slumping;		

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G3

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G3 Sheet No. 3 of 10 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 663.55m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	traces sphalerite		
77.40 - 79.90	METAGABBRO ? - now chloritic phyllite; irregular clasts of meta-siltstone (tectonic); extremely sheared; traces of pyrrhotite parallel to foliation; foliation at 40°-50°; a lot of sphalerite		
79.90 - 142.89	QUARTZITE INTERBEDDED WITH METASILTSTONE		
	greenish grey quartzite thick-bedded; generally pale greenish vein-type alteration; locally garnet in bleached out portions; calcareous inclusions rare; pyrite on fractures; quartz/calcite veinlets; locally white mineral (quartz? albite?); trace fracture-controlled sphalerite; bedding 35° - 50°; metasiltstone locally thinly-bedded; disseminated pyrrhotite; pale greenish alteration within quartzite is patchy; chlorite filled fractures common	116403	109.88m grab sample

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G3

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G3 Sheet No. 4 of 10 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 663.55m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
142.89 - 144.02	METAGABBRO? - chloritic rock, green, sheared; pyrrhotite, lesser pyrite and sphalerite within quartz/calcite veinlets; sheared contact at 50°	116404	143.41m Grab sample
144.02 - 174.04	QUARTZITE INTERBEDDED WITH METASILTSTONE pale greenish grey with beds of brownish grey metasiltstone; vein-type and pervasive pale greenish alteration; in portions bleaching confined to fractures; locally garnet in quartzite; one speck of silvery metallic (arsenopyrite?, galena? tetrahedrite?); pyrrhotite occurs with chlorite; pyrite common in fractures; bedding 50° - 65°; MARKER at 160.93 - 161.18		
174.04 - 227.08	METASILTSTONE INTERBEDDED WITH QUARTZITE generally thinly-bedded metasiltstone with some weak to pervasive pale greenish alteration; chlorite veinlets with	116405	203.00m Grab sample

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G3

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G3 Sheet No. 5 of 10 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth. 663.55 m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	pyrrhotite; quartzite locally contains garnet, pale greenish alteration; fracture-controlled pyrite; bedding 50° – 60°; minor shears; slump folding		
227.08-231.34	METAGABBRO – heavily chloritized; lower portion is chlorite phyllite; Fe-carbonate alteration; fault zone		
231.34-343.36	METASILTSTONE INTERBEDDED WITH QUARTZITE pale grey to grey green thinly-bedded metasiltstone interbedded with thick-bedded pale grey to greenish grey quartzite; siltstones are generally chloritized and contain disseminated pyrrhotite; pale greenish pervasive and patchy alteration is common in quartzite; calcareous concretions occur rarely; locally garnet noted; locally traces of disseminated and fracture-controlled sphalerite; quartz/calcite veinlets;		

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G3

DIP TEST		
	Angle	
Fracture	Reading	Corrected

Hole No. G3 Sheet No. 6 of 10 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 663.55m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	locally epidote present (pale green); fracture-controlled pyrite; some local creamy-white patches (quartz? albite?) bedding at 25° - 40° to core axis;		
343.36-431.14	INTERBEDDED METASILTSTONE + QUARTZITE pale grey thick-bedded quartzite with metasiltstone that are locally thinly-bedded; the interval averages 50% metasiltstone, 50% quartzite; alteration varies from pervasive pale greenish to patchy; pale greenish vein-type alteration locally common; chlorite common in metasiltstones; rare hairline veinlet of sphalerite; fracture-controlled pyrite; pyrite and pyrrhotite in quartz/calcite veins; Fe carbonate veinlets with associated alteration; minor	116406	385.57m Grab sample
		116407	413.77m Grab sample
		400101	392.28 - 392.46m
		400102	398.25 - 398.50m
		400103	401.42 - 401.70
		400104	402.49 - 402.73m
		400105	424.62 - 424.86m

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. G3

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G3 Sheet No. 7 of 10 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 663.55 m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67 m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	argillite; minor shears, fault gouge and cataclasite; bedding at 35°-40° to core axis		
431.14-471.83	QUARTZITE + LESSER METASILTSTONE		
	pale grey quartzite interbedded with lesser metasiltstone which is locally thinly-bedded; pervasive alteration; locally epidote common; chlorite; quartz/calcite veinlets; pyrite common in fractures; some portions of metasiltstone are sheared and chloritic; bedding 40°-60° to core axis;	116408	438.15 m Grab sample
		116409	445.16 m Grab sample
		400106	434.64-434.92 m
471.83-503.36	METASILTSTONE + LESSER QUARTZITE		
	medium grey metasiltstone with lesser quartzite and minor argillite; some metasiltstone chloritic sheared; quartz-rich portions bleached pale greenish with remainder chloritic green or dark grey; pyrite commonly	400107	479.24-479.54 m

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. G3

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G3 Sheet No. 8 of 10 Lat.
Section Dep
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 663.55m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	fills fractures; minor fault and shearing at 20° - 25° to core axis; bedding at 50° - 0° to core axis; flame structures		
503.36-606.34	QUARTZITE + LESSER METASILTSTONE		
	pale grey quartzite interbedded with medium grey, generally thinly-bedded metasiltstone; MARKER at 527.30m; pervasive pale greenish and less commonly vein-type alteration; epidote veinlets and coarse pyrite in the lower portion of the interval; garnet with white mineral (quartz? albite?); calcite veinlets; rare calcareous concretions; pyrrhotite and pyrite in fractures; locally garnet present; bedding 45° - 60° to core axis; minor fault gouge at 20° to core axis; MARKERS at 572.11 and 573.33	116410 400108 400109	553.52m Grab sample 578.88-579.03m 603.02-603.17m

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. G3

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G3 Sheet No. 9 of 10
Section
Date Begun
Date Finished
Lat
Dep
Bearing
Elev. Collar

Total Depth 663.55 m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	portions of quartzite crackle brecciated		
606.34 - 643.74	METASILTSTONE + LESSER QUARTZITE medium grey generally thinly-bedded metasiltstone interbedded with thick-bedded quartzite; rare calcareous concretions; vein-type and pervasive patchy alteration similar to top of hole; locally garnets with pyrrhotite; disseminated and fracture-controlled pyrrhotite; fracture-controlled pyrite; MARKER at 641.30 to 641.60m; minor fault at 25° to core axis; minor chloritic shear zones; bedding 50° - 55° to core axis		
643.74 - 663.55	QUARTZITE + LESSER METASILTSTONE pale grey thick-bedded quartzite interbedded with lesser medium grey metasiltstone; pale greenish vein-type alteration; broken up, sheared	400110	648.77 - 648.95m

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G3

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G3 Sheet No. 10 of 10
Section
Date Begun
Date Finished
Lat
Dep
Bearing
Elev. Collar

Total Depth 663.55 m
Logged By Z. Rebic
Claim Goat 1
Core Size HQ to 277.67 m; remainder NQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE			
	chloritic rocks; pyrite common in fractures; fault gouge and broken rock common toward the end of interval; shear zone at 35° to core axis; hole terminates in broken up quartzite					
	END OF HOLE @ 663.55 m					

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G4

SPERRY SUN TESTS		
	CORRECTED READINGS	
Footage m	BEARING	INCLINATION
91.44 m	252° 30'	80° 15'
182.88 m	250°	81°
279.50 m	253°	81°
370.94 m	263°	79° 30'

Hole No. G4 Sheet No. 1 of 12 Lat. 49°07'05"N Total Depth 498.04m
Section Long 116°12'04"W Logged By Z. Rebic
Date Begun Bearing 252° Claim GOAT 2
Date Finished Inclin 85° Core Size HQ

DEPTH (m)	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
0 - 73.30	OVERBURDEN		
73.30 - 76.81	QUARTZITE - medium grey with patches of white mineral (albite? quartz?); chlorite in fractures; lower contact purplish-brown like a hornfels; small sections thinly bedded; bedding at 50° to core axis - disrupted by fractures; large portions extremely fragmented and contain cave-in material		
76.81 - 79.40	METAGABBRO - fine-grained grading into coarser toward the middle; hairline quartz/calcite veinlets; white patches of quartz; chloritized; lesser patches of biotite; non-magnetic; shear zone at 30° to axis		
79.40 - 89.46	QUARTZITE - generally purplish grey with darker green patches and white patches; large biotite flakes common in darker areas; biotite flakes also within patches of white mineral (quartz? albite?); quartz veinlets locally common; chlorite		

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. G4

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G4 Sheet No. 2 of 12 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 498.04m
Logged By Z. Rebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	within dark beds and as fractures; locally ripped up beds and crackling; garnet within white patches; pyrrhotite within white patches; pyrite in fractures; pale greenish vein-type alteration common throughout; one calcareous concretion close to upper contact		
89.46 - 103.02	METAGABBRO - greyish green, equigranular, massive; chloritized; minor hairline fractures; contact at 50° to core axis; 96.47 - 99.97 Fault zone at 50° to core axis; calcite veinlets within fault zone; non-magnetic		
103.02 - 112.78	QUARTZITE + LESSER ARGILLITE medium-grey; orange-weathering calcite/Fe carbonate veinlets with rusty pale greenish envelopes around them; quartz veinlet 5mm wide subparallel to core axis; pyrite; minor vein-type pale greenish alteration; also weak pervasive alteration		

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. G4

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G4 Sheet No. 3 of 12
Section
Date Begun
Date Finished
Lat.
Dep.
Bearing
Elev. Collar

Total Depth 498.04m
Logged By Z. Pebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	bedding at 70° to core axis; broken up at 109.12 m - fault? and at 112.32m		
112.78-211.23	METAGABBRO - fairly monotonous green fine to medium-grained; quartz/calcite veinlets common where rock well fractured; pyrrhotite and pyrite in some veinlets; 151.18 - 152.55 m - quartz/calcite vein almost parallel to core axis, mineralized with pyrrhotite; Fault gouge - at 113.99m and 60°, 116.13 m, 118.26 m, 120.70 m, 121.77 m, 148.74 m at 35°, 150.00 m, 152.70 - 166.42 m with slickensides at 60° to core axis, 173.43 - 177.69, 182.57m, 186.53m, 195.37 m at 50° to core axis, 197.20 m, 204.52 m subparallel to core axis, 209.09 - 211.23 at 35° to core axis; all chloritized	400112	151.21 - 152.00m
211.23-211.68	METASILTSTONE - pale grey, broken up, chloritized, calcite		

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G4

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G4 Sheet No. 4 of 12 Lot Total Depth 498.04m
Section Dep Logged By Z. Rebic
Date Begun Bearing Claim Goat 2
Date Finished Elev. Collar Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
211.68-217.30	QUARTZITE + LESSER METASILTSTONE pale grey, very broken up; pervasive bleaching with flakes of biotite; two narrow quartz veins at lower contact; entire interval fragmented and gouged		
217.30-223.27	METAGABBRO - green, chloritic; minor hairline calcite veinlets throughout; carbon on vertical fracture with slickensides at 45° to core axis; fault gauge and broken rock		
223.27-231.95	QUARTZITE+ LESSER METASILTSTONE broken up pale grey rock; vein-type pale greenish alteration; entire interval is a fault zone; bedding at 40° to core axis		
231.95-244.45	METAGABBRO - chloritic rock, mostly fault gauge; minor hematite; minor calcite/quartz veinlets; lower contact fault gauge at 30° to core axis		

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G4

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G4 Sheet No. 5 of 12 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 498.04m
Logged By Z. Rebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
244.45-255.73	QUARTZITE + LESSER METASILTSTONE pale grey quartzite with thin dark beds where thinly-bedded; vein-type pale alteration throughout; also patchy pale greenish bleaching; chlorite abundant in areas of white alteration (quartz? albite?); more purplish-brown biotite-rich toward lower contact (hornfels); coarse biotite flakes are locally common; minor fracture-controlled pyrite; also pyrite with brecciated calcite; bedding at 30° to core axis; some beds boudinaged and rotated; lower contact is sheared and is at 35° to core axis; minor clasts of metasiltstone		
255.73-267.80	METAGABBRO - fine to medium grained; chloritized; calcite veinlets present but not abundant; some fault gouge - some at 30° to core axis with slickensides		

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. 64

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. 64 Sheet No. 6 of 12 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 498.04 m
Logged By Z. Rebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	at 70° to core axis		
267.80 - 301.75	QUARTZITE + LESSER METASILTSTONE		
	pale grey quartzite to medium to dark grey thick-bedded quartzite with lesser thinly-bedded metasiltstone; minor clasts of siltstone within quartzite; small quartz veins; 285.90 - 286.20 MARKER?; pale greenish vein-type and pervasive alteration; quartz veins with pyrrhotite, pyrite and chalcopyrite; pyrite on fractures; bedding at 35° to 45° to core axis; minor fault gouge and broken rock	400119	286.27 - 286.57m
		400120	287.88 - 287.94m
		400121	290.78 - 290.87
		400122	291.97 - 292.12 m
		400123	296.08 - 296.24m
		400124	297.18 - 297.24m
301.75 - 303.89	METAGABBRO - fine to medium-grained chloritic		
303.89 - 308.46	QUARTZITE - medium to pale grey; minor quartz veining with pyrite; pale greenish vein-type alteration; entire interval broken up - fault gouge		

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. G4

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G4 Sheet No. 7 of 12 Lot
Section Dep
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 498.04m
Logged By Z. Rebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
308.46-309.34	METAGABBRO - fine to medium grained, chloritic; minor calcite veinlets; fault zone		
309.34-310.90	QUARTZITE - pale greenish grey with dark green patches of chlorite; calcite veinlets common; trace of silvery mineral (galena? tetrahedrite? arsenopyrite; vein-type pale greenish alteration; fault zone entire interval; minor clear quartz veinlets; minor sphalerite	400125 400126	309.37-309.46m 309.68-309.77m
310.90-312.36	METAGABBRO - medium grained; chloritic; calcite and quartz veinlets		
312.36-317.30	QUARTZITE + LESSER METASILTSTONE pale to medium grey; Fe carbonate/calcite veinlets at 50° and perpendicular to core axis; clots of chlorite; pale greenish vein-type and pervasive alteration; bedding at 35° to core axis; gouge and broken rock		

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. 64

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. 64 Sheet No. 8 of 12 Lat. Total Depth 498.04 m
Section Dep Logged By Z. Rebic
Date Begun Bearing Claim Goat 2
Date Finished Elev. Collar Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
317.30-318.21	METAGABBRO - fine to medium grained chloritic; pyrite; fault gouge; fractures subparallel to core axis		
318.21-325.13	QUARTZITE + LESSER METASILTSTONE medium to pale grey; thick bedded interbedded with lesser metasiltstone; pervasive pale greenish alteration; spotted rocks look like hornfels; Fe carbonate and quartz veinlets; pyrite on fractures		
325.13-365.76	QUARTZITE INTERBEDDED WITH METASILTSTONE thick-bedded quartzites interbedded thinly to medium bedded metasiltstone; spotted intervals common (hornfels); pale greenish vein-type and pervasive alteration common; also Fe carbonate veinlets and associated alteration common; pyrrhotite, pyrite and trace chalcopyrite; quartz veinlets;	400127	329.79-329.85m
		400128	345.28-345.34m
		400129	356.95-357.10m
		400130	360.58-360.65m

DIAMOND DRILL RECORD

PROPERTY GOATFELL HOLE No. 64

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. 64 Sheet No. 9 of 12 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 498.04 m
Logged By Z. Rebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	pitch black spots rare; bedding at 45° - 60° to core axis; minor fault gouge; intervals of extremely broken sheared rock; Fe carbonate veining and alteration common; MARKERS at 326.44 - 326.54, 337.72 - 337.90, 342.75 - 342.95; some garnet in dark portions close to lower contact		
365.76 - 415.90	QUARTZITE INTERBEDDED WITH METASILTSTONE		
	pale grey thick-bedded quartzite interbedded with thinly to medium-bedded metasiltstone; Fe carbonate veining and alteration common; also vein-type pale greenish alteration; some garnet in dark areas; chlorite and calcite veinlets; trace of silvery metallic mineral within Fe carbonate; pyrrhotite, pyrite in quartz veins;	400131 400132	375.74 - 375.82 m 388.10 - 388.16 m

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G4

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G4 Sheet No. 10 of 12 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 498.04m
Logged By Z. Rebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	also disseminated pyrrhotite; minor black concretions; bedding at 45°-60° to core axis; some rip up and slumping; 60° shear with mylonite at lower contact		
415.90-448.00	METAWACKE TO QUARTZITE WITH LESSER METASILTSTONE - greenish grey to pale grey coarse sericitic metawacke with lesser finer metasiltstone; chloritic, sericitic alteration; extremely thick bedded metawacke; blebs of pyrrhotite and also in fractures; pyrite in quartz veinlets and fractures; vein-type pale greenish alteration toward lower contact within finer quartzite portions; uncommon quartz/calcite/Fe carbonate veinlets within shears; fault gauge and broken rock; soft	400133	438.30-438.49 m
		400134	439.22-439.61 m
		400135	439.61-439.89 m
		400136	441.08-441.23 m

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G4

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G4 Sheet No. 11 of 12 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 498.04m
Logged By Z. Rebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	sediment deformation and mylonitization; one inclusion of gabbro within mylonite		
448.00 - 476.09	QUARTZITE + LESSER METASILTSTONE medium to pale grey extremely thick-bedded with portions of laminated pyrrhotite; pyrite in fractures; locally contorted laminations; pyrrhotite blebs and streaks within darker areas; spaced out Fe. carbonate veinlets; vein-type and pervasive pale greenish alteration; bedding at 60° to core axis; foliation at 30° to core axis; rare tiny black concretions		
476.09 - 498.04	METASILTSTONE WITH LESSER QUARTZITE AND MINOR ARGILLITE pale grey with black argillite between 492.86 and 493.11 m; locally thinly bedded; pervasive pale		

DIAMOND DRILL RECORD

PROPERTY GOAT FELL HOLE No. G4

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. G4 Sheet No. 12 of 12 Lat.
Section Dep.
Date Begun Bearing
Date Finished Elev. Collar

Total Depth 498.04m
Logged By Z. Rebic
Claim Goat 2
Core Size HQ

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE
	alteration; sericitic; Fe carbonate veinlets; py in fractures; pyrrhotite as fracture fillings and blebs common; also disseminated pyrrhotite; minor shearing at 30°-45° to core axis; foliation at 50°; bedding at 60° to core axis		
	END OF HOLE @ 498.04m - hole abandoned because of jammed rods - rods left in the hole		

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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PHONE: 604-984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

A8925353

Comments: ATTN: MURRAY W. HITZMAN CC: EDMUNDS & ASSOCIATES

CERTIFICATE A8925353

CHEVRON CANADA RESOURCES LTD.

Project: M-586
P.O. # : 30635

Samples submitted to our lab in Vancouver, BC.
This report was printed on 24-SEP-89.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	220	Rock Geochem: Crush,split,ring

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
4	220	Pb ppm: HNO3-aqua regia digest	AAS-BKGD CORR	1	10000
5	220	Zn ppm: HNO3-aqua regia digest	AAS	1	10000
20	220	Hg ppb: HNO3-HCl digestion	AAS-FLAMELESS	10	100000

Chemex Labs Ltd.

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PHONE: 416-890-0310

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
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V6E 2E9

Invoice Date: 24-SEP-89
Invoice No. : I-8925353
P.O. Number : 30635

Project : M-586
Comments: ATTN: MURRAY W. HITZMAN CC: EDMUNDS & ASSOCIATES

CERTIFICATE OF ANALYSIS A8925353

SAMPLE DESCRIPTION	PREP CODE		Pb ppm	Zn ppm	Hg ppb
FRE89-081	205	205	7	35	10
FRE89-082	205	205	45	78	20
FRE89-083	205	205	55	39	20
FRE89-084	205	205	147	118	10
FRE89-085	205	205	6	61	10
FRE89-086	205	205	19	84	20
FRE89-087	205	205	2	110	20
FRE89-088	205	205	8	126	10
FRE89-089	205	205	2	49	10
FRE89-090	205	205	5	29	10
FRE89-091	205	205	6	62	10
FRE89-092	205	205	25	86	10
FRE89-093	205	205	28	77	10
FRE89-094	205	205	3	82	10
FRE89-095	205	205	4	39	10
FRE89-096	205	205	9	60	10
FRE89-097	205	205	5	70	10
FRE89-098	205	205	8	27	10
FRE89-099	205	205	2	37	10
FRE89-100	205	205	4	58	10
FRE89-101	205	205	56	67	10
FRE89-102	205	205	5	80	10
FRE89-103	205	205	9	53	10
FRE89-104	205	205	4	74	10
FRE89-105	205	205	7	50	10
FRE89-106	205	205	9	60	10
FRE89-107	205	205	33	56	10
FRE89-108	205	205	9	85	10
FRE89-109	205	205	9	51	10
FRE89-110	205	205	14	50	10
FRE89-111	205	205	17	105	10
FRE89-112	205	205	14	90	10
FRE89-113	205	205	10	45	10
FRE89-114	205	205	4	36	10
FRE89-115	205	205	7	37	10
FRE89-116	205	205	5	58	10
FRE89-117	205	205	4	53	10
FRE89-118	205	205	6	50	10
FRE89-119	205	205	5	94	10
FRE89-120	205	205	13	53	10

CERTIFICATION : Stan Bichler

Chemex Labs Ltd.

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Invoice Date: 24-SEP-89
Invoice No. : I-8925353
P.O. Number : 30635

Project : M-586
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CERTIFICATE OF ANALYSIS A8925353

SAMPLE DESCRIPTION	PREP CODE		Pb ppm	Zn ppm	Hg ppb
FRE89-001	205	205	4	107	10
FRE89-002	205	205	2	56	10
FRE89-003	205	205	2	72	10
FRE89-004	205	205	3	69	10
FRE89-005	205	205	9	61	10
FRE89-006	205	205	9	59	10
FRE89-007	205	205	10	86	10
FRE89-008	205	205	6	97	10
FRE89-009	205	205	22	89	10
FRE89-010	205	205	16	60	10
FRE89-011	205	205	4	55	10
FRE89-012	205	205	8	49	10
FRE89-013	205	205	4	42	10
FRE89-014	205	205	4	53	10
FRE89-015	205	205	4	45	10
FRE89-016	205	205	10	59	10
FRE89-017	205	205	7	65	10
FRE89-018	205	205	22	110	10
FRE89-019	205	205	5	81	10
FRE89-020	205	205	3	74	10
FRE89-021	205	205	2	70	10
FRE89-022	205	205	3	51	10
FRE89-023	205	205	100	186	10
FRE89-024	205	205	8	139	10
FRE89-025	205	205	2	88	10
FRE89-026	205	205	9	78	10
FRE89-027	205	205	17	76	10
FRE89-028	205	205	16	117	10
FRE89-029	205	205	2	61	10
FRE89-030	205	205	< 2	60	10
FRE89-031	205	205	6	54	10
FRE89-032	205	205	2	78	10
FRE89-033	205	205	6	67	10
FRE89-034	205	205	12	30	10
FRE89-035	205	205	4	77	10
FRE89-036	205	205	10	123	10
FRE89-037	205	205	4	72	10
FRE89-038	205	205	3	61	10
FRE89-039	205	205	72	86	10
FRE89-040	205	205	4	42	10

CERTIFICATION : Stewart Borchers

Chemex Labs Ltd.
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Comments: ATTN: MURRAY W. HITZMAN CC: EDMUNDS & ASSOCIATES

CERTIFICATE OF ANALYSIS A8925353

SAMPLE DESCRIPTION	PREP CODE		Pb ppm	Zn ppm	Hg ppb
FRE89-041	205	205	10	85	10
FRE89-042	205	205	12	110	20
FRE89-043	205	205	7	76	10
FRE89-044	205	205	7	78	10
FRE89-045	205	205	4	76	10
FRE89-046	205	205	9	40	10
FRE89-047	205	205	7	68	20
FRE89-048	205	205	16	100	10
FRE89-049	205	205	16	67	10
FRE89-050	205	205	18	53	10
FRE89-051	205	205	6	83	10
FRE89-052	205	205	5	78	10
FRE89-053	205	205	5	62	10
FRE89-054	205	205	5	55	10
FRE89-055	205	205	2	75	10
FRE89-056	205	205	5	52	10
FRE89-057	205	205	14	59	10
FRE89-058	205	205	9	73	10
FRE89-059	205	205	4	39	10
FRE89-060	205	205	14	51	10
FRE89-061	205	205	11	64	10
FRE89-062	205	205	18	65	10
FRE89-063	205	205	7	72	10
FRE89-064	205	205	7	68	10
FRE89-065	205	205	7	49	10
FRE89-066	205	205	2	48	10
FRE89-067	205	205	6	55	10
FRE89-068	205	205	7	70	10
FRE89-069	205	205	8	47	10
FRE89-070	205	205	11	58	10
FRE89-071	205	205	12	48	10
FRE89-072	205	205	2	56	10
FRE89-073	205	205	3	23	10
FRE89-074	205	205	10	90	10
FRE89-075	205	205	8	100	10
FRE89-076	205	205	17	72	10
FRE89-077	205	205	18	41	10
FRE89-078	205	205	60	43	20
FRE89-079	205	205	5	36	10
FRE89-080	205	205	18	52	10

CERTIFICATION : Stan Bichler

Chemex Labs Ltd.

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MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Total Pages : 6
Invoice Date: 24-SEP-89
Invoice No. : I-8925353
P.O. Number : 30635

Project : M-586
Comments: ATTN: MURRAY W. HITZMAN CC: EDMUNDS & ASSOCIATES

CERTIFICATE OF ANALYSIS A8925353

SAMPLE DESCRIPTION	PREP CODE		Pb ppm	Zn ppm	Hg ppb
FRE89-121	205	205	2	63	10
FRE89-122	205	205	10	71	10
FRE89-123	205	205	13	83	10
FRE89-124	205	205	12	46	10
FRE89-125	205	205	6	92	10
FRE89-126	205	205	3	95	10
FRE89-127	205	205	5	31	10
FRE89-128	205	205	7	46	10
FRE89-129	205	205	5	68	10
FRE89-130	205	205	8	53	10
FRE89-131	205	205	3	59	10
FRE89-132	205	205	8	56	10
FRE89-133	205	205	26	42	10
FRE89-134	205	205	3	66	10
FRE89-135	205	205	14	68	10
FRE89-136	205	205	15	68	10
FRE89-137	205	205	9	59	10
FRE89-138	205	205	4	53	10
FRE89-139	205	205	6	84	10
FRE89-139.1	205	205	27	11	20
FRE89-139.2	205	205	28	9	10
FRE89-139.3	205	205	36	14	10
FRE89-140	205	205	5	60	10
FRE89-141	205	205	5	36	10
FRE89-141.1	205	205	132	10	10
FRE89-141.2	205	205	17	24	10
FRE89-141.3	205	205	9	13	10
FRE89-142	205	205	19	10	10
FRE89-143	205	205	12	8	10
FRE89-143.1	205	205	16	38	10
FRE89-143.2	205	205	24	40	10
FRE89-143.3	205	205	7	31	10
FRE89-144	205	205	24	24	10
FRE89-145	205	205	23	44	10
FRE89-146	205	205	28	33	10
FRE89-147	205	205	5	25	10
FRE89-148	205	205	6	23	10
FRE89-149	205	205	7	37	10
FRE89-150	205	205	11	32	10
FRE89-151	205	205	7	62	10

CERTIFICATION : Stewart Bichler

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V6E 2E9

Invoice Date: 24-SEP-89
Invoice No. : I-8925353
P.O. Number : 30635

Project : M-586
Comments: ATTN: MURRAY W. HITZMAN CC: EDMUNDS & ASSOCIATES

CERTIFICATE OF ANALYSIS A8925353

SAMPLE DESCRIPTION	PREP CODE		Pb ppm	Zn ppm	Hg ppb							
FRE89-152	205	205	3	35	10							
FRE89-153	205	205	5	66	10							
FRE89-154	205	205	2	58	10							
FRE89-155	205	205	21	90	10							
FRE89-156	205	205	4	64	10							
FRE89-157	205	205	56	91	10							
FRE89-158	205	205	33	81	10							
FRE89-159	205	205	146	51	10							
FRE89-160	205	205	19	83	10							
FRE89-161	205	205	9	48	10							
FRE89-162	205	205	19	36	10							
FRE89-163	205	205	29	62	10							
FRE89-164	205	205	19	49	10							
FRE89-165	205	205	5	88	10							
FRE89-166	205	205	3	83	10							
FRE89-167	205	205	13	57	10							
FRE89-168	205	205	5	50	10							
FRE89-169	205	205	7	69	10							
FRE89-170	205	205	7	73	10							
FRE89-171	205	205	< 2	47	10							
FRE89-172	205	205	2	57	10							
FRE89-173	205	205	2	70	10							
FRE89-174	205	205	2	80	20							
FRE89-175	205	205	10	31	10							
FRE89-176	205	205	10	35	10							
FRE89-177	205	205	11	68	10							
FRE89-178	205	205	4	63	10							
FRE89-179	205	205	< 2	66	10							
FRE89-180	205	205	< 2	42	10							
FRE89-181	205	205	3	44	10							
FRE89-182	205	205	8	45	10							
FRE89-183	205	205	16	89	10							
FRE89-184	205	205	7	88	10							
FRE89-185	205	205	4	53	10							
FRE89-187	205	205	7	35	10							
FRE89-188	205	205	2	36	10							
FRE89-189	205	205	3	57	10							
FRE89-190	205	205	6	61	10							
FRE89-191	205	205	5	68	10							
FRE89-192	205	205	2	57	10							

CERTIFICATION : Ian Bichler

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VANCOUVER, B.C.
V6E 2E9

Invoice Date: 24-SEP-89
Invoice No. : I-8925353
P.O. Number : 30635

Project : M-586
Comments: ATTN: MURRAY W. HITZMAN CC: EDMUNDS & ASSOCIATES

CERTIFICATE OF ANALYSIS A8925353

SAMPLE DESCRIPTION	PREP CODE		Pb ppm	Zn ppm	Hg ppb							
E89-193	205	205	13	38	10							
E89-194	205	205	5	61	10							
E89-195	205	205	5	60	20							
E89-196	205	205	3	58	10							
E89-197	205	205	6	60	10							
E89-198	205	205	26	53	10							
E89-199	205	205	8	63	10							
E89-200	205	205	5	71	10							
E89-201	205	205	5	59	10							
E89-202	205	205	5	57	10							
E89-203	205	205	6	79	10							
E89-204	205	205	6	90	10							
E89-205	205	205	7	91	10							
E89-206	205	205	5	83	10							
E89-207	205	205	< 2	75	20							
E89-208	205	205	6	72	10							
E89-209	205	205	22	49	10							
E89-210	205	205	43	127	10							
E89-211	205	205	13	57	10							
E89-212	205	205	4	48	10							

CERTIFICATION : Stewart Bichler

APPENDIX VI

Summary of Rock Samples

SUMMARY OF ROCK SAMPLES

No.	Description
116403	spotted quartzite with low sulphides (G3 109.88m)
116404	quartz/calcite vein with pyrite (G3 143.41m)
116405	bleach metasiltstone with low sulphides (G3 203.00m)
116406	sheared metasiltstone and quartzite with a veinlet of red sphalerite (G3 385.57m)
116407	quartzite with disseminated and coarse pyrite (G3 413.77m)
116408	quartzite with quartz veins and 5% pyrite (G3 438.15m)
116409	brecciated quartzite and metasiltstone with coarse pyrite (G3 445.16m)
116410	quartz vein with coarse pyrite (G3 553.52m)
400101	thinly-bedded argillite (G3 392.28-392.46m)
400102	pyrite in bleached quartzite (G3 398.25-398.50m)
400103	pyrite in bleached quartzite (G3 401.42-401.70m)
400104	pyrite in brecciated quartzite (G3 402.49-402.73m)
400105	pyrite in bleached quartzite (G3 424.62-424.86m)
400106	quartz vein (DDH G3 434.64-434.92m)
400107	pyrite in bleached quartzite (G3 479.24-479.54m)
400108	crackled quartz breccia (G3 578.88-579.03m)
400109	quartzite with black concretions (G3 603.02-603.17m)
400110	pyrite in quartzite, quartz veinlet (G3 648.77-648.95m)
400111	tourmalinite from railway
400112	quartz vein with pyrrhotite (G4 151.21-152.00m)
400113	metawacke with quartz and tourmaline from tourmaline-sulphide zone on Sky claim
400114	metawacke with massive pyrite, disseminated arsenopyrite
400115	metawacke with minor disseminated arsenopyrite
400116	metawacke with minor disseminated arsenopyrite
400117	metawacke with no visible mineralization
400118	metawacke with no visible mineralization
400119	quartz vein with pyrite (G4 286.27-286.57m)
400120	pyritic quartz vein (G4 287.88-287.94m)
400121	quartzite with black spots and minor pyrite (G4 290.78-290.87m)

No.	Description
400122	hard black rock - tourmaline(?) (G4 291.97-292.12m)
400123	bleached quartzite (G4 296.08-296.24m)
400124	black hard lens of tourmaline(?) in quartzite (G4 297.18-297.24m)
400125	calcite veinlets within quartzite (G4 309.37-309.46m)
400126	minor calcite veinlets in quartzite (G4 309.68-309.77m)
400127	chalcopyrite in quartzite (G4 329.79-329.85m)
400128	fracture-controlled alteration in black quartzite (G4 345.28-345.34m)
400129	two centimetre pyritic quartz vein in quartzite (G4 356.95-357.10m)
400130	one centimetre Fe-carbonate vein in metasiltstone (G4 360.58-360.65m)
400131	dark quartzite - tourmaline(?) (G4 375.74-375.82m)
400132	grey metallic mineral in Fe-carbonate veinlet (G4 388.10-388.16m)
400133	sericitic metawacke with pyrite veinlets (G4 438.30-438.49m)
400134	sericitic metawacke with pyrite (G4 439.22-439.61m)
400135	sericitic metawacke with pyrite (G4 439.61-439.89m)
400136	sericitic metawacke with no visible mineralization (G4 441.08-441.23m)
400137	rusty boulder from Henrie Road
400138	rusty grab from old showing by Hazel Creek
400139	grab from old showing by Hazel creek
400140	pale green, chloritized metasiltstone
400141	pale greenish fracture-controlled alteration in quartzite
400142	quartzite with white mineral and garnets
400143	patchy pale greenish alteration in quartzite
400144	fracture-controlled alteration in quartzite
400145	metawacke with disseminated pyrite
400146	metawacke with disseminated pyrite
400147	metawacke with fracture-controlled alteration and minor blebs of pyrite

No.	Description
400148	metawacke with fracture-controlled alteration and blebs of pyrite
400149	metawacke with pyrite disseminated throughout
400150	quartzite with abundant disseminated and fracture-controlled pyrite
400151	metawacke with visible arsenopyrite and tourmaline
400152	metawacke with arsenopyrite in quartz veinlets, tourmaline
400153	metawacke with pyrite, arsenopyrite and tourmaline
400154	metawacke with arsenopyrite and tourmaline
400155	metawacke with quartz veinlets, arsenopyrite and tourmaline
400156	mesothermal quartz vein in pyrite
400157	mesothermal quartz vein
400158	mesothermal quartz vein

APPENDIX VII

Analytical Procedures

CHEMEX LABS LTD.

32 ELEMENT GEOCHEMISTRY PACKAGE - ICP-AES

Prepared sample (0.5g) is digested with concentrated nitric-aqua acid at medium heat for approximately 2 hours. The acid solution is diluted to 25 ml with demineralized water, mixed and analyzed on a Jarrell-Ash 1100 Plasma unit after calibration with proper standards.

Results are corrected for spectral interelement interferences.

*Al	0.01	%	*Cr	1	ppm	Mn	1	ppm	*Na	0.01	%
Sb	5	ppm	Co	1	ppm	Hg	1	ppm	*Sr	1	ppm
As	5	ppm	Cu	1	ppm	Mo	1	ppm	*Tl	10	ppm
*Ba	10	ppm	Fe	0.01	%	Ni	1	ppm	*Ti	0.01	%
*Be	0.5	ppm	*Ga	10	ppm	P	10	ppm	*W	10	ppm
Bi	2	ppm	*La	10	ppm	*K	0.01	%	U	10	ppm
Cd	0.5	ppm	Pb	2	ppm	Se	10	ppm	V	1	ppm
*Ca	0.01	%	*Mg	0.01	%	Ag	0.2	ppm	Zn	2	ppm

*Elements for which the digestion is possibly incomplete.

Gold FA-AA ppb:

A 10 gram sample is fused with a basic litharge flux inquarted with 10 mg of Au-free silver and then cupelled.

Beads for AA finish are digested for 1/2 hour in 1 ml HN03, then 3 ml HCl are added and digested for 1 hour. The samples are cooled and made to a volume of 10 ml, homogenized and run on the AAS with background correction.

Chemex Labs Ltd.

Analytical Chemists *Geochemists* *Registered Assayers*

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TR 9

Prepared sample (1.0 gram) is digested with concentrated nitric-aqua regia acid at medium heat for approximately two hours. The acid solution is diluted to 25 mls with demineralized water. The solution is analysed by inductively coupled plasma optical emission spectroscopy for the nine elements.

Detection limits:

Ag	0.5 ppm
Mn	5 ppm
Zn	2 ppm
Co	1 ppm
Mo	1 ppm
Cu	1 ppm
Ni	1 ppm
Fe	0.01%
Pb	5 ppm

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398 Gold (oz/T)

Gold analysis is carried out by standard fire assay techniques. In the sample preparation stage the screens are checked for metallics which, if present, are assayed separately and calculated into the results obtained from the pulp assay.
A 1/2 AT (15 g) sample is fused in litharge, carbonate and silicious fluxes. The lead button is cupelled to form a silver doré which is then digested by acids and analyzed by atomic absorption.

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ASSAY METHODS

Zn % :

A 2 gram sub-sample is digested in hot perchloric-nitric acid mixture for two hours, cooled, then transferred into a 250 ml volumetric flask. Nitric acid is added to the final sample and standard solutions. The solutions are then analyzed on an atomic absorption instrument.

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WHOLE ROCK ANALYSIS

A 0.1 g sample is added to 0.7 g of lithium metaborate flux, mixed well and fused in a furnace at 1050 degrees C. The bead is dissolved in 100 ml of 4 % HN03 and this solution is analyzed by inductively coupled plasma-atomic emission spectroscopy (ICP-AES).

APPENDIX VIII

Analytical Results

Soil Sample Analyses

Chemex Labs Ltd.
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MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Date :28-JUN-89
Invoice # :I-8918353
P.O. # :20632

CERTIFICATE OF ANALYSIS A8918353

SKY
GROUP
North Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1A 0W	217	298	< 0.5	10	20	2.33	825	< 1	17	10	108
1A 50W	217	298	< 0.5	10	22	2.28	490	< 1	16	20	76
1A 100W	217	298	< 0.5	15	34	2.72	730	< 1	19	20	72
1A 200W	217	298	< 0.5	10	19	2.29	520	< 1	15	15	84
1A 250W	217	298	< 0.5	9	16	2.23	1270	< 1	17	15	158
1A 300W	217	298	0.5	13	39	3.55	275	1	39	30	232
1A 350W	217	298	< 0.5	9	10	2.39	1330	< 1	13	15	196
1A 400W	217	298	0.5	14	10	2.63	1535	1	15	15	184
1B 0W	217	298	< 0.5	12	17	2.34	960	< 1	19	15	98
1B 50W	217	298	< 0.5	10	17	2.31	990	< 1	21	10	110
1B 100W	217	298	< 0.5	10	10	2.40	1005	< 1	19	10	110
1B 150W	217	298	< 0.5	12	11	2.54	3250	< 1	19	20	142
1B 200W	217	298	< 0.5	17	36	2.80	1700	2	27	30	126
1B 250W	217	298	< 0.5	12	12	2.41	2020	< 1	25	15	204
1B 300W	217	298	1.0	22	72	4.70	1110	1	43	55	138
1B 350W	217	298	< 0.5	20	49	4.42	930	2	36	50	140
1B 400W	217	298	< 0.5	10	14	2.36	400	< 1	18	15	104
1B 450W	217	298	0.5	7	12	1.75	440	< 1	13	15	90
1B 500W	217	298	0.5	9	17	2.09	390	< 1	18	15	110
1B 550W	217	298	< 0.5	7	20	2.31	315	< 1	18	15	98
1B 600W	217	298	0.5	14	16	2.61	2950	< 1	21	15	198
1B 650W	217	298	< 0.5	15	24	3.06	825	< 1	26	20	164
1C 0W	217	298	< 0.5	13	12	2.22	3770	< 1	25	20	292
1C 50W	217	298	< 0.5	12	9	2.61	2120	< 1	29	15	176
1C 100W	217	298	< 0.5	14	15	2.85	1525	< 1	35	25	166
1C 150W	217	298	1.0	17	16	2.55	6750	< 1	26	20	380
1C 200W	217	298	< 0.5	13	14	2.50	1955	< 1	34	20	184
1C 250W	217	298	< 0.5	11	11	2.88	1005	< 1	28	15	204
1C 300W	217	298	< 0.5	13	10	2.72	4050	1	20	20	268
1C 350W	217	298	< 0.5	13	22	2.90	1215	< 1	26	20	246
1C 400W	217	298	< 0.5	16	21	2.98	2220	1	31	25	302
1C 450W	217	298	< 0.5	13	19	2.76	1405	< 1	26	35	142
1C 500W	217	298	< 0.5	24	48	4.16	815	2	55	40	258
1C 600W	217	298	< 0.5	12	15	2.72	875	< 1	25	15	214
1C 650W	217	298	< 0.5	15	21	3.02	1625	< 1	26	20	184
1C 700W	217	298	< 0.5	17	22	3.46	1175	< 1	37	25	222
1C 750W	217	298	1.0	27	94	6.36	2310	3	56	75	142
1C 800W	217	298	< 0.5	15	28	3.18	1490	< 1	28	25	182
1C 850W	217	298	< 0.5	11	17	2.34	1905	< 1	18	15	152
1C 1200W	217	298	< 0.5	15	28	3.50	1095	< 1	29	20	188

CERTIFICATION : B. Caplin

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MINERALS STAFF
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V6E 2E9

Project : M586

Comments: ATTN: D YUSEP CC: M HITZMAN

Date : 28-JUN-89
Invoice # : I-8918353
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918353

Sky
GROUP

North Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1C 1250W	217	298	1.0	16	29	3.30	1030	1	31	30	192
1C 1300W	217	298	1.0	18	31	3.53	1260	1	30	25	166
1C 1350W	217	298	0.5	16	25	3.14	965	< 1	25	20	130
1D 650W	217	298	0.5	13	15	2.78	1555	< 1	24	15	246
1D 750W	217	298	0.5	15	12	2.44	2550	< 1	30	25	182
1D 800W	217	298	< 0.5	14	14	2.82	1330	< 1	20	15	112
1D 850W	217	298	0.5	12	27	2.54	1140	< 1	31	20	202
1D 900W	217	298	1.5	18	14	2.86	8110	1	33	35	270
1D 1000W	217	298	0.5	13	27	2.82	1295	< 1	24	25	158
1E 700W	217	298	1.0	14	20	1.94	3210	< 1	22	20	336
1E 750W	217	298	0.5	13	12	2.33	1800	< 1	20	15	140
1E 800W	217	298	1.0	16	33	3.21	865	< 1	33	35	190
1E 850W	217	298	0.5	13	10	2.17	3670	1	18	25	174
1E 900W	217	298	1.0	17	16	2.81	3840	1	35	30	186
1E 950W	217	298	0.5	13	24	2.70	1160	< 1	27	15	208
1E 1000W	217	298	0.5	13	17	2.64	1405	< 1	32	20	200
1E 1050W	217	298	1.0	11	9	2.34	1455	< 1	17	10	118
1E 1100W	217	298	0.5	10	26	2.57	1155	< 1	22	20	180
1E 1200W	217	298	0.5	12	26	2.75	625	< 1	23	25	96
1E 1250W	217	298	0.5	15	23	2.91	990	< 1	25	20	140
1E 1300W	217	298	0.5	14	23	2.90	1315	< 1	25	20	160
1F 750W	217	298	< 0.5	7	32	1.12	1035	< 1	8	70	274
1F 850W	217	298	0.5	12	13	2.23	1035	< 1	21	15	128
1F 900W	217	298	0.5	10	13	2.43	680	< 1	18	10	102
1F 950W	217	298	1.0	13	11	2.15	4600	< 1	22	20	316
1F 1000W	217	298	0.5	11	13	2.36	525	< 1	20	10	100
1F 1050W	217	298	1.0	13	15	2.62	3450	< 1	25	15	302
1F 1100W	217	298	0.5	12	17	2.74	985	< 1	22	15	130
1F 1150W	217	298	0.5	11	16	2.52	1290	< 1	19	15	160
1F 1200W	217	298	0.5	12	16	2.76	910	< 1	29	20	156
1F 1250W	217	298	1.0	12	37	2.60	490	< 1	31	20	174
1F 1400W	217	298	0.5	14	22	3.15	1705	< 1	27	25	190
1F 1450W	217	298	0.5	13	20	2.86	1585	1	24	25	180
1F 1500W	217	298	0.5	15	29	3.26	1355	< 1	27	25	164
1F 1550W	217	298	0.5	12	12	2.50	1890	< 1	19	15	170
1G 700W	217	298	1.0	17	23	3.31	1835	1	31	35	176
1G 750W	217	298	0.5	14	17	2.87	2560	< 1	32	20	222
1G 800W	217	298	1.0	13	37	2.50	655	< 1	32	20	136
1G 900W	217	298	0.5	12	14	2.80	765	< 1	25	15	136
1G 950W	217	298	< 0.5	9	13	2.68	705	< 1	18	10	110

CERTIFICATION : B. Caplan

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: D. YUSEP CC: M. HITZMAN

Date : 28-JUN-89
Invoice # : I-8918353
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918353

Sky
GROUP
North Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1G 1000W	217	298	0.5	12	21	2.39	910	< 1	23	20	138
1G 1050W	217	298	0.5	13	12	2.62	1690	< 1	26	35	186
1G 1200W	217	298	0.5	10	16	2.39	970	< 1	19	20	116
1G 1250W	217	298	0.5	10	21	2.59	500	< 1	19	15	102
1G 1300W	217	298	0.5	13	14	2.56	3220	< 1	23	25	286
1G 1350W	217	298	0.5	13	16	2.56	1935	1	19	20	160
1G 1400W	217	298	0.5	10	19	2.63	430	< 1	18	15	102
1G 1450W	217	298	0.5	11	16	2.58	1535	< 1	25	15	170
1G 1500W	217	298	0.5	11	19	2.80	665	< 1	24	20	178
1G 1550W	217	298	0.5	11	27	2.71	880	< 1	17	15	78
1G 1600W	217	298	< 0.5	10	24	2.81	475	< 1	20	15	96
1G 1650W	217	298	0.5	11	26	2.78	415	< 1	19	10	88
1G 1700W	217	298	0.5	10	14	2.52	2090	< 1	14	10	154
1H 650W	217	298	1.0	12	22	2.83	630	1	21	25	106
1H 700W	217	298	0.5	15	21	2.96	885	1	22	25	110
1H 750W	217	298	1.0	16	25	3.32	835	< 1	32	25	132
1H 800W	217	298	1.0	25	37	3.99	1050	1	36	55	190
1H 850W	217	298	1.0	29	31	3.82	1540	1	36	50	198
1H 900W	217	298	0.5	15	20	3.13	1635	< 1	35	25	260
1H 950W	217	298	1.0	25	38	3.67	850	1	42	35	200
1H 1000W	217	298	1.0	13	25	2.49	895	< 1	29	25	154
1H 1050W	217	298	0.5	11	21	2.65	785	1	19	30	118
1H 1100W	217	298	0.5	10	17	2.56	1075	< 1	20	30	106
1H 1150W	217	298	1.0	14	13	2.47	4270	< 1	23	25	326
1H 1200W	217	298	0.5	13	22	3.05	1095	1	22	20	124
1H 1250W	217	298	0.5	12	17	2.99	755	< 1	17	10	102
1H 1300W	217	298	0.5	10	14	2.55	890	< 1	17	15	86
1H 1350W	217	298	0.5	12	21	2.76	910	< 1	24	15	128
1H 1400W	217	298	0.5	10	19	2.43	435	< 1	18	10	96
1H 1450W	217	298	0.5	12	14	2.55	3120	< 1	19	15	170
1H 1600W	217	298	0.5	11	25	2.69	745	1	21	15	138
1H 1650W	217	298	0.5	12	21	2.73	710	< 1	21	10	136
1H 1700W	217	298	0.5	10	17	2.64	695	< 1	19	10	96
1H 1750W	217	298	< 0.5	10	17	2.71	550	< 1	18	10	92
1H 1800W	217	298	0.5	16	21	2.86	1750	< 1	17	15	110
1H 1850W	217	298	< 0.5	14	38	3.14	540	< 1	21	10	104
1H 1900W	217	298	0.5	12	14	2.58	1280	< 1	13	20	108
1H 1950W	217	298	< 0.5	13	29	2.82	770	< 1	17	15	76
1H 2000W	217	298	< 0.5	11	27	2.70	465	1	15	15	74
11 0W	217	298	0.5	15	17	2.56	1235	< 1	27	15	190

CERTIFICATION : B. Caché

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Date : 28-JUN-89
Invoice # : I-8918353
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918353

SKY
GROUP
North Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1I 50W	217	298	0.5	13	17	2.68	2010	< 1	31	15	254
1I 100W	217	298	1.5	116	54	3.65	1640	< 1	88	45	312
1I 150W	217	298	< 0.5	16	25	3.35	835	< 1	26	20	138
1I 200W	217	298	< 0.5	19	31	3.97	800	< 1	31	25	156
1I 250W	217	298	0.5	20	26	3.06	820	1	20	40	136
1I 300W	217	298	0.5	13	17	2.94	840	< 1	25	20	120
1I 350W	217	298	2.0	50	57	3.98	1250	< 1	59	45	190
1I 400W	217	298	0.5	21	29	3.56	1090	< 1	27	25	180
1I 450W	217	298	0.5	12	16	2.92	680	< 1	23	20	130
1I 500W	217	298	0.5	13	18	3.33	1970	< 1	23	20	156
1I 600W	217	298	0.5	10	15	2.47	1325	< 1	20	10	96
1I 650W	217	298	0.5	14	30	2.90	750	< 1	25	25	114
1I 700W	217	298	0.5	11	15	2.35	1465	< 1	22	20	164
1I 750W	217	298	0.5	10	12	2.46	820	< 1	21	10	112
1I 800W	217	298	0.5	11	11	2.55	1330	< 1	19	15	134
1I 850W	217	298	0.5	12	12	2.60	2810	< 1	23	20	242
1I 900W	217	298	1.0	48	53	4.80	1160	1	43	30	232
1I 950W	217	298	1.5	37	68	5.34	745	1	55	75	198
1I 1000W	217	298	1.0	35	33	4.12	810	< 1	32	40	212
1I 1100W	217	298	0.5	10	13	2.36	1530	< 1	19	25	138
1I 1150W	217	298	< 0.5	11	14	2.36	460	< 1	13	15	76
1I 1200W	217	298	0.5	10	17	2.32	550	< 1	18	15	102
1I 1250W	217	298	< 0.5	8	14	2.24	475	< 1	12	10	66
1I 1300W	217	298	< 0.5	11	17	2.47	860	< 1	13	10	74
1I 1350W	217	298	0.5	13	12	2.50	2010	< 1	20	15	148
1I 1400W	217	298	< 0.5	13	15	2.47	2360	< 1	23	5	174
1I 1450W	217	298	< 0.5	12	21	2.62	720	< 1	19	10	98
1I 1500W	217	298	0.5	15	22	2.82	2130	< 1	38	15	254
1I 1550W	217	298	< 0.5	14	33	3.08	1315	< 1	33	20	162
1I 1600W	217	298	< 0.5	16	33	3.11	505	< 1	35	20	154
1I 1750W	217	298	< 0.5	10	15	2.54	1180	< 1	15	10	94
1I 1800W	217	298	< 0.5	10	21	2.40	1425	< 1	11	15	74
1I 1850W	217	298	< 0.5	17	31	2.76	945	< 1	21	10	110
1I 1900W	217	298	< 0.5	14	20	2.86	975	< 1	19	15	108
1I 1950W	217	298	< 0.5	15	31	2.82	565	< 1	19	15	74
1I 2000W	217	298	< 0.5	11	25	2.53	490	< 1	16	15	70
1J 0W	217	298	0.5	19	12	2.35	1935	< 1	29	15	170
1J 50W	217	298	1.0	18	15	2.71	5360	< 1	32	10	242
1J 100W	217	298	< 0.5	10	20	2.74	755	< 1	18	10	104
1J 150W	217	298	0.5	13	22	2.56	2630	1	21	25	192

CERTIFICATION : B. Caplan

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Date : 28-JUN-89
Invoice # : I-8918353
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918353

SKY
GROUP
North Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1J 200W	217	298	< 0.5	21	36	3.28	1080	< 1	35	20	148
1J 250W	217	298	< 0.5	19	23	3.08	2000	< 1	35	20	214
1J 300W	217	298	< 0.5	12	18	2.97	1330	< 1	22	15	162
1J 350W	217	298	0.5	21	20	2.61	2600	< 1	34	15	324
1J 400W	217	298	0.5	14	14	2.55	2170	< 1	27	15	252
1J 450W	217	298	0.5	16	23	3.09	1780	< 1	30	25	180
1J 500W	217	298	< 0.5	19	34	3.91	640	< 1	35	15	174
1J 550W	217	298	< 0.5	46	31	4.50	1000	1	28	35	190
1J 600W	217	298	< 0.5	15	15	2.88	1215	< 1	27	10	156
1J 650W	217	298	< 0.5	14	25	3.61	1355	< 1	22	15	146
1J 700W	217	298	< 0.5	10	10	2.72	1040	< 1	18	5	102
1J 750W	217	298	< 0.5	10	16	2.77	705	< 1	18	10	72
1J 800W	217	298	< 0.5	12	10	2.47	640	< 1	23	10	82
1J 850W	217	298	< 0.5	10	11	2.46	770	< 1	19	10	118
1J 900W	217	298	1.0	19	40	3.00	1595	< 1	30	25	136
1J 950W	217	298	< 0.5	10	11	2.53	885	1	22	15	136
1J 1000W	217	298	< 0.5	13	15	3.01	1100	< 1	29	15	130
1J 1050W	217	298	< 0.5	13	25	2.86	500	< 1	26	30	114
1J 1100W	217	298	< 0.5	11	20	2.52	960	< 1	26	20	154
1J 1150W	217	298	< 0.5	12	11	2.34	1325	< 1	18	20	112
1J 1200W	217	298	< 0.5	11	15	2.37	1290	< 1	20	10	106
1J 1250W	217	298	< 0.5	13	27	2.69	830	< 1	21	15	104
1J 1300W	217	298	< 0.5	10	15	2.48	895	< 1	15	20	118
1J 1350W	217	298	< 0.5	11	17	2.73	935	< 1	16	15	128
1J 1400W	217	298	< 0.5	12	14	2.39	1965	< 1	19	10	158
1J 1450W	217	298	< 0.5	11	22	2.57	870	< 1	18	10	110
1J 1500W	217	298	< 0.5	11	55	2.60	355	1	24	15	104
1J 1550W	217	298	< 0.5	9	25	2.23	355	< 1	16	10	74
1J 1600W	217	298	< 0.5	11	32	2.75	2460	< 1	21	10	174
1J 1650W	217	298	< 0.5	9	16	2.56	840	< 1	20	5	104
1J 1700W	217	298	< 0.5	10	15	2.79	1700	1	23	15	210
1J 1750W	217	298	< 0.5	10	25	3.01	1075	1	19	10	122
1J 1800W	217	298	< 0.5	7	29	2.64	340	< 1	13	5	60
1K 0W	217	298	< 0.5	13	13	2.68	2190	< 1	24	15	210
1K 50W	217	298	< 0.5	12	18	2.93	3310	1	26	15	228
1K 100W	217	298	< 0.5	11	15	3.03	980	< 1	24	5	112
1K 150W	217	298	< 0.5	39	49	3.66	2410	< 1	20	15	218
1K 200W	217	298	< 0.5	34	45	2.96	755	< 1	27	15	134

CERTIFICATION : B. Cargill

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Date : 28-JUN-89
Invoice # : I-8918356
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918356

SKY GROUP
North Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1K 250W	217	298	< 0.5	19	27	1.96	4860	1	33	25	886
1K 300W	217	298	< 0.5	10	18	2.52	1160	< 1	22	15	156
1K 350W	217	298	< 0.5	14	22	2.72	740	< 1	21	10	114
1K 400W	217	298	< 0.5	12	16	2.87	2230	< 1	23	20	118
1K 450W	217	298	< 0.5	14	34	3.02	870	< 1	33	30	156
1K 500W	217	298	< 0.5	49	35	2.86	1465	1	29	35	144
1K 550W	217	298	< 0.5	23	28	3.53	1875	1	36	50	196
1K 600W	217	298	< 0.5	11	10	2.13	4280	< 1	18	20	290
1K 650W	217	298	< 0.5	7	18	2.53	1665	< 1	16	15	128
1K 700W	217	298	< 0.5	18	18	2.87	3800	1	33	20	234
1K 750W	217	298	< 0.5	12	16	2.47	595	< 1	15	15	76
1K 800W	217	298	< 0.5	6	15	2.67	500	< 1	12	15	80
1K 850W	217	298	< 0.5	9	13	2.67	1375	< 1	20	15	134
1K 900W	217	298	< 0.5	10	17	2.41	585	< 1	21	10	136
1K 950W	217	298	< 0.5	10	10	2.49	1770	< 1	17	15	124
1K 1000W	217	298	< 0.5	7	12	2.10	1715	< 1	14	15	122
1K 1050W	217	298	< 0.5	7	16	2.36	450	< 1	18	20	98
1K 1100W	217	298	< 0.5	9	13	2.61	1120	1	34	20	194
1K 1150W	217	298	< 0.5	8	20	2.26	675	< 1	18	10	86
1K 1200W	217	298	< 0.5	9	43	2.53	640	< 1	26	15	106
1K 1250W	217	298	< 0.5	10	15	2.53	795	< 1	18	10	120
1K 1300W	217	298	< 0.5	16	17	2.65	1445	< 1	23	5	216
1K 1350W	217	298	< 0.5	13	19	2.93	965	< 1	17	10	108
1K 1400W	217	298	< 0.5	10	16	2.67	1025	< 1	17	15	116
1K 1450W	217	298	< 0.5	8	16	2.13	705	< 1	19	5	116
1K 1500W	217	298	< 0.5	8	19	2.30	340	2	13	10	64
1K 1550W	217	298	< 0.5	7	16	2.25	325	1	12	10	70
1K 1600W	217	298	< 0.5	9	15	2.51	1340	< 1	19	10	144
1K 1650W	217	298	< 0.5	9	14	2.35	1815	< 1	20	5	128
1K 1700W	217	298	< 0.5	10	24	2.43	515	< 1	16	5	74
1K 1750W	217	298	< 0.5	7	33	2.63	315	< 1	13	10	58
1K 1800W	217	298	< 0.5	8	31	2.99	400	< 1	13	10	64
1K 1850W	217	298	< 0.5	9	38	2.82	315	< 1	14	10	62
1K 1900W	217	298	< 0.5	8	37	2.50	320	3	15	10	68
1K 1950W	217	298	< 0.5	8	23	2.38	315	1	13	10	54
1K 2000W	217	298	< 0.5	12	25	2.80	1535	< 1	18	10	138
1K 2100W	217	298	< 0.5	8	24	2.32	970	< 1	12	15	86
1K 2150W	217	298	< 0.5	9	21	2.90	650	< 1	17	5	90
1L 0W	217	298	< 0.5	12	22	3.01	2340	1	16	40	192
1L 50W	217	298	< 0.5	15	19	3.27	1470	< 1	19	15	154

CERTIFICATION : B. Caplin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D YUSEP CC: M HITZMAN

Date : 28-JUN-89
Invoice # : I-8918356
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918356

SKY
GROUP
North Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1L 100W	217	298	< 0.5	11	20	2.59	1000	< 1	20	10	100
1L 150W	217	298	< 0.5	15	32	2.79	1280	< 1	23	15	150
1L 200W	217	298	< 0.5	16	29	2.10	3530	3	18	20	722
1L 250W	217	298	< 0.5	13	24	2.62	1305	< 1	21	10	194
1L 300W	217	298	< 0.5	14	21	2.91	895	< 1	26	10	158
1L 350W	217	298	< 0.5	10	21	2.61	665	< 1	27	10	144
1L 400W	217	298	< 0.5	12	21	2.84	730	1	27	10	144
1L 450W	217	298	< 0.5	17	30	3.11	555	< 1	34	25	158
1L 500W	217	298	< 0.5	34	33	4.00	1645	1	30	40	188
1L 550W	217	298	< 0.5	13	26	2.35	740	< 1	28	10	148
1L 600W	217	298	< 0.5	11	13	2.18	2540	< 1	11	20	286
1L 650W	217	298	< 0.5	11	20	2.64	1130	< 1	23	15	242
1L 700W	217	298	< 0.5	6	12	2.48	875	< 1	15	5	84
1L 750W	217	298	< 0.5	8	10	2.28	2120	< 1	16	10	126
1L 800W	217	298	< 0.5	13	14	2.56	4320	1	23	15	248
1L 850W	217	298	< 0.5	12	30	2.36	1275	< 1	21	10	126
1L 900W	217	298	< 0.5	7	13	2.11	585	< 1	11	20	96
1L 950W	217	298	< 0.5	6	13	2.08	270	1	14	15	72
1L 1000W	217	298	< 0.5	8	21	2.25	305	< 1	15	15	86
1L 1050W	217	298	< 0.5	8	14	2.37	1200	1	17	15	134
1L 1100W	217	298	< 0.5	8	13	2.15	2450	1	18	20	134
1L 1150W	217	298	< 0.5	9	17	2.75	1295	1	19	20	144
1L 1200W	217	298	< 0.5	8	30	2.61	295	3	14	15	74
1L 1250W	217	298	< 0.5	14	27	2.62	900	< 1	20	20	128
1L 1300W	217	298	< 0.5	13	24	2.88	1210	< 1	20	20	134
1L 1350W	217	298	< 0.5	8	17	2.33	515	< 1	20	15	104
1L 1400W	217	298	< 0.5	8	17	2.65	840	< 1	17	20	122
1L 1450W	217	298	< 0.5	7	16	2.46	495	< 1	13	20	68
1L 1500W	217	298	< 0.5	5	22	2.31	220	2	10	20	52
1L 1550W	217	298	< 0.5	9	15	2.62	1005	< 1	18	15	110
1L 1600W	217	298	< 0.5	10	19	2.73	1520	1	30	20	122
1L 1650W	217	298	< 0.5	9	18	2.51	1030	< 1	21	15	100
1L 1700W	217	298	< 0.5	7	24	2.47	790	< 1	14	15	96
1L 1750W	217	298	< 0.5	7	29	2.51	275	2	12	10	56
1L 1800W	217	298	< 0.5	7	28	2.52	325	3	15	10	62
1L 1850W	217	298	< 0.5	8	23	2.49	275	2	14	10	56
1L 1900W	217	298	< 0.5	10	14	2.18	1200	< 1	13	10	82
1L 1950W	217	298	< 0.5	7	23	2.17	370	1	14	15	56
1L 2000W	217	298	< 0.5	7	12	2.36	2530	1	10	20	88
1L 2050W	217	298	< 0.5	9	28	2.43	1060	< 1	17	20	104

CERTIFICATION : B. Campbell

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Page No. : 3
Tot. Pages: 5
Date : 28-JUN-89
Invoice # : I-8918356
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918356

SKY GROUP
North Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1L 2100W	217	298	< 0.5	9	18	2.48	2070	1	16	10	130
1L 2150W	217	298	< 0.5	7	26	2.52	880	< 1	14	15	100
1M 0W	217	298	< 0.5	14	22	2.95	1010	< 1	34	15	208
1M 50W	217	298	< 0.5	21	24	3.01	1460	< 1	41	20	228
1M 100W	217	298	< 0.5	10	22	2.79	930	< 1	18	15	114
1M 150W	217	298	< 0.5	11	20	2.63	2030	< 1	19	20	124
1M 200W	217	298	< 0.5	14	26	2.92	1520	< 1	22	15	134
1M 250W	217	298	< 0.5	13	23	2.73	1555	< 1	20	25	146
1M 300W	217	298	< 0.5	13	24	2.97	1190	< 1	25	20	174
1M 350W	217	298	< 0.5	41	34	2.67	1340	< 1	36	35	278
1M 400W	217	298	< 0.5	23	29	3.18	1025	< 1	37	20	264
1M 450W	217	298	< 0.5	12	22	2.71	810	< 1	21	20	122
1M 500W	217	298	< 0.5	18	25	3.03	930	< 1	25	30	158
1M 550W	217	298	< 0.5	14	23	3.09	1695	< 1	24	25	190
1M 600W	217	298	< 0.5	10	24	1.87	2740	< 1	12	35	172
1M 650W	217	298	0.5	10	14	1.68	1660	< 1	11	20	200
1M 700W	217	298	< 0.5	11	18	2.51	2670	< 1	20	20	174
1M 750W	217	298	< 0.5	36	36	3.33	1115	< 1	33	45	168
1M 800W	217	298	< 0.5	25	34	3.50	1235	< 1	35	50	176
1M 850W	217	298	< 0.5	10	22	2.71	1335	< 1	21	20	184
1M 900W	217	298	< 0.5	15	10	2.16	1825	< 1	20	20	238
1M 950W	217	298	< 0.5	9	12	2.37	2260	< 1	20	15	144
1M 1000W	217	298	< 0.5	13	10	2.35	2740	< 1	23	30	186
1M 1050W	217	298	< 0.5	10	16	2.29	1610	< 1	18	25	142
1M 1100W	217	298	< 0.5	11	20	3.01	1165	< 1	23	35	138
1M 1150W	217	298	< 0.5	13	12	2.45	2100	< 1	23	15	162
1M 1200W	217	298	< 0.5	10	10	2.32	2440	3	16	25	142
1M 1250W	217	298	< 0.5	11	16	2.80	1675	< 1	20	25	154
1M 1300W	217	298	< 0.5	12	15	2.87	1295	< 1	15	10	124
1M 1350W	217	298	< 0.5	17	23	3.89	1045	< 1	15	10	110
1M 1400W	217	298	< 0.5	12	22	2.54	830	< 1	30	10	106
1M 1450W	217	298	< 0.5	9	16	2.56	695	< 1	18	15	104
1M 1500W	217	298	< 0.5	8	16	2.42	805	< 1	23	15	158
1M 1550W	217	298	< 0.5	13	15	2.42	1330	< 1	27	15	134
1M 1600W	217	298	< 0.5	9	16	2.49	830	< 1	16	10	120
1M 1650W	217	298	< 0.5	9	39	2.86	370	< 1	16	10	62
1M 1700W	217	298	< 0.5	10	37	3.08	320	< 1	16	10	64
1M 1750W	217	298	< 0.5	8	38	2.78	285	< 1	15	5	58
1M 1800W	217	298	< 0.5	8	33	2.84	310	< 1	14	10	58
1M 1850W	217	298	< 0.5	7	22	2.28	295	1	11	10	60

CERTIFICATION : B. Caufield

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Date 28-JUN-89
Invoice # I-8918356
P.O. # 30632

CERTIFICATE OF ANALYSIS A8918356

SKY GROUP North Sheet

GOAT CLAIMS South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
1M 1900W	217	298	< 0.5	8	20	2.43	420	< 1	12	5	62
1M 1950W	217	298	< 0.5	9	29	2.30	425	< 1	17	15	90
1M 2000W	217	298	< 0.5	9	17	2.15	810	< 1	14	10	62
1M 2050W	217	298	< 0.5	7	16	2.38	665	< 1	16	5	94
1M 2100W	217	298	< 0.5	9	20	2.80	780	< 1	15	10	104
1M 2150W	217	298	< 0.5	8	12	2.44	885	3	15	5	64
2A 0W	217	298	< 0.5	12	14	2.17	4130	< 1	17	20	108
2A 50W	217	298	< 0.5	8	15	2.16	740	< 1	14	10	112
2A 100W	217	298	< 0.5	11	11	2.31	1025	1	22	10	150
2A 150W	217	298	< 0.5	8	12	2.43	360	< 1	18	15	128
2A 200W	217	298	< 0.5	10	11	2.33	890	< 1	18	15	174
2A 250W	217	298	< 0.5	15	18	2.36	2900	< 1	20	30	128
2A 300W	217	298	< 0.5	11	12	2.26	2310	< 1	22	10	198
2A 350W	217	298	< 0.5	11	18	2.50	1240	< 1	24	10	182
2A 400W	217	298	< 0.5	9	14	2.62	975	< 1	18	15	142
2A 450W	217	298	< 0.5	10	10	2.47	1040	1	20	10	138
2A 500W	217	298	< 0.5	10	10	2.34	1080	< 1	19	15	134
2A 550W	217	298	< 0.5	12	14	2.36	1690	< 1	23	10	116
2A 600W	217	298	< 0.5	8	14	2.29	750	4	17	15	90
2A 650W	217	298	< 0.5	10	9	2.21	1270	< 1	18	10	144
2A 700W	217	298	< 0.5	31	36	3.63	>10000	3	46	65	234
2A 750W	217	298	< 0.5	9	13	2.30	480	< 1	20	5	100
2A 800W	217	298	< 0.5	6	16	2.39	235	< 1	13	10	64
2A 850W	217	298	< 0.5	8	14	2.12	765	1	23	10	188
2A 900W	217	298	< 0.5	9	21	2.43	915	< 1	17	15	82
2A 950W	217	298	< 0.5	10	14	2.67	330	1	24	20	128
2A 1000W	217	298	< 0.5	11	16	2.56	955	1	23	30	94
2A 1050W	217	298	< 0.5	8	13	2.18	780	< 1	16	15	108
2A 1100W	217	298	< 0.5	6	9	2.66	400	1	12	10	116
2A 1150W	217	298	< 0.5	7	17	2.22	385	3	14	10	64
2A 1200W	217	298	< 0.5	6	14	2.15	615	< 1	12	10	74
2A 1250W	217	298	< 0.5	7	14	2.06	335	2	14	5	64
2A 1300W	217	298	< 0.5	10	22	2.88	820	1	23	20	110
2A 1350W	217	298	< 0.5	3	5	1.48	155	< 1	7	5	38
2A 1400W	217	298	< 0.5	8	15	2.34	625	3	13	15	60
2B 0W	217	298	< 0.5	8	21	2.38	595	< 1	19	10	90
2B 50W	217	298	< 0.5	9	15	2.50	500	1	20	10	112
2B 100W	217	298	< 0.5	10	14	2.63	705	1	19	10	138
2B 150W	217	298	< 0.5	11	12	2.31	1950	< 1	16	10	118
2B 200W	217	298	0.5	9	12	2.38	715	1	18	10	164

CERTIFICATION : B. Caplin

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D YUSEP CC: M HITZMAN

Date 28-JUN-89
Invoice # I-8918356
P.O. # 30632

CERTIFICATE OF ANALYSIS A8918356

GOAT CLAIMS

South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2B 250W	217	298	< 0.5	8	13	2.28	770	< 1	19	10	154
2B 300W	217	298	< 0.5	14	19	2.73	1160	< 1	40	15	202
2B 350W	217	298	< 0.5	8	13	2.32	885	< 1	16	15	108
2B 400W	217	298	< 0.5	8	16	2.50	395	1	23	15	110
2B 450W	217	298	< 0.5	6	18	2.21	335	1	14	10	64
2B 500W	217	298	< 0.5	7	14	2.32	445	4	15	10	76
2B 550W	217	298	< 0.5	9	13	2.39	1025	< 1	17	20	118
2B 600W	217	298	0.5	16	42	3.59	540	2	62	45	150
2B 650W	217	298	< 0.5	6	11	2.07	240	< 1	13	20	62
2B 700W	217	298	< 0.5	9	10	2.03	1605	< 1	16	10	118
2B 750W	217	298	< 0.5	9	11	2.51	805	1	18	20	114
2B 800W	217	298	0.5	9	13	2.45	950	< 1	22	10	148
2B 850W	217	298	< 0.5	10	14	2.36	1045	1	23	20	154
2B 900W	217	298	< 0.5	8	15	2.31	880	3	17	10	104
2B 950W	217	298	< 0.5	8	14	2.13	790	< 1	15	10	104
2B 1000W	217	298	< 0.5	18	36	2.82	1630	1	24	50	82
2B 1050W	217	298	0.5	6	21	2.12	265	1	15	10	54
2B 1100W	217	298	< 0.5	9	12	2.32	1665	1	17	15	112
2B 1150W	217	298	< 0.5	8	8	2.07	2960	< 1	14	10	100
2B 1200W	217	298	< 0.5	9	10	2.67	1070	< 1	14	15	110
2B 1250W	217	298	< 0.5	6	8	2.17	925	< 1	11	5	82
2B 1300W	217	298	0.5	5	10	1.86	300	< 1	9	10	40
2B 1350W	217	298	< 0.5	8	9	2.20	945	< 1	17	< 5	100
2B 1400W	217	298	< 0.5	8	10	2.32	665	< 1	15	10	82
2C 0W	217	298	< 0.5	11	17	2.83	410	3	20	< 5	122
2C 50W	217	298	< 0.5	10	16	2.41	1850	3	17	< 5	158
2C 100W	217	298	0.5	13	16	2.74	830	3	25	< 5	152
2C 150W	217	298	< 0.5	14	18	2.79	555	< 1	28	5	180
2C 200W	217	298	< 0.5	14	205	2.77	2860	1	32	< 5	200
2C 250W	217	298	< 0.5	13	9	2.31	5940	< 1	22	10	248
2C 300W	217	298	< 0.5	10	11	2.25	915	< 1	20	5	134
2C 350W	217	298	< 0.5	10	14	2.11	1680	< 1	21	< 5	126
2C 400W	217	298	< 0.5	12	9	2.43	2150	< 1	21	< 5	166
2C 450W	217	298	< 0.5	12	13	2.54	1865	4	22	< 5	154
2C 500W	217	298	< 0.5	15	15	2.55	2520	< 1	24	5	248
2C 550W	217	298	< 0.5	12	15	2.59	360	< 1	21	15	110
2C 600W	217	298	< 0.5	14	15	2.96	1775	4	31	10	214
2C 650W	217	298	< 0.5	9	10	2.44	525	2	19	< 5	118
2C 700W	217	298	< 0.5	11	10	2.32	2690	3	18	< 5	138
2C 750W	217	298	< 0.5	11	16	2.56	1165	< 1	22	< 5	164

CERTIFICATION : B. Caplin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
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V6E 2E9
Project : M586
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Page No. :1
Tot. Pages :6
Date :28-JUN-89
Invoice # :I-8918363
P.O. # :30632

CERTIFICATE OF ANALYSIS A8918363

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2C 800W	217	298	< 0.5	10	12	2.32	720	< 1	19	20	134
2C 850W	217	298	< 0.5	14	16	2.24	2230	< 1	21	20	74
2C 900W	217	298	< 0.5	10	12	2.36	505	< 1	19	15	120
2C 950W	217	298	< 0.5	7	12	2.09	565	< 1	11	15	66
2C 1000W	217	298	< 0.5	17	28	2.51	720	4	28	15	134
2C 1050W	217	298	< 0.5	10	17	2.14	600	3	17	10	126
2C 1100W	217	298	< 0.5	9	10	2.51	520	< 1	15	20	104
2C 1150W	217	298	< 0.5	10	14	2.88	305	< 1	18	10	132
2C 1200W	217	298	< 0.5	8	17	2.24	405	< 1	13	15	50
2C 1250W	217	298	< 0.5	7	10	2.20	260	< 1	14	10	86
2C 1300W	217	298	< 0.5	8	13	2.30	1430	4	13	10	116
2C 1350W	217	298	< 0.5	9	16	2.57	1285	< 1	18	15	88
2C 1400W	217	298	< 0.5	9	8	2.27	890	< 1	14	5	102
2D 0W	217	298	< 0.5	9	13	2.44	1460	4	14	20	118
2D 50W	217	298	< 0.5	11	14	2.51	2680	< 1	17	15	166
2D 100W	217	298	< 0.5	17	26	3.26	2800	6	32	25	150
2D 150W	217	298	< 0.5	11	18	2.52	1150	< 1	25	20	144
2D 200W	217	298	< 0.5	9	15	2.38	225	< 1	17	10	108
2D 250W	217	298	< 0.5	11	16	2.24	1420	< 1	23	25	174
2D 300W	217	298	< 0.5	9	11	2.27	385	1	23	10	122
2D 350W	217	298	< 0.5	9	12	2.91	740	< 1	19	15	142
2D 400W	217	298	< 0.5	11	13	2.41	2380	4	19	10	240
2D 450W	217	298	< 0.5	8	12	2.20	1200	1	11	15	116
2D 500W	217	298	< 0.5	13	16	2.71	1005	< 1	24	15	170
2D 550W	217	298	< 0.5	9	11	2.61	715	< 1	16	10	128
2D 600W	217	298	< 0.5	9	14	2.33	760	< 1	18	10	116
2D 650W	217	298	< 0.5	8	8	2.42	1375	< 1	17	5	134
2D 700W	217	298	< 0.5	9	13	2.57	845	1	19	15	166
2D 750W	217	298	< 0.5	11	11	2.32	620	3	18	20	170
2D 800W	217	298	< 0.5	8	15	2.39	380	< 1	21	15	96
2D 850W	217	298	< 0.5	9	13	2.52	485	4	19	15	102
2D 900W	217	298	< 0.5	9	13	2.51	490	< 1	18	35	88
2D 950W	217	298	< 0.5	8	8	2.41	1360	< 1	16	15	106
2D 1000W	217	298	< 0.5	6	13	3.00	115	5	17	25	74
2D 1050W	217	298	< 0.5	8	12	2.21	2840	< 1	15	20	116
2D 1100W	217	298	< 0.5	6	8	2.16	825	< 1	12	15	98
2D 1150W	217	298	< 0.5	10	15	2.55	745	4	20	20	124
2D 1200W	217	298	< 0.5	9	9	2.36	1455	3	16	20	134
2D 1250W	217	298	< 0.5	10	12	2.23	1965	3	12	20	118
2D 1300W	217	298	< 0.5	8	15	2.11	825	3	15	10	102

CERTIFICATION : B. Caplin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
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To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
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V6E 2E9
Project : M586
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Date : 28-JUN-89
Invoice # : I-8918363
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918363

GOAT CLAIMS South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2D 1350W	217	298	< 0.5	9	11	2.32	905	< 1	17	10	116
2D 1400W	217	298	< 0.5	9	12	2.25	1395	< 1	18	10	114
2E 0W	217	298	< 0.5	14	22	2.58	640	< 1	32	10	150
2E 50W	217	298	< 0.5	13	15	2.66	965	< 1	32	15	164
2E 100W	217	298	< 0.5	15	14	2.66	2110	< 1	31	15	144
2E 150W	217	298	< 0.5	18	12	2.38	285	< 1	25	20	118
2E 200W	217	298	< 0.5	6	10	1.98	255	< 1	11	5	32
2E 250W	217	298	< 0.5	5	8	1.22	65	< 1	11	10	22
2E 300W	217	298	< 0.5	2	8	0.78	55	< 1	7	< 5	16
2E 450W	217	298	< 0.5	9	9	2.23	195	< 1	15	15	74
2E 500W	217	298	< 0.5	6	14	1.96	185	1	13	5	42
2E 550W	217	298	< 0.5	9	14	2.50	540	< 1	16	10	94
2E 600W	217	298	< 0.5	9	8	2.24	1195	1	9	10	102
2E 650W	217	298	< 0.5	12	18	2.94	275	4	34	25	100
2E 700W	217	298	< 0.5	5	9	1.91	230	< 1	12	10	58
2E 750W	217	298	< 0.5	14	23	3.15	1050	< 1	29	35	134
2E 800W	217	298	< 0.5	8	9	2.30	485	< 1	11	20	80
2E 850W	217	298	< 0.5	13	16	2.43	645	< 1	18	20	78
2E 900W	217	298	< 0.5	7	9	2.62	235	< 1	16	20	84
2E 950W	217	298	< 0.5	10	13	2.11	785	< 1	17	20	104
2E 1000W	217	298	< 0.5	9	15	2.39	395	< 1	18	5	68
2E 1050W	217	298	< 0.5	9	12	2.48	780	< 1	17	15	90
2E 1100W	217	298	< 0.5	11	10	2.55	1060	< 1	15	15	84
2E 1150W	217	298	< 0.5	10	9	2.31	1290	< 1	11	15	90
2E 1200W	217	298	< 0.5	9	9	2.40	890	< 1	12	20	80
2E 1250W	217	298	< 0.5	10	11	2.55	1330	< 1	19	10	110
2E 1300W	217	298	< 0.5	11	11	2.42	3330	< 1	19	10	128
2E 1350W	217	298	< 0.5	11	10	2.58	2520	4	14	30	128
2E 1400W	217	298	< 0.5	11	16	2.45	2860	4	17	10	114
2F 0W	217	298	< 0.5	12	13	2.28	3980	4	24	15	182
2F 50W	217	298	< 0.5	14	17	2.71	455	< 1	23	20	164
2F 100W	217	298	< 0.5	13	10	2.84	1140	2	23	20	168
2F 150W	217	298	< 0.5	17	12	2.38	2650	4	24	15	188
2F 200W	217	298	< 0.5	12	8	2.01	4680	< 1	11	20	124
2F 250W	217	298	< 0.5	16	10	2.60	1415	2	15	30	286
2F 300W	217	298	< 0.5	13	23	7.90	365	< 1	23	60	68
2F 350W	217	298	< 0.5	8	14	2.06	395	< 1	14	10	76
2F 400W	217	298	< 0.5	7	13	2.07	370	< 1	10	20	56
2F 450W	217	298	< 0.5	10	13	2.23	3760	< 1	15	20	158
2F 500W	217	298	< 0.5	10	10	2.50	1825	4	17	15	148

CERTIFICATION : B. Caplin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Date : 28-JUN-89
Invoice # : I-8918363
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918363

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2F 550W	217	298	< 0.5	11	15	2.90	645	< 1	18	25	104
2F 600W	217	298	< 0.5	8	10	2.77	585	< 1	14	10	124
2F 650W	217	298	< 0.5	11	12	2.66	320	< 1	17	10	84
2F 700W	217	298	< 0.5	5	7	1.94	895	1	11	15	72
2F 750W	217	298	< 0.5	41	69	2.92	2760	1	32	75	76
2F 800W	217	298	< 0.5	9	11	2.44	840	1	17	10	132
2F 850W	217	298	< 0.5	9	12	2.67	610	1	19	10	150
2F 900W	217	298	< 0.5	11	14	2.60	460	< 1	21	20	120
2F 950W	217	298	< 0.5	10	11	2.57	350	4	16	10	184
2F 1000W	217	298	< 0.5	8	7	2.19	620	< 1	14	10	158
2F 1050W	217	298	0.5	9	10	2.13	320	< 1	15	15	106
2F 1100W	217	298	0.5	8	8	1.98	805	< 1	13	< 5	106
2F 1150W	217	298	< 0.5	9	16	2.52	1280	< 1	16	15	104
2F 1200W	217	298	< 0.5	7	8	2.52	1235	1	14	15	122
2F 1250W	217	298	0.5	9	24	2.51	715	< 1	18	20	102
2F 1300W	217	298	< 0.5	7	10	2.34	1905	1	12	10	124
2F 1350W	217	298	< 0.5	10	18	2.63	810	< 1	17	5	120
2F 1400W	217	298	< 0.5	11	21	2.90	1055	1	17	10	94
2G 0W	217	298	< 0.5	11	12	2.67	1740	1	20	10	168
2G 50W	217	298	< 0.5	11	13	2.53	2790	1	17	20	182
2G 100W	217	298	< 0.5	13	8	2.00	915	< 1	15	5	138
2G 150W	217	298	< 0.5	13	11	2.45	1150	1	20	10	122
2G 200W	217	298	0.5	14	14	2.37	785	1	26	10	174
2G 250W	217	298	0.5	64	74	8.02	3970	3	72	75	242
2G 300W	217	298	< 0.5	10	11	2.21	3240	< 1	16	10	182
2G 350W	217	298	< 0.5	10	12	2.26	1480	1	18	10	128
2G 400W	217	298	< 0.5	10	11	2.65	435	< 1	18	15	96
2G 450W	217	298	< 0.5	10	7	2.77	620	< 1	14	10	130
2G 500W	217	298	< 0.5	8	19	2.32	445	< 1	19	5	114
2G 550W	217	298	< 0.5	8	15	2.38	780	1	16	15	96
2G 600W	217	298	< 0.5	8	8	2.26	625	1	11	10	140
2G 650W	217	298	< 0.5	8	11	2.64	375	1	10	10	110
2G 700W	217	298	0.5	12	64	3.92	915	3	42	40	96
2G 750W	217	298	< 0.5	7	14	2.38	345	< 1	16	15	116
2G 800W	217	298	< 0.5	5	11	2.11	190	2	11	10	46
2G 850W	217	298	< 0.5	8	11	2.52	960	< 1	12	5	102
2G 900W	217	298	< 0.5	9	11	2.37	615	1	15	15	142
2G 950W	217	298	< 0.5	9	12	2.17	1555	< 1	16	5	130
2G 1000W	217	298	< 0.5	10	14	2.44	920	< 1	16	10	94
2G 1050W	217	298	< 0.5	8	18	2.36	450	< 1	17	10	88

CERTIFICATION : B. Caplin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D YUSEP CC: M. HITZMAN

Date : 28-JUN-89
Invoice # : I-8918363
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918363

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2G 1100W	217	298	< 0.5	11	15	2.66	755	2	23	15	126
2G 1150W	217	298	< 0.5	8	14	2.15	2530	1	13	20	172
2G 1200W	217	298	< 0.5	10	13	2.29	3070	< 1	14	5	160
2G 1250W	217	298	< 0.5	10	9	2.45	6570	1	12	20	218
2G 1300W	217	298	< 0.5	7	9	2.51	420	1	13	10	92
2G 1350W	217	298	< 0.5	6	9	2.15	2410	< 1	9	15	106
2G 1400W	217	298	< 0.5	9	17	2.65	1575	1	16	10	116
2H 0W	217	298	< 0.5	14	16	2.95	965	1	27	15	192
2H 50W	217	298	< 0.5	11	11	2.32	2230	< 1	18	10	158
2H 100W	217	298	< 0.5	10	12	2.64	995	< 1	18	15	242
2H 150W	217	298	< 0.5	10	12	2.44	1570	1	27	15	192
2H 200W	217	298	< 0.5	8	15	2.71	915	< 1	16	15	126
2H 250W	217	298	< 0.5	9	17	2.61	1255	1	19	20	154
2H 300W	217	298	< 0.5	9	17	2.65	725	1	21	15	156
2H 350W	217	298	< 0.5	3	15	2.48	775	< 1	16	15	150
2H 400W	217	298	< 0.5	9	9	2.08	5840	1	14	10	212
2H 450W	217	298	< 0.5	5	13	1.95	1435	1	13	15	92
2H 500W	217	298	< 0.5	7	29	2.97	405	1	28	20	80
2H 550W	217	298	< 0.5	5	10	2.49	440	1	12	10	88
2H 600W	217	298	< 0.5	7	9	2.40	2080	1	12	10	112
2H 650W	217	298	< 0.5	7	12	2.43	740	1	14	5	120
2H 700W	217	298	< 0.5	9	12	2.41	3090	1	15	15	142
2H 750W	217	298	< 0.5	7	10	2.88	1415	1	15	15	100
2H 800W	217	298	< 0.5	8	13	2.71	2320	1	16	10	138
2H 850W	217	298	< 0.5	9	19	2.67	2710	1	11	10	170
2H 900W	217	298	< 0.5	8	11	2.29	1755	1	15	10	128
2H 950W	217	298	< 0.5	8	8	2.30	1325	1	14	5	132
2H 1000W	217	298	< 0.5	7	6	2.24	3270	1	12	15	124
2H 1050W	217	298	< 0.5	8	17	2.51	635	1	19	15	106
2H 1100W	217	298	< 0.5	7	10	2.58	1340	1	13	10	124
2H 1150W	217	298	< 0.5	8	9	2.79	1265	1	15	10	156
2H 1200W	217	298	< 0.5	10	20	3.12	435	2	17	20	128
2H 1250W	217	298	< 0.5	11	8	2.70	8790	2	15	15	218
2H 1300W	217	298	< 0.5	9	25	2.49	1125	2	17	15	112
2H 1350W	217	298	< 0.5	6	11	2.48	900	< 1	10	10	102
2H 1400W	217	298	< 0.5	6	16	2.48	830	< 1	12	10	78
2I 0W	217	298	< 0.5	7	8	2.51	1485	< 1	16	< 5	150
2I 50W	217	298	< 0.5	12	10	3.13	1050	< 1	25	15	196
2I 100W	217	298	< 0.5	7	9	2.42	455	< 1	14	10	114
2I 150W	217	298	< 0.5	22	51	4.54	2390	1	53	35	220

CERTIFICATION : B. Caplin

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D YUSEP CC: M HITZMAN

Date : 28-JUN-89
Invoice # : I-8918363
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918363

GOAT CLAIMS

South Sheet

SAMPLE DESCRIPTION	PREP CODE	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2I 200W	217 298	< 0.5	10	12	2.61	1755	< 1	18	15	136
2I 250W	217 298	< 0.5	8	14	2.47	920	< 1	21	10	108
2I 300W	217 298	< 0.5	8	9	2.18	1010	< 1	17	15	120
2I 350W	217 298	< 0.5	8	12	2.38	1485	1	18	10	112
2I 400W	217 298	< 0.5	8	16	2.41	375	< 1	15	10	68
2I 450W	217 298	< 0.5	4	12	2.22	225	2	9	10	56
2I 500W	217 298	< 0.5	7	13	2.17	1820	< 1	13	15	78
2I 550W	217 298	< 0.5	8	10	2.27	3320	1	15	10	132
2I 600W	217 298	< 0.5	9	15	2.47	1045	1	18	5	114
2I 650W	217 298	< 0.5	8	10	2.43	1260	1	18	10	100
2I 700W	217 298	< 0.5	9	8	2.73	1450	< 1	16	10	108
2I 750W	217 298	< 0.5	5	8	2.11	1630	< 1	11	10	78
2I 800W	217 298	< 0.5	9	19	2.77	605	1	19	10	78
2I 850W	217 298	< 0.5	13	26	3.31	670	1	19	15	96
2I 900W	217 298	< 0.5	9	14	2.28	2080	< 1	12	15	142
2I 950W	217 298	< 0.5	6	8	1.95	2460	< 1	8	15	118
2I 1000W	217 298	< 0.5	8	15	2.45	905	1	19	5	76
2I 1050W	217 298	< 0.5	9	19	2.43	1035	< 1	18	10	98
2I 1100W	217 298	< 0.5	9	14	2.66	935	< 1	20	15	134
2I 1150W	217 298	< 0.5	8	10	2.31	995	< 1	17	10	112
2I 1200W	217 298	< 0.5	15	22	3.11	965	< 1	25	25	146
2I 1250W	217 298	< 0.5	7	11	2.45	420	< 1	15	15	118
2I 1300W	217 298	< 0.5	8	16	2.70	275	< 1	14	15	78
2I 1350W	217 298	< 0.5	9	13	2.56	1700	1	17	10	170
2I 1400W	217 298	< 0.5	7	14	2.44	610	1	12	10	122
2J 0W	217 298	< 0.5	10	8	2.62	925	1	20	10	156
2J 50W	217 298	< 0.5	7	14	2.50	315	< 1	14	15	52
2J 100W	217 298	< 0.5	10	16	2.56	920	2	19	10	102
2J 150W	217 298	< 0.5	8	15	2.51	300	3	12	10	58
2J 200W	217 298	< 0.5	9	13	2.44	1210	1	18	5	100
2J 250W	217 298	< 0.5	9	10	2.18	1335	< 1	17	10	112
2J 300W	217 298	< 0.5	9	12	2.57	985	1	23	20	110
2J 350W	217 298	< 0.5	9	18	2.52	2540	1	19	10	128
2J 400W	217 298	< 0.5	9	12	2.32	1010	2	19	5	120
2J 450W	217 298	< 0.5	9	8	2.24	1560	1	13	5	144
2J 500W	217 298	< 0.5	8	9	2.41	610	< 1	17	10	96
2J 550W	217 298	< 0.5	9	11	2.36	1075	1	20	10	164
2J 600W	217 298	< 0.5	9	11	2.39	1675	< 1	21	10	128
2J 650W	217 298	< 0.5	8	13	2.30	895	1	19	5	96
2J 700W	217 298	< 0.5	9	10	2.47	930	< 1	18	10	92

CERTIFICATION : B. Caughlin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D. YUSEP CC: M. HITZMAN

Date : 28-JUN-89
Invoice # : I-8918363
P.O. # : 30632

CERTIFICATE OF ANALYSIS A8918363

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2J 750W	217	298	< 0.5	7	9	2.23	835	1	14	5	138
2J 800W	217	298	< 0.5	8	11	2.46	715	1	17	10	100
2J 850W	217	298	< 0.5	11	10	2.49	2600	< 1	15	10	142
2J 900W	217	298	< 0.5	10	15	2.43	940	< 1	23	10	124
2J 950W	217	298	< 0.5	12	16	1.99	6370	1	15	10	318
2J 1000W	217	298	< 0.5	9	14	2.40	605	1	19	10	86
2J 1050W	217	298	< 0.5	9	11	2.56	1030	1	19	10	98
2J 1100W	217	298	< 0.5	12	14	2.79	1235	1	22	10	148
2J 1150W	217	298	< 0.5	10	16	2.58	665	1	24	5	148
2J 1200W	217	298	< 0.5	11	15	2.45	1890	1	17	15	98
2J 1250W	217	298	< 0.5	13	32	2.82	1205	1	21	25	78
2J 1300W	217	298	< 0.5	8	19	2.66	315	1	18	5	64
2J 1350W	217	298	< 0.5	9	11	2.56	635	1	16	5	92
2J 1400W	217	298	< 0.5	7	12	2.69	370	1	18	5	82

CERTIFICATION : B. Caplin

GOAT
CLAIMS
South Sheet

Chemex Labs Ltd.
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212 BROOKSBANK AVE . NORTH VANCOUVER.
BRITISH COLUMBIA. CANADA V7J-2C1
PHONE (604) 984-0221

To : CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: D YUSEP CC: M HITZMAN

Date : 16-JUL-80
Invoice # : I-8919880
P.O. # : 30631

CERTIFICATE OF ANALYSIS A8919880

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2K 0000W	217	298	1.0	27	35	4.10	2800	1	42	45	166
2K 0050W	217	298	0.5	13	25	2.29	620	< 1	32	10	168
2K 0100W	217	298	< 0.5	11	22	2.49	505	<< 1	17	10	78
2K 0150W	217	298	< 0.5	10	13	2.81	830	< 1	16	15	114
2K 0200W	217	298	0.5	12	14	2.82	1715	1	19	20	142
2K 0250W	217	298	< 0.5	10	10	2.32	1165	< 1	19	20	102
2K 0300W	217	298	0.5	9	11	2.22	1890	< 1	16	15	114
2K 0350W	217	298	0.5	9	9	2.04	1345	1	13	15	108
2K 0400W	217	298	0.5	11	9	2.06	3290	< 1	15	20	146
2K 0450W	217	298	0.5	9	12	2.40	755	1	20	10	124
2K 0500W	217	298	0.5	11	12	2.42	865	<< 1	22	10	100
2K 0550W	217	298	0.5	9	10	2.10	2030	<< 1	13	15	110
2K 0600W	217	298	0.5	11	12	2.37	930	<< 1	20	10	156
2K 0650W	217	298	0.5	10	10	2.24	1335	1	18	15	88
2K 0700W	217	298	0.5	9	11	2.28	1270	< 1	17	10	90
2K 0750W	217	298	0.5	11	10	2.21	3110	1	12	20	150
2K 0800W	217	298	< 0.5	11	11	2.39	1330	<< 1	18	15	140
2K 0850W	217	298	0.5	13	13	2.76	745	<< 1	21	5	170
2K 0900W	217	298	<< 0.5	20	19	3.54	1260	1	30	25	278
2K 0950W	217	298	< 0.5	12	32	2.91	455	< 1	24	20	82
2K 1000W	217	298	0.5	13	17	2.55	795	<< 1	18	20	72
2K 1050W	217	298	0.5	13	17	2.42	415	< 1	18	20	70
2K 1100W	217	298	0.5	14	24	2.69	960	2	22	25	86
2K 1150W	217	298	0.5	10	13	2.46	1210	< 1	16	15	126
2K 1200W	217	298	0.5	11	11	2.69	575	1	14	15	100
2K 1250W	217	298	0.5	10	17	2.34	345	< 1	18	10	70
2K 1300W	217	298	<< 0.5	10	14	2.45	280	1	16	10	68
2K 1350W	217	298	<< 0.5	9	27	2.60	295	1	10	10	94
2K 1400W	217	298	< 0.5	11	15	2.39	930	< 1	16	10	114
2L 0000W	217	298	0.5	11	12	2.50	545	< 1	20	10	114
2L 0050W	217	298	0.5	12	26	3.07	1120	< 1	23	15	70
2L 0100W	217	298	0.5	10	11	2.44	700	<< 1	18	10	108
2L 0150W	217	298	0.5	10	8	2.46	1025	<< 1	18	10	126
2L 0200W	217	298	0.5	11	18	2.45	620	< 1	18	15	84
2L 0250W	217	298	0.5	10	16	2.33	600	1	17	10	80
2L 0300W	217	298	0.5	10	14	2.55	605	< 1	16	10	74
2L 0350W	217	298	0.5	12	12	2.34	2640	1	19	10	152
2L 0400W	217	298	0.5	8	8	2.06	1610	< 1	13	10	118
2L 0450W	217	298	0.5	9	11	2.50	965	1	16	10	146
2L 0500W	217	298	0.5	12	12	2.68	940	1	19	15	132

CERTIFICATION : B. Caplan

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To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
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V6E 2E9
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Date : 16-JUL-89
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CERTIFICATE OF ANALYSIS A8919880

GOAT CLAIMS South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2L 0550W	217	298	< 0.5	10	17	2.31	640	< 1	20	10	126
2L 0600W	217	298	< 0.5	11	13	2.34	1505	< 1	18	10	90
2L 0650W	217	298	< 0.5	11	23	2.40	700	< 1	17	15	88
2L 0700W	217	298	0.5	10	10	2.45	1005	1	16	10	134
2L 0750W	217	298	0.5	11	8	2.35	2580	1	16	15	156
2L 0800W	217	298	0.5	11	15	2.56	675	< 1	21	5	124
2L 0850W	217	298	0.5	13	19	2.81	675	1	25	15	134
2L 0900W	217	298	< 0.5	10	10	2.31	740	< 1	18	10	116
2L 0950W	217	298	< 0.5	8	7	2.45	420	< 1	12	10	148
2L 1000W	217	298	< 0.5	10	8	2.27	700	1	14	15	106
2L 1050W	217	298	< 0.5	10	9	2.41	1160	< 1	18	10	108
2L 1100W	217	298	< 0.5	6	7	1.52	495	< 1	11	5	66
2L 1150W	217	298	0.5	11	13	2.64	810	1	20	10	106
2L 1200W	217	298	0.5	12	10	2.42	860	< 1	16	10	120
2L 1250W	217	298	< 0.5	12	14	3.70	350	1	13	15	170
2L 1300W	217	298	< 0.5	10	24	2.10	1385	1	7	15	132
2L 1350W	217	298	< 0.5	20	74	4.03	2060	< 1	23	15	108
2L 1400W	217	298	< 0.5	14	30	3.04	635	< 1	22	10	88
2M 0000W	217	298	0.5	11	13	2.44	840	1	20	10	124
2M 0050W	217	298	< 0.5	10	13	2.42	1010	< 1	21	10	110
2M 0100W	217	298	0.5	9	8	2.01	2800	< 1	15	5	108
2M 0150W	217	298	0.5	11	9	2.59	2260	1	18	5	124
2M 0200W	217	298	< 0.5	8	7	2.09	940	< 1	11	5	92
2M 0250W	217	298	< 0.5	11	12	2.39	1845	1	20	5	136
2M 0300W	217	298	< 0.5	10	13	2.25	1895	< 1	18	< 5	130
2M 0350W	217	298	< 0.5	11	18	2.39	625	< 1	21	5	96
2M 0400W	217	298	< 0.5	11	11	2.35	1130	< 1	18	5	104
2M 0450W	217	298	< 0.5	10	12	2.25	815	1	17	< 5	72
2M 0500W	217	298	< 0.5	10	12	2.37	780	< 1	16	5	82
2M 0550W	217	298	< 0.5	11	9	2.42	1970	1	18	15	120
2M 0600W	217	298	< 0.5	11	17	2.55	995	1	22	5	126
2M 0650W	217	298	0.5	11	15	2.58	715	1	24	5	130
2M 0700W	217	298	< 0.5	10	15	2.59	660	< 1	18	5	82
2M 0750W	217	298	0.5	10	11	2.64	1160	1	15	5	104
2M 0800W	217	298	< 0.5	10	8	2.85	360	< 1	17	5	122
2M 0850W	217	298	< 0.5	9	9	2.36	1300	< 1	14	< 5	114
2M 0900W	217	298	0.5	12	10	2.52	1170	1	17	< 5	146
2M 0950W	217	298	0.5	11	10	2.64	1020	< 1	20	< 5	142
2M 1000W	217	298	1.0	10	9	2.21	3540	< 1	14	5	140
2M 1050W	217	298	0.5	11	10	2.39	2410	1	20	5	162

CERTIFICATION : B. Caughlin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE . NORTH VANCOUVER,
BRITISH COLUMBIA. CANADA V7J-2C1
PHONE (604) 984-0221

To : CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D YUSEP CC: M. HITZMAN

Date 16-JUL-89
Invoice # I-8919880
P.O. # 30631

CERTIFICATE OF ANALYSIS A8919880

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2M 1100W	217	298	0.5	9	10	2.16	2480	< 1	20	5	110
2M 1150W	217	298	1.5	11	12	2.32	5640	< 1	21	5	172
2M 1200W	217	298	< 0.5	11	11	2.53	1370	< 1	19	5	104
2M 1250W	217	298	< 0.5	25	62	6.26	900	< 1	11	< 5	126
2M 1300W	217	298	< 0.5	26	32	7.04	875	< 1	7	< 5	124
2M 1350W	217	298	< 0.5	18	72	4.04	820	1	24	< 5	136
2M 1400W	217	298	< 0.5	9	13	2.64	730	1	17	< 5	128
2N 0000W	217	298	0.5	11	12	2.54	1035	1	20	< 5	128
2N 0050W	217	298	0.5	7	9	1.93	2200	< 1	12	10	80
2N 0100W	217	298	0.5	9	8	2.27	2200	< 1	16	< 5	120
2N 0150W	217	298	1.0	11	9	2.07	4460	< 1	21	5	180
2N 0200W	217	298	0.5	9	9	2.03	1710	< 1	17	< 5	132
2N 0250W	217	298	1.0	10	12	2.23	4070	< 1	15	< 5	110
2N 0300W	217	298	< 0.5	9	15	2.18	270	< 1	13	< 5	48
2N 0350W	217	298	1.5	13	11	2.27	6010	< 1	18	20	176
2N 0400W	217	298	1.0	11	11	2.39	2770	1	17	5	186
2N 0450W	217	298	0.5	11	13	2.37	1120	< 1	22	5	114
2N 0500W	217	298	0.5	9	7	2.09	1670	< 1	14	5	84
2N 0550W	217	298	1.0	13	18	2.70	2580	1	23	10	144
2N 0600W	217	298	0.5	10	10	2.22	1700	1	23	5	128
2N 0650W	217	298	1.0	8	9	1.75	3780	1	12	5	138
2N 0700W	217	298	0.5	10	16	2.39	2130	< 1	23	5	100
2N 0750W	217	298	1.0	12	11	2.33	3330	1	18	< 5	160
2N 0800W	217	298	0.5	8	7	2.13	895	< 1	13	5	122
2N 0850W	217	298	0.5	8	10	1.94	1380	< 1	14	5	92
2N 0900W	217	298	< 0.5	9	11	2.11	345	< 1	17	< 5	98
2N 0950W	217	298	< 0.5	8	9	2.52	630	1	15	15	140
2N 1000W	217	298	0.5	9	10	2.40	1650	< 1	16	< 5	146
2N 1050W	217	298	1.5	14	16	2.29	9150	1	13	10	230
2N 1100W	217	298	0.5	9	9	2.13	1955	< 1	13	5	126
2N 1150W	217	298	1.0	9	8	2.22	3540	1	14	5	122
2N 1200W	217	298	< 0.5	10	13	2.51	1145	< 1	18	10	94
2N 1250W	217	298	0.5	9	12	2.31	1325	< 1	19	30	156
2N 1300W	217	298	0.5	15	22	5.26	2590	1	8	< 5	168
2N 1350W	217	298	0.5	11	19	2.73	1085	< 1	16	5	82
2N 1400W	217	298	< 0.5	11	15	2.47	2690	< 1	18	15	158
2O 0000W	217	298	< 0.5	9	15	2.19	490	< 1	15	< 5	64
2O 0050W	217	298	1.5	10	7	1.67	8280	1	10	10	158
2O 0100W	217	298	1.0	9	10	2.26	1280	< 1	22	5	102
2O 0150W	217	298	0.5	9	14	2.38	360	1	17	5	68

CERTIFICATION : B. Caufield

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D YUSEP CC: M HITZMAN

Date : 16-JUL-89
Invoice # : I-8919880
P.O. # : 30631

CERTIFICATE OF ANALYSIS A8919880

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2O 0200W	217	298	1.0	9	12	2.37	780	< 1	15	5	110
2O 0250W	217	298	0.5	9	12	2.29	1440	< 1	19	5	106
2O 0300W	217	298	0.5	10	13	2.48	1020	1	19	5	98
2O 0350W	217	298	1.5	12	15	2.47	2850	< 1	22	5	144
2O 0400W	217	298	1.0	11	11	2.62	1050	< 1	22	5	162
2O 0450W	217	298	0.5	11	17	2.53	445	< 1	23	5	100
2O 0500W	217	298	0.5	9	12	2.52	720	< 1	21	< 5	122
2O 0550W	217	298	0.5	10	13	2.55	1160	1	25	5	164
2O 0600W	217	298	1.0	10	14	2.43	1610	1	26	< 5	124
2O 0650W	217	298	0.5	10	14	2.54	475	< 1	20	5	92
2O 0700W	217	298	1.0	10	13	2.60	500	< 1	24	< 5	120
2O 0750W	217	298	0.5	11	14	2.50	1640	1	21	10	132
2O 0800W	217	298	0.5	11	14	2.50	1140	< 1	19	10	108
2O 0850W	217	298	0.5	11	13	2.57	830	< 1	17	15	224
2O 0900W	217	298	< 0.5	7	10	2.36	285	< 1	13	5	84
2O 0950W	217	298	< 0.5	15	32	3.21	570	< 1	21	20	78
2O 1000W	217	298	0.5	10	20	2.40	440	< 1	15	5	62
2O 1050W	217	298	0.5	9	23	2.31	475	< 1	17	45	512
2O 1100W	217	298	0.5	12	25	2.65	455	< 1	20	185	264
2O 1150W	217	298	< 0.5	11	20	2.47	480	< 1	15	10	60
2O 1200W	217	298	< 0.5	7	13	2.37	235	1	14	5	50
2O 1250W	217	298	0.5	14	62	3.86	315	1	28	10	140
2O 1300W	217	298	0.5	20	65	5.30	1275	< 1	17	< 5	110
2O 1350W	217	298	0.5	11	31	2.78	600	< 1	15	5	70
2O 1400W	217	298	0.5	14	40	2.97	885	< 1	21	< 5	138
2P 0000W	217	298	0.5	9	7	2.11	1880	< 1	15	5	124
2P 0050W	217	298	1.0	9	11	2.26	2040	< 1	23	5	140
2P 0100W	217	298	1.0	9	8	2.03	2680	< 1	19	5	104
2P 0150W	217	298	1.0	9	5	2.03	4020	1	10	5	84
2P 0200W	217	298	0.5	10	7	2.13	2430	1	18	5	126
2P 0250W	217	298	0.5	11	11	2.30	2020	< 1	18	< 5	98
2P 0300W	217	298	0.5	11	15	2.49	945	< 1	20	< 5	80
2P 0350W	217	298	0.5	10	12	2.25	1840	< 1	18	5	94
2P 0400W	217	298	0.5	10	15	2.39	845	< 1	20	5	102
2P 0450W	217	298	0.5	10	16	2.27	1910	2	19	5	100
2P 0500W	217	298	0.5	11	19	2.53	890	< 1	24	< 5	122
2P 0550W	217	298	0.5	10	7	2.18	2480	1	20	5	130
2P 0600W	217	298	0.5	9	8	2.37	1520	< 1	18	5	120
2P 0650W	217	298	0.5	9	10	2.29	1660	< 1	19	15	98
2P 0700W	217	298	0.5	10	8	2.32	2200	< 1	18	10	144

GOAT
CLAIMS
South Sheet

CERTIFICATION : B. Caughlin

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Date 16-JUL-89
Invoice # I-8919880
P.O. # 30631

CERTIFICATE OF ANALYSIS A8919880

GOAT CLAIMS South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2P 0750W	217	298	< 0.5	7	9	2.23	1915	< 1	18	20	130
2P 0800W	217	298	< 0.5	10	18	2.58	895	1	22	25	122
2P 0850W	217	298	< 0.5	11	23	2.70	720	1	27	15	186
2P 0900W	217	298	< 0.5	10	22	2.66	530	< 1	23	10	110
2P 0950W	217	298	< 0.5	10	21	2.70	965	1	23	15	208
2P 1000W	217	298	< 0.5	10	15	2.45	1570	< 1	19	15	182
2P 1050W	217	298	< 0.5	9	21	2.38	265	1	17	15	90
2P 1100W	217	298	< 0.5	11	28	2.92	615	< 1	18	25	136
2P 1150W	217	298	< 0.5	7	27	2.61	345	< 1	13	30	178
2P 1200W	217	298	< 0.5	13	15	2.65	1885	1	18	20	196
2P 1250W	217	298	0.5	15	34	3.69	1125	1	19	20	124
2P 1300W	217	298	0.5	15	41	3.91	1105	1	20	15	118
2P 1350W	217	298	0.5	9	17	2.33	545	< 1	15	10	86
2P 1400W	217	298	0.5	9	19	2.23	1145	1	12	5	126
2Q 0000W	217	298	< 0.5	8	19	2.08	405	< 1	13	25	206
2Q 0050W	217	298	< 0.5	9	20	2.08	410	1	13	20	68
2Q 0100W	217	298	1.0	9	9	1.87	3370	1	13	15	122
2Q 0150W	217	298	1.0	10	11	2.13	3010	1	15	10	136
2Q 0200W	217	298	0.5	10	11	2.41	2020	< 1	16	10	106
2Q 0250W	217	298	0.5	9	11	2.53	755	1	20	10	120
2Q 0300W	217	298	1.0	8	11	2.06	1515	1	17	15	106
2Q 0350W	217	298	0.5	9	12	2.31	1090	< 1	18	10	112
2Q 0400W	217	298	0.5	8	10	2.17	1465	1	16	10	126
2Q 0450W	217	298	0.5	8	10	2.23	1515	< 1	12	10	120
2Q 0500W	217	298	0.5	9	17	2.32	490	1	18	5	120
2Q 0550W	217	298	0.5	8	9	2.32	1415	< 1	11	10	120
2Q 0600W	217	298	1.0	9	15	2.32	845	1	19	10	78
2Q 0650W	217	298	1.0	7	12	2.31	1005	1	15	10	126
2Q 0700W	217	298	0.5	8	7	2.20	1800	< 1	16	10	122
2Q 0750W	217	298	0.5	9	8	2.39	2530	1	26	15	110
2Q 0800W	217	298	< 0.5	13	25	3.26	420	1	22	40	84
2Q 0850W	217	298	0.5	17	34	3.43	635	1	23	30	138
2Q 0900W	217	298	0.5	11	15	2.48	1185	< 1	28	20	152
2Q 0950W	217	298	0.5	11	11	2.47	1125	1	16	15	104
2Q 1000W	217	298	0.5	11	13	2.33	325	1	16	15	68
2Q 1050W	217	298	< 0.5	11	13	2.53	2020	1	16	15	96
2Q 1100W	217	298	< 0.5	9	23	2.58	380	< 1	15	20	78
2Q 1150W	217	298	0.5	9	11	2.25	1205	1	15	15	128
2Q 1200W	217	298	0.5	10	10	2.67	1275	1	17	15	104
2Q 1250W	217	298	0.5	9	11	2.73	485	1	14	10	90

CERTIFICATION : B. Caughlin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: D. YUSEP CC: M. HITZMAN

Page No. : 6
Tot. Pages: 6
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CERTIFICATE OF ANALYSIS A8919880

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2Q 1300W	217	298	< 0.5	13	32	3.21	790	< 1	15	10	76
2Q 1350W	217	298	0.5	13	68	4.13	895	1	19	15	144

GOAT
CLAIMS
South Sheet

CERTIFICATION : B. Caplin

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
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To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
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Project : M586
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Page No : 1
Tot. Pages: 5
Date : 17-JUL-89
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CERTIFICATE OF ANALYSIS A8919881

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2R 0000W	217	298	0.5	8	12	2.16	950	< 1	18	10	120
2R 0050W	217	298	< 0.5	9	9	2.50	1040	1	20	15	128
2R 0100W	217	298	0.5	8	5	1.83	1475	< 1	12	15	130
2R 0150W	217	298	< 0.5	9	13	2.10	315	< 1	15	10	52
2R 0200W	217	298	1.0	8	16	2.00	585	< 1	13	25	144
2R 0250W	217	298	0.5	7	11	1.93	1020	< 1	14	15	130
2R 0300W	217	298	0.5	8	12	2.21	320	1	15	15	62
2R 0350W	217	298	1.0	6	4	1.70	655	< 1	9	10	96
2R 0400W	217	298	0.5	7	8	2.06	2070	1	13	10	128
2R 0450W	217	298	0.5	8	7	2.05	1320	1	13	10	118
2R 0500W	217	298	0.5	8	6	2.32	1105	1	12	10	130
2R 0550W	217	298	0.5	8	11	2.14	630	1	17	10	88
2R 0600W	217	298	0.5	8	7	2.23	1430	1	12	15	120
2R 0650W	217	298	< 0.5	8	8	2.11	1115	< 1	13	15	78
2R 0700W	217	298	< 0.5	7	9	2.01	460	< 1	12	10	80
2R 0750W	217	298	0.5	8	10	1.99	1555	1	23	20	162
2R 0800W	217	298	0.5	12	16	2.39	570	< 1	19	20	88
2R 0850W	217	298	0.5	11	36	2.70	500	< 1	26	15	70
2R 0900W	217	298	0.5	9	13	2.02	745	< 1	16	15	130
2R 0950W	217	298	0.5	15	17	2.86	1250	< 1	19	15	218
2R 1000W	217	298	0.5	10	10	2.19	455	1	11	15	174
2R 1050W	217	298	0.5	10	12	2.25	905	< 1	16	20	122
2R 1100W	217	298	0.5	10	15	2.37	710	< 1	17	15	78
2R 1150W	217	298	< 0.5	9	12	2.38	405	< 1	16	10	72
2R 1200W	217	298	0.5	10	9	2.19	1325	< 1	13	10	86
2R 1250W	217	298	0.5	11	12	2.35	1905	1	21	15	106
2R 1300W	217	298	0.5	10	9	2.32	1495	1	15	15	146
2R 1350W	217	298	0.5	19	29	4.20	1795	1	8	10	170
2S 0000W	217	298	1.0	12	10	2.32	1950	1	21	15	166
2S 0050W	217	298	1.0	10	10	2.05	4260	< 1	16	10	190
2S 0100W	217	298	1.0	10	8	2.22	3390	< 1	21	10	136
2S 0150W	217	298	1.0	10	9	2.13	2780	< 1	23	20	146
2S 0200W	217	298	0.5	11	18	2.65	375	< 1	22	10	132
2S 0250W	217	298	< 0.5	11	20	2.55	405	1	18	20	64
2S 0300W	217	298	0.5	10	16	2.27	695	2	19	15	128
2S 0350W	217	298	1.0	9	10	2.25	1265	< 1	19	10	116
2S 0400W	217	298	0.5	10	11	2.36	805	1	23	15	108
2S 0450W	217	298	0.5	10	10	2.31	1055	1	22	10	108
2S 0500W	217	298	< 0.5	10	13	2.36	655	< 1	16	10	84
2S 0550W	217	298	1.0	11	9	2.01	4260	1	16	10	126

CERTIFICATION : Jan Bidlen

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: D. YUSEP CC: M HITZMAN

Date : 17-JUL-89
Invoice # : I-8919881
P.O. # : 30631

CERTIFICATE OF ANALYSIS A8919881

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2S 0600W	217	298	0.5	8	7	1.97	1590	1	13	10	98
2S 0650W	217	298	0.5	10	6	2.05	2330	< 1	19	15	142
2S 0700W	217	298	1.0	10	8	1.97	3720	< 1	21	10	170
2S 0750W	217	298	1.0	10	11	2.18	2080	< 1	21	15	204
2S 0800W	217	298	0.5	15	21	2.91	665	< 1	24	15	112
2S 0850W	217	298	0.5	19	52	4.09	690	1	35	20	122
2S 0900W	217	298	0.5	14	19	2.37	725	< 1	21	20	168
2S 0950W	217	298	1.0	15	14	2.17	3030	< 1	16	25	208
2S 1000W	217	298	0.5	14	24	3.51	445	< 1	24	20	200
2S 1050W	217	298	1.0	12	12	2.29	2390	1	19	15	260
2S 1100W	217	298	0.5	11	11	2.38	1520	1	17	15	140
2S 1150W	217	298	0.5	10	10	2.27	660	< 1	8	20	134
2S 1200W	217	298	1.0	8	9	1.58	2260	< 1	11	10	100
2S 1250W	217	298	0.5	12	16	2.50	520	< 1	19	10	78
2S 1300W	217	298	0.5	12	17	2.38	1130	1	19	10	126
2S 1350W	217	298	< 0.5	26	124	5.42	950	< 1	8	< 5	94
2T 0000W	217	298	< 0.5	10	16	2.16	545	< 1	15	10	74
2T 0050W	217	298	0.5	10	9	1.97	1730	< 1	14	15	156
2T 0100W	217	298	1.0	9	10	1.82	3720	< 1	13	20	154
2T 0150W	217	298	0.5	9	10	2.11	585	< 1	16	10	70
2T 0200W	217	298	0.5	8	10	1.85	275	< 1	13	10	52
2T 0250W	217	298	0.5	6	9	1.33	505	< 1	9	25	124
2T 0300W	217	298	1.0	10	13	2.08	900	< 1	20	15	130
2T 0350W	217	298	< 0.5	9	17	2.15	535	< 1	13	15	64
2T 0400W	217	298	0.5	9	6	2.20	1675	< 1	14	15	106
2T 0450W	217	298	0.5	8	6	2.08	1295	< 1	14	15	98
2T 0500W	217	298	< 0.5	8	15	2.14	330	1	12	40	124
2T 0550W	217	298	0.5	8	9	1.91	1780	< 1	14	20	118
2T 0600W	217	298	0.5	8	7	2.08	970	< 1	17	10	112
2T 0650W	217	298	0.5	8	9	1.90	1585	< 1	15	10	136
2T 0700W	217	298	0.5	9	8	1.93	2290	< 1	20	5	154
2T 0750W	217	298	0.5	10	11	2.14	2070	1	19	15	144
2T 0800W	217	298	< 0.5	6	5	1.41	885	< 1	9	10	102
2T 0850W	217	298	1.0	21	53	4.23	2330	1	28	45	208
2T 0900W	217	298	< 0.5	13	33	2.87	400	< 1	16	85	118
2T 0950W	217	298	0.5	11	15	2.64	1245	1	23	25	184
2T 1000W	217	298	< 0.5	9	18	2.08	450	< 1	13	20	68
2T 1050W	217	298	0.5	14	15	2.46	580	< 1	19	15	92
2T 1100W	217	298	1.0	12	18	2.52	570	< 1	20	10	100
2T 1150W	217	298	0.5	13	14	2.69	760	1	20	20	124

CERTIFICATION : Hart Bichler

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: D YUSEP CC: M. HITZMAN

Date : 17-JUL-89
Invoice # : I-8919881
P.O. # : 30631

CERTIFICATE OF ANALYSIS A8919881

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2T 1200W	217	298	0.5	11	11	2.57	1905	1	17	15	136
2T 1250W	217	298	< 0.5	10	26	2.75	380	< 1	17	30	82
2T 1300W	217	298	< 0.5	8	31	3.25	385	< 1	14	75	208
2T 1350W	217	298	0.5	16	34	2.95	1535	< 1	25	15	170
2T 1400W	217	298	< 0.5	8	24	1.70	1415	< 1	15	75	270
2U 0000W	217	298	0.5	9	14	2.35	665	1	18	15	128
2U 0050W	217	298	0.5	9	10	2.47	530	1	22	15	120
2U 0100W	217	298	1.0	9	11	2.38	820	1	19	10	118
2U 0150W	217	298	0.5	12	10	2.59	845	1	18	10	112
2U 0200W	217	298	1.0	11	17	2.66	800	1	24	15	120
2U 0250W	217	298	1.0	10	11	2.32	1005	1	19	10	138
2U 0300W	217	298	1.0	10	8	2.04	3690	< 1	14	10	120
2U 0350W	217	298	0.5	10	10	2.27	885	1	20	10	136
2U 0400W	217	298	1.0	10	12	2.45	725	< 1	20	10	126
2U 0450W	217	298	0.5	10	10	2.62	760	1	19	15	134
2U 0500W	217	298	0.5	9	9	2.44	970	< 1	18	15	146
2U 0550W	217	298	1.0	9	10	1.91	995	1	12	35	182
2U 0600W	217	298	0.5	9	17	2.31	545	1	14	15	76
2U 0650W	217	298	0.5	9	9	2.08	1205	< 1	23	15	168
2U 0700W	217	298	1.0	10	11	2.26	1890	2	20	10	128
2U 0750W	217	298	0.5	9	12	2.35	565	< 1	16	10	82
2U 0800W	217	298	0.5	9	10	2.38	1475	1	16	10	122
2U 0850W	217	298	1.0	8	10	1.95	560	< 1	15	20	82
2U 0900W	217	298	1.0	12	13	2.53	1840	< 1	20	20	176
2U 0950W	217	298	0.5	12	13	2.68	1680	< 1	21	50	164
2U 1000W	217	298	0.5	15	23	2.96	1035	< 1	26	20	124
2U 1050W	217	298	0.5	6	20	1.84	330	< 1	10	20	110
2U 1100W	217	298	0.5	12	15	2.77	860	< 1	22	25	122
2U 1150W	217	298	0.5	11	12	2.70	670	1	18	10	134
2U 1200W	217	298	0.5	9	9	2.44	450	< 1	16	10	116
2U 1250W	217	298	0.5	10	11	2.62	1395	1	9	20	128
2U 1300W	217	298	0.5	13	17	2.45	1255	1	17	10	138
2U 1350W	217	298	1.0	11	28	2.02	2390	< 1	9	15	128
2U 1400W	217	298	0.5	17	68	4.30	620	< 1	18	35	136
2V 0000W	217	298	0.5	10	15	2.44	440	< 1	20	15	108
2V 0050W	217	298	0.5	9	10	2.29	670	< 1	18	10	118
2V 0100W	217	298	0.5	10	9	2.41	1015	< 1	18	10	116
2V 0200W	217	298	0.5	8	9	2.14	480	< 1	11	15	104
2V 0250W	217	298	0.5	9	14	2.34	630	1	14	15	84
2V 0300W	217	298	0.5	10	14	2.37	305	1	14	15	64

CERTIFICATION : Hewitt Bichler

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: D YUSEP CC: M HITZMAN

Date : 17-JUL-89
Invoice # I-8919881
P.O. # 30631

CERTIFICATE OF ANALYSIS A8919881

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2V 0350W	217	298	0.5	8	11	2.00	1010	1	13	15	90
2V 0400W	217	298	1.0	9	19	2.30	1045	1	18	20	98
2V 0450W	217	298	1.0	9	11	2.25	1120	< 1	17	10	118
2V 0500W	217	298	0.5	9	19	2.27	375	< 1	14	20	64
2V 0550W	217	298	< 0.5	10	21	2.51	450	< 1	15	20	64
2V 0600W	217	298	0.5	10	10	2.12	1445	< 1	17	10	156
2V 0650W	217	298	0.5	8	7	1.99	1280	< 1	11	10	128
2V 0700W	217	298	0.5	8	12	2.22	655	< 1	16	15	116
2V 0750W	217	298	1.0	9	6	2.21	2810	1	12	10	132
2V 0800W	217	298	1.0	9	6	2.11	3620	1	17	15	172
2V 0850W	217	298	0.5	10	8	2.45	1335	< 1	21	30	210
2V 0900W	217	298	1.0	8	14	1.89	970	1	12	35	202
2V 0950W	217	298	1.0	10	9	2.02	2510	< 1	22	15	204
2V 1000W	217	298	0.5	10	13	2.22	810	< 1	15	10	92
2V 1100W	217	298	0.5	7	7	2.33	705	< 1	13	25	106
2V 1150W	217	298	1.0	11	11	2.60	1600	1	23	10	120
2V 1200W	217	298	0.5	11	14	2.41	1020	< 1	19	15	80
2V 1250W	217	298	1.0	14	64	3.74	1005	1	30	25	124
2V 1300W	217	298	1.5	17	132	5.82	1660	3	27	50	94
2V 1350W	217	298	0.5	3	19	0.67	3280	< 1	7	60	178
2V 1400W	217	298	< 0.5	10	26	2.66	340	1	16	25	82
2W 0000W	217	298	1.0	9	11	2.33	470	1	18	15	124
2W 0050W	217	298	0.5	10	10	2.34	605	< 1	20	10	142
2W 0100W	217	298	0.5	8	13	1.92	385	< 1	16	20	82
2W 0250W	217	298	0.5	7	10	1.98	200	< 1	15	10	140
2W 0300W	217	298	1.0	8	10	2.17	545	< 1	15	5	96
2W 0350W	217	298	0.5	9	9	2.23	820	< 1	18	10	110
2W 0400W	217	298	1.0	10	15	2.28	1640	1	18	15	108
2W 0450W	217	298	2.0	16	21	3.17	6010	3	22	25	120
2W 0500W	217	298	1.0	10	11	2.52	695	< 1	17	10	116
2W 0550W	217	298	0.5	9	14	2.47	325	< 1	18	10	88
2W 0600W	217	298	1.0	8	9	2.20	995	1	16	15	132
2W 0650W	217	298	1.0	12	13	2.35	3310	1	18	20	82
2W 0700W	217	298	0.5	8	10	2.05	765	< 1	14	15	96
2W 0750W	217	298	0.5	8	11	2.17	465	< 1	19	5	98
2W 0800W	217	298	0.5	9	9	2.24	1190	1	19	20	136
2W 0850W	217	298	0.5	14	9	2.68	2060	< 1	19	10	178
2W 0900W	217	298	0.5	9	15	2.36	750	< 1	17	20	128
2W 0950W	217	298	0.5	10	10	2.23	1360	1	22	15	196
2W 1000W	217	298	0.5	14	31	2.54	285	1	23	25	100

CERTIFICATION : Ian Bichler

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: D YUSEP CC: M HITZMAN

Date 17-JUL-89
Invoice # I-8919881
P.O. # 30631

CERTIFICATE OF ANALYSIS A8919881

GOAT
CLAIMS
South Sheet

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
2W 1050W	217	298	0.5	13	9	2.66	810	1	17	30	254
2W 1100W	217	298	0.5	9	9	2.35	685	1	19	20	146
2W 1150W	217	298	1.0	12	12	2.47	3670	< 1	16	20	134
2W 1200W	217	298	0.5	9	13	2.36	700	< 1	15	15	106
2W 1250W	217	298	0.5	12	20	2.72	1045	< 1	19	15	180
2W 1300W	217	298	0.5	21	64	4.46	1695	2	24	40	122
2W 1350W	217	298	0.5	12	12	2.06	2440	< 1	11	15	218
2W 1400W	217	298	< 0.5	11	70	2.62	410	< 1	15	45	74
2X 0250W	217	298	< 0.5	6	8	2.09	185	< 1	13	10	86
2X 0300W	217	298	< 0.5	6	6	2.10	1240	< 1	11	15	88
2X 0350W	217	298	0.5	9	8	2.36	1305	< 1	19	10	136
2X 0400W	217	298	0.5	9	8	2.41	1340	1	18	15	130
2X 0450W	217	298	1.5	12	8	2.16	7650	1	15	15	200
2X 0500W	217	298	0.5	8	13	2.18	655	< 1	16	10	122
2X 0550W	217	298	0.5	9	13	2.25	1275	1	18	10	142
2X 0600W	217	298	0.5	5	4	1.66	810	< 1	7	5	90
2X 0650W	217	298	< 0.5	7	8	1.91	660	< 1	12	15	112
2X 0700W	217	298	< 0.5	19	19	2.55	995	1	16	20	62
2X 0750W	217	298	< 0.5	10	15	2.55	435	< 1	17	15	76
2X 0800W	217	298	0.5	9	12	2.29	810	1	17	15	128
2X 0850W	217	298	0.5	11	10	2.35	675	1	26	5	168
2X 0900W	217	298	0.5	9	9	2.46	780	1	19	5	158
2X 0950W	217	298	0.5	9	9	2.45	925	1	17	5	142
2X 1000W	217	298	0.5	14	12	2.93	705	1	17	10	170
2X 1050W	217	298	0.5	11	11	2.59	955	1	18	15	140
2X 1100W	217	298	0.5	11	12	2.52	1130	< 1	27	10	168
2X 1150W	217	298	0.5	15	17	3.13	680	2	29	10	140
2X 1200W	217	298	0.5	17	26	3.81	425	1	35	25	192
2X 1250W	217	298	0.5	13	54	3.01	455	1	21	20	92
2X 1300W	217	298	0.5	10	12	2.09	1125	< 1	11	20	146
2X 1350W	217	298	0.5	9	9	2.75	885	2	13	15	166
2X 1400W	217	298	0.5	11	14	2.66	675	< 1	23	10	122

CERTIFICATION : David Bickler

Rock Sample Analyses

Chemex Labs Ltd.
Analytical Chemists • Geochemists • Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: MS. M. HENRY CC: M W HITZMAN CC: Z REBIC

Date : 14-AUG-89
Invoice # : I-8922405
P.O. # : 27066

CERTIFICATE OF ANALYSIS A8922405

SAMPLE DESCRIPTION	PREP CODE	Au oz/T	Zn %	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
116403	208 238	< 0.002	——	0.62	0.2	10	20	< 0.5	< 2	0.78	< 0.5	3	145	11	0.76	10	< 1	0.11	10	0.1
116404	208 238	< 0.002	——	0.47	< 0.2	15	10	< 0.5	< 2	11.20	2.5	17	91	71	1.65	< 10	< 1	0.04	< 10	0.3
116405	208 238	< 0.002	——	1.13	0.4	< 5	80	0.5	< 2	0.95	< 0.5	8	104	14	1.96	10	< 1	0.49	30	0.4
116406	208 238	< 0.002	0.06	1.27	0.8	5	100	0.5	< 2	0.24	2.5	7	105	22	2.02	10	< 1	0.49	30	0.3
116407	208 238	< 0.002	——	0.64	0.4	10	10	< 0.5	< 2	0.24	< 0.5	14	103	17	1.79	< 10	< 1	0.03	10	0.4
116408	208 238	< 0.002	——	0.64	1.0	65	20	0.5	< 2	0.39	0.5	40	93	426	4.43	10	< 1	0.04	10	0.2
116409	208 238	< 0.002	——	1.23	1.0	10	30	< 0.5	< 2	0.30	< 0.5	31	85	37	4.62	10	< 1	0.13	30	0.6
116410	208 238	< 0.002	——	0.12	< 0.2	15	10	< 0.5	2	1.57	< 0.5	10	272	123	1.52	< 10	< 1	< 0.01	10	0.0

CERTIFICATION : B. Caplan

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: ATTN: MS M. HENRY CC: M.W HITZMAN CC: Z REBIC

Date 11-AUG-89
Invoice # I-8922405
P.O. # 27066

CERTIFICATE OF ANALYSIS A8922405

SAMPLE DESCRIPTION	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
116403	208 238	255	< 1	0.03	7	60	48	< 5	1	23	0.06	< 10	< 10	7	< 10	86
116404	208 238	955	< 1	< 0.01	67	80	172	< 5	2	46	0.02	< 10	< 10	11	< 10	1795
116405	208 238	330	< 1	0.02	13	110	58	< 5	2	22	0.08	< 10	< 10	15	< 10	140
116406	208 238	290	< 1	0.02	15	140	78	< 5	1	10	0.01	< 10	< 10	10	< 10	774
116407	208 238	235	< 1	0.03	10	80	26	< 5	1	10	< 0.01	< 10	< 10	9	< 10	66
116408	208 238	300	< 1	0.01	23	80	64	5	1	9	< 0.01	< 10	< 10	9	< 10	82
116409	208 238	400	< 1	0.05	20	260	54	< 5	3	9	0.06	< 10	< 10	23	< 10	74
116410	208 238	350	< 1	0.01	15	< 10	24	< 5	< 1	30	< 0.01	< 10	< 10	4	< 10	26

CERTIFICATION : B. Caughlin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: CC: M HITZMAN CC: Z REBIC

Page No : 1-A
Tot Pages : 1
Date : 28-AUG-
Invoice # : I-8923503
P.O. # : 30633

CERTIFICATE OF ANALYSIS A8923503

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	
400101	205 238	35	1.69	0.8	405	170	0.5	< 2	0.81	< 0.5	13	40	31	2.46	10	1	0.71	30	0.19	
400102	205 238	< 5	0.49	< 0.2	25	60	< 0.5	< 2	1.16	< 0.5	12	56	4	1.61	< 10	< 1	0.31	10	0.38	
400103	205 238	< 5	0.37	0.2	25	50	< 0.5	< 2	0.46	< 0.5	8	22	7	2.63	< 10	< 1	0.20	10	0.55	
400104	205 238	15	0.38	< 0.2	25	60	< 0.5	< 2	0.55	< 0.5	18	29	7	3.30	10	< 1	0.30	10	0.[illegible]	
400105	205 238	< 5	1.28	0.2	15	20	< 0.5	< 2	0.55	< 0.5	20	105	27	3.57	10	< 1	0.09	20	0.55	
400106	205 238	5	0.04	0.2	< 5	< 10	< 0.5	< 2	0.14	< 0.5	2	216	2	0.35	< 10	< 1	< 0.01	10	0.02	
400107	205 238	< 5	0.55	0.2	5	20	< 0.5	< 2	0.71	< 0.5	26	117	13	2.56	10	< 1	0.04	20	0.26	
400108	205 238	10	0.90	0.4	35	40	< 0.5	2	1.36	< 0.5	9	110	13	2.28	10	< 1	0.15	20	0.45	
400109	205 238	20	0.94	0.4	20	40	< 0.5	< 2	0.63	< 0.5	8	179	41	2.03	10	1	0.20	40	0.[illegible]	
400110	205 238	< 5	0.42	0.4	< 5	20	< 0.5	2	1.28	< 0.5	17	146	75	2.37	10	< 1	0.14	20	0.[illegible]	
400111	205 238	< 5	0.04	0.6	10	10	< 0.5	2	0.01	< 0.5	< 1	226	3	0.38	< 10	< 1	< 0.01	10	0.01	
400112	205 238	< 5	0.60	0.2	650	10	< 0.5	< 2	0.48	0.5	131	144	6	0.88	< 10	< 1	< 0.01	< 10	0.[illegible]	

CERTIFICATION : B. Caughlin

Chemex Labs Ltd.
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PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

Project : M586
Comments: CC: M HITZMAN CC: Z REBIC

Page No : 1-B
Tot. Pages : 1
Date : 28-AUG-89
Invoice # : I-8923503
P.O. # : 30633

CERTIFICATE OF ANALYSIS A8923503

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
400101	205 238	2	0.02	26	260	70	5	4	34	0.06	< 10	< 10	14	< 10	90
400102	205 238	< 1	0.02	14	220	< 2	< 5	1	41	< 0.01	< 10	< 10	2	< 10	8
400103	205 238	< 1	0.01	17	260	2	< 5	1	16	< 0.01	< 10	< 10	1	< 10	18
400104	205 238	< 1	0.01	18	400	4	< 5	1	20	< 0.01	< 10	< 10	1	< 10	14
400105	205 238	< 1	0.03	19	150	10	< 5	2	16	< 0.01	< 10	< 10	12	10	50
400106	205 238	< 1	0.01	3	< 10	2	< 5	< 1	4	< 0.01	< 10	< 10	1	< 10	2
400107	205 238	< 1	0.06	15	180	6	< 5	2	14	0.05	< 10	< 10	10	< 10	24
400108	205 238	< 1	0.03	13	160	12	< 5	1	22	< 0.01	< 10	< 10	10	< 10	46
400109	205 238	< 1	0.05	12	190	28	< 5	3	22	0.08	< 10	< 10	16	< 10	48
400110	205 238	< 1	0.04	14	110	42	< 5	1	20	< 0.01	< 10	< 10	7	< 10	32
400111	205 238	< 1	0.01	5	70	186	< 5	< 1	1	< 0.01	< 10	< 10	1	< 10	4
400112	205 238	< 1	0.03	124	90	8	< 5	1	13	0.06	< 10	< 10	13	< 10	16

CERTIFICATION : B. Caplan

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MINERALS STAFF
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Project : M586
Comments: CC: M. HITZMAN CC: Z. REBIC

Page No. : 1-A
Tot. Pages: 1
Date : 5-SEP-89
Invoice # : I-8925041
P.O. # : 30636

CERTIFICATE OF ANALYSIS A8925041

SAMPLE DESCRIPTION	PREP CODE		Au ppb RUSH	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
400113	255	238	10	1.05	0.4	1035	30	< 0.5	< 2	0.02	< 0.5	7	35	179	5.84	10	< 1	0.74	30	0.38	305
400114	255	238	145	0.52	0.8	>10000	30	< 0.5	12	0.03	>100.0	110	24	900	>15.00	10	< 1	0.19	20	0.04	35
400115	255	238	30	0.66	0.4	>10000	30	< 0.5	2	0.01	3.5	17	33	75	4.30	< 10	< 1	0.47	20	0.20	145
400116	255	238	75	0.70	0.8	>10000	40	< 0.5	8	0.01	5.0	19	30	552	6.19	10	< 1	0.59	20	0.23	160
400117	255	238	< 5	0.99	0.2	190	30	< 0.5	< 2	0.02	< 0.5	< 1	51	38	3.63	10	< 1	0.64	30	0.32	220
400118	255	238	< 5	1.19	0.4	2000	40	< 0.5	< 2	0.09	3.0	3	59	82	4.13	10	< 1	0.51	30	0.44	330

CERTIFICATION : B. Campbell

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Project : M586
Comments: CC: M. HITZMAN CC: Z. REBIC

Page No. : 1-B
Tot. Pages: 1
Date : 5-SEP-89
Invoice # : I-8925041
P.O. # : 30636

CERTIFICATE OF ANALYSIS A8925041

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
400113	255 238	< 1	0.01	18	180	22	5	6	2	0.15	< 10	< 10	32	< 10	244
400114	255 238	< 1	0.01	68	130	30	330	3	5	0.03	< 10	< 10	6	< 10	126
400115	255 238	< 1	0.01	6	110	38	50	2	3	0.11	< 10	< 10	13	< 10	16
400116	255 238	< 1	0.01	9	200	62	90	4	3	0.11	< 10	< 10	15	< 10	22
400117	255 238	< 1	0.01	4	160	16	< 5	4	3	0.16	< 10	< 10	27	< 10	22
400118	255 238	< 1	0.01	7	320	< 2	5	3	4	0.13	< 10	< 10	17	< 10	346

CERTIFICATION : B. Caughlin

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To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: MURRAY HITZMAN CC: Z REBIC

Page No. 1-A
Tot. Pages 1
Date 28-SEP-89
Invoice # I-8925604
P.O. # 30637

CERTIFICATE OF ANALYSIS A8925694

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
400119	205 238	20	0.27	2.2	215	< 10	< 0.5	4	0.22	< 0.5	89	98	4680	7.79	< 10	< 1	0.03	< 10	0.20	230
400120	205 238	195	1.33	0.6	45	30	< 0.5	30	0.16	< 0.5	43	88	2120	5.15	< 10	< 1	0.26	10	0.61	29
400121	205 238	< 5	0.75	0.4	155	60	< 0.5	4	0.18	< 0.5	17	47	212	2.40	< 10	< 1	0.38	30	0.16	15
400122	205 238	< 5	0.45	0.2	5	40	< 0.5	2	0.12	< 0.5	3	114	35	1.06	< 10	< 1	0.21	30	0.13	10
400123	205 238	< 5	1.50	< 0.2	5	60	< 0.5	4	0.47	< 0.5	9	51	2	2.88	10	< 1	0.70	50	0.62	32
400125	205 238	< 5	1.31	< 0.2	35	30	< 0.5	6	4.76	1.0	7	124	22	2.09	< 10	< 1	0.17	< 10	0.72	50
400126	205 238	< 5	1.30	< 0.2	20	60	< 0.5	2	1.57	1.5	5	129	29	1.83	< 10	< 1	0.29	20	0.55	33
400127	205 238	< 5	0.26	0.2	50	20	< 0.5	2	0.87	< 0.5	11	168	173	1.69	< 10	< 1	0.15	10	0.23	29
400128	205 238	< 5	0.63	0.2	15	60	< 0.5	4	0.74	< 0.5	5	146	17	1.68	< 10	< 1	0.27	20	0.32	32
400129	205 238	< 5	0.30	0.2	15	20	< 0.5	2	0.71	< 0.5	9	130	98	1.46	< 10	< 1	0.09	20	0.21	25
400130	205 238	5	0.33	< 0.2	95	40	< 0.5	6	4.27	< 0.5	6	51	2	3.49	< 10	< 1	0.28	< 10	1.10	90
400131	205 238	< 5	1.39	< 0.2	35	120	< 0.5	6	0.69	< 0.5	7	99	< 1	3.12	< 10	< 1	0.92	20	0.68	51
400132	205 238	< 5	0.73	< 0.2	70	60	< 0.5	4	1.41	< 0.5	18	44	30	3.75	< 10	< 1	0.43	40	0.66	63
400133	205 238	< 5	0.33	< 0.2	95	40	< 0.5	4	0.12	< 0.5	6	75	75	2.43	< 10	1	0.22	10	0.12	13
400134	205 238	< 5	0.73	< 0.2	95	80	< 0.5	6	0.50	< 0.5	9	86	38	2.48	< 10	< 1	0.46	30	0.41	20
400135	205 238	< 5	0.69	0.2	80	80	< 0.5	8	0.45	< 0.5	10	65	47	2.59	< 10	< 1	0.47	20	0.35	23
400136	205 238	< 5	0.97	< 0.2	20	100	< 0.5	2	0.35	< 0.5	8	120	37	2.24	< 10	< 1	0.51	30	0.38	22
400137	205 238	< 5	4.52	< 0.2	65	250	< 0.5	6	1.49	< 0.5	36	48	341	8.79	< 10	< 1	1.59	10	2.29	53
400138	205 238	10	0.46	3.6	95	70	< 0.5	20	12.60	< 0.5	4	39	12	>15.00	140	< 1	0.01	10	0.10	156
400139	205 238	15	0.50	9.8	120	590	< 0.5	294	12.60	< 0.5	8	35	8	>15.00	140	< 1	0.13	10	0.24	7410
400140	205 238	< 5	2.11	0.4	40	60	< 0.5	10	0.71	< 0.5	8	76	3	4.00	20	1	0.36	60	0.96	57
400141	205 238	< 5	0.56	0.4	55	50	< 0.5	4	0.21	< 0.5	3	131	34	1.20	< 10	< 1	0.26	30	0.12	140
400142	205 238	< 5	1.03	0.2	25	30	< 0.5	2	0.59	< 0.5	17	136	78	2.33	10	< 1	0.20	40	0.31	72
400143	205 238	< 5	1.03	0.6	40	50	< 0.5	6	0.44	< 0.5	6	193	14	1.92	10	< 1	0.22	40	0.32	200
400144	205 238	< 5	0.91	< 0.2	45	50	< 0.5	4	0.04	< 0.5	2	191	7	2.02	< 10	1	0.45	10	0.35	190
400145	205 238	< 5	1.08	< 0.2	35	90	< 0.5	6	0.04	< 0.5	13	138	27	2.68	< 10	< 1	0.69	< 10	0.44	170
400146	205 238	5	0.80	< 0.2	60	100	< 0.5	6	0.13	< 0.5	38	235	100	5.05	< 10	< 1	0.31	10	0.23	150
400147	205 238	< 5	0.76	0.2	35	60	< 0.5	6	0.20	< 0.5	15	140	41	2.92	< 10	< 1	0.22	10	0.28	170
400148	205 238	< 5	1.70	< 0.2	50	130	< 0.5	< 2	0.07	< 0.5	7	116	17	3.32	< 10	< 1	1.05	< 10	0.89	36
400149	205 238	< 5	0.80	< 0.2	10	60	< 0.5	< 2	0.09	< 0.5	3	172	10	1.57	< 10	< 1	0.32	10	0.33	20
400150	205 238	< 5	0.73	< 0.2	15	50	< 0.5	2	0.07	< 0.5	7	89	14	1.63	< 10	< 1	0.48	10	0.31	20

CERTIFICATION : B. Caplin

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To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: ATTN: MURRAY HITZMAN CC: Z REBIC

Date 28-SEP-80
Invoice # I-8925694
P.O. # 30637

CERTIFICATE OF ANALYSIS A8925694

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
400119	205 238	< 1	< 0.01	41	40	56	10	< 1	4	< 0.01	< 10	< 10	< 1	< 10	242
400120	205 238	< 1	0.02	21	380	32	< 5	5	4	0.02	< 10	< 10	20	< 10	224
400121	205 238	< 1	0.02	30	210	40	< 5	2	7	< 0.01	< 10	< 10	3	< 10	50
400122	205 238	1	0.03	7	110	6	< 5	1	4	0.04	< 10	< 10	5	< 10	20
400123	205 238	< 1	0.02	14	190	20	< 5	3	12	0.07	< 10	< 10	20	< 10	74
400125	205 238	< 1	0.01	10	130	580	5	5	41	0.03	< 10	< 10	25	< 10	392
400126	205 238	< 1	0.02	6	140	168	< 5	3	19	0.03	< 10	< 10	11	< 10	454
400127	205 238	< 1	0.04	18	90	10	< 5	1	31	< 0.01	< 10	< 10	1	< 10	190
400128	205 238	< 1	0.04	8	110	4	< 5	2	25	0.04	< 10	< 10	9	< 10	50
400129	205 238	< 1	0.03	10	90	10	< 5	1	20	< 0.01	< 10	< 10	7	< 10	36
400130	205 238	< 1	0.02	11	110	2	< 5	1	165	< 0.01	< 10	< 10	2	< 10	18
400131	205 238	< 1	0.02	13	110	6	5	4	27	0.14	< 10	< 10	20	< 10	78
400132	205 238	< 1	0.03	30	340	6	5	3	45	< 0.01	< 10	< 10	6	< 10	104
400133	205 238	< 1	0.01	11	120	8	< 5	< 1	4	< 0.01	< 10	< 10	1	< 10	12
400134	205 238	< 1	0.02	17	200	8	< 5	2	21	< 0.01	< 10	< 10	4	< 10	30
400135	205 238	< 1	0.01	17	260	12	< 5	2	18	< 0.01	< 10	< 10	4	< 10	38
400136	205 238	< 1	0.02	16	190	30	< 5	1	10	< 0.01	< 10	< 10	6	< 10	102
400137	205 238	< 1	0.12	42	490	24	< 5	15	33	0.51	< 10	< 10	293	< 10	104
400138	205 238	< 1	0.04	5	>10000	612	< 5	40	5670	0.03	< 10	< 10	196	< 10	3920
400139	205 238	< 1	0.06	8	>10000	6320	< 5	21	6510	0.02	< 10	< 10	94	< 10	2250
400140	205 238	< 1	0.02	17	1490	40	< 5	6	93	0.12	< 10	< 10	41	< 10	138
400141	205 238	< 1	0.02	3	460	58	< 5	1	39	0.02	< 10	< 10	6	< 10	34
400142	205 238	< 1	0.03	14	400	20	< 5	4	22	0.09	< 10	< 10	20	< 10	60
400143	205 238	< 1	0.04	10	1320	60	< 5	3	18	0.07	< 10	< 10	18	< 10	50
400144	205 238	< 1	0.05	4	170	12	< 5	3	8	0.09	< 10	< 10	20	< 10	34
400145	205 238	< 1	0.02	23	190	6	< 5	1	3	0.11	< 10	< 10	14	< 10	40
400146	205 238	< 1	0.04	14	170	20	< 5	3	9	0.10	< 10	< 10	20	< 10	42
400147	205 238	< 1	0.04	7	160	18	< 5	3	9	0.08	< 10	< 10	17	< 10	52
400148	205 238	< 1	0.04	8	170	26	< 5	6	5	0.17	< 10	< 10	33	< 10	82
400149	205 238	< 1	0.04	8	170	34	< 5	2	6	0.06	< 10	< 10	14	< 10	62
400150	205 238	< 1	0.02	10	270	16	< 5	1	3	0.07	< 10	< 10	6	< 10	46

CERTIFICATION : B. Caplin

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Project : M586
Comments: ATTN: MURRAY HITZMAN CC: Z. REBIC

CERTIFICATE OF ANALYSIS A8925695

SAMPLE DESCRIPTION	PREP CODE		SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	BaO %	LOI %	TOTAL %	FeO %
400124	205	200	58.01	17.55	4.16	1.24	3.37	1.99	5.80	0.78	1.84	0.04	0.19	3.93	98.90	2.76

CERTIFICATION : B. Caughlin

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Project : M586
Comments: CC: MURRAY HITZMAN CC: ZLATO REBIC

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Date : 9-OCT-89
Invoice # : I-8926329
P.O. # : 30639

CERTIFICATE OF ANALYSIS A8926329

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
400151	205 238	< 5	0.69	< 0.2	>10000	50	2.5	16	0.04	< 0.5	8	122	103	4.87	< 10	< 1	0.20	10	0.10	20
400152	205 238	40	0.67	0.8	>10000	50	3.0	20	0.03	< 0.5	10	108	56	4.40	< 10	< 1	0.24	10	0.08	12
400153	205 238	210	1.11	< 0.2	>10000	30	9.5	68	0.05	< 0.5	81	98	909	>15.00	< 10	< 1	0.58	20	0.25	22
400154	205 238	290	0.82	1.0	>10000	30	3.5	88	0.04	< 0.5	74	125	151	6.53	< 10	< 1	0.32	30	0.24	18
400155	205 238	50	0.47	1.2	>10000	50	3.0	26	0.02	< 0.5	7	117	180	4.51	< 10	< 1	0.20	10	0.04	7
400156	205 238	15	0.04	0.4	160	< 10	1.0	12	0.03	0.5	8	312	170	1.58	< 10	< 1	< 0.01	< 10	0.01	9
400157	205 238	10	0.18	0.4	40	< 10	0.5	2	0.13	< 0.5	1	310	7	0.65	< 10	< 1	< 0.01	< 10	0.02	66
400158	205 238	5	0.37	0.4	65	20	1.0	4	0.28	< 0.5	2	306	24	1.07	< 10	< 1	0.02	< 10	0.03	18

CERTIFICATION : B. Caughlin

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BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: CHEVRON CANADA RESOURCES LTD.
MINERALS STAFF
1900 - 1055 W. HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9
Project : M586
Comments: CC: MURRAY HITZMAN CC: ZLATO REBIC

Date : 9-OCT-89
Invoice # : I-8926329
P.O. # : 30639

CERTIFICATE OF ANALYSIS A8926329

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
400151	205 238	< 1	0.01	12	100	58	25	1	3	0.01	10	< 10	< 1	< 10	32
400152	205 238	< 1	0.02	13	140	128	25	2	3	0.02	20	10	< 1	< 10	28
400153	205 238	< 1	0.04	50	50	40	170	2	17	0.07	20	10	< 1	< 10	790
400154	205 238	< 1	0.01	17	240	158	210	3	5	0.07	20	< 10	2	< 10	44
400155	205 238	< 1	0.03	14	130	254	25	1	5	0.02	20	10	< 1	< 10	18
400156	205 238	< 1	< 0.01	6	10	40	< 5	< 1	< 1	< 0.01	20	10	1	< 10	10
400157	205 238	< 1	< 0.01	4	20	12	< 5	1	1	< 0.01	30	30	11	< 10	12
400158	205 238	< 1	0.01	6	40	8	< 5	4	18	0.03	< 10	< 10	21	< 10	14

CERTIFICATION : B. Caughlin

APPENDIX X

Statements of Work - Cash Payment

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
MINERAL RESOURCES DIVISION – TITLES BRANCH

MINERAL ACT

M158

DOCUMENT No. 78
OFFICE USE ONLY
RECEIVED
SEP 5 1989
M.R. # 8 $ 105
VANCOUVER, B.C.
RECORDING STAMP

Statement of Work – Cash Payment

I, John Wordsworth (Name) WOOEDS
Valid subsisting FMC No. 285126
4403 Capilano Road (Address)
North Vancouver, B.C.
V7S 4J8 (Postal Code) (604) 984-7849 (Telephone Number)

Agent for Chevron Minerals Ltd., (Name) CHEMIL
Valid subsisting FMC No. 280679
1900 - 1055 W. Hastings St., (Address)
Vancouver, B.C.
V6E 2E9 (Postal Code) (604) 668-5491 (Telephone Number)

STATE THAT: [NOTE: If only paying cash in lieu, turn to reverse and complete columns G to J and S to V.]

1. I have done, or caused to be done, work on the ..... Claim(s)

Record No(s). .....

Situate at ..... in the NELSON Mining Division,

Work was done from ....., 19....., to ....., 19.....

TYPE OF WORK

PHYSICAL: Work such as trenches, open cuts, adits, pits, shafts, reclamation, and construction of roads and trails. Details as required under section 13 of the Regulations, including the map and cost statement, must be given on this statement.

PROSPECTING: Details as required under section 9 of the Regulations must be submitted in a technical report. Prospecting work can only be claimed once by the same owner of the ground, and only during the first three years of ownership.

GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL, DRILLING: Details must be submitted in a technical report conforming to sections 5 through 8 (as appropriate) of the Regulations.

PORTABLE ASSESSMENT CREDIT (PAC) WITHDRAWAL: A maximum of 30% of the approved value of geological, geophysical, geochemical and/or drilling work on this statement may be withdrawn from the owner's or operator's PAC account and added to the work value on this statement.

TYPE OF WORK (Specify Physical (include details), Prospecting, Geological, etc.)	VALUE OF WORK Physical	*Prospecting	*Geological etc.
TOTALS	A +	B +	C = D
.C WITHDRAWAL – Maximum 30% of Value in Box C Only			E → E
from account(s) of			TOTAL F

ho was the oper- or (provided the ancing)?
Name Chevron Minerals Ltd.,
Address 1900 - 1055 W. Hastings Street,
Vancouver, B.C. Phone: 668-5491

Transfer amount in Box F to reverse side of form and complete as required.

MTL 112

F | $ | I WISH TO APPLY $_____ OF THE TOTAL VALUE FROM BOX F AS FOLLOWS:

Columns G through J and S through V inclusive MUST BE COMPLETED before a cash payment or rental payment can be credited.
Columns not applicable need not be completed.

Cash Payment

CLAIM IDENTIFICATION

	G	H	I	J
	CLAIM NAME (one claim/lease per line)	RECORD No.	No. OF UNITS*	CURRENT EXPIRY DATE
1	SKY 3	5314	1	Sept. 2/89
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				

APPLICATION OF WORK CREDIT

	K	L		N	O	P	Q	R
	WORK TO BE APPLIED							
	VALUE	YEARS		RECORDING FEES 5% OF K		PRIOR EXCESS CREDIT BEING USED	NEW EXPIRY DATE	EXCESS CREDIT REMAINING
	TOTAL OF K			TOTAL OF N	TOTAL OF O			

CASH IN LIEU OF WORK OR LEASE RENTAL

	S	T	U	V
	C/L	RECORDING FEE	LEASE RENTAL	NEW EXPIRY DATE
	100	5		Sept 2/90
	100	5		
	TOTAL OF S	TOTAL OF T	TOTAL OF U	

NOTICE TO GROUP No._____ RECORDED_____

* 2 POST FRACTION, REV CROWN GRANT ARE 1 UNIT EACH

Value of work to be credited to portable assessment credit (PAC) account(s).
[May only be credited from the approved value of Box C not applied to claims.]

Name of owner/operator	Name	AMOUNT
	1. Chevron Minerals Ltd.,	
	2.	

I, the undersigned Free Miner, hereby acknowledge and understand that it is an offence to knowingly make a false statement or provide false information under the *Mineral Act*. I further acknowledge and understand that if the statements made, or information given, in this Statement of Exploration and Development are found to be false and the exploration and development has not been performed, as alleged in this Statement of Exploration and Development, then the work reported on this statement will be cancelled and the subject mineral claim(s) may, as a result, forfeit to and vest back to the Province.

Linda Otte

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
MINERAL RESOURCES DIVISION — TITLES BRANCH

MINERAL ACT

4040 / 10 / 4050

Statement of Work — Cash Payment

DOCUMENT No. _____ OFFICE USE ONLY

SUB-RECORDER RECEIVED
SEP 6 1989
M.R. # ..... $ .....
RECORDING STAMP B.C.

I, John Wordsworth (Name)
Valid subsisting FMC No. 285126 (WORDJ)
4403 Capilano Road (Address)
North Vancouver, B.C.
V7S 4J8 (Postal Code) (604) 984-7849 (Telephone Number)

Agent for Chevron Minerals Ltd., (Name)
Valid subsisting FMC No. 280679 (CHEMIL)
1900 - 1055 West Hastings Street, (Address)
Vancouver, B.C.
V6E 2E9 (Postal Code) (604) 668-5491 (Telephone Number)

STATE THAT: [NOTE: If only paying cash in lieu, turn to reverse and complete columns G to J and S to V.]

1. I have done, or caused to be done, work on the GOAT 1, BARB, SKY, SKY 2 Claim(s)

Record No(s). 4007, 5368, 4467, 4473

Situate at 10km NW of Yahk in the Nelson Mining Division,

Work was done from May 1, 19 89, to Sept 6 ~~8~~, 19 89.

TYPE OF WORK

PHYSICAL: Work such as trenches, open cuts, adits, pits, shafts, reclamation, and construction of roads and trails. Details as required under section 13 of the Regulations, including the map and cost statement, must be given on this statement.

PROSPECTING: Details as required under section 9 of the Regulations must be submitted in a technical report. Prospecting work can only be claimed once by the same owner of the ground, and only during the first three years of ownership.

GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL, DRILLING: Details must be submitted in a technical report conforming to sections 5 through 8 (as appropriate) of the Regulations.

PORTABLE ASSESSMENT CREDIT (PAC) WITHDRAWAL: A maximum of 30% of the approved value of geological, geophysical, geochemical and/or drilling work on this statement may be withdrawn from the owner's or operator's PAC account and added to the work value on this statement.

TYPE OF WORK (Specify Physical (include details), Prospecting, Geological, etc.)	VALUE OF WORK		
	Physical	*Prospecting	*Geological etc.
• Physical - road repair, pipeline crossing	3,000		
Diamond Drilling			66,952
Geological			21,133
Report to follow within 90 days.			
* Cost Statement and Map in Report.			
TOTALS	A 3,000	+ B	+ C 88,085 = D 91,085
PAC WITHDRAWAL — Maximum 30% of Value in Box C Only			E → E
from account(s) of _____			TOTAL F 91,085

* Who was the operator (provided the financing)? Name Chevron Minerals Ltd.
Address 1900 - 1055 W. Hastings Street, Vancouver, B.C. Phone: 668-5491

Transfer amount in Box F to reverse side of form and complete as required.

M28-2024 MTL 112

F $ 91,085 I WISH TO APPLY $ 80,800 OF THE TOTAL VALUE FROM BOX F AS FOLLOWS:

Columns G through R inclusive MUST BE COMPLETED before work credits can be granted to claims.
Columns G through J and S through V inclusive MUST BE COMPLETED before a cash payment or rental payment can be credited.
Columns not applicable need not be completed.

Cash Payment

CLAIM IDENTIFICATION

	G CLAIM NAME (one claim/lease per line)	H RECORD No.	I No. OF UNITS*	J CURRENT EXPIRY DATE
1	BARB	5368	20	Sept 9/89
2	SKY	4467	20	Oct 17/90
3	SKY 2	4473	6	Oct 29/90
4				
5				
6				
7				
8				
9				
10				
12				
13				
14				
15				
16				
17				
18				

NOTICE TO GROUP No. _____ RECORDED SEPT 6-89

APPLICATION OF WORK CREDIT

	K WORK TO BE APPLIED VALUE	L YEARS	N RECORDING FEES 5% OF K	O	P PRIOR EXCESS CREDIT BEING USED	Q NEW EXPIRY DATE	R EXCESS CREDIT REMAINING
1	34,000	10	1,700			Sept 9, 1999	
2	36,000	9	1,800			Oct 17, 1999	
3	10,800	9	540			Oct 29, 1999	
	80,800 TOTAL OF K		4,040 TOTAL OF N	TOTAL OF O			

* 2 POST, FRACTION, REV. CROWN GRANT ARE 1 UNIT EACH

CASH IN LIEU OF WORK OR LEASE RENTAL

S C/L	T RECORDING FEE	U LEASE RENTAL	V NEW EXPIRY DATE
TOTAL OF S	TOTAL OF T	TOTAL OF U	

Value of work to be credited to portable assessment credit (PAC) account(s).
[May only be credited from the approved value of Box C not applied to claims.]

Name of owner/operator	Name	AMOUNT
	1.	8,085.00
	2.	
	3.	

I, the undersigned Free Miner, hereby acknowledge and understand that it is an offence to knowingly make a false statement or provide false information under the *Mineral Act*. I further acknowledge and understand that if the statements made, or information given, in this Statement of Exploration and Development are found to be false and the exploration and development has not been performed, as alleged in this Statement of Exploration and Development, then the work reported on this statement will be cancelled and the subject mineral claim(s) may, as a result, forfeit to and vest back to the Province.

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
MINERAL RESOURCES DIVISION — TITLES BRANCH

MINERAL ACT

DOCUMENT No. _____ OFFICE USE ONLY

RECORDING STAMP

Statement of Work — Cash Payment

I, John Wordsworth (Name)
Valid subsisting FMC No. 285126
4403 Capilano Road (Address)
North Vancouver, B. C.
V7R 4J8 (604) 984-7849 (Postal Code) (Telephone Number)

Agent for Self and Chevron Minerals Ltd. (Name)
Valid subsisting FMC No. 280679 (CHEMIL)
1900 - 1055 W. Hastings St. (Address)
Vancouver, B. C.
V6E 2E9 (604) 668-5491 (Postal Code) (Telephone Number)

STATE THAT: [NOTE: If only paying cash in lieu, turn to reverse and complete columns G to J and S to V.]

1. I have done, or caused to be done, work on the Goat 2 Claim(s)
Record No(s). 4008
Situate at 10 km NW of Yahk in the Fort Steele & Nelson Mining Division,
Work was done from June 26, 19 89, to September 15, 19 89.

TYPE OF WORK

PHYSICAL: Work such as trenches, open cuts, adits, pits, shafts, reclamation, and construction of roads and trails. Details as required under section 13 of the Regulations, including the map and cost statement, must be given on this statement.

PROSPECTING: Details as required under section 9 of the Regulations must be submitted in a technical report. Prospecting work can only be claimed once by the same owner of the ground, and only during the first three years of ownership.

GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL, DRILLING: Details must be submitted in a technical report conforming to sections 5 through 8 (as appropriate) of the Regulations.

PORTABLE ASSESSMENT CREDIT (PAC) WITHDRAWAL: A maximum of 30% of the approved value of geological, geophysical, geochemical and/or drilling work on this statement may be withdrawn from the owner's or operator's PAC account and added to the work value on this statement.

TYPE OF WORK (Specify Physical (include details), Prospecting, Geological, etc.)	VALUE OF WORK Physical	*Prospecting	*Geological etc.
Road building and improvement	6,500.00		
Petrographic studies			700.00
Diamond drilling			124,143.47
Rock geochemistry and sampling			1,000.00
Soil sampling and analyses			8,200.00
Mapping and logging core			14,500.00
Cost breakdown and maps in Report			
TOTALS	6,500.00 A	+ B	+ 148,543.47 C = 155,043 D
PAC WITHDRAWAL — Maximum 30% of Value in Box C Only			E → E
from account(s) of _____			TOTAL 155,043 F

* Who was the operator (provided the financing)?
Name Chevron Minerals Ltd.
Address 1900 - 1055 W. Hastings St.
Vancouver, B. C. Phone: 668-5491
V6E 2E9

Transfer amount in Box F to reverse side of form and complete as required.

M28-2024

F $ 155,043.47 I WISH TO APPLY $ 20,000.00 OF THE TOTAL VALUE FROM BOX F AS FOLLOWS:

Columns G through R inclusive MUST BE COMPLETED before work credits can be granted to claims.
Columns G through J and S through V inclusive MUST BE COMPLETED before a cash payment or rental payment can be credited.
Columns not applicable need not be completed.

Cash Payment

CLAIM IDENTIFICATION

G	H	I	J
CLAIM NAME (one claim/lease per line)	RECORD No.	No. OF UNITS*	CURRENT EXPIRY DATE
Goat 3	3286	20	Feb. 7/94

APPLICATION OF WORK CREDIT

K	L	M	N	O	P	Q	R
WORK TO BE APPLIED			RECORDING FEES 5% OF K	PENALTY FEES 10% OF K	PRIOR EXCESS CREDIT BEING USED	NEW EXPIRY DATE	EXCESS CREDIT REMAINING
VALUE	YEARS	EXCESS CREDIT					
20,000.00	5		1,000.00			Feb. 7/99	
20,000.00			1,000.00				
TOTAL OF K			TOTAL OF N	TOTAL OF O			

CASH IN LIEU OF WORK OR LEASE RENTAL

S	T	U	V
C/L	RECORDING FEE 10% OF S	MINERAL LEASE RENTAL	NEW EXPIRY DATE
TOTAL OF S	TOTAL OF T	TOTAL OF U	

NOTICE TO GROUP No. _____ RECORDED _____

* 2 POST, FRACTION, REV. CROWN GRANT ARE 1 UNIT EACH

Value of work to be credited to portable assessment credit (PAC) account(s).
[May only be credited from the approved value of Box C not applied to claims.]

	Name	AMOUNT
Name of owner operator	1. Chevron Minerals Ltd.	135,043.47
	2.	
	3.	

I, the undersigned Free Miner, hereby acknowledge and understand that it is an offence to knowingly make a false statement or provide false information under the *Mineral Act*. I further acknowledge and understand that if the statements made, or information given, in this Statement of Exploration and Development are found to be false and the exploration and development has not been performed, as alleged in this Statement of Exploration and Development, then the work reported on this statement will be cancelled and the subject mineral claim(s) may, as a result, forfeit to and vest back to the Province.

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
MINERAL RESOURCES DIVISION — TITLES BRANCH

MINERAL ACT

DOCUMENT No. _____ OFFICE USE ONLY

RECORDING STAMP

Statement of Work — Cash Payment

I, John Wordsworth (Name)
Valid subsisting FMC No. 285126
4403 Capilano Road (Address)
North Vancouver, B. C.
V7R 4J8 (Postal Code) (604) 984-7849 (Telephone Number)

Agent for Self and Chevron Minerals Ltd. (Name)
Valid subsisting FMC No. 280679 (CHEMIL)
1900 - 1055 W. Hastings St. (Address)
Vancouver, B. C.
V6E 2E9 (Postal Code) (604) 668-5491 (Telephone Number)

STATE THAT: [NOTE: If only paying cash in lieu, turn to reverse and complete columns G to J and S to V.]

1. I have done, or caused to be done, work on the Goat 1, Barb, Sky, Sky 2 Claim(s)

Record No(s). 4007, 5368, 4467, 4473

Situate at 20 km NW of Yahk in the Nelson Mining Division,

Work was done from September 3, 19 89, to September 15, 19 89.

TYPE OF WORK

PHYSICAL: Work such as trenches, open cuts, adits, pits, shafts, reclamation, and construction of roads and trails. Details as required under section 13 of the Regulations, including the map and cost statement, must be given on this statement.

PROSPECTING: Details as required under section 9 of the Regulations must be submitted in a technical report. Prospecting work can only be claimed once by the same owner of the ground, and only during the first three years of ownership.

GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL, DRILLING: Details must be submitted in a technical report conforming to sections 5 through 8 (as appropriate) of the *Regulations*.

PORTABLE ASSESSMENT CREDIT (PAC) WITHDRAWAL: A maximum of 30% of the approved value of geological, geophysical, geochemical and/or drilling work on this statement may be withdrawn from the owner's or operator's PAC account and added to the work value on this statement.

TYPE OF WORK (Specify Physical (include details), Prospecting, Geological, etc.)	VALUE OF WORK Physical	*Prospecting	*Geological etc.
Petrographic studies			1,092.00
Rock geochemistry			108.00
Mapping			600.00
Cost breakdown and maps in Report			
TOTALS	A +	B +	C 1,800.00 = D 1,800.
PAC WITHDRAWAL — Maximum 30% of Value in Box C Only			E → E
from account(s) of _____			TOTAL F 1,800.

* Who was the operator (provided the financing)? Name Chevron Minerals Ltd.
Address 1900-1055 W.Hastings St.
Vancouver, B. C. Phone: 668-5491
V6E 2E9

Transfer amount in Box F to reverse side of form and complete as required.

M28-2024

F $ 1,800.00 I WISH TO APPLY $ 1,800.00 OF THE TOTAL VALUE FROM BOX F AS FOLLOWS:

Columns G through R inclusive MUST BE COMPLETED before work credits can be granted to claims.
Columns G through J and S through V inclusive MUST BE COMPLETED before a cash payment or rental payment can be credited.
Columns not applicable need not be completed.

Cash Payment

CLAIM IDENTIFICATION / **APPLICATION OF WORK CREDIT** / **CASH IN LIEU OF WORK OR LEASE RENTAL**

	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
	CLAIM NAME (one claim/lease per line)	RECORD No.	No. OF UNITS*	CURRENT EXPIRY DATE	WORK TO BE APPLIED: VALUE	WORK TO BE APPLIED: YEARS	WORK TO BE APPLIED: EXCESS CREDIT	RECORDING FEES 5% OF K	PENALTY FEES 10% OF K	PRIOR EXCESS CREDIT BEING USED	NEW EXPIRY DATE	EXCESS CREDIT REMAINING	C/L	RECORDING FEE 10% OF S	MINERAL LEASE RENTAL	NEW EXPIRY DATE
1	Sky 3	5314	1	Sept.2/90	1,800.00	9		90.00			Sept.2,1999					
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
					1,800.00 TOTAL OF K			90.00 TOTAL OF N	TOTAL OF O				TOTAL OF S	TOTAL OF T	TOTAL OF U	

NOTICE TO GROUP No. _____ RECORDED _____

* 2 POST, FRACTION, REV. CROWN GRANT ARE 1 UNIT EACH

Value of work to be credited to portable assessment credit (PAC) account(s).
[May only be credited from the approved value of Box C not applied to claims.]

Name of owner/operator	Name	AMOUNT
	1.	
	2.	
	3.	

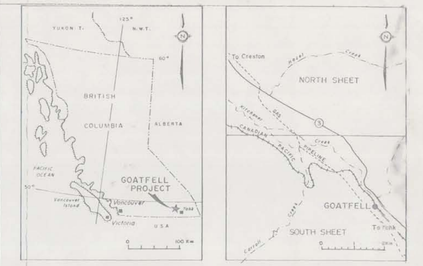
I, the undersigned Free Miner, hereby acknowledge and understand that it is an offence to knowingly make a false statement or provide false information under the *Mineral Act*. I further acknowledge and understand that if the statements made, or information given, in this Statement of Exploration and Development are found to be false and the exploration and development has not been performed, as alleged in this Statement of Exploration and *Development, then the work reported on* this statement will be cancelled and the subject mineral claim(s) may, as a result, forfeit to and vest back to the Province.

Wondash

SECTION A – A'

LEGEND

- Contact
- Marker (observed on surface)
- Marker (not observed)



LOCATION MAP — SHEET INDEX MAP

LEGEND

PROTEROZOIC

Pε ms	Moyie Sill–metagabbro
Pε ma	Middle Aldridge Formation–metaturbidites
Pε la	Lower Aldridge Formation – metaturbidites
Pε la/ Pε ma?	Undivided Lower and Middle Aldridge Formation – metaturbidites

SYMBOLS

- Geological Boundary (approximate)
- 45/170 Bedding (strike and dip)
- Marker (observed)
- Marker (not observed)
- Fault
- B-1 Location and identification of rocks used for petrographic study
- Outcrop

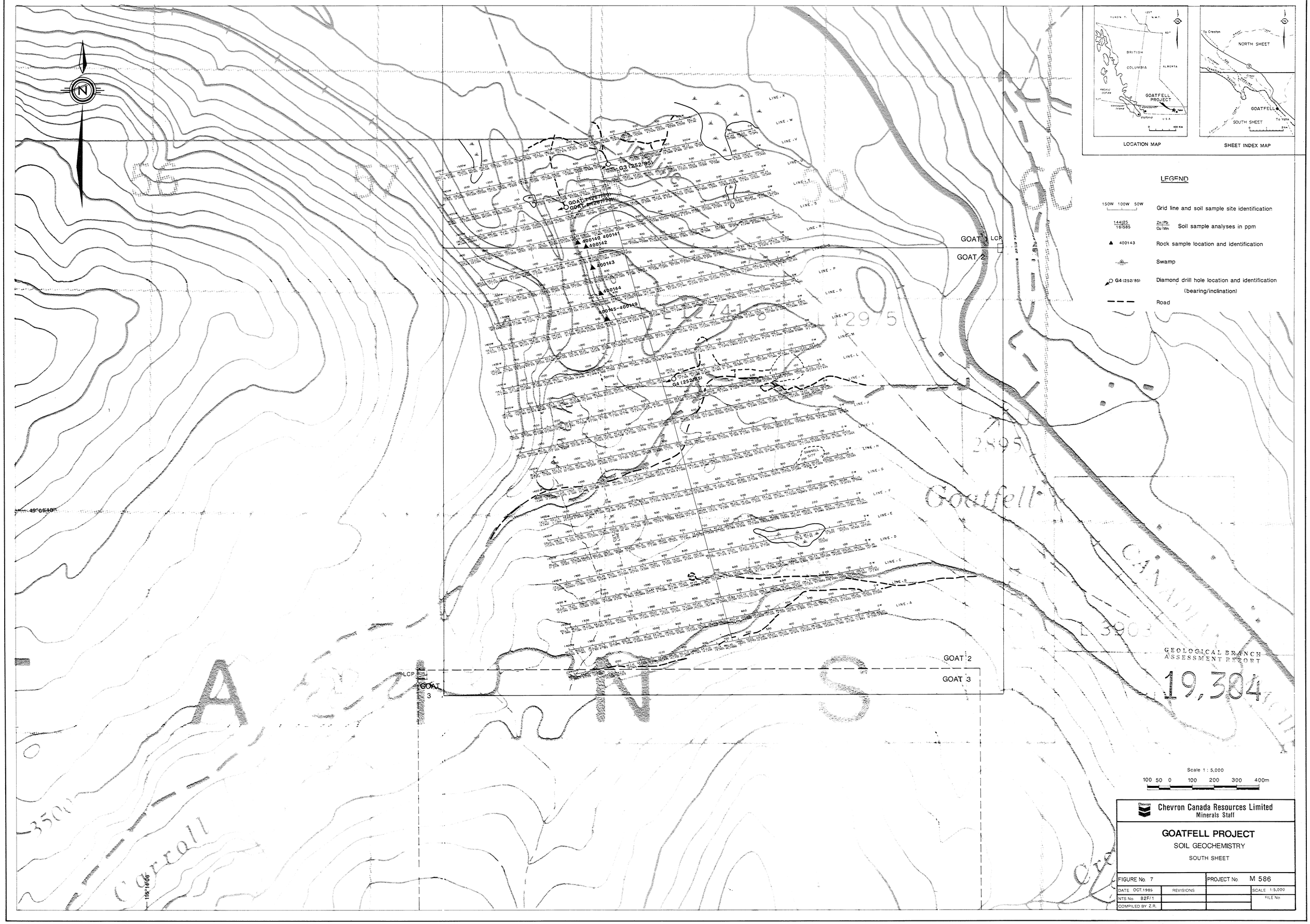
19,30

Scale 1 : 5,000

100 50 0 100 200 300 400 metres

Chevron Canada Resources Limited
Minerals Staff

GOATFELL PROJECT



LEGEND

- 150W 100W 50W — Grid line and soil sample site identification
- 144|25 / 161585 — Zn|Pb / Cu|Mn — Soil sample analyses in ppm
- ▲ 400143 — Rock sample location and identification
- Swamp
- G4 (252/85) — Diamond drill hole location and identification (bearing/inclination)
- Road

Scale 1 : 5,000

100 50 0 100 200 300 400m

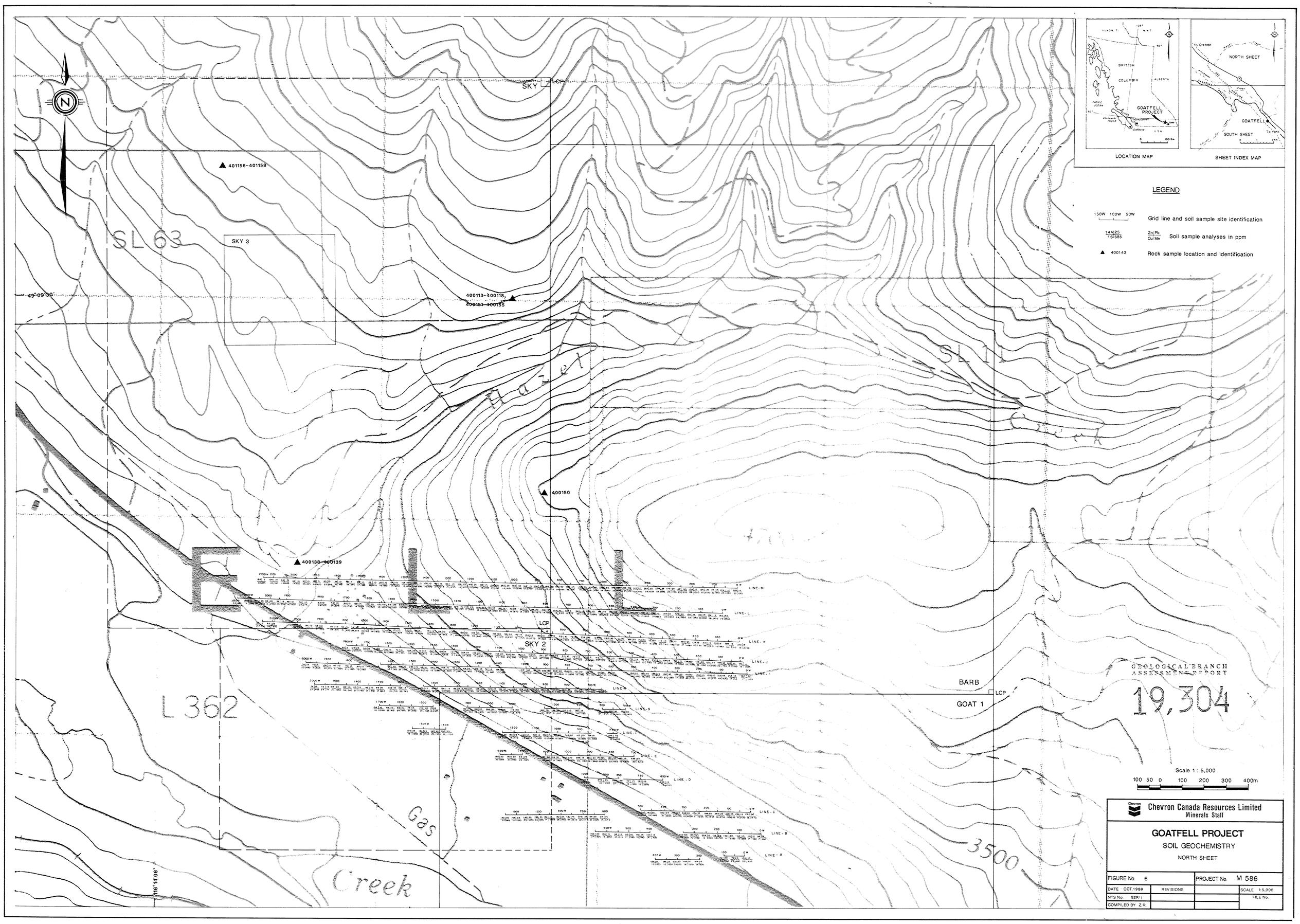
Chevron Canada Resources Limited
Minerals Staff

GOATFELL PROJECT

SOIL GEOCHEMISTRY

SOUTH SHEET

FIGURE No. 7		PROJECT No. M 586	
DATE OCT.1989	REVISIONS		SCALE 1:5,000
NTS No. 82F/1			FILE No.
COMPILED BY: Z.R.			



LOCATION MAP
SHEET INDEX MAP
LEGEND
150W 100W 50W Grid line and soil sample site identification
144|25 / 16|585 Zn|Pb / Cu|Mn Soil sample analyses in ppm
400143 Rock sample location and identification
SKY
LCP
401156-401158
SKY 3
SL 63
49°09'30"
400113-400118, 400151-400155
Hazel
SL 11
Creek
400150
400138-400139
SKY 2
BARB
GOAT 1
L 362
Gas
Creek
3500
116°14'06"
GEOLOGICAL BRANCH ASSESSMENT REPORT
19,304
Scale 1 : 5,000
100 50 0 100 200 300 400m
Chevron Canada Resources Limited
Minerals Staff
GOATFELL PROJECT
SOIL GEOCHEMISTRY
NORTH SHEET
FIGURE No. 6
PROJECT No. M 586
DATE OCT.1989
REVISIONS
SCALE 1:5,000
NTS No. 82F/1
FILE No.
COMPILED BY Z.R.